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Income-generating projects in higher education: Performance and management practices of a Philippine state university

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ABSTRACT

This study presents an institutional analysis of the Income-Generating Projects (IGPs) of Northern Iloilo State University (NISU), a multi-campus State University and College (SUC) in the Philippines. It evaluates IGP performance based on monthly income and number of clients served, examines management and operational practices in systems, manpower, infrastructure, and services, and identifies implementation challenges. Using a descriptive research design, data were collected from 75 IGP administrators and staff through a validated researcher-made questionnaire. Findings show that NISU's IGPs have a moderate level of financial viability, with an average monthly income of ₱300,000 to ₱450,000 and 11 to 15 clients served per month, although performance differs across campuses. Management practices are not fully institutionalized, particularly in staff development, stakeholder feedback, and infrastructure planning aligned with the institutional development plan. Challenges are both systemic and operational, including limited funding and support, weak entrepreneurial and marketing culture, and the absence of an integrated legal framework, which affect scalability, service quality, and sustainability. The study recommends a more integrated IGP model that connects financial outcomes with client metrics, strategic management, and institutional coherence, offering policy and strategic insights for enhancing financial autonomy, service delivery, and innovation in SUC-managed income projects in the Philippines.

1. Introduction

Higher education institutions (HEIs) play a crucial role in national development as primary drivers of instruction, research, extension, and innovation (Ketlhoilwe et al., 2020). However, many state universities and colleges (SUCs) in the Philippines have been experiencing increasing fiscal austerity brought about by shrinking government subsidies, particularly on their Maintenance and Other Operating Expenses (MOOE) and Capital Outlay (CO) appropriations (Bautista et al., 2023). With rising demands for education and constrained public resources, SUCs have been compelled to explore alternative revenue-generation mechanisms to support their institutional functions and academic quality (Saguin, 2023). CHED, through policy instruments such as Republic Act 8292 (Higher Education Modernization Act of 1997), CHED Memorandum Order No. 20, and COA Circular No. 2000-02, formally empowered SUCs to engage in Income-Generating Projects (IGPs) as strategic tools for financial autonomy, institutional development, and entrepreneurial innovation (Marcos, 2021; Briones, 2024).

IGPs have been acknowledged for their critical role in fortifying financial resilience, augmenting institutional capacities, and promoting experiential learning within a diverse array of HEIs internationally. In the Philippine context, they contribute to the accomplishment of operational targets such as personnel recruitment, facility upgrades, supply acquisitions, teaching activities, research initiatives, and student support services (Mahmud et al., 2023b). Apart from its fiscal advantages, IGPs provide practical training grounds for students, enriching their entrepreneurial acumen and employment prospects (Adam et al., 2025). Nevertheless, the effectiveness of IGPs is intricately linked to an assortment of factors, spanning from its management frameworks, leadership, personnel,

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infrastructure, offerings, to client needs responsiveness (Suryadi and Supriatna, 2018; Guzman-Mercado and Bautista, 2024). While extant literature substantiates the transformative capabilities of IGPs, it is noteworthy that the analysis frequently adheres to a constrained or isolated perspective, honing in on aspects like profitability (Yap, 2022), infrastructure (Tolbe, 2020), or administrative practices, without capturing the full complexity of IGP operations.

Another limitation is the lack of explicit theoretical grounding in much of the existing research. While studies have described operational practices or reported performance outcomes, they rarely apply organizational theories that explain why and how IGPs function as adaptive mechanisms within resource-constrained institutions. This has left a theoretical gap in understanding the dynamic processes by which SUCs mobilize internal capacities, negotiate external pressures, and recalibrate their operations in response to fiscal and policy challenges. Without such a framework, the strategic significance of IGPs is often underemphasized, and their role in institutional sustainability remains insufficiently theorized. To address this gap, the present study is anchored on Resource Dependence Theory (RDT) (Pfeffer and Salancik, 1978), which argues that organizations are dependent on external resources and must devise adaptive strategies to mitigate risks and ensure survival. Applying RDT provides a more robust framework for situating IGPs as institutional mechanisms that extend beyond income generation. In the case of Philippine SUCs, RDT explains how universities facing financial austerity and policy fragmentation strategically develop and manage IGPs to reduce dependency on volatile state subsidies. This perspective also illuminates the interplay between internal capacities and external constraints, clarifying why variations in system management, manpower development, infrastructural support, and service offerings significantly affect performance outcomes (Öztürk and Bağış, 2025).

Several scholars have made notable contributions to understanding IGP, specifically Mahmud et al. (2023b) and Mas et al. (2021), who emphasized the role of staff competence, support of leadership, and infrastructure in maximizing IGP implementation. Zhou and Tang (2020) discussed the impact of economic contexts, policy support, and institutional systems on IGP outcomes in Philippine and Malaysian universities. However, these studies are predominantly limited to single institutions, urban campuses, or specific aspects of IGP, such as financial performance or staff engagement, often neglecting the interplay between performance, management practices, and contextual challenges. There is a notable gap in comprehensive institutional studies that holistically examine IGPs within multi-campus, rural-based SUCs.

The present study addresses gaps in the existing literature by examining the Income-Generating Projects (IGPs) of Northern Iloilo State University (NISU), a multi-campus public higher education institution. Earlier research has usually focused on only one aspect of IGPs, such as performance, operational practices, or challenges. In contrast, this study considers all three dimensions together. It evaluates IGP performance in terms of monthly income and the number of clients served. It also examines management and operational practices, including systems, manpower, infrastructure, and the products and services offered. In addition, it assesses the challenges or constraints that influence the implementation of these projects. By taking this institutional perspective, the study shows how internal capacities and external pressures shape the sustainability of IGPs within a decentralized university setting.

The study aims to describe how well the university's IGPs perform, how management and operational practices are carried out, and the extent of the challenges encountered in running these projects.

