KRONOLOGI KORESPONDENSI PUBLIKASI ARTIKEL PADA JURNAL INTERNASIONAL BEREPUTASI DAN BERDAMPAK FAKTOR

Judul	: Investigation of Income Generating Activity in Higher Education: A Case Study at Indonesia Public University
Jurnal	: International Journal of Evaluation and Research in Education (IJERE)
Volume	: 11
No	:1
Halaman	: 303-312
Tahun	: 2022
Penerbit	: Institute of Advanced Engineering and Science (IAES)
SJR Jurnal	: 0,308 (2022)
Quartile	: Q3 (2022)
Penulis	: Amir Mahmud, Agus Nuryatin, Nurdian Susilowati

Bukti Indexing Jurnal

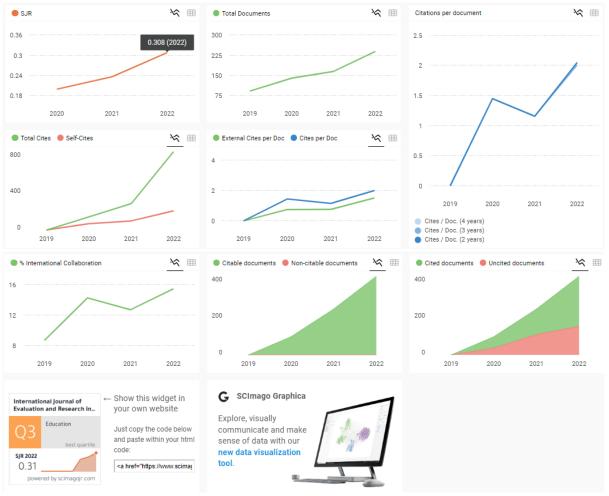
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Indonesia	Social Sciences	Institute of Advanced Engineering and Science (IAES)	14
institutions in Indonesia			
PUBLICATION TYPE	ISSN	COVERAGE	INFORMATION
Journals	26205440, 22528822	2019-2022	Homepage
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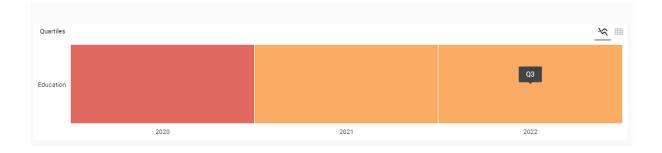
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14	5 Agustus 2022	Pemberitahuan bahwa artikel sudah published pada Vol. 11
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Investigation of income generating activity in higher education: a case study at indonesia public university

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Article Info

Article history:

Received Jun 9, 2018 Revised Nov 20, 2018 Accepted Dec 11, 2018

Keywords:

laboratory higher education income generating study programs

ABSTRACT

This paper aims to identify the income-generating activities and explore its management model using case study method. Interview observation checklist and the documentations were used to collect data, involving fifty-two informants, composed of twenty-six the head of laboratory and twenty-six the director of study program. Government subsidy, which is meant to cater to the tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Incomegenerating supplemented the budget of the university. The income is beneficial to hire additional project personnel, purchase supplies, materials and equipment, and improve facilities needed for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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1. INTRODUCTION

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned out to be insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities, is funding that relies on the disbursement of the state budget [2]. In comparison, private universities were forced to set high

fees collected from the community to support their operations. This reality shows that higher education products from the results of science can not produce income-generating that can support university funding [3][4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, the amount of which is still insufficient, yet maintaining national quality standards and increasing access to tertiary institutions requires greater funding. Public institutions, including universities, apply the public service agency (*Badan Layanan Umum*) pattern to reduce bureaucracy and at the same time improve the quality of government services to the public [6]. As part of the flexibility of public service agency's financial management, public service agency income (the entire income is *PNBP* of Non-Tax State Revenues) can be used directly, according to the business and budget plan, first being deposited into the state treasury account. The operating income surplus becomes deposits that can be used in the following year's budget.

Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. The university performance appraisal from a financial perspective seems to be most important after the customer's perspective [7][8]. Hence, the university's income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

Most schools lack supervision, so they cannot implement income-generating programs properly [9][10][11]. The role of staff and all academic community influences the implementation of the income-generating program. In addition, the personal qualifications of the staff, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school income, which helpful for the academic and non-academic development of students, teachers, and all school academic communities. The universities play an important role in providing competitive graduates for professional works [12][13]. Therefore, education funding is needed to create competitive graduates. The unprofessional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, fulfilling university needs can be met by internal universities and not relying on government funding.

As an effort to improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, and efficiently and can be accounted for, university as a public service agency needs to explore resources funds that not only come from educational funding but also other funding sources [2]. In general, Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic aspects are single tuition (*UKT*), while non-academic income consists of grants and research grants [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia. One way to increase university' income from income-generating besides the single tuition or the institutional development contribution managed by the Business Development Agency (*Badan Pengembang Bisnis*) is utilizing study programs through research center and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [16]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The research centers and laboratories at the university also can be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory so that it can increase the income of higher education[17][18]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more income to reduce the government budget for universities. Therefore, the business units in higher education can be used to increase financial resources to reduce dependence on the government budget. Besides being able to meet the needs of financial resources, higher education institutions can also improve academic aspects from income-generating obtained, viewed from the neo-institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition of individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [19][20].

From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [21]. Resources dependence theory is applied to describe the behavior of institutions in

developing business ventures for additional income so that institutions can survive in meeting budgetary needs [22]. The characteristics of the resources dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in theory, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the existence of the organization[23][24].

Further, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their own strength [25]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [26][27]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [28][29]. While the theory of resource dependence is one of many organizational theories that characterize organizational behavior. Hence, the university's income is meaningful to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been explored yet.

2. **RESEARCH METHOD**

This study used a qualitative approach, namely a case study. A case study is used because it is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang. The researcher chose Universitas Negeri Semarang because it is a public service agency that will become a Legal Entity State University (Perguruan Tinggi Berbadan Hukum), which can get additional income form of income-generating from the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has sixty-nine study programs which are very potential to be developed so that the knowledge produced at each study center can be useful for all people. The data sources were fifty-two, the head of the department, the head of the laboratory, the head of the program, and the head of the study center in each faculty obtained by using purposive sampling from twenty-six study programs. Purposive sampling is a sampling technique of data sources with certain considerations or according to purpose.

The main data sources in this qualitative research were words and actions [30]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in three ways following the purpose of the research. First, in-depth interviews were based on guidelines or interview guides. Interviews were conducted in each study program to obtain data on the number of the study center and existing study center. Second, the observations taken in the laboratory and study center to figure out the activities in the laboratory can be utilized by the community. This observation was used by lecturers and students and the academic staff, and all of the faculty members. Third, documentation was used to determine the number of the user of study center and activities in the study center and laboratory. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the Rule of Universitas Negeri Semarang Chancellor, and scientific journals related to the research study. The data obtained were analyzed using qualitative analysis of Miles and Huberman.

RESULTS AND ANALYSIS 3.

3.1. Profile of Income Generating Sources in the Study Program

Based on the focus group discussion and in-depth interviews, it was obtained a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang. A total of fifty-two informants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. The following is a table of profile of income generating sources in the study program.

Number	Study Programs	Laboratories/Research Center	Type of Goods or Services
1.	Biology	Biology Laboratory	Cellular and molecular biology
2.	Natural Science Education	Indonesian Journal of Science Education	Journal Publication Fee

Tabl	e 1. Mapping the Incom	e Generating Sources of Study	Programs and laboratories
Number	Study Programs	Laboratories/Research	Type of Goods or Services

Number	Study Programs	Laboratories/Research Center	Type of Goods or Services
3.	Informatic Engineering Education	Informatic Engineering Education Laboratory	Training media based on android
4.	Chemistry	Chemistry Laboratory	Alternative energy
<u>4.</u> 5.	Mathematics Education	Mathematics Education Laboratory	Math City Map Learning Media, mathematic olympiad, and seminar
6.	Chemical Engineering	Chemical Engineering Laboratory	Instrumentation Laboratory
7.	Electrical Engineering	Electrical Engineering Laboratory	The laboratory of integrated Computer
8.	Family Welfare Education	Family Welfare Education Laboratory	Batik production, Catering, and Makeup Services
9.	Indonesian Language and Literature Education	Indonesian Language and Literature Education Laboratory	Journalism, Indonesian Language for Foreign Speakers (<i>BIPA</i>), Entrepreneurship
10.	English Language and Literature Education	Literacy Study Center	Indonesian Language for Foreign Speakers, Theater, Journalism, and Editor of Book
11.	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment services for prospective foreign workers
12.	History Education	History Laboratory	Training of learning media and consultant of teaching, learning in history courses, and journal publication fee
13.	Visual Communication Design	Visual Communication Design Laboratory	Computer studio, ceramic studio, batik studio, and workshop center of art
14.	Art Education	Art Education Laboratory	Journal publication fee
15.	Economic development	Economic development laboratory	Training in economic analysis, study, and development of science tools, also journal publication fee
16.	Psychology	Psychology laboratory	The center assessment is in the form of psycho-mental services, counseling, therapy, and training
17.	Educational Technology	Educational technology Laboratory	Training services making learning media, film production training services, curriculum analysis services, and textbook, learning resource writing training, technopreneurship training services, and webinar-based training services
18.	Early Childhood Education	Early childhood education program laboratory	Microteaching laboratory, dance laboratory, recording lab, and music laboratory for early childhood
19.	Guidance and Counseling	Guidance and counseling laboratory	Counseling services, educational testing services, center for education and community counseling, training services, and continuing professional development program
20.	Primary School Teacher Education	Primary school teacher education laboratory	Media learning and mentoring for elementary teachers
21.	Non-formal education	Non-formal education laboratory	Community learning activity center in the form of homeschooling

Number	Study Programs	Laboratories/Research Center	Type of Goods or Services
22.	Geography	Geography laboratory	Mapping based on geographic information systems (GIS) and photogrammetry training, and remote sensing
23.	Accounting	Accounting laboratory	Tax center, brevet training center, and accounting, also journal publication fee
24.	Management	Management laboratory	Capital market training, marketing, human resources training, statistics and research methods training, also journal publication fee
25.	Economics Education	a. Integrated office and administration laboratory	Training and mentoring professionalism of teacher, study center of archives
		b. Bank laboratory	Training of bank for teacher and students
		 c. Microteaching laboratory d. Center for accounting education studies 	Development learning media and quality of teacher Training and mentoring accounting teacher, seminar and completion of accounting
26.	Physical Education and Recreation	Athletic laboratory	Atletic room rent, swimming pool rent, training and services of sport

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. In terms of the length of its establishment, the excellent of the product of study programs vary from one semester, more than five years up to sixteen years. Asterio's study results reveal a significant relationship between long-term income-generating operations to the implementation of income-generating [1]. Thus the longer the product stands should show more mature readiness in generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a center assessment which includes psychoassement services, counseling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

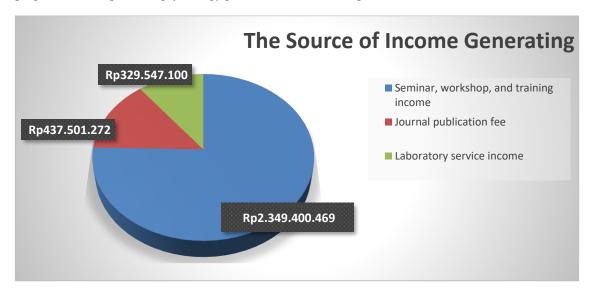
The study program has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. This was due to the average service user was only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Furthermore, study programs whose contribution to income-generating universities was Indonesian Literature. This study program was excellent in theater, journalism, and *BIPA*. However, so far, there has been no excellent coordination between the manager so that the pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, with several other study programs such as education technology, visual communication design, guidance, and counseling, early and childhood education, geography, and management, the informants felt that the contribution of laboratories and products to the excellent of study programs was still limited in contribution to income-generating universities.

The second thing that needs to be identified in assessing the readiness of the study center based on the excellence of study programs to support income-generating is the profile of staff. This includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. This is under the research results of [9][18], which revealed that personal qualifications and staff support positively affected the implementation of income-generating.

The research found that the average research center manager consisted of 2-6 people. The position includes chairman of the research center and their staff. Besides, the laboratory consists of the chairman,

laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratory. The doctoral or professors typically hold the role of the head research center. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research center staff made various efforts, such as attending training of management laboratory, finance, and administration [31].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff's experience and insight can increase [32][33]. The training was attended by laboratory staff varied enough from the International Standard Operations, the main standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.



Furthermore, to further identify the readiness of the research center in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are below.

1. Socialization and work meetings

The university's socialization can be carried out and then delivered to the faculty and departmental level and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research center excellence to contribute more to supporting income-generating universities.

2. Building Awareness

Professional building awareness is followed by many courses certification. The competency upgrading program for all laboratory staff is also sought to improve their experience and expertise.

3. Collaboration with Agencies

Some study programs have established relationships and cooperation. Departement of art collaborates with small medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brillian Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or memorandum of agreement.

3.2. Model of Income Generating Management Based on Excellent of the Study Programs

The study program and laboratory management model in university needs to be considered to become a reference and guideline for each study program in developing program excellence. The existence of a model in the management of the study center aims to boost each study program to contribute to supporting incomegenerating universities. This management model is sourced from the resource dependence theory, which describes the behavior of institutions to carry out business initiatives as the additional income. The model can describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus the model in this

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study brings benefits to the university's development towards Legal Entity State University and the real role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps that can be taken by study programs and universities in implementing income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study center/laboratory management model that the researchers propose. Fig.1 shows that the first step which the study program can take is the identification of advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Semarang State University Number 25 of 2018, to increase university' income from income-generating outside the *UKT* or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency manages university assets, works the innovative products of lecturers to be used in the community, utilizes study programs through research centers and laboratory optimization. University business activities cover all productive activities organized by university in business units and other business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university' service to the community. Therefore, identification of the product superiority of the study program should have been the focus of attention.

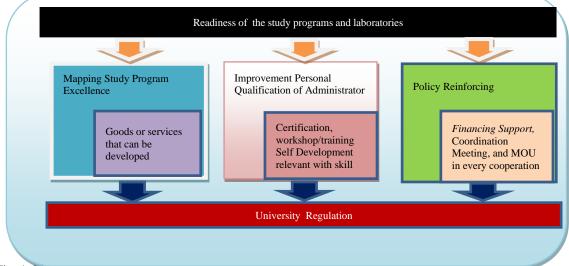


Fig. 1. Model of Income Generating Management Based on Excellent of the Study Programs

Furthermore, the staff's qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [34]. The study program and tertiary institution are obliged to create an institutional culture and work to harmonize the differences between the various cultures brought by each individual so that it becomes a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that is in accordance with the mission, vision, and objectives of the college work program and in harmony with the culture that grows and develops in its adaptive environment [17].

The determination of policy supporting gives the primary role [35][36]. This is done so that incomegenerating activities can be a concern. It is in line with the characteristics of the resources dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [28]. Necessary policy support is one of which is supporting financing or funding [37][38]. But unfortunately, funding support for the development of this laboratory has not been seen, so the development of laboratory services tends to be slow. Limited resources will certainly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector's regulations must strengthen the research center management model based on the advantages of this study program. The regulation of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

4. CONCLUSION

The advantages of the study program can strengthen university institutions through the downstream of products to the public. Product downstream in the form of research and community service results, optimization of laboratories, workshops, seminars, and building rentals can be used as university income. This income is called income generating. The application of income-generating must be followed by a clear policy and legal basis so that the implementation is transparent and accountable. Besides, the readiness of staff and laboratory managers is needed to make every activity that brings income-generating success. Besides laboratory staff and managers, dean of faculties, and rector support is required so that all are synergistic to build income-generating. This study uses a qualitative approach. The next researcher should apply a quantitative approach to determine the implementation of income-generating policies regarding the elements of staff support, head of laboratory, lecturers, and existing facilities.

ACKNOWLEDGEMENTS

Our appreciation and thanks are dedicated to university research and community service in funding the research. We are also thankful for the reviewer because of the stimulating comments. Thus, we can compose this article. We are genuinely delighted, for this research would bring benefits to others.

REFERENCES

- J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: From monitoring to management," *Qual. Assur. Educ.*, vol. 11, no. 1, pp. 5–14, 2003, doi: 10.1108/09684880310462038.
- [2] T. F. Nur, A. Widodo, and R. Mutiara, "State University with Legal Entity and the Impact to the Rights and Obligations of the Tax Transaction: Case of the University of Indonesia," *KnE Soc. Sci.*, vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857.
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," *Res. J. Financ. AccountingOnline*), vol. 6, no. 7, pp. 2222–2847, 2015.
- [4] F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct investment: Empirical evidence in OECD countries," *Int. J. Sustain. High. Educ.*, 2020, doi: 10.1108/IJSHE-10-2019-0306.
- [5] A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," *Int. J. Educ.*, vol. 9, no. 3, p. 183, 2017, doi: 10.5296/ije.v9i3.11705.
- [6] A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," *VINE J. Inf. Knowl. Manag. Syst.*, 2020, doi: 10.1108/VJIKMS-01-2020-0003.
- [7] L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education: A review of some concepts and models," *J. Small Bus. Enterp. Dev.*, vol. 15, no. 1, pp. 202–226, 2008, doi: 10.1108/14626000810850937.
- [8] H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," *Accounting, Audit. Account. J.*, vol. 32, no. 5, pp. 1500–1531, 2019, doi: 10.1108/AAAJ-03-2018-3391.
- [9] S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools in Isiolo North Sub County, Kenya," *Int. Acad. J. Inf. Sci. Proj. Manag.*, vol. 2, no. 1, pp. 558–573, 2017.
- [10] S. Nair, "School block grants as a model of financial decentralization in Iraq," Int. J. Comp. Educ. Dev., vol. 20, no. 3–4, pp. 165–175, 2018, doi: 10.1108/IJCED-05-2018-0009.
- [11] P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: On the role of university board members," *High. Educ.*, vol. 65, no. 1, pp. 39–58, 2013, doi: 10.1007/s10734-012-9580-x.
- [12] H. Sampaio, "Higher education in Brazil: Stratification in the privatization of enrollment," *Adv. Educ. Divers. Communities Res. Policy Prax.*, vol. 11, pp. 53–81, 2015, doi: 10.1108/S1479-358X20150000011005.
- [13] M. Edwards, "University Governance: A Mapping and Some Issues," *Life Long Learn. Netw. Natl. Conf.*, pp. 1–21, 2000, [Online]. Available: https://www.atem.org.au/eknowledge-
- repository/command/download_file/id/24/filename/University_Governance_Meredith_Edwards_2000.pdf. [14] B. Y. Boadi, "Income-generating activities: A viable financial source for African academic libraries?," *Bottom*
- *Line*, vol. 19, no. 2, pp. 64–77, 2006, doi: 10.1108/08880450610663609.
- [15] "PR 20 2015-Pengelolaan-Unit-Usaha-Satuan-Pengembang-Bisnis.pdf.".
- [16] "PR No25-2018 ttg badan pengembang bisnis.pdf.".
- [17] M. Imam and H. Reza, "Sustainability in Higher Education : Perspectives of Malaysian Higher Education System," 2016, doi: 10.1177/2158244016665890.
- [18] A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government academic institution in The Philippines," *Asia Pacific J. Innov. Entrep.*, vol. 10, no. 1, pp. 5–16, 2016, doi: 10.1108/apjie-12-2016-006.
- [19] K. O. Kerei, "SELECTED FACTORS INFLUENCING PRINCIPALS ' MANAGEMENT OF INCOME GENERATING ACTIVITIES IN PUBLIC SECONDARY SCHOOLS BY ANDREW MBASU LUNANI A

THESIS SUBMITTED TO THE DEPARTMENT OF EDUCATIONAL MANAGEMENT AND POLICY STUDIES , SCHOOL OF EDUCATION AS PARTIAL REQU," 2014.

- [20] J. Schmidt and L. Peachey, "Funding down under: Entrepreneurial approaches to generating income at the University of Queensland Cybrary," *New Libr. World*, vol. 104, no. 1194, pp. 481–490, 2003, doi: 10.1108/03074800310509406.
- [21] J. Panigrahi, "Innovative Financing of Higher Education : Changing Options and Implications," 2018, doi: 10.1177/2347631117738644.
- [22] A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource dependence theory: A review," J. Manage., vol. 35, no. 6, pp. 1404–1427, 2009, doi: 10.1177/0149206309343469.
- [23] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on knowledge sharing and employee performance," *J. Manag. Dev.*, vol. 38, no. 7, pp. 538–560, 2019, doi: 10.1108/JMD-07-2018-0190.
- [24] L. Guo, B. Wong-On-Wing, and G. Lui, *Input-based performance evaluation incentive intensity and proactive work behavior*, vol. 22. 2013.
- [25] X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect employee well-being? A mediated moderation model," *Empl. Relations*, vol. 42, no. 4, pp. 903–919, 2020, doi: 10.1108/ER-08-2019-0320.
- [26] M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for business model innovation," *Int. J. Entrep. Behav. Res.*, 2020, doi: 10.1108/IJEBR-10-2020-0679.
- [27] J. L. Price, "Handbook of organizational measurement," Int. J. Manpow., vol. 18, no. 4, pp. 305–558, 1997, doi: 10.1108/01437729710182260.
- [28] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," *Adm. Soc.*, vol. 8, no. January 1976, pp. 419–453, 1976.
- [29] R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: Internal and external accountability of principals in varied contexts," *J. Educ. Adm.*, vol. 51, no. 3, pp. 383–406, 2013, doi: 10.1108/09578231311311528.
- [30] A. Mahmud, N. Susilowati, W. S. Rachmadani, and S. Lestari, "The Contribution of Village Fund Management for Creating More Prosperous Society : An Empirical Study at Central Java," vol. 12, no. 11, pp. 357–371, 2020.
- [31] L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," *Int. J. Sustain. High. Educ.*, 2020, doi: 10.1108/IJSHE-11-2019-0333.
- [32] A. N. Tsuma, "Factors Influencing Performance of Income Generating Units in Public Universities," Bus. Manag., vol. 6, no. 10, pp. 87–92, 2014.
- [33] H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," vol. 21, no. February 2008, pp. 6–16, 2016.
- [34] R. L. Dipboye and R. L. Dipboye, *3. Work Motivation*. 2018.
- [35] D. V. Didenko, Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late Nineteenth–Early Twenty-first Centuries), vol. 36. 2020.
- [36] R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," *Int. J. Soc. Econ.*, vol. 44, no. 12, pp. 2271–2286, 2017, doi: 10.1108/IJSE-09-2016-0260.
- [37] A. Butare, "Income-Generating Activities in Higher Education: The Case of Kigali Institute of Science, Technology and Management (KIST)," *J. High. Educ. Africa / Rev. l'enseignement supérieur en Afrique*, vol. 2, no. 3, pp. 37–53, 2004, [Online]. Available: http://www.jstor.org/stable/24486293.
- [38] P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial Performance of Public Secondary Schools in Kenya," *Chinese Bus. Rev.*, vol. 12, no. 06, pp. 375–394, 2013, doi: 10.17265/1537-1506/2013.06.001.

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Pemberitahuan bahwa Artikel Diterima dengan Revisi (*Accept with Revisions*) – 16 Juni 2021

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Saran dan Revisi ke-1

1. Introduction

Review of literature is integrated with the concept

Revisi:

- Paragraf 9: Line 1-9 (Artikel halaman 103)

Further, the resources dependence theory has been applied to explain how organizations reduce dependency and uncertainty in their organizational can environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their own strength [25]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [26][27]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [28][29]. While the theory of resource dependence is one of many organizational theories that characterize organizational behavior.

- Paragraf 12: Line 1-7 (Artikel halaman 103)

Mapping the advantages of the study program and the income generating management model can be used as the basis for the implementation of better income generating. This management model is derived from Resource Dependence Theory which explains the behaviour of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

The Original Contribution

Revisi:

- Paragraf 10: Line 1-6 (Artikel halaman 103)

The differences with previous research are that this research focuses on identifying income generating in each study program and investigating laboratory services and finding the management model. Based on the characteristics of the University as a Public Education Service Agency, namely getting autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income generating aims to improve learning facilities which at the same time will improve the welfare of students, lecturers, and education staff.

- Paragraf 11: Line 1-8 (Artikel halaman 103)

This research contributes to the development of higher education institutions in the form of public service bodies towards legal entities in Indonesia by strengthening exploration and identification of sources of income generating in each study program. This is due to every study program has its own characteristics and uniqueness to promote and generate income by offering their services for the community. In addition, this research contributes to strengthen the capability of income generating sources so that good management is needed in managing income generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Research Problem

Revisi: Paragraf 13, Line 1-6 (Artikel halaman 103)

University performance measures from the financial perspective is the most important one after a customer perspective. Thus, university income generating is interesting to study because its diversity among units. The principles of good governance for public institutions have been put forward by business corporations and political authorities. However, there has been less discussion about income generating in higher education context. Therefore, the purpose of this study is to identify income-generating activities and explore management models.

2. Methods

Methods

Revisi: Paragraf 2, Line 1-7 (Artikel halaman 103-104)

This research refers to the development of accounting science paradigm which reflects the interpretative paradigm [30]. Its basic assumption is the knowledge which is explored by explaining human intention scientifically in a series of subjective interpretations and are confirmed by the people's common sense in daily activities. This study reveals various activities conducted in universities as additional sources of income and designs the management models from the perspective of activity doers and leaders who have directly involved. A case study approach is applied, and it aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyse the types of outcomes and impacts.

Experimental Methods

Revisi:

- Paragraf 3: Line 1-8 (Artikel halaman 104)

The main data sources in this qualitative research were words and actions [31]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in two ways following the purpose of the research. This research employed two collecting data proposed [30]; documentation and interview strategies. The first, the documentation is gathered from annual financial report of university. Then, in-depth interview was conducted involving key informants. After all data were collected, they are clustered based on the themes and sub-themes referring to the topic of the research. At this stage, researchers go through the process of contemplating the content of mind by remembering, perceiving, and designing the themes.

- Paragraf 4: Line 1-6 (Artikel halaman 104)

The process of collecting data with documentation is carried out by taking existing data from the University's annual financial report. This research was also carried out with an

in-depth interview process (in-depth interview) to explore and collect data from informants. Furthermore, based on the collected data, compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage the researcher understands contemplating the content of mind by carrying out remembering, perceiving, and desiring activities that lead to the research theme.

- Paragraf 5: Line 1-11 (Artikel halaman 104)

Comprehensive questions were made for the interview use which cover types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staffs, the head of the laboratory, the head of the study program, and those in charge of activities. The selection of the person in charge of the activity was meant for the use of the triangulation technique. According to [32], this technique usually refers to the process of using various perceptions to clarify meaning, verify the possibility of repetition of an observation or interpretation because this holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the Rule of Universitas Negeri Semarang Chancellor, and scientific journals related to the research study. This triangulation technique is applied to see the process of determining the amount of income generating that will be obtained for universities, faculties, and majors/study programs.

3. Results and Analysis New Fundings of the Study

Revisi:

Sub 3.1 Profile of Income Generating sources in the Study Program: Paragraf 7: Line 1-6; Paragraf 8: Line 1-7; Paragraf 9: Line 1-8; dan Paragraf 10: Line 1-5 (Artikel halaman 106-107)

Furthermore, the research result shows that there are sources of income generating, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of income with the largest nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshop, and training income. Meanwhile, journal publication contributed a revenue of IDR 437,501,272., and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the largest contribution to the amount of income generating universities.

Based on the data, the second contribution is from the journal publication fee and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a source of income generating. Factually, based on the mapping of the identification of the advantages of the study program, there are many fields that can generate additional income. However, other fields seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be developed better to generate additional

income. The following pie chart shows the largest income generating sources in the study program.

The findings confirm that the management of income generating between one unit with another is diverse. For example, journal publication fees for journals indexed by Sinta 2, the nominal amount that is included in income generating is different between one department and another. Likewise, with journals indexed by Sinta 1, the nominal is also different. Thus, it could be necessary to create a system and mechanism for determining the income generating journal publication fee to be equal among units. This aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand the development of laboratory services and product promotion. For example, laboratory services can establish cooperation with government agencies or companies in providing employee lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network, not only student users can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

4. Conclusion

The Implications of the Study for Practice or Society

Revisi: Paragram 2: Line 1-7 (Artikel halaman 109)

This finding confirms that income generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports, and operational problems that exist. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the real condition as well as promoting and creating a more effective working atmosphere and collaborative mechanism among stakeholders. International Journal of Evaluation and Research in Education (IJERE) Vol. 9, No. 1, March 2020, pp. xx~xx ISSN: 2252-8822, DOI: 10.11591/ijere.v9i1.xxxx

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Investigation of income generating activity in higher education: a case study at indonesia public university

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Article Info

ABSTRACT

Article history: Received Jun 9, 2018 Revised Nov 20, 2018 Accepted Dec 11, 2018

Keywords:

laboratory higher education income generating study programs

This paper aims to identify the income-generating activities and explore its management model using case study method. Deep interview and the documentations were used to collect data, involving fifty-two informants, composed of twenty-six the head of laboratory and twenty-six the director of study program. Government subsidy, which is meant to cater to the tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Income-generating supplemented the budget of the university. The income is beneficial to hire additional project personnel, purchase supplies, materials and equipment, and improve facilities needed for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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1. INTRODUCTION

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned out to be insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities, is funding that relies on the disbursement of the state budget [2]. In comparison, private universities were forced to set high

fees collected from the community to support their operations. This reality shows that higher education products from the results of science can not produce income-generating that can support university funding [3][4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, the amount of which is still insufficient, yet maintaining national quality standards and increasing access to tertiary institutions requires greater funding. Public institutions, including universities, apply the public service agency (*Badan Layanan Umum*) pattern to reduce bureaucracy and at the same time improve the quality of government services to the public [6]. As part of the flexibility of public service agency's financial management, public service agency income (the entire income is *PNBP* of Non-Tax State Revenues) can be used directly, according to the business and budget plan, first being deposited into the state treasury account. The operating income surplus becomes deposits that can be used in the following year's budget.

Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. The university performance appraisal from a financial perspective seems to be most important after the customer's perspective [7][8]. Hence, the university's income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

Most schools lack supervision, so they cannot implement income-generating programs properly [9][10][11]. The role of staff and all academic community influences the implementation of the incomegenerating program. In addition, the personal qualifications of the staff, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school income, which helpful for the academic and non-academic development of students, teachers, and all school academic communities. The universities play an important role in providing competitive graduates for professional works [12][13]. Therefore, education funding is needed to create competitive graduates. The unprofessional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, fulfilling university needs can be met by internal universities and not relying on government funding.

As an effort to improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, and efficiently and can be accounted for, university as a public service agency needs to explore resources funds that not only come from educational funding but also other funding sources [2]. In general, Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic aspects are single tuition (*UKT*), while non-academic income consists of grants and research grants [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia. One way to increase university' income from income-generating besides the single tuition or the institutional development contribution managed by the business development agency is utilizing study programs through research center and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [16]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The research centers and laboratories at the university also can be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory so that it can increase the income of higher education[17][18]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more income to reduce the government budget for universities. Therefore, the business units in higher education can be used to increase financial resources to reduce dependence on the government budget. Besides being able to meet the needs of financial resources, higher education institutions can also improve academic aspects from income-generating obtained, viewed from the neo-institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition of individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [19][20].

From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [21]. Resources dependence theory is applied to describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs

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[22]. The characteristics of the resources dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in theory, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the existence of the organization[23][24].

Further, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their own strength [25]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [26][27]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [28][29]. While the theory of resource dependence is one of many organizational theories that characterize organizational behavior.

The differences with previous research are that this research focuses on identifying income generating in each study program and investigating laboratory services and finding the management model. Based on the characteristics of the University as a Public Education Service Agency, namely getting autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income generating aims to improve learning facilities which at the same time will improve the welfare of students, lecturers, and education staff.

This research contributes to the development of higher education institutions in the form of public service bodies towards legal entities in Indonesia by strengthening exploration and identification of sources of income generating in each study program. This is due to every study program has its own characteristics and uniqueness to promote and generate income by offering their services for the community. In addition, this research contributes to strengthen the capability of income generating sources so that good management is needed in managing income generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Mapping the advantages of the study program and the income generating management model can be used as the basis for the implementation of better income generating. This management model is derived from Resource Dependence Theory which explains the behaviour of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

University performance measures from the financial perspective is the most important one after a customer perspective. Thus, university income generating is interesting to study because its diversity among units. The principles of good governance for public institutions have been put forward by business corporations and political authorities. However, there has been less discussion about income generating in higher education context. Therefore, the purpose of this study is to identify income-generating activities and explore management models.

2. RESEARCH METHOD

This study used a qualitative approach, namely a case study. A case study is used because it is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang. The researcher chose Universitas Negeri Semarang because it is a public service agency that will become a Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*), which can get additional income form of income-generating from the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has sixty-nine study programs which are very potential to be developed so that the knowledge produced at each study center can be useful for all people. The data sources were fifty-two, the head of the department, the head of the laboratory, the head of the program, and the head of the study center in each faculty obtained by using purposive sampling from twenty-six study programs. Purposive sampling is a sampling technique of data sources with certain considerations or according to purpose.

This research refers to the development of accounting science paradigm which reflects the interpretative paradigm [30]. Its basic assumption is the knowledge which is explored by explaining human intention scientifically in a series of subjective interpretations and are confirmed by the people's common sense in daily activities. This study reveals various activities conducted in universities as additional sources of income

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and designs the management models from the perspective of activity doers and leaders who have directly involved. A case study approach is applied, and it aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyse the types of outcomes and impacts.

The main data sources in this qualitative research were words and actions [31]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in two ways following the purpose of the research. This research employed two collecting data proposed [30]; documentation and interview strategies. The first, the documentation is gathered from annual financial report of university. Then, in-depth interview was conducted involving key informants. After all data were collected, they are clustered based on the themes and sub-themes referring to the topic of the research. At this stage, researchers go through the process of contemplating the content of mind by remembering, perceiving, and designing the themes.

The process of collecting data with documentation is carried out by taking existing data from the University's annual financial report. This research was also carried out with an in-depth interview process (in-depth interview) to explore and collect data from informants. Furthermore, based on the collected data, compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage the researcher understands contemplating the content of mind by carrying out remembering, perceiving, and desiring activities that lead to the research theme.

Comprehensive questions were made for the interview use which cover types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staffs, the head of the laboratory, the head of the study program, and those in charge of activities. The selection of the person in charge of the activity was meant for the use of the triangulation technique. According to [32], this technique usually refers to the process of using various perceptions to clarify meaning, verify the possibility of repetition of an observation or interpretation because this holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the Rule of Universitas Negeri Semarang Chancellor, and scientific journals related to the research study. This triangulation technique is applied to see the process of determining the amount of income generating that will be obtained for universities, faculties, and majors/study programs.

3. RESULTS AND ANALYSIS

3.1. Profile of Income Generating Sources in the Study Program

Based on the focus group discussion and in-depth interviews, it was obtained a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang. A total of fifty-two informants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. The following is a table of profile of income generating sources in the study program.

Number	Study Programs	Laboratories/Research	Type of Goods or Services	
		Center		
1.	Biology	Biology Laboratory	Cellular and molecular biology	
2.	Natural Science Education	Indonesian Journal of	Journal Publication Fee	
		Science Education		
3.	Informatic Engineering	Informatic Engineering	Training media based on android	
	Education	Education Laboratory		
4.	Chemistry	Chemistry Laboratory	Alternative energy	
5. Mathematics Education		Mathematics Education	Math City Map Learning Media,	
		Laboratory	mathematic olympiad, and seminar	
6.	Chemical Engineering	Chemical Engineering	Instrumentation Laboratory	
		Laboratory		
7.	Electrical Engineering	Electrical Engineering	The laboratory of integrated	
		Laboratory	Computer	
8.	Family Welfare Education	Family Welfare	Batik production, Catering, and	
	-	Education Laboratory	Makeup Services	
9.	Indonesian Language and	Indonesian Language	Journalism, Indonesian Language	
	Literature Education	and Literature	for Foreign Speakers (BIPA),	
		Education Laboratory	Entrepreneurship	

 Table 1. Mapping the Income Generating Sources of Study Programs and laboratories

 Number
 Study Programs
 Laboratories/Research
 Type of Goods or Services

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Number	Study Programs	Laboratories/Research	Type of Goods or Services
10.	English Language and Literature Education	Center Literacy Study Center	Indonesian Language for Foreign Speakers, Theater, Journalism, and
	Enternante Education		Editor of Book
11.	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment services for prospective foreign workers
.2.	History Education	History Laboratory	Training of learning media and consultant of teaching, learning in history courses, and journal publication fee
13.	Visual Communication Design	Visual Communication Design Laboratory	Computer studio, ceramic studio, batik studio, and workshop center of art
14.	Art Education	Art Education Laboratory	Journal publication fee
15.	Economic development	Economic development laboratory	Training in economic analysis, study, and development of science tools, also journal publication fee
16.	Psychology	Psychology laboratory	The center assessment is in the form of psycho-mental services, counseling, therapy, and training
17.	Educational Technology	Educational technology Laboratory	Training services making learning media, film production training services, curriculum analysis services, and textbook, learning resource writing training, technopreneurship training services, and webinar-based training services
18.	Early Childhood Education	Early childhood education program laboratory	Microteaching laboratory, dance laboratory, recording lab, and music laboratory for early childhood
19.	Guidance and Counseling	Guidance and counseling laboratory	Counseling services, educational testing services, center for education and community counseling, training services, and continuing professional development program
20.	Primary School Teacher Education	Primary school teacher education laboratory	Media learning and mentoring for elementary teachers
21.	Non-formal education	Non-formal education laboratory	Community learning activity center in the form of homeschooling
22.	Geography	Geography laboratory	Mapping based on geographic information systems (GIS) and photogrammetry training, and remote sensing
23.	Accounting	Accounting laboratory	Tax center, brevet training center, and accounting, also journal publication fee
24.	Management	Management laboratory	Capital market training, marketing, human resources training, statistics and research methods training, also journal publication fee
25.	Economics Education	 a. Integrated office and administration laboratory 	Training and mentoring professionalism of teacher, study center of archives

Title of manuscript is short and clear, implies research results (First Author)

Num	ıber	Study Programs	Laboratories/Research	Type of Goods or Services
		Study 110gruins	Center	Type of Goods of Selffields

			Training of bank for teacher and students
_		 c. Microteaching laboratory d. Center for accounting education studies 	Development learning media and quality of teacher Training and mentoring accounting teacher, seminar and completion of accounting
26.	Physical Education and Recreation	Athletic laboratory	Atletic room rent, swimming pool rent, training and services of sport

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. In terms of the length of its establishment, the excellent of the product of study programs vary from one semester, more than five years up to sixteen years. Asterio's study results reveal a significant relationship between long-term income-generating operations to the implementation of income-generating [1]. Thus, the longer the product stands should show more mature readiness in generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a center assessment which includes psychoassement services, counseling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

The study program has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. This was due to the average service user was only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Furthermore, study programs whose contribution to income-generating universities was Indonesian Literature. This study program was excellent in theater, journalism, and *BIPA*. However, so far, there has been no excellent coordination between the manager so that the pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, with several other study programs such as education technology, visual communication design, guidance, and counseling, early and childhood education, geography, and management, the informants felt that the contribution of laboratories and products to the excellent of study programs was still limited in contribution to income-generating universities.

The second thing that needs to be identified in assessing the readiness of the study center based on the excellence of study programs to support income-generating is the profile of staff. This includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. This is under the research results of [9][18], which revealed that personal qualifications and staff support positively affected the implementation of income-generating.

The research found that the average research center manager consisted of 2-6 people. The position includes chairman of the research center and their staff. Besides, the laboratory consists of the chairman, laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratory. The doctoral or professors typically hold the role of the head research center. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research center staff made various efforts, such as attending training of management laboratory, finance, and administration [33].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff's experience and insight can increase [34][35]. The training was attended by laboratory staff varied enough from the International Standard Operations, the main standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.

Furthermore, the research result shows that there are sources of income generating, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of

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income with the largest nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshop, and training income. Meanwhile, journal publication contributed a revenue of IDR 437,501,272., and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the largest contribution to the amount of income generating universities.

Based on the data, the second contribution is from the journal publication fee and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a source of income generating. Factually, based on the mapping of the identification of the advantages of the study program, there are many fields that can generate additional income. However, other fields seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be developed better to generate additional income. The following pie chart shows the largest income generating sources in the study program.

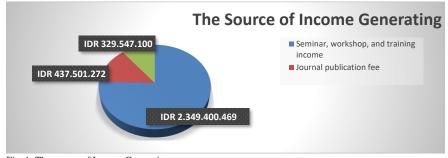


Fig. 1. The source of Income Generating

The findings confirm that the management of income generating between one unit with another is diverse. For example, journal publication fees for journals indexed by Sinta 2, the nominal amount that is included in income generating is different between one department and another. Likewise, with journals indexed by Sinta 1, the nominal is also different. Thus, it could be necessary to create a system and mechanism for determining the income generating journal publication fee to be equal among units. This aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand the development of laboratory services and product promotion. For example, laboratory services can establish cooperation with government agencies or companies in providing employee lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network, not only student users can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

Furthermore, to further identify the readiness of the research center in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are below.

1. Socialization and work meetings

The university's socialization can be carried out and then delivered to the faculty and departmental level and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research center excellence to contribute more to supporting income-generating universities. 2. Building Awareness

Professional building awareness is followed by many courses certification. The competency upgrading program for all laboratory staff is also sought to improve their experience and expertise. 3. Collaboration with Agencies

Some study programs have established relationships and cooperation. Departement of art collaborates with small medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brillian Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or memorandum of agreement.

3.2. Model of Income Generating Management Based on Excellent of the Study Programs

Title of manuscript is short and clear, implies research results (First Author)

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and

The study program and laboratory management model in university needs to be considered to become a reference and guideline for each study program in developing program excellence. The existence of a model in the management of the study center aims to boost each study program to contribute to supporting incomegenerating universities. This management model is sourced from the resource dependence theory, which describes the behavior of institutions to carry out business initiatives as the additional income. The model can describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus the model in this study brings benefits to the university's development towards Legal Entity State University and the real role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps that can be taken by study programs and universities in implementing income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study center/laboratory management model that the researchers propose. Fig.1 shows that the first step which the study program can take is the identification of advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Semarang State University Number 25 of 2018, to increase university' income from income-generating outside the *UKT* or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency manages university assets, works the innovative products of lecturers to be used in the community, utilizes study programs through research centers and laboratory optimization. University business activities cover all productive activities organized by university in business units and other business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university' service to the community. Therefore, identification of the product superiority of the study program should have been the focus of attention.

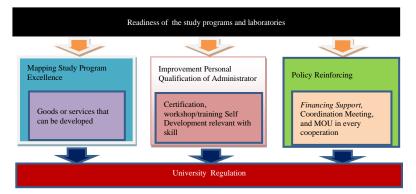


Fig. 2. Model of Income Generating Management Based on Excellent of the Study Programs

Furthermore, the staff's qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [36]. The study program and tertiary institution are obliged to create an institutional culture and work to harmonize the differences between the various cultures brought by each individual so that it becomes a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that is in accordance with the mission, vision, and objectives of the college work program and in harmony with the culture that grows and develops in its adaptive environment [17].

The determination of policy supporting gives the primary role [37][38]. This is done so that incomegenerating activities can be a concern. It is in line with the characteristics of the resources dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [28]. Necessary policy support is one of which is supporting financing or funding [39][40]. But unfortunately, funding support for the development of this laboratory has not been seen, so the development of laboratory services tends to be slow. Limited resources will certainly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs

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and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector's regulations must strengthen the research center management model based on the advantages of this study program. The regulation of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

4. CONCLUSION

The advantages of the study program can strengthen university institutions through the downstream of products to the public. Product downstream in the form of research and community service results, optimization of laboratories, workshops, seminars, and building rentals can be used as university income. This income is called income generating. The application of income-generating must be followed by a clear policy and legal basis so that the implementation is transparent and accountable. Besides, the readiness of staff and laboratory managers is needed to make every activity that brings income-generating success. Besides laboratory staff and managers, dean of faculties, and rector support is required so that all are synergistic to build income-generating. This study uses a qualitative approach. The next researcher should apply a quantitative approach to determine the implementation of income-generating policies regarding the elements of staff support, head of department support, head of laboratory, lecturers, and existing facilities.