2. Review of literature

Research findings demonstrate the wide range of topics focused on IGPs within educational settings. For example, Guzman-Mercado and Bautista (2024) analyzed how poor marketing strategies and a lack of entrepreneurial culture within Philippine state universities hindered IGP performance. Mongaya and Vios (2025) conducted a study that focused on the economic benefits of IGPs and operational constraints, such as procurement, decentralization, and internal controls. In Africa, Obadia and Mhagama (2022) pointed out the major implementation issues of school-based IGPs. These involved financial, human resources, and governance issues. Although the results of previous studies give an in-depth look into specific aspects, they are limited by their scope, which often focuses only on financial performance, specific administrative practices, or isolated institutional cases. In contrast, this study at Northern Iloilo State University (NISU) will take a more holistic approach, which will look at three interrelated aspects of IGP implementation: performance (income and clients served), coverage of management and operation (systems, staff, facilities, and services), and types and commonness of issues across campuses. By not isolating variables or focusing on individual aspects of IGP operations, this research provides a broader institutional perspective of a multi-campus public university in the Philippines. The interplay of its internal mechanisms and contextual factors can represent how performance outcomes are influenced.

Previous IGP-related studies have predominantly utilized purposive sampling approaches, engaging with institutional actors like school heads, project managers, finance officers, or administrators directly responsible for planning and implementing IGPs within specific institutional or regional contexts. Notably, research focused on Tanzanian school

heads' perspectives have been conducted by Kobero and Swallehe (2022), Nachinguru and Mwila (2023), and Njau et al. (2022) while university administrators from a select few Philippine State Universities and Colleges (SUCs) were chosen by Guzman-Mercado and Bautista (2024), Adora and Ultra (2021), Miranda et al. (2016), Besing and Saan (2023), and Mendoza (2023) selected university administrators from a limited number of Philippine State Universities and Colleges (SUCs) to examine IGP oversight and performance. In contrast, the study employed total enumeration to comprehensively include all IGP administrators and personnel from the university's seven campuses. This approach was underpinned by well-defined inclusion criteria, ensuring the selection of respondents with direct and sustained involvement in IGP operations. The inclusive nature of the respondent pool bolsters the representativeness and contextual validity of the findings, providing a holistic understanding of IGP management, implementation, and challenges within a multi-campus SUC setting.

Most previous studies were based on a researcher-made questionnaire or interview guide focused on pre-selected features of IGPs' functionality. For example, Guzman-Mercado and Bautista (2024) created a survey questionnaire to capture administrative practices and financial performance. Mahmud et al. (2023a) used questionnaires to evaluate the role of teachers in managing IGPs at schools. On the other hand, many of the earlier studies either used a questionnaire covering a single aspect of an IGP (financial performance, e.g., Mendoza (2023), or an individual implementation problem, e.g., Dhake and Narkhede (2019)) or failed to include an instrument for data collection. In contrast, this study used a developed and validated researcher-made questionnaire, which included three mutually-related areas: IGP performance (in terms of income and client numbers), level of implementation of management and operational practices (systems, human resources, infrastructural resources, and services), and challenges encountered.

IGPs have been implemented in diverse institutional and geographical contexts, each with its unique set of factors influencing their execution and sustainability. In the Philippines, Adora and Ultra (2021) examined the status of IGPs in select SUCs, identifying administrative and financial barriers as crucial determinants of success. Guzman-Mercado and Bautista (2024) emphasized the role of regional economic conditions in influencing IGP performance in a particular SUC. In East African educational institutions, Obadia and Mhagama (2022) explored IGP challenges in Tanzanian schools, attributing the difficulties to infrastructural and policy deficiencies. Kipkoech (2018) reported these findings in Kenyan schools, and Obadia and Mhagama (2022) highlighted the significance of managerial capacity for sustaining income-generating projects in rural Ugandan schools. Suryadi and Supriatna's (2018) study of IGPs in Indonesian vocational schools underscores the importance of local partnerships for their viability. In Malaysia, Nik Ahmad et al. (2019) stressed the role of university-industry linkages in sustaining institutional enterprises. Mongaya and Vios (2025) called for enhanced collaboration between local governments and communities to bolster IGP development in Philippine SUCs. In contrast to these studies conducted in non-rural settings and often more urban-centered contexts, the present research is set in a rural area of a multi-campus State University and College. This specific setting offers a unique perspective for investigating IGP operations across decentralized campuses, each situated within distinct local economic ecosystems. The study's rural focus and multi-campus structure provide an opportunity to explore the interplay between localized economic conditions, administrative decentralization, and resource allocation on the performance, management, and sustainability of institutional income-generating activities. By capturing the operational realities of campuses with varying capacities and community linkages, the study contributes new insights into the nuanced, place-based dynamics that influence IGP outcomes in provincial SUCs.

Given the fragmented and context-bound nature of the extant literature on IGPs, there is a need to institutionalize the study of performance outcomes, operational practices, and systemic challenges, particularly of IGPs within the Philippine SUC context. Earlier research studies examined separate elements of the IG Program without broader applicability, as they were based on either a single campus or urban institutions. This research fills existing gaps by evaluating IGP implementation across seven rural campuses of NISU.

3. Methodology

3.1. Research design

The study utilized a descriptive design, which Kosie and Lew-Williams (2024) described as a research method that aims to describe, detail, and understand the conditions in which a specific behavior, event, or phenomenon occurs, often in naturalistic or real-world settings. This approach was chosen to offer an accurate and comprehensive portrayal of existing practices and conditions by gathering quantitative data directly from the stakeholders involved in the study. The primary dimensions covered include the performance of Income-Generating Projects (IGPs), the extent of management and operational practices, and the challenges encountered in implementation and sustainability. In this study, the primary data collection tool was a researcher-developed questionnaire administered to all IGP administrators and staff members in NISU, consisting of seven campuses. Using a descriptive research design, the researcher could discover, describe, count, and present trends, issues, and patterns surrounding the

university's IGPs without establishing a cause-and-effect relationship. This design was appropriate for the study to obtain empirical knowledge that might be useful in evidence-based policy-making and programmatic strategies to improve the functioning, efficiency, and sustainability of IGPs in the specific context of a state university.