This finding confirms that income generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports, and operational problems that exist. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the real condition as well as promoting and creating a more effective working atmosphere and collaborative mechanism among stakeholders.

ACKNOWLEDGEMENTS

Our appreciation and thanks are dedicated to university research and community service in funding the research. We are also thankful for the reviewer because of the stimulating comments. Thus, we can compose this article. We are genuinely delighted, for this research would bring benefits to others.

REFERENCES

- [1] J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: From monitoring to
- T. Curki, J. Byer, T. Hassin, and H. Diodochi, Yuang and Yuang and Caracterized and the monotoning to management, *Qual. Assur. Educ.*, vol. 11, no. 1, pp. 5–14, 2003, doi: 10.1108/09684880310462038. [2]
- Obligations of the Tax Transaction: Case of the University of Indonesia," KnE Soc. Sci., vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857.
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," Res. J. Financ. AccountingOnline), vol. 6, no. 7, pp. 2222-2847, 2015.
- F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct [4] investment: Empirical evidence in OECD countries," Int. J. Sustain. High. Educ., 2020, doi: 10.1108/IJSHE-10-2019-0306
- A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," Int. J. [5] Educ., vol. 9, no. 3, p. 183, 2017, doi: 10.5296/ije.v9i3.11705.
- [6] A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," VINE J. Inf. Knowl. Manag. Syst., 2020, doi: 10.1108/VJIKMS-01-2020-0003. L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education: A review of some
- [7] concepts and models," J. Small Bus. Enterp. Dev., vol. 15, no. 1, pp. 202-226, 2008, doi: 10.1108/14626000810850937.
- [8] H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," Accounting, Audit. Account. J., vol. 32, no. 5, pp. 1500-1531, 2019, doi: 10.1108/AAAJ-03-2018-3391.
- [9] S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools in Isiolo North Sub County, Kenya," Int. Acad. J. Inf. Sci. Proj. Manag., vol. 2, no. 1, pp. 558-573, 2017.
- [10] S. Nair, "School block grants as a model of financial decentralization in Iraq," Int. J. Comp. Educ. Dev., vol. 20, no. 3-4, pp. 165-175, 2018, doi: 10.1108/IJCED-05-2018-0009.
- [11] P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: On the role of university board members," *High. Educ.*, vol. 65, no. 1, pp. 39–58, 2013, doi: 10.1007/s10734-012-9580-x. H. Sampaio, "Higher education in Brazil: Stratification in the privatization of enrollment," *Adv. Educ. Divers*.
- [12]
- Communities Res. Policy Prax., vol. 11, pp. 53–81, 2015, doi: 10.1108/S1479-358X20150000011005.
 M. Edwards, "University Governance: A Mapping and Some Issues," *Life Long Learn. Netw. Natl. Conf.*, pp. 1– [13] 21, 2000, [Online]. Available: https://www.atem.org.au/eknowledge-

Title of manuscript is short and clear, implies research results (First Author)

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repository/command/download_file/id/24/filename/University_Governance_Meredith_Edwards_2000.pdf. B. Y. Boadi, "Income-generating activities: A viable financial source for African academic libraries?," *Bottom Line*, vol. 19, no. 2, pp. 64–77, 2006, doi: 10.1108/08880450610663609. [14]

- "PR 20 2015-Pengelolaan-Unit-Usaha-Satuan-Pengembang-Bisnis.pdf.". [15]
- "PR No25-2018 ttg badan pengembang bisnis.pdf." [16]
- M. Imam and H. Reza, "Sustainability in Higher Education : Perspectives of Malaysian Higher Education [17] System," 2016, doi: 10.1177/2158244016665890.
- [18] A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government academic institution in The Philippines," Asia Pacific J. Innov. Entrep., vol. 10, no. 1, pp. 5-16, 2016, doi: 10.1108/apjie-12-2016-006.
- [19] K. O. Kerei, "SELECTED FACTORS INFLUENCING PRINCIPALS ' MANAGEMENT OF INCOME GENERATING ACTIVITIES IN PUBLIC SECONDARY SCHOOLS BY ANDREW MBASU LUNANI A THESIS SUBMITTED TO THE DEPARTMENT OF EDUCATIONAL MANAGEMENT AND POLICY STUDIES, SCHOOL OF EDUCATION AS PARTIAL REQU," 2014.
- J. Schmidt and L. Peachey, "Funding down under: Entrepreneurial approaches to generating income at the [20] University of Queensland Cybrary," New Libr. World, vol. 104, no. 1194, pp. 481-490, 2003, doi: 10 1108/03074800310509406
- J. Panigrahi, "Innovative Financing of Higher Education : Changing Options and Implications," 2018, doi: [21] 10.1177/2347631117738644.
- A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource dependence theory: A review," J. Manage., vol. 35, [22] no. 6, pp. 1404-1427, 2009, doi: 10.1177/0149206309343469.
- [23] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on knowledge sharing and employee performance," J. Manag. Dev., vol. 38, no. 7, pp. 538-560, 2019, doi: 10.1108/JMD-07-2018-0190
- L. Guo, B. Wong-On-Wing, and G. Lui, Input-based performance evaluation incentive intensity and proactive work behavior, vol. 22. 2013. [24]
- X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect [25] employee well-being? A mediated moderation model," Empl. Relations, vol. 42, no. 4, pp. 903-919, 2020, doi: 10.1108/ER-08-2019-0320.
- M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for business model innovation," Int. J. Entrep. Behav. Res., 2020, doi: 10.1108/IJEBR-10-2020-[26] 0679
- [27] J. L. Price, "Handbook of organizational measurement," Int. J. Manpow., vol. 18, no. 4, pp. 305–558, 1997, doi: 10.1108/01437729710182260.
- [28] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," Adm. Soc., vol. 8, no. January 1976, pp. 419-453, 1976.
- R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: Internal and external accountability of principals [29] in varied contexts," J. Educ. Adm., vol. 51, no. 3, pp. 383-406, 2013, doi: 10.1108/09578231311311528.
- S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actor-network theories in accounting research," *Accounting, Organ. Soc.*, vol. 60, pp. 62–78, 2017, doi: [30] 10.1016/j.aos.2017.06.005.
- [31] A. Mahmud, N. Susilowati, W. S. Rachmadani, and S. Lestari, "The Contribution of Village Fund Management for Creating More Prosperous Society : An Empirical Study at Central Java," J. ASET (Akuntansi Riset), vol. 12, K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," *Accounting, Organ. Soc.*,
- [32] vol. 39, no. 7, pp. 559-566, 2014, doi: 10.1016/j.aos.2014.06.002.
- [33] L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," Int. J. Sustain. High. Educ., 2020, doi: 10.1108/IJSHE-11-2019-0333.
- [34] A. N. Tsuma, "Factors Influencing Performance of Income Generating Units in Public Universities," Bus. Manag., vol. 6, no. 10, pp. 87-92, 2014.
- [35] H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," vol. 21, no. February 2008, pp. 6-16, 2016.
- R. L. Dipboye and R. L. Dipboye, 3. Work Motivation. 2018. [36]
- D. V. Didenko, Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late [37] Nineteenth-Early Twenty-first Centuries), vol. 36. 2020.
- [38] R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," Int. J. Soc. Econ., vol. 44, no. 12, pp. 2271-2286, 2017, doi: 10.1108/IJSE-09-2016-0260.
- [39] A. Butare, "Income-Generating Activities in Higher Education: The Case of Kigali Institute of Science, Technology and Management (KIST)," J. High. Educ. Africa / Rev. l'enseignement supérieur en Afrique, vol. 2, no. 3, pp. 37–53, 2004, [Online]. Available: http://www.jstor.org/stable/24486293.
 P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial
- [40] Performance of Public Secondary Schools in Kenya," Chinese Bus. Rev., vol. 12, no. 06, pp. 375-394, 2013, doi: 10.17265/1537-1506/2013.06.001.

Int J Eval & Res Educ, Vol. 9, No. 1, March 2020: xx - xx

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ISSN: 2252-8822

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Title of manuscript is short and clear, implies research results (First Author)

Konfirmasi Submit Revisi Artikel - 13 Juli 2021 a mail.google.com/mail/u/0/?tab=wm#search/ijere/FMfcgzGkXmhvShRhJttnFWmSdzlRdvjq @ @ ☆ 🛸 🗊 🗖 🔇 New Tab 😔 SISTER | Tridharma 💧 kemendikbudristek... 🔇 🕨 **WNNES** M Gmail Q ijere X 퍆 Active ~ *** \bigcirc **(**) ← ¥ () Ū ⊠ () Ø, ۲ : 21 of 28 < > -0 Compose NURDIAN SUSILOWATI <nurdiansusilowati@mail.unnes.... 📼 Jul 13, 2021, 11:14AM 🙀 🦕 🖵 Inbox : 1,439 to Lina 💌 Starred ☆ Dear Editor in Chief IJERE () Snoozed Here we sent the revision of article. We also have uploaded in OJS. Sent Thank you D Drafts 56 Best regards, More \sim 1,439 Inbox ☆ Starred One attachment • Scanned by Gmail 🛈 4 () Snoozed kanden bander (* de de antiberen in Mersie (* 1920) ser de la de antiger en antiberen (* 1920) en antiberen (* 1920) Reconstruction (* de conse generating aufford) in higher e do activités a const soll auf al industries public units recity Sent ⊳ Antie Malanai, Anto Su pale, Anglia Su der et Berner d'anne Starte Barrier, Barrier Starte D Drafts 56 Accelete artificial additional Processing of the second second second frequencies and the second second second second second frequencies and the descention over used in order the More W Rev 2_Investigati... \sim Labels +← Reply → Forward

Saran dan Revisi ke-2 1. Introduction

Review of literature is integrated with the concept

Revisi:

- Paragraf 9: Line 1-10 (Artikel halaman 103)

Further, the resources dependence theory has been applied to explain how organizations reduce dependency and uncertainty in their organizational can environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their own strength [25]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [26], [27]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [28], [29]. While the theory of resource dependence is one of many organizational theories that characterize organizational behavior.

- Paragraf 12: Line 1-7 (Artikel halaman 103)

Mapping the advantages of the study program and the income generating management model can be used as the basis for the implementation of better income generating. This management model is derived from Resource Dependence Theory which explains the behaviour of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets

The Original Contribution

Revisi:

- Paragraf 10: Line 1-6 (Artikel halaman 103)

The differences with previous research are that this research focuses on identifying income generating in each study program and investigating laboratory services and finding the management model. Based on the characteristics of the University as a Public Education Service Agency, namely getting autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income generating aims to improve learning facilities which at the same time will improve the welfare of students, lecturers, and education staff.

- Paragraf 11: Line 1-8 (Artikel halaman 103)

This research contributes to the development of higher education institutions in the form of public service bodies towards legal entities in Indonesia by strengthening exploration and identification of sources of income generating in each study program. This is due to every study program has its own characteristics and uniqueness to promote and generate income by offering their services for the community. In addition, this research contributes to strengthen the capability of income generating sources so that good management is needed in managing income generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Research Problem

Revisi: Paragraf 13, Line 1-6 (Artikel halaman 103)

University performance measures from the financial perspective is the most important one after a customer perspective. Thus, university income generating is interesting to study because its diversity among units. The principles of good governance for public institutions have been put forward by business corporations and political authorities. However, there has been less discussion about income generating in higher education context. Therefore, the purpose of this study is to identify income-generating activities and explore management models

2. Methods

Methods

Revisi: Paragraf 2, Line 1-7 (Artikel halaman 103-104)

This research refers to the development of accounting science paradigm which reflects the interpretative paradigm [30]. Its basic assumption is the knowledge which is explored by explaining human intention scientifically in a series of subjective interpretations and are confirmed by the people's common sense in daily activities. This study reveals various activities conducted in universities as additional sources of income and designs the management models from the perspective of activity doers and leaders who have directly involved. A case study approach is applied, and it aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyse the types of outcomes and impacts.

Experimental Methods

Revisi:

- Paragraf 3: Line 1-8 (Artikel halaman 104)

The main data sources in this qualitative research were words and actions [31]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in two ways following the purpose of the research. This research employed two collecting data proposed [30]; documentation and interview strategies. The first, the documentation is gathered from annual financial report of university. Then, in-depth interview was conducted involving key informants. After all data were collected, they are clustered based on the themes and sub-themes referring to the topic of the research. At this stage, researchers go through the process of contemplating the content of mind by remembering, perceiving, and designing the themes.

- Paragraf 4: Line 1-6 (Artikel halaman 104)

. The process of collecting data with documentation is carried out by taking existing data from the University's annual financial report. This research was also carried out with an

in-depth interview process (in-depth interview) to explore and collect data from informants. Furthermore, based on the collected data, compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage the researcher understands contemplating the content of mind by carrying out remembering, perceiving, and desiring activities that lead to the research theme.

- Paragraf 5: Line 1-11 (Artikel halaman 104)

Comprehensive questions were made for the interview use which cover types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staffs, the head of the laboratory, the head of the study program, and those in charge of activities. The selection of the person in charge of the activity was meant for the use of the triangulation technique. According to [32], this technique usually refers to the process of using various perceptions to clarify meaning, verify the possibility of repetition of an observation or interpretation because this holds on the principle that no observation or interpretations regarding the implementation of income-generating in the university environment, the Rule of Universitas Negeri Semarang Chancellor, and scientific journals related to the research study. This triangulation technique is applied to see the process of determining the amount of income generating that will be obtained for universities, faculties, and majors/study programs.

3. Results and Analysis New Fundings of the Study

Revisi:

Sub 3.1 Profile of Income Generating sources in the Study Program: Paragraf 7: Line 1-6; Paragraf 8: Line 1-7; Paragraf 9: Line 1-8; dan Paragraf 10: Line 1-5 (Artikel halaman 106-107)

Furthermore, the research result shows that there are sources of income generating, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of income with the largest nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshop, and training income. Meanwhile, journal publication contributed a revenue of IDR 437,501,272., and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the largest contribution to the amount of income generating universities.

Based on the data, the second contribution is from the journal publication fee and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a source of income generating. Factually, based on the mapping of the identification of the advantages of the study program, there are many fields that can generate additional income. However, other fields seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be developed better to generate additional

income. The following pie chart shows the largest income generating sources in the study program.

The findings confirm that the management of income generating between one unit with another is diverse. For example, journal publication fees for journals indexed by Sinta 2, the nominal amount that is included in income generating is different between one department and another. Likewise, with journals indexed by Sinta 1, the nominal is also different. Thus, it could be necessary to create a system and mechanism for determining the income generating journal publication fee to be equal among units. This aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand the development of laboratory services and product promotion. For example, laboratory services can establish cooperation with government agencies or companies in providing employee lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network, not only student users can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

4. Conclusion

The Implications of the Study for Practice or Society

Revisi: Paragram 2: Line 1-7 (Artikel halaman 109)

This finding confirms that income generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports, and operational problems that exist. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the real condition as well as promoting and creating a more effective working atmosphere and collaborative mechanism among stakeholders. International Journal of Evaluation and Research in Education (IJERE) Vol. 9, No. 1, March 2020, pp. xx~xx ISSN: 2252-8822, DOI: 10.11591/ijere.v9i1.xxxx

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Investigation of income generating activity in higher education: a case study at indonesia public university

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Article Info Article history:

ABSTRACT

Received Jun 9, 2018 Revised Nov 20, 2018 Accepted Dec 11, 2018

Keywords:

laboratory higher education income generating study programs

This paper aims to identify the income-generating activities and explore its management model using case study method. Deep interview and the documentations were used to collect data, involving fifty-two informants, composed of twenty-six the head of laboratory and twenty-six the director of study program. Government subsidy, which is meant to cater to the tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Income-generating supplemented the budget of the university. The income is beneficial to hire additional project personnel, purchase supplies, materials and equipment, and improve facilities needed for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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1. INTRODUCTION

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned out to be insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities, is funding that relies on the disbursement of the state budget [2]. In comparison, private universities were forced to set high

fees collected from the community to support their operations. This reality shows that higher education products from the results of science can not produce income-generating that can support university funding [3], [4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, the amount of which is still insufficient, yet maintaining national quality standards and increasing access to tertiary institutions requires greater funding. Public institutions, including universities, apply the public service agency (*Badan Layanan Umum*) pattern to reduce bureaucracy and at the same time improve the quality of government services to the public [6]. As part of the flexibility of public service agency's financial management, public service agency income (the entire income is *PNBP* of Non-Tax State Revenues) can be used directly, according to the business and budget plan, first being deposited into the state treasury account. The operating income surplus becomes deposits that can be used in the following year's budget.

Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. The university performance appraisal from a financial perspective seems to be most important after the customer's perspective [7], [8]. Hence, the university's income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

Most schools lack supervision, so they cannot implement income-generating programs properly [9], [10], [11]. The role of staff and all academic community influences the implementation of the incomegenerating program. In addition, the personal qualifications of the staff, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school income, which helpful for the academic and non-academic development of students, teachers, and all school academic communities. The universities play an important role in providing competitive graduates for professional works [12], [13]. Therefore, education funding is needed to create competitive graduates. The unprofessional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, fulfilling university needs can be met by internal universities and not relying on government funding.

As an effort to improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, and efficiently and can be accounted for, university as a public service agency needs to explore resources funds that not only come from educational funding but also other funding sources [2]. In general, Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic aspects are single tuition (*UKT*), while non-academic income consists of grants and research grants [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia. One way to increase university' income from income-generating besides the single tuition or the institutional development contribution managed by the business development agency is utilizing study programs through research center and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [16]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The research centers and laboratories at the university also can be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory so that it can increase the income of higher education[17], [18]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more income to reduce the government budget for universities. Therefore, the business units in higher education can be used to increase financial resources to reduce dependence on the government budget. Besides being able to meet the needs of financial resources, higher education institutions can also improve academic aspects from income-generating obtained, viewed from the neo-institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition of individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [19], [20].

From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [21]. Resources dependence theory is applied to describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs

ISSN: 2252-8822

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[22]. The characteristics of the resources dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in theory, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the existence of the organization[23], [24].

Further, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their own strength [25]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [26], [27]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational theories that characterize organizational behavior.

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This research contributes to the development of higher education institutions in the form of public service bodies towards legal entities in Indonesia by strengthening exploration and identification of sources of income generating in each study program. This is due to every study program has its own characteristics and uniqueness to promote and generate income by offering their services for the community. In addition, this research contributes to strengthen the capability of income generating sources so that good management is needed in managing income generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Mapping the advantages of the study program and the income generating management model can be used as the basis for the implementation of better income generating. This management model is derived from Resource Dependence Theory which explains the behaviour of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

University performance measures from the financial perspective is the most important one after a customer perspective. Thus, university income generating is interesting to study because its diversity among units. The principles of good governance for public institutions have been put forward by business corporations and political authorities. However, there has been less discussion about income generating in higher education context. Therefore, the purpose of this study is to identify income-generating activities and explore management models.

2. RESEARCH METHOD

This study used a qualitative approach, namely a case study. A case study is used because it is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang. The researcher chose Universitas Negeri Semarang because it is a public service agency that will become a Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*), which can get additional income form of income-generating from the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has sixty-nine study programs which are very potential to be developed so that the knowledge produced at each study center can be useful for all people. The data sources were fifty-two, the head of the department, the head of the laboratory, the head of the program, and the head of the study center in each faculty obtained by using purposive sampling from twenty-six study programs. Purposive sampling is a sampling technique of data sources with certain considerations or according to purpose.

This research refers to the development of accounting science paradigm which reflects the interpretative paradigm [30]. Its basic assumption is the knowledge which is explored by explaining human intention scientifically in a series of subjective interpretations and are confirmed by the people's common sense in daily activities. This study reveals various activities conducted in universities as additional sources of income

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and designs the management models from the perspective of activity doers and leaders who have directly involved. A case study approach is applied, and it aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyse the types of outcomes and impacts.

The main data sources in this qualitative research were words and actions [31]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in two ways following the purpose of the research. This research employed two collecting data proposed [30]; documentation and interview strategies. The first, the documentation is gathered from annual financial report of university. Then, in-depth interview was conducted involving key informants. After all data were collected, they are clustered based on the themes and sub-themes referring to the topic of the research. At this stage, researchers go through the process of contemplating the content of mind by remembering, perceiving, and designing the themes.

The process of collecting data with documentation is carried out by taking existing data from the University's annual financial report. This research was also carried out with an in-depth interview process (in-depth interview) to explore and collect data from informants. Furthermore, based on the collected data, compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage the researcher understands contemplating the content of mind by carrying out remembering, perceiving, and desiring activities that lead to the research theme.

Comprehensive questions were made for the interview use which cover types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staffs, the head of the laboratory, the head of the study program, and those in charge of activities. The selection of the person in charge of the activity was meant for the use of the triangulation technique. According to [32], this technique usually refers to the process of using various perceptions to clarify meaning, verify the possibility of repetition of an observation or interpretation because this holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the Rule of Universitas Negeri Semarang Chancellor, and scientific journals related to the research study. This triangulation technique is applied to see the process of determining the amount of income generating that will be obtained for universities, faculties, and majors/study programs.

3. RESULTS AND ANALYSIS

3.1. Profile of Income Generating Sources in the Study Program

Based on the focus group discussion and in-depth interviews, it was obtained a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang. A total of fifty-two informants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. The following is a table of profile of income generating sources in the study program.

Study Programs	Laboratories/Research	Type of Goods or Services	
	Center		
Biology	Biology Laboratory	Cellular and molecular biology	
Natural Science Education	Indonesian Journal of	Journal Publication Fee	
	Science Education		
Informatic Engineering	Informatic Engineering	Training media based on android	
Education	Education Laboratory	-	
Chemistry	Chemistry Laboratory	Alternative energy	
Mathematics Education	Mathematics Education	Math City Map Learning Media,	
	Laboratory	mathematic olympiad, and seminar	
Chemical Engineering	Chemical Engineering	Instrumentation Laboratory	
	Laboratory	-	
Electrical Engineering	Electrical Engineering	The laboratory of integrated	
	Laboratory	Computer	
Family Welfare Education	Family Welfare	Batik production, Catering, and	
-	Education Laboratory	Makeup Services	
Indonesian Language and	Indonesian Language	Journalism, Indonesian Language	
Literature Education	and Literature	for Foreign Speakers (BIPA),	
	Education Laboratory	Entrepreneurship	
	Biology Natural Science Education Informatic Engineering Education Chemistry Mathematics Education Chemical Engineering Electrical Engineering Family Welfare Education Indonesian Language and	Center Biology Biology Laboratory Natural Science Education Indonesian Journal of Science Education Informatic Engineering Education Education Laboratory Chemistry Chemistry Laboratory Mathematics Education Mathematics Education Laboratory Chemical Engineering Electrical Engineering Electrical Engineering Laboratory Family Welfare Education Family Welfare Education Laboratory Indonesian Language and Literature Education Indonesian Language	

 Table 1. Mapping the Income Generating Sources of Study Programs and laboratories

 Number
 Study Programs
 Laboratories/Research
 Type of Goods or Services

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Number	Study Programs	Laboratories/Research	Type of Goods or Services
10.	English Language and Literature Education	Center Literacy Study Center	Indonesian Language for Foreign Speakers, Theater, Journalism, and
			Editor of Book
11.	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment services for prospective foreign workers
.2.	History Education	History Laboratory	Training of learning media and consultant of teaching, learning in history courses, and journal publication fee
13.	Visual Communication Design	Visual Communication Design Laboratory	Computer studio, ceramic studio, batik studio, and workshop center of art
14.	Art Education	Art Education Laboratory	Journal publication fee
15.	Economic development	Economic development laboratory	Training in economic analysis, study, and development of science tools, also journal publication fee
16.	Psychology	Psychology laboratory	The center assessment is in the form of psycho-mental services, counseling, therapy, and training
17.	Educational Technology	Educational technology Laboratory	Training services making learning media, film production training services, curriculum analysis services, and textbook, learning resource writing training, technopreneurship training services, and webinar-based training services
18.	Early Childhood Education	Early childhood education program laboratory	Microteaching laboratory, dance laboratory, recording lab, and music laboratory for early childhood
19.	Guidance and Counseling	Guidance and counseling laboratory	Counseling services, educational testing services, center for education and community counseling, training services, and continuing professional development program
20.	Primary School Teacher Education	Primary school teacher education laboratory	Media learning and mentoring for elementary teachers
21.	Non-formal education	Non-formal education laboratory	Community learning activity center in the form of homeschooling
22.	Geography	Geography laboratory	Mapping based on geographic information systems (GIS) and photogrammetry training, and remote sensing
23.	Accounting	Accounting laboratory	Tax center, bevet training center, and accounting, also journal publication fee
24.	Management	Management laboratory	Capital market training, marketing, human resources training, statistics and research methods training, also journal publication fee
25.	Economics Education	 a. Integrated office and administration laboratory 	Training and mentoring professionalism of teacher, study center of archives

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Inun	nber	Study Programs	Laboratories/Research	Type of Goods or Services

		Center	
			Training of bank for teacher and students
_		 c. Microteaching laboratory d. Center for accounting education studies 	Development learning media and quality of teacher Training and mentoring accounting teacher, seminar and completion of accounting
26.	Physical Education and Recreation	Athletic laboratory	Atletic room rent, swimming pool rent, training and services of sport

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. In terms of the length of its establishment, the excellent of the product of study programs vary from one semester, more than five years up to sixteen years. Asterio's study results reveal a significant relationship between long-term income-generating operations to the implementation of income-generating [1]. Thus, the longer the product stands should show more mature readiness in generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a center assessment which includes psychoassement services, counseling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

The study program has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. This was due to the average service user was only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Furthermore, study programs whose contribution to income-generating universities was Indonesian Literature. This study program was excellent in theater, journalism, and *BIPA*. However, so far, there has been no excellent coordination between the manager so that the pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, with several other study programs such as education technology, visual communication design, guidance, and counseling, early and childhood education, geography, and management, the informants felt that the contribution of laboratories and products to the excellent of study programs was still limited in contribution to income-generating universities.

The second thing that needs to be identified in assessing the readiness of the study center based on the excellence of study programs to support income-generating is the profile of staff. This includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. This is under the research results of [9], [18], which revealed that personal qualifications and staff support positively affected the implementation of income-generating.

The research found that the average research center manager consisted of 2-6 people. The position includes chairman of the research center and their staff. Besides, the laboratory consists of the chairman, laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratory. The doctoral or professors typically hold the role of the head research center. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research center staff made various efforts, such as attending training of management laboratory, finance, and administration [33].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff's experience and insight can increase [34], [35]. The training was attended by laboratory staff varied enough from the International Standard Operations, the main standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.

Furthermore, the research result shows that there are sources of income generating, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of

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income with the largest nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshop, and training income. Meanwhile, journal publication contributed a revenue of IDR 437,501,272., and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the largest contribution to the amount of income generating universities.

Based on the data, the second contribution is from the journal publication fee and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a source of income generating. Factually, based on the mapping of the identification of the advantages of the study program, there are many fields that can generate additional income. However, other fields seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be developed better to generate additional income. The following pie chart shows the largest income generating sources in the study program.

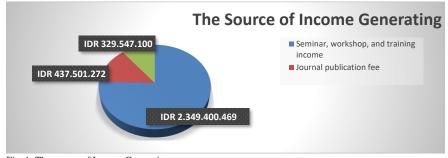


Fig. 1. The source of Income Generating

The findings confirm that the management of income generating between one unit with another is diverse. For example, journal publication fees for journals indexed by Sinta 2, the nominal amount that is included in income generating is different between one department and another. Likewise, with journals indexed by Sinta 1, the nominal is also different. Thus, it could be necessary to create a system and mechanism for determining the income generating journal publication fee to be equal among units. This aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand the development of laboratory services and product promotion. For example, laboratory services can establish cooperation with government agencies or companies in providing employee lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network, not only student users can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

Furthermore, to further identify the readiness of the research center in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are below.

1. Socialization and work meetings

The university's socialization can be carried out and then delivered to the faculty and departmental level and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research center excellence to contribute more to supporting income-generating universities. 2. Building Awareness

Professional building awareness is followed by many courses certification. The competency upgrading program for all laboratory staff is also sought to improve their experience and expertise. 3. Collaboration with Agencies

Some study programs have established relationships and cooperation. Departement of art collaborates with small medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brillian Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or memorandum of agreement.

3.2. Model of Income Generating Management Based on Excellent of the Study Programs

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to the essence and

The study program and laboratory management model in university needs to be considered to become a reference and guideline for each study program in developing program excellence. The existence of a model in the management of the study center aims to boost each study program to contribute to supporting incomegenerating universities. This management model is sourced from the resource dependence theory, which describes the behavior of institutions to carry out business initiatives as the additional income. The model can describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus the model in this study brings benefits to the university's development towards Legal Entity State University and the real role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps that can be taken by study programs and universities in implementing income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study center/laboratory management model that the researchers propose. Fig.1 shows that the first step which the study program can take is the identification of advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Semarang State University Number 25 of 2018, to increase university' income from income-generating outside the *UKT* or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency manages university assets, works the innovative products of lecturers to be used in the community, utilizes study programs through research centers and laboratory optimization. University business activities cover all productive activities organized by university in business units and other business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university' service to the community. Therefore, identification of the product superiority of the study program should have been the focus of attention.