3.2. Study respondents

The study respondents were the 75 Income-Generating Project (IGP) administrators and Northern Iloilo State University (NISU) employees. The University has seven campuses: Main Campus (Estancia, Iloilo), Barotac Viejo Campus, Lemery Campus, Ajuy Campus, Victorino Salcedo - Sara Campus, Concepcion Campus, and Batad Campus. Total enumeration was used, involving all the qualified IGP administrators and employees. The respondents met the following inclusion criteria: (1) they were assigned to an IGP unit; (2) they have been involved continuously for at least six months in the planning, managing, or implementing IGPs; and (3) they were NISU employees in one of the seven campuses during the data gathering phase of the study. However, respondents who were newly assigned (service less than six months), held an office that did not involve IGPs, or were on official leave during the study were excluded.

3.3. Research instrument

The data gathering instrument was a researcher-made questionnaire that was validated by experts for content and construct validity. The instrument's form, substance, and face validity were established to determine its appropriateness and clarity. The instrument consisted of two parts. Part I gathered the profile of the SUCs' IGPs. This included years in operation, number of personnel, number of active IGP projects, amount of revolving funds, and total annual income. Part II, which was the main checklist, was developed to capture the three dimensions: (1) extent of IGP performance, (2) extent of management and operational practices, and (3) extent of challenges in the management and operations of IGPs. The instrument was pre-tested among the selected SUCs to determine reliability before formal administration. The results of the pilot test on the instrument indicated that Cronbach's alpha coefficients were 0.71, 0.83, and 0.76, respectively, for each of the three dimensions.

3.4. Data gathering procedure

Formal request and permission to conduct the study in Northern Iloilo State University's (NISU) various Income-generating projects (IGPs) were obtained from the Office of the President of NISU before the actual study. After clearance was given, data gathering started in compliance with the ethical standards for the study with human respondents.

The researcher purposively administered a structured survey questionnaire to selected respondents. The study's respondents were the administrators and the staff of NISU's different campuses. Respondents received an informed consent letter with the instrument. The letter described the study's nature, purpose, scope, and objectives. It also specified that the participation was voluntary and that respondents may refuse or withdraw at any time. All information would be confidential and anonymous, the rights of the respondents were observed and respected, and no data would be identified as a measure of ethical research. Only data about the study were obtained and used for academic purposes. The respondents were given a self-administered survey and allowed to finish the instrument within a specified time, allowing them to provide answers voluntarily and without pressure from the researcher. They were allowed to ask questions and clarify their answers.

After the researcher received all the completed questionnaires, data preparation was conducted. This involved data coding and data analysis. The quantitative data were analyzed according to the study's objectives and the research questions.

4. Results and discussion

4.1. Profile of the IGPs based on years of operation, personnel, projects, revolving funds, and annual income

Table 1 shows the general characteristics of the Income-Generating Projects (IGPs) as of the date for NISU: Years of existence, staff size, number of active projects, total revolving funds, and total annual income. The details presented help understand the operational scope and financial condition of the SUC's IGPs. Most IGPs (70.7%) exist for 6 to 10 years, meaning that even though they are somewhat established, they are not maximized or considered long-lived. On average, 69.3% of the IGPs are operated by six to ten staff members responsible for the project(s), indicating a normal number of human resources that can manage the daily operations of the IGPs. Most IGPs (81.3%) have six to ten active projects. It is important to note that no IGPs have more than ten projects.

In terms of Capital, 70.7% of IGPs have a revolving fund of between ₱151,000.00 and ₱250,000.00, and another 28.0% have ₱50,000.00 to ₱150,000.00. The consistent availability of operational capital for IGPs suggests that while funds exist, they are modest, which could restrict innovation and business growth. When it comes to Total Annual Income, most of the IGPs (68.0%) have income between ₱1,100,000.00 and ₱2,000,000.00, and another 22.7% earn ₱500,000.00 to ₱1,000,000.00. Only 9.3% have an income between ₱2,100,000.00 to ₱3,000,000.00, or in other words, it is still uncommon to have an IGP with high revenue performance under the SUC's management.

4.2. IGP in terms of products and services offered

Table 2 presents a synopsis of the various Income-Generating Projects (IGPs) executed throughout the NISU campuses. Table 2 reveals a heavy dependence on service-based enterprises, as canteens and facility rentals are the most widespread sources of income. These IGPs are present in all surveyed campuses, suggesting they are staple and low-risk SUC-based IGP options.

However, variations can be observed among the campuses. These are attributed to the IGP programs' adaptability to the need, the area's strength, and the resources of each campus. As such, the water refilling stations in Ajuy and Concepcion Campuses can be considered a strategy to meet their needs. On the other hand, the agribusiness activities of the Barotac Viejo and Batad Campuses, such as piggery, poultry, rice and corn production, and the Dragon fruit plantation, may suggest a more rural approach where there is available land and wherein the Campuses can develop an income-generating program. The IGP's implemented in the university's Main Campus (Estancia) are diverse and considered more capital intensive (printing enterprise, fishpond, executive lodging, gift shop). The present situation also indicates a more mature status of the IGPs, perhaps more support, planning, and financial capability of the said campus.

Table 1: Profile of the IGP of the SUCs in terms of years of existence, number of IGP personnel, number of IGP projects, amount of revolving fund, and total annual income

Categories	Frequency	Percentage
Years of existence		
0 to 5 years	11	14.7
6 to 10 years	53	70.7
11 to 15 years	8	10.7
16 to 20 years	3	4.0
Number of IGP personnel		
0 to 5 Persons	14	18.7
6 to 10 Persons	52	69.3
11 to 15 Persons	1	1.3
16 to 20 Persons	8	10.7
Number of IGP projects		
0 to 5 Projects	14	18.7
6 to 10 Projects	61	81.3
11 to 15 Projects	0	0.00
16 to 20 Projects	0	0.00
Amount of revolving fund		
50,000.00 to 150,000.00	21	28.0
151,000.00 to 250,000.00	53	70.7
251,000.00 to 350,000.00	1	1.3
Total annual income		
500,000.00 to 1,000,000.00	17	22.7
1,100,000.00 to 2,000,000.00	51	68.0
2.100,000.00 to 3,000,000.00	7	9.3

The services rendered in Lemery Campus involve bundling of educational support services (producing test booklets, distribution of school uniforms, and photocopying, among others) with facility rentals, which can be seen as a student-centered approach to IGP to address students' current needs. The Victorino Salcedo Sara Campus, on the other hand, provides a mini hotel and gymnasium facilities, which can indicate an IGP strategy that may be directed to internal stakeholders and external markets such as local guests and fitness enthusiasts.

Table 2: IGP in terms of products and services offered

Campus	Products and services offered
Ajuy campus	Water refilling station, canteen, kiosk, and rental of facilities
Barotac Viejo campus	Piggery, miscellaneous assets, dorm rentals, and rental of various facilities
Batad campus	Rice farm, corn production, piggery, canteen, poultry, dragon fruit, lot rental, and rental of facilities
Concepcion campus	Carpass
Estancia Main campus	Canteen, NISU printing enterprise and gift shoppe, water refilling station, fishpond, and lease/rent of assets (mini theater, hometel/executive house, rental of various facilities)
Lemery campus	Canteen, student center (xerox, lamination, risograph, photocopy, test booklet, and other supplies), school uniform, and chairs/tables rentals
Victorino Salcedo, Sara campus	Mini hotel, social hall, gymnasium, chairs/tables rentals, canteen, and rental of various facilities

4.3. Performance of the IGP in terms of monthly income, and patrons/clients served

Table 3 presents empirical data on the Income-Generating Project (IGP) performance, evaluated through two key indicators: Monthly income and the number of patrons or clients served. The results indicate that the IGP achieved a weighted mean of 2.32 (SD = 0.93) for monthly income, corresponding to the ₱300,000–₱450,000 income range. Based on the evaluation's performance scale, this level reflects moderate income generation, suggesting that the IGP is financially viable, capable of sustaining operational costs, and potentially contributing to the institution's broader goal of self-sufficiency. However, the IGP's income level falls short of the highest profitability bracket (i.e., above ₱450,000), indicating that while the project is stable, it has yet to reach optimal financial performance. The standard deviation of 0.93 points to significant variability in income across different time frames or operational units, highlighting an inconsistent realization of financial gains. This fluctuation could be explained by several factors that might be interconnected. One of the primary factors could be the lack of diversification in products or services offered. Limited product or service diversification could narrow the project's scope for capturing new market opportunities and expanding its revenue base. This, in turn, can lead to inconsistency in income as the project becomes more vulnerable to market changes. Inadequate marketing and visibility can also play a significant role in the IGP's ability to reach and engage potential customers, which can further impact its ability to generate stable and consistent income. Furthermore, operational inefficiencies such as poor resource management, inadequate staff training, and a lack of monitoring and evaluation mechanisms may lead to productivity issues, limiting the project's capacity to generate consistent income.

Additionally, institutional constraints like bureaucratic red tape and limited access to reinvestment funds can impede the IGP's ability to scale up its operations and stabilize its income. It is also essential to consider external factors such as seasonal demand variations or fluctuations in the macroeconomic environment that can contribute to income instability. Mendoza (2023) and Besing and Saan (2023) found that, in general, IGPs in Philippine state universities had positive financial outcomes, but with some irregularities in their income due to factors such as inconsistent execution, dynamic market conditions, and resource availability. Mendoza (2023) described IGP performance as "satisfactory" in revenue generation, yet there were challenges in consistently maintaining high revenue. Mahmud et al. (2023b) and Mongaya and Vios (2025) also reported that the IGPs' financial performance was affected by both internal and external factors, including customer preferences, procurement cycles, and differences in management practices.

In terms of client engagement, the Income-Generating Project (IGP) recorded a weighted mean of 2.56 (SD = 1.03), corresponding to an average of 11 to 15 clients served per month. This figure reflects a modest yet consistent outreach within the target community. This suggests the IGP operates within its expected scope as a community service or outreach program. The relatively small scale of client turnout, as reflected by the small mean, indicates that there may be an opportunity to increase reach and engagement. The high standard deviation suggests a wide variation in clients served at different times or locations. This could indicate that the IGP is not consistently visible, accessible, or convenient for the public, or that the marketing and service delivery are not effective or consistent. The fluctuation may also result from the low promotional visibility and low follow-up client retention, which have caused clients to be less present and receive fewer services from the project. This could be due to a lack of marketing, a limited schedule, an inconvenient location, a lack of responsiveness to client needs, or other barriers to access and participation. The irregularity could also be due to a lack of a systematic approach to client retention, with some periods or locations experiencing higher levels of participation than others. This finding is consistent with Yap (2022), who stated that factors such as a lack of mature marketing strategies, a lack of promotional outlets, and a lack of service differentiation greatly impact the low and unstable client turnout of IGPs. This finding is also consistent with Besing and Saan (2023), who found that the IGP's perceived marketing visibility and the relevance to the community impacted the number of clients they had. This suggests that it may be necessary to strategically adjust promotional visibility and other factors to create more stable client engagement.

The findings suggest that while the IGPs provide partial financial relief to the university, they remain limited by moderate income generation and inconsistent client engagement. Viewed through the lens of Resource Dependence Theory (RDT), these outcomes illustrate how SUCs continue to operate within conditions of fiscal vulnerability, where dependence on narrow markets, limited product diversification, and unstable client bases constrains their ability to achieve sustained growth. The fluctuations in income and patronage reflect the challenges of securing reliable external resources and demonstrate the need for adaptive strategies to reduce dependency and stabilize operations (Mongaya and Vios, 2025). Unless SUCs diversify their offerings, strengthen marketing systems, and institutionalize reinvestment and staff development mechanisms, IGPs will remain supplementary buffers rather than strategic instruments for building resilience and long-term financial sustainability.