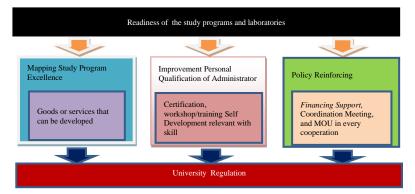


Fig. 2. Model of Income Generating Management Based on Excellent of the Study Programs

Furthermore, the staff's qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [36]. The study program and tertiary institution are obliged to create an institutional culture and work to harmonize the differences between the various cultures brought by each individual so that it becomes a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that is in accordance with the mission, vision, and objectives of the college work program and in harmony with the culture that grows and develops in its adaptive environment [17].

The determination of policy supporting gives the primary role [37], [38]. This is done so that incomegenerating activities can be a concern. It is in line with the characteristics of the resources dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [28]. Necessary policy support is one of which is supporting financing or funding [39], [40]. But unfortunately, funding support for the development of this laboratory has not been seen, so the development of laboratory services tends to be slow. Limited resources will certainly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs

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and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector's regulations must strengthen the research center management model based on the advantages of this study program. The regulation of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

4. CONCLUSION

The advantages of the study program can strengthen university institutions through the downstream of products to the public. Product downstream in the form of research and community service results, optimization of laboratories, workshops, seminars, and building rentals can be used as university income. This income is called income generating. The application of income-generating must be followed by a clear policy and legal basis so that the implementation is transparent and accountable. Besides, the readiness of staff and laboratory managers is needed to make every activity that brings income-generating success. Besides laboratory staff and managers, dean of faculties, and rector support is required so that all are synergistic to build income-generating. This study uses a qualitative approach. The next researcher should apply a quantitative approach to determine the implementation of income-generating policies regarding the elements of staff support, head of department support, head of laboratory, lecturers, and existing facilities.

This finding confirms that income generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports, and operational problems that exist. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the real condition as well as promoting and creating a more effective working atmosphere and collaborative mechanism among stakeholders.

ACKNOWLEDGEMENTS

Our appreciation and thanks are dedicated to university research and community service in funding the research. We are also thankful for the reviewer because of the stimulating comments. Thus, we can compose this article. We are genuinely delighted, for this research would bring benefits to others.

REFERENCES

- [1] J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: From monitoring to
- T. Curki, J. Byer, T. Hassin, and H. Diodochi, Yuang and Yuang and Caracterized and the monotoning to management, *Qual. Assur. Educ.*, vol. 11, no. 1, pp. 5–14, 2003, doi: 10.1108/09684880310462038. [2]
- Obligations of the Tax Transaction: Case of the University of Indonesia," KnE Soc. Sci., vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857.
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," Res. J. Financ. AccountingOnline), vol. 6, no. 7, pp. 2222-2847, 2015.
- F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct [4] investment: Empirical evidence in OECD countries," Int. J. Sustain. High. Educ., 2020, doi: 10.1108/IJSHE-10-2019-0306
- A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," Int. J. [5] Educ., vol. 9, no. 3, p. 183, 2017, doi: 10.5296/ije.v9i3.11705.
- [6] A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," VINE J. Inf. Knowl. Manag. Syst., 2020, doi: 10.1108/VJIKMS-01-2020-0003. L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education: A review of some
- [7] concepts and models," J. Small Bus. Enterp. Dev., vol. 15, no. 1, pp. 202-226, 2008, doi: 10.1108/14626000810850937.
- [8] H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," Accounting, Audit. Account. J., vol. 32, no. 5, pp. 1500-1531, 2019, doi: 10.1108/AAAJ-03-2018-3391.
- [9] S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools in Isiolo North Sub County, Kenya," Int. Acad. J. Inf. Sci. Proj. Manag., vol. 2, no. 1, pp. 558-573, 2017.
- [10] S. Nair, "School block grants as a model of financial decentralization in Iraq," Int. J. Comp. Educ. Dev., vol. 20, no. 3-4, pp. 165-175, 2018, doi: 10.1108/IJCED-05-2018-0009.
- [11] P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: On the role of university board members," *High. Educ.*, vol. 65, no. 1, pp. 39–58, 2013, doi: 10.1007/s10734-012-9580-x. H. Sampaio, "Higher education in Brazil: Stratification in the privatization of enrollment," *Adv. Educ. Divers*.
- [12]
- Communities Res. Policy Prax., vol. 11, pp. 53–81, 2015, doi: 10.1108/S1479-358X20150000011005.
 M. Edwards, "University Governance: A Mapping and Some Issues," *Life Long Learn. Netw. Natl. Conf.*, pp. 1– [13] 21, 2000, [Online]. Available: https://www.atem.org.au/eknowledge-

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repository/command/download_file/id/24/filename/University_Governance_Meredith_Edwards_2000.pdf. B. Y. Boadi, "Income-generating activities: A viable financial source for African academic libraries?," *Bottom Line*, vol. 19, no. 2, pp. 64–77, 2006, doi: 10.1108/08880450610663609. [14]

- "PR 20 2015-Pengelolaan-Unit-Usaha-Satuan-Pengembang-Bisnis.pdf.". [15]
- "PR No25-2018 ttg badan pengembang bisnis.pdf." [16]
- M. Imam and H. Reza, "Sustainability in Higher Education : Perspectives of Malaysian Higher Education [17] System," 2016, doi: 10.1177/2158244016665890.
- [18] A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government academic institution in The Philippines," Asia Pacific J. Innov. Entrep., vol. 10, no. 1, pp. 5-16, 2016, doi: 10.1108/apjie-12-2016-006.
- [19] K. O. Kerei, "SELECTED FACTORS INFLUENCING PRINCIPALS ' MANAGEMENT OF INCOME GENERATING ACTIVITIES IN PUBLIC SECONDARY SCHOOLS BY ANDREW MBASU LUNANI A THESIS SUBMITTED TO THE DEPARTMENT OF EDUCATIONAL MANAGEMENT AND POLICY STUDIES, SCHOOL OF EDUCATION AS PARTIAL REQU," 2014.
- J. Schmidt and L. Peachey, "Funding down under: Entrepreneurial approaches to generating income at the [20] University of Queensland Cybrary," New Libr. World, vol. 104, no. 1194, pp. 481-490, 2003, doi: 10 1108/03074800310509406
- J. Panigrahi, "Innovative Financing of Higher Education : Changing Options and Implications," 2018, doi: [21] 10.1177/2347631117738644.
- A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource dependence theory: A review," J. Manage., vol. 35, [22] no. 6, pp. 1404-1427, 2009, doi: 10.1177/0149206309343469.
- [23] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on knowledge sharing and employee performance," J. Manag. Dev., vol. 38, no. 7, pp. 538-560, 2019, doi: 10.1108/JMD-07-2018-0190
- L. Guo, B. Wong-On-Wing, and G. Lui, Input-based performance evaluation incentive intensity and proactive work behavior, vol. 22. 2013. [24]
- X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect [25] employee well-being? A mediated moderation model," Empl. Relations, vol. 42, no. 4, pp. 903-919, 2020, doi: 10.1108/ER-08-2019-0320.
- M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for business model innovation," Int. J. Entrep. Behav. Res., 2020, doi: 10.1108/IJEBR-10-2020-[26] 0679
- [27] J. L. Price, "Handbook of organizational measurement," Int. J. Manpow., vol. 18, no. 4, pp. 305–558, 1997, doi: 10.1108/01437729710182260.
- [28] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," Adm. Soc., vol. 8, no. January 1976, pp. 419-453, 1976.
- R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: Internal and external accountability of principals [29] in varied contexts," J. Educ. Adm., vol. 51, no. 3, pp. 383-406, 2013, doi: 10.1108/09578231311311528.
- S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actor-network theories in accounting research," *Accounting, Organ. Soc.*, vol. 60, pp. 62–78, 2017, doi: [30] 10.1016/j.aos.2017.06.005.
- [31] A. Mahmud, N. Susilowati, W. S. Rachmadani, and S. Lestari, "The Contribution of Village Fund Management for Creating More Prosperous Society : An Empirical Study at Central Java," J. ASET (Akuntansi Riset), vol. 12, K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," *Accounting, Organ. Soc.*,
- [32] vol. 39, no. 7, pp. 559-566, 2014, doi: 10.1016/j.aos.2014.06.002.
- [33] L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," Int. J. Sustain. High. Educ., 2020, doi: 10.1108/IJSHE-11-2019-0333.
- [34] A. N. Tsuma, "Factors Influencing Performance of Income Generating Units in Public Universities," Bus. Manag., vol. 6, no. 10, pp. 87-92, 2014.
- [35] H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," vol. 21, no. February 2008, pp. 6-16, 2016.
- R. L. Dipboye and R. L. Dipboye, 3. Work Motivation. 2018. [36]
- D. V. Didenko, Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late [37] Nineteenth-Early Twenty-first Centuries), vol. 36. 2020.
- [38] R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," Int. J. Soc. Econ., vol. 44, no. 12, pp. 2271-2286, 2017, doi: 10.1108/IJSE-09-2016-0260.
- [39] A. Butare, "Income-Generating Activities in Higher Education: The Case of Kigali Institute of Science, Technology and Management (KIST)," J. High. Educ. Africa / Rev. l'enseignement supérieur en Afrique, vol. 2, no. 3, pp. 37–53, 2004, [Online]. Available: http://www.jstor.org/stable/24486293.
 P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial
- [40] Performance of Public Secondary Schools in Kenya," Chinese Bus. Rev., vol. 12, no. 06, pp. 375-394, 2013, doi: 10.17265/1537-1506/2013.06.001.

Int J Eval & Res Educ, Vol. 9, No. 1, March 2020: xx - xx

Int J Eval & Res Educ

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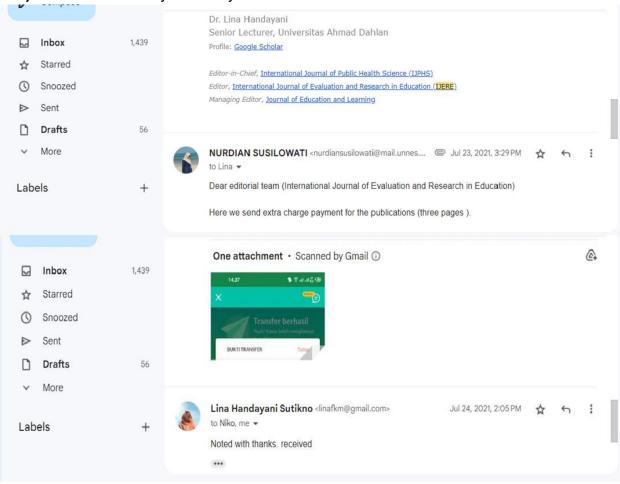
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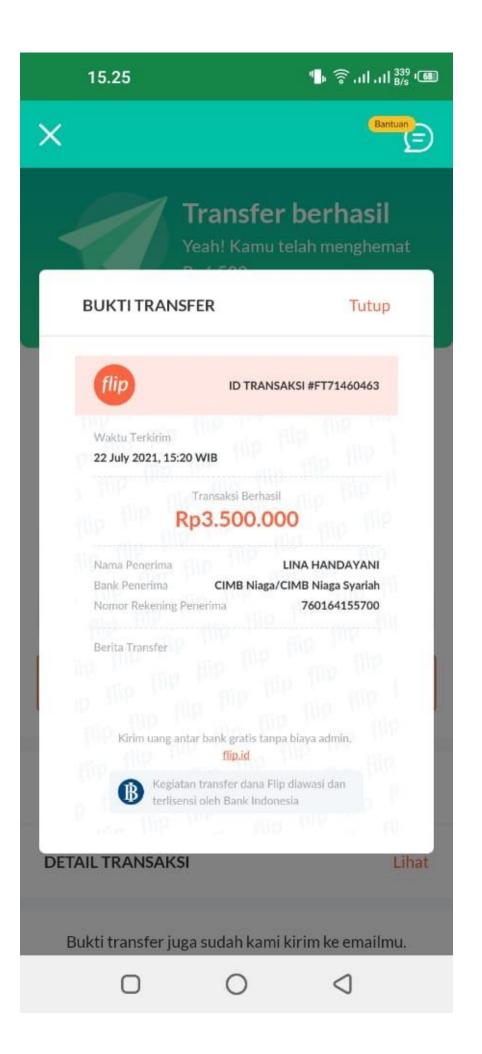
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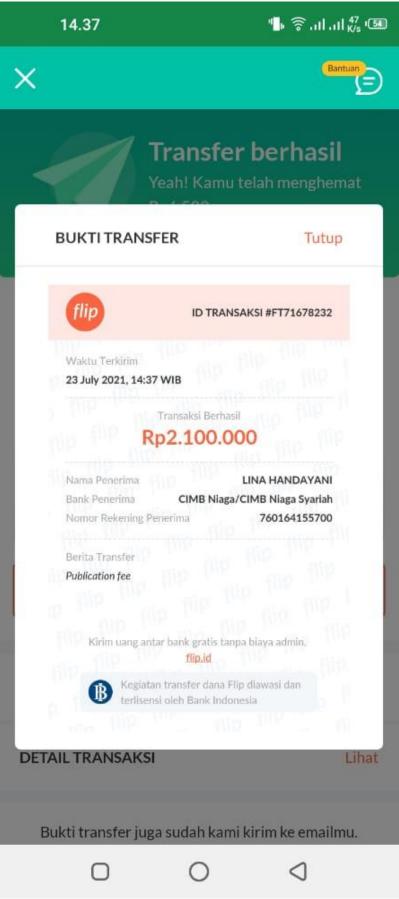
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Income generating activity in higher education: A case study of a public university in Indonesia

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ABSTRACT

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Article history:	
Received Apr 20, 2021 Revised Nov 13, 2021 Accepted Dec 17, 2021	

Keywords:

Article Info

Higher education Income-generating Laboratory Study programs This study aimed to identify the income-generating activities and explore its management model using the case study method. In-depth interviews and documentation were used to collect data. The sample of the study was 52 (26 the head of laboratory and 26 the head of a study program). Government subsidy, which is meant to cater to tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Income-generating supplemented the budget of the university. The income is beneficial to hire additional project personnel, purchase supplies, materials and equipment, and improve facilities needed for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of a study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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1. INTRODUCTION

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned out to be insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities were forced to set high fees collected from the community to support their operations. This reality shows that higher education products from science results cannot produce income-generating that can support university funding [3], [4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, which is still insufficient, yet maintaining national quality standards and increasing access to tertiary institutions

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requires more significant funding. Public institutions, including universities, apply the public service agency (*Badan Layanan Umum*) pattern to reduce bureaucracy and at the same time improve the quality of government services to the public [6]. As part of a public service agency's financial management flexibility, public service agency income (the entire income is *PNBP* of Non-Tax State Revenues) can be used directly. According to the business and budget plan, they were first being deposited into the state treasury account. The operating income surplus becomes deposits that can be used in the following year's budget.

Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [7], [8]. Hence, the university income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

Most schools lack supervision, so they cannot implement income-generating programs properly [9], [10], [11]. The role of staff and all academic community influences the implementation of the incomegenerating program. In addition, the personal qualifications of the team, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school academic communities. The universities play an essential role in providing competitive graduates for professional works [12], [13]. Therefore, education funding is needed to create competitive graduates. The unprofessional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, fulfilling university needs can be met by internal universities and not relying on government funding.

As an effort to improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, and efficiently and accountable. University as a public service agency needs to explore resources funds that not only come from educational funding but also other funding sources [2]. Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic aspects are single tuition (*Uang Kuliah Tunggal/UKT*), while non-academic income consists of grants and research grants [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia. One way to increase university income from income-generating besides the single tuition or the institutional development agency managed by the business development agency is to utilize study programs through research centers and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [16]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The university research centers and laboratories can also be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory to increase the income of higher education [17], [18]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more revenue to reduce the government budget for universities. Therefore, the business units in higher education can increase financial resources to reduce dependence on the government budget. Furthermore, being able to meet the needs of financial resources, higher education institutions can also improve academic aspects from income-generating obtained, viewed from the neo-institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [19], [20].

From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [21]. Resources dependence theory is applied to describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs [22]. The characteristics of the resource's dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in view, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the organization's existence [23], [24]. Commented [NFS2]: Support with reference based on the basis

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Furthermore, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their strength [25]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [26], [27]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [28], [29]. At the same time, the theory of

resource dependence is one of many organizational theories that characterize organizational behavior. This research focuses on identifying income generating in each study program and investigating laboratory services and finding the management model. To get autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income-generating aims to improve learning facilities which at the same time will enhance the welfare of students, lecturers, and education staff.

This research contributes to the development of higher education institutions in public service bodies towards legal entities in Indonesia by strengthening exploration and identification of incomegenerating sources in each study program. This is because every study program has its characteristics and uniqueness to promote and generate income by offering its services to the community. In addition, this research contributes to strengthening the capability of income-generating sources so that good management is needed in managing income-generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Mapping the advantages of the study program and the income-generating management model can be used as the basis for the implementation of better income-generating. This management model is derived from Resource Dependence Theory which explains the behavior of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

University performance measures from the financial perspective are the most important one after a customer perspective. Thus, university income generating is interesting to study because of its diversity among units. Business corporations and political authorities have put forward the principles of good governance for public institutions. However, there has been less discussion about income-generating in a higher education context. Therefore, the purpose of this study was to identify income-generating activities and explore management models.

2. RESEARCH METHOD

This was qualitative research employed a case study design. A case study is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang, Indonesia. Universitas Negeri Semarang was chosen because it will become a Legal Entity State University, which can generate additional income-generating the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has 69 study programs that can be developed so that the knowledge produced at each study center can be helpful for all people. The data sources were 52, the head of the department, the head of the laboratory, the head of the program, and the head of the study center in each faculty obtained using purposive sampling from 26 study programs. Purposive sampling is a sampling technique of data sources with specific considerations or according to purpose.

This research refers to the development of the accounting science paradigm, which reflects the interpretative paradigm [30]. Its basic assumption is the knowledge explored by explaining human intention scientifically in a series of subjective interpretations and is confirmed by the people's common sense in daily activities. This study reveals various activities conducted in universities as additional sources of income and designs the management models from the perspective of activity doers and leaders who have been directly involved. A case study approach is applied. It aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyze the types of outcomes and impacts.

The primary data sources in this qualitative research were words and actions [31]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in two ways, following the purpose of the research. This research employed two collecting data proposed [30]; documentation and

interview strategies. First, the documentation is gathered from the annual financial report of the university. Furthermore, an in-depth interview was conducted involving key informants. After all, data were collected, they are clustered based on the themes and sub-themes referring to the research topic. At this stage, researchers contemplate the mind content by remembering, perceiving, and designing the themes. Collecting data with documentation is carried out by taking existing data from the university annual financial report. This research was also carried out with an in-depth interview process (in-depth interview) to explore and collect data from informants. Based on the collected data, the compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage, the researcher understands contemplating the content of the mind by remembering, perceiving, and desiring activities leading to the research theme.

Comprehensive questions were made for the interview use, which covers types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staff, the head of the laboratory, the head of the study program, and those in charge of activities. The selection of the person in charge of the action was meant to use the triangulation technique. According to Lukka [32], this technique usually refers to using various perceptions to clarify meaning and verify the possibility of repetition of observation or interpretation. It holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the rule of Universitas Negeri Semarang Chancellor, and scientific journals. This triangulation technique is applied to determine the amount of income-generating that will be obtained for universities, faculties, and majors/study programs.

3. RESULTS AND DISCUSSION

3.1. Profile of income generating sources in the study program

Based on the focus group discussion and in-depth interviews, a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang was obtained. A total of 52 participants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. Table 1 shows the profile of income-generating sources in the study program.

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. In terms of the length of its establishment, the excellent of the product of study programs vary from one semester, more than five years up to 16 years. The research results revealed a significant relationship between long-term income-generating operations and income-generating implementation [1]. Thus, the longer the product stands should show more mature readiness in generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a central assessment which includes psycho assessment services, counselling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

The study program that has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. It was due to the average service user was only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Indonesian literature study program was excellent in theatre, journalism, and *BIPA*. However, there has been no excellent coordination between the manager. The pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, study programs with minimum income-generating contributions are Education, Geography, and Management. The participants felt that the gift of laboratories and products to the excellent study programs was still limited in contribution to income-generating universities.

The second thing that needs to be identified in assessing the readiness of the study center based on the excellence of study programs to support income-generating is the profile of staff. It includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. The results of previous studies [9], [18] revealed that personal qualifications and staff support positively affected the implementation of income-generating.

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Number	Study programs	Laboratories/Research center	y programs and laboratories Type of goods or services
1.	Biology	Biology Laboratory	Cellular and molecular biology
2.	Natural Science Education	Indonesian Journal of Science Education	Journal publication fee
3.	Informatic Engineering Education	Informatic Engineering Education Laboratory	Training media based on android
l.	Chemistry	Chemistry Laboratory	Alternative energy
5.	Mathematics Education	Mathematics Education	Math City Map Learning Media, mathematic
6.		Laboratory	olympiad, and seminar
	Chemical Engineering	Chemical Engineering	Instrumentation Laboratory
'.	Electrical Engineering	Laboratory Electrical Engineering	The laboratory of integrated computer
3.	Family Welfare Education	Laboratory Family Welfare Education Laboratory	Batik production, Catering, and Makeup Services
9.	Indonesian Language and Literature	Indonesian Language and	Journalism, Indonesian Language for Foreign
	Education	Literature Education Laboratory	Speakers (Bahasa Indonesia bagi Penutur Asing/BIPA), Entrepreneurship
0.	English Language and Literature Education	Literacy Study Center	Indonesian Language for Foreign Speakers, Theater, Journalism, and Editor of Book
1.	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment
2.	History Education	History Laboratory	services for prospective foreign workers Training of learning media and consultant of teaching, learning in history courses, and
			journal publication fee
13.	Visual Communication Design	Visual Communication	Computer studio, ceramic studio, batik studio
		Design Laboratory	and workshop center of art
4.	Art Education	Art Education Laboratory	Journal publication fee
5.	Economic development	Economic development laboratory	Training in economic analysis, study, and development of science tools, also journal
	Benchology	Psychology laboratory	publication fee The center assessment is in the form of
6.	Psychology	r sychology laboratory	psycho-mental services, counselling, therapy, and training
7.	Educational Technology	Educational technology Laboratory	Training services making learning media, filn production training services, curriculum analysis services, and textbook, learning resource writing training, technopreneur training services, and webinar-based training
			services
18.	Early Childhood Education	Early childhood education	Microteaching laboratory, dance
		program laboratory	laboratory, recording lab, and music
			laboratory for early childhood
19. 20.	Guidance and Counseling	Guidance and counselling	Counselling services, educational testing
		laboratory	services, center for education and community counselling, training services, and continuing
			professional development program
	Primary School Teacher Education	Primary school teacher	Media learning and mentoring for elementary
.0.	, sensor reacher Laucation	education laboratory	teachers
21.	Non-formal education	Non-formal education	Community learning activity center in the
		laboratory	form of homeschooling
22.	Geography	Geography laboratory	Mapping based on geographic information systems (GIS) and photogrammetry training,
23.	Accounting	Accounting laboratory	and remote sensing Tax center, brevet training center, and
	Managamant	Managamant Ichanatany	accounting, also journal publication fee
24.	Management	Management laboratory	Capital market training, marketing, human resources training, statistics and research methods training, also journal publication fee
25.	Economics Education	a. Integrated office and administration laboratory	Training and mentoring professionalism of teacher, study center of archives
		 b. Bank laboratory c. Microteaching 	Training of bank for teacher and students Development learning media and quality of
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Investigation of income generating activity in higher education: ... (Amir Mahmud)

The research found that the average research center manager consisted of two to six people. The position includes the chairman of the research center and their staff. Besides, the laboratory consists of the chairman, laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratory. The doctoral or professors typically hold the role of the head research center. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research center staff made various efforts, such as attending management laboratory, finance, and administration [33].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff experience and insight can increase [34], [35]. The training was attended by laboratory staff varied enough from the International Standard Operations, the primary standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.

Furthermore, the research result shows that there are income-generating sources, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of income with the most considerable nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshops, and training income. Meanwhile, journal publication contributed a revenue of IDR 437,501,272, and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the largest contribution to the amount of income generating universities.

Based on the data, the second contribution is from the journal publication fee, and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a source of income-generating. Factually, based on the mapping of the identification of the advantages of the study program, many fields can generate additional income. However, other fields seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be designed better to generate additional income. Figure 1 shows the largest income-generating sources in the study program.

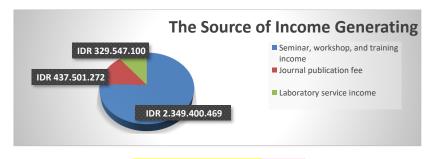


Figure 1. The source of income generating

The findings confirm that the management of income-generating between one unit with another is diverse. For example, in journal publication fees for journals indexed by Sinta 2, the nominal amount included in income generating differs between one department and another. Likewise, with journals indexed by Sinta 1, the nominal is also different. Thus, it could be necessary to create a system and mechanism for determining the income-generating journal publication fee to be equal among units. It aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand the development of laboratory services and product promotion. For example, laboratory services can establish cooperation with government agencies or companies in providing team member lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal

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makeup, graduation, or other ceremonies. Science laboratories can also expand their network. Students can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

Furthermore, to further identify the readiness of the research center in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are:

i) Socialization and work meetings

The university socialization can be carried out and then delivered to the faculty and departmental and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research center excellence to contribute more to supporting income-generating universities. ii) Building awareness

- Professional building awareness is followed by many courses' certification. The competency upgrading program for all laboratory staff is also sought to improve their experience and expertise.

iii) Collaboration with agencies

Some study programs have established relationships and cooperation. Department of art collaborates with small-medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brilliant Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or a memorandum of agreement.

3.2. Model of income generating management based on excellent of the study programs

The study program and laboratory management model in university need to be considered a reference and guideline for each study program in developing program excellence. A model in the management of the study center aims to boost each study program to contribute to supporting income-generating universities. The management model is sourced from the resource dependence theory, which describes the behavior of institutions to carry out business initiatives as the additional income. The model can describe the behavior of institutions in developing business ventures for supplemental income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus, the model in this study brings benefits to the university development towards Legal Entity State University and the fundamental role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps that can be taken by study programs and universities in implementing income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study center/laboratory management model that the researchers propose. The first step the study program can take is identifying advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Semarang State University Number 25 of 2018. To increase university income from income-generating outside the UKT or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency manages university assets, works the innovative products of lecturers to be used in the community, utilizes study programs through research centres and laboratory optimization. University business activities cover all productive activities organized by the university in business units and other business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university service to the community. Therefore, identification of the product superiority of the study program should have been the focus of attention.

Furthermore, the staff qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [36]. The study program and tertiary institution are obliged to create an institutional culture and work to harmonize the differences between the various cultures brought by each individual to become a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that is following the mission, vision, and objectives of the college work program and in harmony with the culture that grows and develops in its adaptive environment [17].

The determination of policy supporting gives the primary role [37], [38]. It is done so that incomegenerating activities can be a concern. It is in line with the resources dependence theory characteristics to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [28]. Necessary policy support is one of which is supporting financing or funding [39], [40]. But unfortunately, funding support for the development of this laboratory has not been seen, so the effect of laboratory services tends to be slow. Limited resources will undoubtedly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector regulations must strengthen the research centre management model based on the advantages of this study program. The rule of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

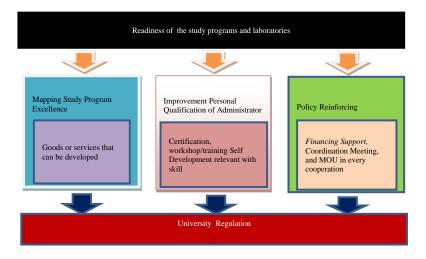


Figure 2. Model of income generating management based on excellent of the study programs

4. CONCLUSION

This finding confirms that income-generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports and operational problems that exist. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the real condition and promote and create a more effective working atmosphere and collaborative mechanism among stakeholders. Since this was a qualitative study, future research needs to apply quantitative approach. It is important to determine the support, head of the laboratory, lecturers, and existing facilities.

ACKNOWLEDGEMENTS

Authors' appreciation is dedicated to university research and community service of Universitas Negeri Semarang in funding the research.

REFERENCES

- J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: From monitoring to management," *Quality Assurance in Education*, vol. 11, no. 1, pp. 5-14, 2003, doi: 10.1108/09684880310462038.
 T. F. Nur, A. Widodo, and R. Mutiara, "State University with Legal Entity and the Impact to the Rights and Obligations of the
- [2] T. F. Nu, A. Widodo, and K. Mutara, State University with Legal Entity and the impact to the Rights and Congations of the Tax Transaction: Case of the University of Indonesia," *KnE Social Sciences*, vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857.
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," *Research Journal of Finance and Accounting*, vol. 6, no. 7, pp. 247-254, 2015.
- [4] F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct investment: Empirical evidence in OECD countries," *International Journal of Sustainability in Higher Education*, vol. 22, no. 1, pp. 77-99,

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8

2020, doi: 10.1108/IJSHE-10-2019-0306.