Table 3: Performance of the IGP in terms of monthly income and patrons/clients served

Category	$w\bar{x}$	SD	Performance
Monthly income	2.32	0.93	300,000 to 450,000
Patrons/clients serve	2.56	1.03	11 to 15 clients

For patrons/clients serve, a scale of 3.26–4.00 corresponds to 16 to 20 clients; 2.51–3.25 corresponds to 11 to 15 clients; 1.76–2.50 corresponds to 6 to 10 clients; and 1.00–1.75 corresponds to 0 to 5 clients; For monthly income, a scale of 3.26–4.00 corresponds to ₱1 to ₱150,000; 2.51–3.25 corresponds to ₱151,000 to ₱300,000; 1.76–2.50 corresponds to ₱301,000 to ₱450,000; and 1.00–1.75 corresponds to above ₱450,000

4.4. Extent of management and operational practices in IGPs based on employees' perceptions

The results presented in Table 4 provide valuable insights into the extent of practices in the management and operations of Income Generating Projects (IGPs) as perceived by employees across various dimensions, namely system, manpower, infrastructure, and products and services. System-related practices recorded a mean of 2.94 (SD = 0.93), signaling moderate adherence to structured management processes. Notably, the highest-rated item in this domain used key performance indicators (mean = 3.00), implying that some units employ data-informed approaches. However, lower scores on real-time stakeholder feedback (mean = 2.87) and structured inventory systems (mean = 2.90) indicate inconsistencies in integrating responsive and efficient systems. Results of the survey highlight that some units have incorporated and are currently implementing management strategies in the form of data-backed decision-making, feedback from stakeholders, and control of the IGP unit's inventory. This implies that these institutions have some understanding of the units' performance and are equipped to plan and improve. However, these management aspects also have an uneven

implementation status due to a lack of established guidelines or frameworks, less than capable unit leadership, and an institutional plan on how the IGP units are to be organized and monitored. As a result, it limits operations to be systematized on a campus and levels of the IGPs to respond immediately to varying stakeholders' needs and for stronger accountability over resources. This supports the study of Briones (2024) and Adora and Ultra (2021), which found that most of the IGPs in the Philippines were operationalized without a strategic plan or evaluation framework and were left with disconnected operations and poor system monitoring. These limitations were also addressed by Yap (2022) and Marcos (2021), who recommended a strong institutional plan to standardize IGP implementation on campus.

Manpower practices, with a mean of 2.98 (SD = 0.87), also revealed moderate implementation. The highest item, assigning competent officers (mean = 3.07), reflects an awareness of the importance of leadership and qualified personnel. However, tools for performance evaluation (mean = 2.87) and in-house training (mean = 2.93) were rated lower, underscoring gaps in staff development. Findings regarding manpower practices expose a human resource management imbalance in IGPs. On the one hand, there is a general acknowledgment of the importance of having qualified and capable leaders. On the other hand, there is a notable absence of sustained investment in capacity-building activities or regular performance monitoring. The lack of systematic performance evaluation tools and structured staff training programs indicates a lack of focus on nurturing and improving employee skills, accountability, and innovation. The absence of institutionalized mechanisms for assessing and enhancing the performance of employees in IGPs can lead to operational inefficiencies and a diminished ability to adapt to changing circumstances or optimize productivity. This is in line with the conclusion of Adan and Keiyoro (2017), who highlighted that staff qualifications and continuous professional development are crucial to the success of school-based income projects. Blas (2019) confirmed the importance of skilled personnel and management support, yet argued that often, underdeveloped training mechanisms might limit the potential of IGPs.

Infrastructure practices garnered a mean of 3.00, indicating moderate fulfillment of logistical requirements. High scores were observed in the provision of requisition forms and designated equipment (mean = 3.17), suggesting that immediate operational needs are addressed. However, aligning IGP offices with institutional master plans (mean = 2.83) was rated lowest, pointing to gaps in strategic planning. The infrastructure practices data reveal that while the current supply of infrastructure resources suffices for daily operations, they fall short in terms of planning and integration into the institutional framework for the long term. The provision of essential services follows a responsive approach, driven by immediate needs rather than alignment with institutional development plans. The low scores in synchronizing IGP facilities with the campus master plan indicate a lack of coordination between income generation pursuits and the institution's strategic vision. This disconnect raises concerns about scalability, sustainability, and the long-term potential of infrastructure investments to drive innovation and growth. This observation aligns with the analysis by Shahzaib et al. (2024), highlighting the negative impact of the lack of integration between physical planning and IGP activities on long-term viability and scalability. The study provides empirical support for the observation that, despite the availability of physical resources, their deployment lacks integration with institutional objectives.

Products and services received the highest composite mean (3.03, SD = 1.08), with digital promotion through social media leading at a mean of 3.30. This reflects a promising adaptation to modern marketing trends. However, practices related to utilizing client feedback (mean = 2.83) and conducting product improvement initiatives (mean = 2.86) remain only moderately implemented. The widespread adoption of digital marketing among IGPs reflects their effort to reach broader audiences through technological means and validates established trends within their field. The use of social media channels to market their products can also show that the producers are aware of the potential of such platforms for promotion and are utilizing them to the best of their abilities. The latest reports on the rise in enterprise sales in enterprises that have started using social media marketing also support this. On the contrary, the meager performance rate of the other two statements shows the gulf between the marketing drives and their products and services. It is one thing to be seen by the client, but it is another to innovate and continuously offer more value to the clients. In order to achieve sustained success, an organization must market its products to a larger client base and offer competitive value. This lag in innovation and lack of dynamism, however, support the results of the study conducted by Kobero and Swallehe (2022), which reported that the IGPs in their study have not yet formalized a continuous improvement process, even though they do see the benefit of it. Komandla (2022) also reported a similar phenomenon where the income from institutional products may not continue at a sustained rate if there are no methods to offer consistent feedback and product development.

The findings on management and operational practices indicate that while systems, manpower, infrastructure, and service delivery mechanisms are present, they remain only moderately institutionalized and unevenly implemented. Interpreted through the lens of Resource Dependence Theory (RDT), these results reflect how SUCs, constrained by limited and unstable resources, adopt adaptive practices that are functional but not

fully developed or strategically aligned. The reliance on immediate needs, such as requisition forms, competent officers, and digital promotion, demonstrates short-term responses to resource pressures rather than long-term strategies for resilience (Miranda et al., 2016). The absence of systematic performance evaluation, continuous staff development, integration of infrastructure into master plans, and structured product improvement reveals the vulnerabilities of IGPs in sustaining reliable external resource flows (Besing and Saan, 2023). As RDT explains, organizations that fail to institutionalize adaptive strategies remain more dependent on volatile environments and less capable of securing stability.

In this case, the IGPs of the university demonstrate a capacity to buffer against fiscal pressures, but their moderate and inconsistent management practices limit their potential to evolve into robust mechanisms for reducing dependence and ensuring long-term sustainability (Guzman-Mercado and Bautista, 2024).

Table 4: Extent of practices in the management and operations of their IGPs as perceived by employees in terms of system, manpower, infrastructure, and products and services

Description	wx̄	SD	Extent of practices
System	2.94	0.93	SPr
1. There is an appropriate program or product inventory system in all IGP campuses	2.90	0.96	SPr
2. Real-time action on the feedback given by IGP's stakeholders	2.87	0.97	SPr
3. There is a system for identifying and analyzing the IGP's best operation practices in the coordinator's meeting	3.00	0.95	SPr
4. Provided a dedicated contact number or email address for immediate feedback to the concerned IGP personnel	2.97	0.96	SPr
5. Employed key groups to facilitate smooth communication and camaraderie	2.97	1.03	SPr
6. Employed a program for IGPs located in nearby places or campuses	3.50	0.78	SPr
Manpower	2.98	0.87	SPr
1. There is a tool for evaluating IGP offices and personnel performance	2.87	1.04	SPr
2. The office conducts or performs job evaluations	3.03	0.96	SPr
3. The Administration hired or designated competent IGP officers and staff	3.07	1.01	SPr
4. Enhance HR hiring procedures to hire competent individuals	2.93	0.98	SPr
5. Conduct in-house training for IGP personnel or send IGP Personnel to training outside IGP satellite campuses	3.00	0.95	SPr
Infrastructure	3.05	0.94	SPr
1. There is an IGP office in all satellite offices and extension campuses.	2.97	1.00	SPr
2. There is a checklist approved by the Directors as regards the physical plan for an IGP office	2.83	1.02	SPr
3. Provided a requisition form dedicated to IGP's equipment/materials	3.17	1.05	SPr
4. Conduct facilities and equipment inventory necessary for IGP operations	3.17	1.09	SPr
5. The office has space for meetings and other office facilities	3.10	0.99	SPr
Products and services	2.96	0.92	SPr
1. There is an activity to improve existing delivery procedures	3.00	0.95	SPr
2. The Office used/ employed a forecasting method	2.83	0.91	SPr
3. Provide efficient IGP marketing materials and activities to its clients and stakeholders	2.93	0.98	SPr
4. Give promotions and product discounts on slow-moving products	3.03	1.03	SPr
5. Highlight a key product for each IGP campus using the internet and social media technology	3.00	1.08	SPr

A scale of 3.26–4.00 corresponds to always practiced (AP); 2.51–3.25 corresponds to sometimes practiced (SPr); 1.76–2.50 corresponds to rarely practiced (RP); and 1.00–1.75 corresponds to never practiced (NP)

4.5. Extent of challenges in the management and operations of IGP

The data presented in Table 5 outline the extent of challenges encountered in the management and operations of Income Generating Projects (IGPs), as perceived by the respondents. Based on the weighted mean scores and their corresponding verbal interpretations, the results reveal that IGPs are confronted with a range of issues that vary in magnitude, with most items falling within the “Sometimes a Problem” (SP) and “Always a Problem” (AP) categories.

Among the challenges identified, six were consistently rated as "Always a Problem" ($\bar{w} \geq 3.26$). These include inadequate funding due to limited access to external financing ($\bar{w}$ = 3.36), limited internal financial resources stemming from the financial burdens experienced by universities ($\bar{w}$ = 3.36), inadequate marketing strategies ($\bar{w}$ = 3.29), limited entrepreneurial culture ($\bar{w}$ = 3.36), partial or inconsistent legal strategy implementation including monitoring and evaluation practices ($\bar{w}$ = 3.36), and conflicting legal frameworks ($\bar{w}$ = 3.21).

The combined impact of external and internal funding challenges creates a financially unstable situation for SUC-based businesses. Restricted from readily accessing capital externally and internally struggling to justify new funding requests against preexisting institutional priorities, IGPs are often left with little financial cushion to cover early developmental costs, sustained operations, or potential expansion. Financial stringency then translates to limited resources to scale, innovate, or professionalize the IGPs housed within the SUCs. This is only compounded by weak marketing mechanisms, directly resulting from the lack of business planning and promotion efforts. Without outreach and branding strategies, IGPs with commercial potential are often ill-equipped to attract and secure a client base against market competitors, resulting in a low-profile offering and suboptimal visibility. This is coupled by a limited culture of entrepreneurship within SUCs, where a

disproportionate emphasis on instruction, research, and extension places enterprise development outside of the core priorities of the institution. This can create a situation where stakeholders lack the will, training, or incentive structures to maintain these IGP operations. A lack of clarity is also introduced in the partial or inconsistent implementation of legislative strategies, namely on the fronts of monitoring and evaluation (M&E). Legal mandates with unclear frameworks or that are loosely enforced give project teams difficulty meeting regulatory standards, reporting results, and engaging in forward-looking planning. This breeds a dearth of accountability and disincentivizes the institutionalization of best practices. Conflicting legal frameworks, on the other hand, (e.g., inconsistencies between SUC-specific policies and higher-level national regulations) create a more onerous bureaucracy. This can result in slowed or denied project approvals, restrained managerial discretion, and an overall anti-innovative culture.

The low availability of funds corroborates the issues of Nachinguru and Mwila (2023) and Tsuma (2022), who also identified the low internal and external funding level as a perpetual problem with IGPs. Tolbe (2020) and Miranda et al. (2016) also demonstrated that IGPs experience a problem with insufficient or no marketing strategies. This also links to the current data, which indicates that if marketing is lacking, it is usually for the entire IGP, which leads to very low potential to generate an income, even if IGPs can offer marketable products or services. Multiple studies have also confirmed the institutional deficiency of entrepreneurial spirit. Morales et al. (2022) concluded that the absence of a well-established entrepreneurial culture in academic institutions impedes the development and success of IGPs. This is supported by Prokopenko et al. (2024), who showed that innovation and entrepreneurship are often not recognized or encouraged in traditional institutions that focus on teaching and research. The irregularities in the implementation of legal strategies and regulations support the claims of Marcos (2021), who mentioned that the absence of clear policy guidelines was one of the issues that can often affect IGP operations. Also, according to Adan and Keiyoro (2017), the conflicting or non-existent regulatory framework is often the cause of implementation problems and poor governance in IGPs in schools.

The remaining challenges fall within the "Sometimes a Problem" category, with weighted means ranging from 2.93 to 3.21. These include lacking a comprehensive human resource policy, inadequate partnerships with industries or clients, weak internal stakeholder relationships, ineffective operational systems, and insufficient infrastructure and ICT equipment. For instance, the lack of comprehensive human resource policies and limited ICT infrastructure, each scoring 3.14, points to significant gaps in institutional support systems. Similarly, the low ratings for internal stakeholder relationships ($\bar{w}$ = 3.07) and unsatisfactory service delivery ($\bar{w}$ = 3.00) indicate operational disconnects that may compromise the quality and continuity of IGP services. The standard deviations of these responses are relatively high, indicating significant variability among respondents in their perception of these issues. This variability could stem from differences in campus context, management capability, or available resources. The absence of an articulated human resource policy indicates that many SUCs have not institutionalized HR practices such as recruitment, performance monitoring, or capacity-building processes specific to IGPs. This lack of institutionalization may lead to variability in staff competencies, unclear job roles, and operational inefficiencies within IGPs. Limited ICT infrastructure remains pervasive across SUCs, especially in geographically isolated or resource-constrained campuses. This limitation impedes the digitization of processes critical for efficient financial tracking, marketing, and service delivery. Inadequate partnership with industries or clients suggests that many SUCs have not fully explored or established collaboration opportunities that could foster innovation, access to new markets, or technical expertise. Weak relationships with internal stakeholders or unsatisfactory service delivery reflect a lack of connection between project implementers and the broader institutional community. This disconnect could be due to a lack of communication, shared vision, or buy-in from internal stakeholders. While these issues may not be acute or severe in all SUCs, they likely vary in intensity depending on the campus's stage of institutional development, leadership priorities, and external support. These challenges are important to address as they could represent latent vulnerabilities that may undermine the scalability, efficiency, and long-term sustainability of IGPs across Philippine SUCs.

The absence of human resource policies is a prevalent challenge. Yi (2025) discovered that insufficient training of staff, unclear definition of their roles, and lack of supervision to manage their performance have undermined the running of IGPs in schools. Similarly, Arokiasamy et al. (2023) found that IGPs often fall under the control of heads and teachers without business backgrounds, leading to a lack of HR systems for planning, managing, and reporting their activities. The absence of good relationships with internal stakeholders and a lack of a reliable and responsive system to run operations have also been the most common problems of IGPs. Weak communication and collaboration with internal stakeholders, such as school leaders, teachers, staff, and management, can lead to fragmented decision-making, inadequate ownership, and discontinuity of IGPs (Tsuma, 2022). Briones (2024) found that when some of the stakeholders (usually students) were sidelined in the management of IGPs, accountability and transparency were likely to be poor, which could undermine the overall success of the IGPs. Lack of collaboration with the industry and inadequate ICT

infrastructure have also been the most common problems of IGPs. Mongaya and Vios (2025) noted that good collaboration with the private sector would help schools gain better access to the market, technology, and innovation, all of which would support the IGPs. For instance, given that some IGPs produce or create services and products for which there is no market in the schools' immediate vicinities, having an industry partnership would help connect these products to their markets. On the other hand, limited access to digital technologies and the internet, as well as inadequate ICT skills among staff, were observed to constrain the ability of IGPs to leverage technology to improve efficiency, productivity, or expand their reach, especially during the COVID-19 pandemic (Morris et al., 2022).

The lowest-rated challenge, "Other arising challenges," scored a weighted mean of 2.93, yet still falls within the "Sometimes a Problem" classification. This cluster probably indicates the more infrequent and emerging issues that do not affect most of the campus but may potentially threaten IGP operations if not addressed early. These issues could arise from the demand for new technologies, changes in laws or university policies, and the expectations of constituents, as well as those brought about by the dynamic national economy. The low mean value could be due to the possible intermittent nature of these problems and the fact that the respondents have no particular mechanism for identifying and classifying these issues. The need to address the concerns in this category should not be underrated because of their perceived lower frequency. The contrary is true, as the importance of SUCs being responsive to changes and being future-ready is evident from the emerging issues in this area.

In rapidly changing institutional contexts, these challenges are often precipitated by broader policy shifts, technological disruptions, or sudden market changes. For example, Morris et al. (2022) reported that the sudden shift to online platforms during the COVID-19 pandemic revealed previously hidden vulnerabilities in SUC-based IGPs related to cybersecurity, digital infrastructure, and staff digital literacy. These issues, previously secondary or peripheral, were exposed as critical when the institution had to operate remotely and rely on digital channels. In a related vein, Kraus et al. (2022) also observed that digitalization, while opening new opportunities for innovation and access, also amplified existing institutional inequalities, particularly affecting under-resourced or technologically lagging SUCs.

The challenges identified reinforce the argument of Resource Dependence Theory (RDT) that organizations constrained by scarce and unstable resources often operate under structural and environmental vulnerabilities. The persistent financial limitations, inadequate marketing strategies, and weak entrepreneurial culture demonstrate how SUCs remain heavily dependent on fluctuating state subsidies and limited internal revenues, leaving their IGPs unable to fully function as autonomous financial buffers (Kipkoech, 2018; John and Kaganga, 2022). The inconsistent implementation of legal strategies and the presence of conflicting regulatory frameworks further illustrate the institutional pressures that shape and constrain managerial discretion, thereby reinforcing dependence rather than reducing it (Chirchir et al., 2019). The secondary challenges, such as weak stakeholder relationships, insufficient human resource systems, and limited ICT infrastructure, reveal the inability of IGPs to build robust internal mechanisms that could help them secure and stabilize external resource flows. From an RDT perspective, these findings underscore that while SUCs establish IGPs as adaptive strategies to address fiscal austerity, their weak institutionalization, coupled with fragmented internal systems, leaves them vulnerable to environmental uncertainties (Mahmud et al., 2022). Unless these challenges are addressed through stronger strategic planning, institutional support, and entrepreneurial alignment, IGPs will remain short-term stopgaps rather than sustainable mechanisms for reducing dependence and ensuring organizational resilience (Besing and Saan, 2023).

Table 5: Extent of challenges in the management and operations of IGP

Description	$\bar{wx}$	SD	Extent of challenges
Challenges in the management and operations of IGP	3.17	0.87	SP
1. Inadequate funding due to limited ability to access external financing	3.36	0.93	AP
2. Limited internal financial resources due to the deteriorating university financial burden	3.36	0.93	AP
3. Inadequate marketing strategies	3.29	0.91	AP
4. Limited entrepreneurial culture	3.36	0.93	AP
5. Partial legal strategy implementation and inadequate M&E practices	3.36	0.84	AP
6. Conflicting legal framework	3.21	0.89	SP
7. Lack of comprehensive human resource policy	3.14	0.95	SP
8. Inadequate partnership with industry or clients	3.14	0.95	SP
9. Tenuous relationships among key internal stakeholders and clients	3.07	0.92	SP
10. Ineffective processes, systems, and infrastructure, including the managerial and financial accounting system	3.07	1.07	SP
11. Inadequate ICT equipment and infrastructure	3.14	1.03	SP
12. Lack of competent human resources to manage IGP	3.00	1.04	SP
13. Unsatisfactory service delivery to internal and external customers	3.00	1.04	SP
14. Other arising challenges	2.93	1.00	SP

For the extent of challenges, a scale of 3.26–4.00 corresponds to always a problem (AP); 2.51–3.25 corresponds to sometimes a problem (SP); 1.76–2.50 corresponds to a problem (P); and 1.00–1.75 corresponds to not a problem (NP)

5. Conclusion

The study conducted an institutional assessment of the Income-Generating Projects (IGPs) at Northern Iloilo State University (NISU), covering performance, management, and operational practices. Implemented in a decentralized, multi-campus, and rural-based context, the research faced challenges but gained access to diverse institutional layers. The results showed that IGPs contribute to financial viability and community engagement, but their performance is moderate regarding income generation and clientele reach. Their management systems, staffing, infrastructure, and service delivery practices are in place but variably institutionalized, which resulted in operational inconsistencies. Key challenges such as limited funding, weak entrepreneurial culture, inadequate marketing, and fragmented legal strategies underscore the systemic constraints hindering the optimal deployment of IGPs in SUCs.

Key gaps in the current IGP framework include a more integrated and strategic IGP model with greater alignment to performance monitoring, staff development, stakeholder engagement, and institutional policies. Bridging these gaps necessitates conscious efforts by university leaders, policymakers, and administrators to professionalize IGP management, build internal capacities, and forge mutually beneficial partnerships with industry and local communities. At the institutional level, a standardized IGP policy framework should be institutionalized to align entrepreneurial activities with campus strategic planning, human resource development, and infrastructure integration. At the national level, concerned Philippine government agencies may revisit existing guidelines to harmonize conflicting provisions, enhance monitoring mechanisms, and provide seed capital support to SUCs. Policies that incentivize industry partnerships, strengthen marketing and digitalization strategies, and embed entrepreneurship training are vital to ensuring competitiveness and sustainability. Strengthening IGPs through these policy measures will reinforce their role as innovation hubs and active partners in regional and national economic growth.

However, several limitations need to be acknowledged. The use of a descriptive design limited the ability of the study to establish causal relationships between variables. The study being limited to NISU limits the generalizability of the findings to other SUC settings. Respondents in the study did not include some major stakeholders, including top management, faculty, students, and external clients. Finally, the study used self-reported data that might be subject to response biases.

Future studies should be framed using mixed-method or longitudinal study designs to shed light on the effects of specific management interventions on the IGP over time. Multi-site studies that compare and contrast different SUCs across the urban-rural and single-versus multi-campus models would also be helpful. Future efforts to identify specific levers to facilitate effective IGP governance should also integrate the voices of a broader range of stakeholders and external performance measures to inform a more comprehensive and evidence-based framework for sustainable IGP governance in Philippine higher education.

List of abbreviations

AP	Always a problem
CO	Capital outlay
CHED	Commission on Higher Education
COA	Commission on Audit
HEI	Higher education institution
HR	Human resources
ICT	Information and communications technology
IGP	Income-generating project
IGPs	Income-generating projects
M&E	Monitoring and evaluation
MOOE	Maintenance and other operating expenses
NISU	Northern Iloilo State University
NP	Not a problem
P	A problem
RDT	Resource Dependence Theory
RP	Rarely practiced
SUC	State university and college
SUCs	State universities and colleges
SP	Sometimes a problem
SPr	Sometimes practiced

Compliance with ethical standards

Ethical considerations

The study observes ethical principles to respect participants' rights, ensure confidentiality, and obtain their informed consent before data collection.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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