- A. Sukasni and H. Efendy, "The problematic of education system in Indonesia and reform agenda," *International Journal of Education*, vol. 9, no. 3, p. 183, 2017, doi: 10.5296/ije.v9i3.11705.
 A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," [5]
- [6] VINE Journal of Information and Knowledge Management Systems, vol. ahead-of-p, no. ahead-of-print, p. ahead-of-print, 2020, doi: 10.1108/VJIKMS-01-2020-0003.
- L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education: A review of some concepts and models," Journal of Small Business and Enterprise Development, vol. 15, no. 1, pp. 202-226, 2008, doi: [7] 10.1108/14626000810850937%0A.
- H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," [8] A. Inite and S. J. Karaka, and S. K. Karaka, and S. K. Karaka, and S. K. Karaka, and S. K. K. Karaka, and S. K. Karaka, and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools
- [9] in Isiolo North Sub County, Kenya," International Academic Journal of Information Sciences and Project Management, vol. 2,
- In Isolo North Sub County, Kenya," International Academic Journal of Information Sciences and Project Management, vol. 2, no. 1, pp. 558-573, 2017.
 S. Nair, "School block grants as a model of financial decentralization in Iraq," International Journal of Comparative Education and Development, vol. 20, no. 3/4, pp. 165-175, 2018, doi: 10.1108/IJCED-05-2018-0009.
 P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: on the role of university board members," With Provide Management, vol. 2012.
- Higher Education, vol. 65, no. 1, pp. 39-58, 2013. [12] H. Sampaio, "Higher education in Brazil: Stratification in the privatization of enrollment," in *Mitigating inequality: Higher*
- education research, policy, and practice in an era of massification and stratification, Emerald Group publishing limited, 2015, pp. 53-81. [13]
- M. Edwards, "University governance: A mapping and some issues," 2000.
 B. Y. Boadi, "Income-generating activities: a viable financial source for African academic libraries?," *The Bottom Line*, vol. 19, no. 2, pp. 64-77, 2006, doi: 10.1108/08880450610663609. [14]
- [15]
- [16]
- "PR_20_2015-Pengeloban-Unit-Usaha-Satuan-Pengembang-Bisnis.pdf.".
 "PR No25-2018_ttg badan pengembang bisnis.pdf.".
 M. I. H. Reza, "Sustainability in higher education: Perspectives of Malaysian higher education system," Sage Open, vol. 6, no. 3, [17] P. 2158244016665890, 2016, doi: 10.1177/2158244016665890.
 A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government [18]
- academic institution in The Philippines," Asia Pacific Journal of Innovation and Entrepreneurship, vol. 10, no. 1, pp. 5-16, 2016, doi: 10.1108/apjie-12-2016-006.
- 60: 10.1103/appe-12-2010-000.
 K. O. Kerei, "Selected Factors Influencing Principals ' Management Of Income Generating Activities In Public Secondary Schools By Andrew Mbasu Lunani A Thesis Submitted To The Department Of Educational Management And Policy Studies , School Of Education As Partial Requ," 2014. [19]
- J. Schmidt and L. Peachey, "Funding Down Under: Entrepreneurial approaches to generating income at the University of Queensland Cybrary," *New library world*, vol. 104, no. 11/12, pp. 481-490, 2003, doi: 10.1108/03074800310509406. [20]
- [21] J. Panigrahi, "Innovative financing of higher education: Changing options and implications," Higher Education for the Future, vol. 5, no. 1, pp. 61-74, 2018, doi: 10.1177/2347631117738644. [22]
- A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource dependence theory: A review," Journal of management, vol. 35, no. 6, pp. 1404-1427, 2009, doi: 10.1177/0149206309343469. [23] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on
- knowledge sharing and employee performance," *Journal of Management Development*, vol. 38, no. 7, pp. 538-560, 2019, doi: 10.1108/JMD-07-2018-0190.
- L. Guo, B. Wong-On-Wing, and G. Lui, "Input-based performance evaluation, incentive intensity, and proactive work behavior," [24]
- in Advances in Management Accounting, Emerald Group Publishing Limited, 2014, pp. 185-223. X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect employee well-being? A mediated moderation model," *Employee Relations: The International Journal*, vol. 42, no. 4, pp. 903-919, 2020, doi: 10.1100/PM. 10.1108/ER-08-2019-0320.
- M. Guerrero, C. A. Santamari'\ia-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: Implications for [26] business model innovation," International Journal of Entrepreneurial Behavior \& Research, vol. 27, no. 2, pp. 520-546, 2020, doi: 10.1108/JEBR-10-2020-0679%0A.
- J. L. Price, "Handbook of organizational measurement," International journal of manpower, vol. 18, no. 4/5/6, pp. 305-558, 1997, [27] doi: 10.1108/01437729710182260.
- [28] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," *Administration and Society*, vol. 8, no. January 1976, pp. 419-453, 1976.
- R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: internal and external accountability of principals in varied contexts," *Journal of Educational Administration*, vol. 51, no. 3, pp. 383-406, 2013, doi: 10.1108/0957823131131528. [29]
- S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actor-network theories in accounting research," Accounting, Organizations and Society, vol. 60, pp. 62-78, 2017, doi: [30] 10.1016/j.aos.2017.06.005
- N. Susilowati, A. Mahmud, W. S. Rachmadani, S. Lestari, and T. Tusyanah, "The Contribution of Village Fund Management for Creating More Prosperous Society: An Empirical Study at Central Java," *Jurnal ASET (Akuntansi Riset)*, vol. 12, no. 2, pp. 357-[31] 371, 2020.
- K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," Accounting, Organizations and Society, [32]
- [32] K. Lukka, Exploring the positorines for causal expanation in interpretive research, *Accounting, Organizations and Society*, vol. 39, no. 7, pp. 559-566, 2014, doi: 10.1016/j.aos.2014.06.002.
 [33] L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," *International Journal of Sustainability in Higher Education*, vol. 22, no. 2, pp. 44-58, 2020, doi: 10.1108/JISHE-11-2019-0333.
 [34] A. N. Tsuma and F. Mugambi, "Factors Influencing Performance of Income Generating Units in Public Universities," *European*
- Journal of Business and Management, vol. 6, no. 10, pp. 87-92, 2014.
 [35] H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," vol. 21, no.
- H. N. Nyamwega, An Evaluation of medicine conclusing respects in Plasme Section, plasme and plasme section of the plasme se
- [37]
- [38] R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia,"

Investigation of income generating activity in higher education: ... (Amir Mahmud)

International Journal of Social Economics, vol. 44, no. 12, pp. 2271-2286, 2017, doi: 10.1108/IJSE-09-2016-0260.

- [39] A. Butare, "Income-generating activities in higher education: The case of Kigali Institute of Science, Technology and Management (KIST)," *Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique*, vol. 2, no. 3, pp. 37-53, 2004.
 [40] P. A. Odundo and C. M. Rambo, "Effect of school-based income generating activities on the financial performance of public
- [40] P. A. Odundo and C. M. Rambo, "Effect of school-based income generating activities on the financial performance of public secondary schools in Kenya," University of Nairobi, vol. 12, no. 6, pp. 375-394, 2013.

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Revisi Artikel sebelum Publish sesuai Saran Tim Layout

1. Menambah nama fakultas

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2. Support with reference based on the basis

Revisi paragraf 6, line 1 (artikel halaman 2):

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia [16].

3. According to our new policy, graphs or charts with legends are required to be in black and white format. Distinguish scale by pattern instead of color. Please revise the figure with yellow marked!

Revisi Figure 3.1 (artikel halaman 6):

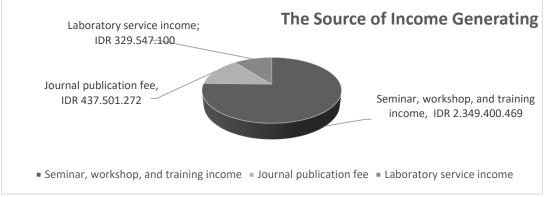


Figure 3.1 The source of income generating

4. The figure and table must be explained in the sentence BEFORE the figure or table is displayed. All Figure and Table MUST BE MENTIONED in order in the text. Revisi Figure 3.2 (Artikel halaman 7):

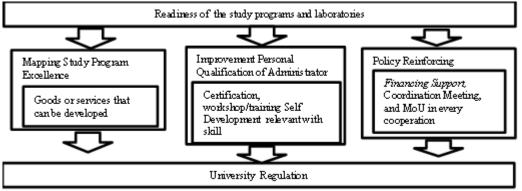


Figure 3.2 The income generating management model based on excellent study programs

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REFERENCES

[1] J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: From monitoring to management," *Qual. Assur. Educ.*, vol. 11, no. 1, pp. 5–14, 2003, doi: 10.1108/09684880310462038.

- [2] T. F. Nur, A. Widodo, and R. Mutiara, "State University with Legal Entity and the Impact to the Rights and Obligations of the Tax Transaction: Case of the University of Indonesia," *KnE Soc. Sci.*, vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857.
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," *Res. J. Financ. Accounting*, vol. 6, no. 7, pp. 2222–2847, 2015.
- [4] F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct investment: Empirical evidence in OECD countries," *Int. J. Sustain. High. Educ.*, vol. 22, no. 1, pp. 77–99, 2021, doi: 10.1108/IJSHE-10-2019-0306.
- [5] A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," *Int. J. Educ.*, vol. 9, no. 3, p. 183, 2017, doi: 10.5296/ije.v9i3.11705.
- [6] A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," *VINE J. Inf. Knowl. Manag. Syst.*, 2020, doi: 10.1108/VJIKMS-01-2020-0003.
- [7] L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education: A review of some concepts and models," *J. Small Bus. Enterp. Dev.*, vol. 15, no. 1, pp. 202– 226, 2008, doi: 10.1108/14626000810850937.
- [8] H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," *Accounting, Audit. Account. J.*, vol. 32, no. 5, pp. 1500–1531, 2019, doi: 10.1108/AAAJ-03-2018-3391.
- [9] S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools in Isiolo North Sub County, Kenya," *Int. Acad. J. Inf. Sci. Proj. Manag.*, vol. 2, no. 1, pp. 558–573, 2017.
- [10] S. Nair, "School block grants as a model of financial decentralization in Iraq," *Int. J. Comp. Educ. Dev.*, vol. 20, no. 3–4, pp. 165–175, 2018, doi: 10.1108/IJCED-05-2018-0009.
- [11] P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: On the role of university board members," *High. Educ.*, vol. 65, no. 1, pp. 39–58, 2013, doi: 10.1007/s10734-012-9580-x.
- [12] H. Sampaio, "Higher education in Brazil: Stratification in the privatization of enrollment," Adv. Educ. Divers. Communities Res. Policy Prax., vol. 11, pp. 53–81, 2015, doi: 10.1108/S1479-358X20150000011005.
- [13] C. Wardoyo, A. Herdiani, N. Susilowati, and M. S. Harahap, "Professionalism and professionalization of early stage teachers in higher education," *J. Appl. Res. High. Educ.*, vol. 12, no. 5, pp. 1175–1187, 2020, doi: 10.1108/JARHE-04-2019-0100.
- [14] B. Y. Boadi, "Income-generating activities: A viable financial source for African academic libraries?," *Bottom Line*, vol. 19, no. 2, pp. 64–77, 2006, doi: 10.1108/08880450610663609.
- [15] A. Mahmud, N. Susilowati, and T. Tusyanah, "Human Values Model Analysis on Organizational Commitment in Higher Eduation," *J. Din. Manaj.*, vol. 10, no. 1, pp. 46–57, 2019, doi: 10.15294/jdm.v10i1.17569.
- [16] M. Khoiruddin, S. Martono, N. A. Wulansari, and S. Ridloah, "Examining the excellence in higher education (EHE) program in the disruptive era," *Int. J. Innov. Creat. Chang.*, vol. 7, no. 11, pp. 274–287, 2019.
- [17] T. Azinar Ahmad, N. Susilowati, E. Subkhan, and S. Amin, "Historiopreneurship and Commercialization of History Laboratory in Universitas Negeri Semarang," *KnE Soc. Sci.*, vol. 2019, pp. 706–715, 2019, doi: 10.18502/kss.v3i18.4760.
- [18] M. Imam and H. Reza, "Sustainability in Higher Education: Perspectives of Malaysian Higher Education System," SAGE Open, vol. 6, no. 3, pp. 1–9, 2016, doi: 10.1177/2158244016665890.
- [19] A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The incomegenerating projects of a government academic institution in The Philippines," *Asia Pacific J. Innov. Entrep.*, vol. 10, no. 1, pp. 5–16, 2016, doi: 10.1108/apjie-12-2016-006.
- [20] Z. Sakhiyya and E. Rata, "From 'priceless' to 'priced': the value of knowledge in higher

education," *Glob. Soc. Educ.*, vol. 17, no. 3, pp. 285–295, 2019, doi: 10.1080/14767724.2019.1583089.

- [21] J. Schmidt and L. Peachey, "Funding down under: Entrepreneurial approaches to generating income at the University of Queensland Cybrary," *New Libr. World*, vol. 104, no. 1194, pp. 481–490, 2003, doi: 10.1108/03074800310509406.
- [22] J. Panigrahi, "Innovative Financing of Higher Education: Changing Options and Implications," *SAGE Open*, vol. 5, no. 1, pp. 61–74, 2018, doi: 10.1177/2347631117738644.
- [23] A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource dependence theory: A review," *J. Manage.*, vol. 35, no. 6, pp. 1404–1427, 2009, doi: 10.1177/0149206309343469.
- [24] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on knowledge sharing and employee performance," *J. Manag. Dev.*, vol. 38, no. 7, pp. 538–560, 2019, doi: 10.1108/JMD-07-2018-0190.
- [25] L. Guo, B. Wong-On-Wing, and G. Lui, "Input-based performance evaluation incentive intensity and proactive work behavior," *Advances in Management Accounting.*, vol. 22, pp. 185-223, 2014, https://doi.org/10.1108/S1474-7871(2013)0000022013
- [26] X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect employee well-being? A mediated moderation model," *Empl. Relations*, vol. 42, no. 4, pp. 903–919, 2020, doi: 10.1108/ER-08-2019-0320.
- [27] M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for business model innovation," *Int. J. Entrep. Behav. Res.*, vol. 27, no. 2, pp. 520–546, 2021, doi: 10.1108/IJEBR-10-2020-0679.
- [28] J. L. Price, "Handbook of organizational measurement," *Int. J. Manpow.*, vol. 18, no. 4, pp. 305–558, 1997, doi: 10.1108/01437729710182260.
- [29] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," *Adm. Soc.*, vol. 8, no. January 1976, pp. 419–453, 1976.
- [30] R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: Internal and external accountability of principals in varied contexts," *J. Educ. Adm.*, vol. 51, no. 3, pp. 383–406, 2013, doi: 10.1108/09578231311311528.
- [31] S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actor-network theories in accounting research," *Accounting, Organ. Soc.*, vol. 60, pp. 62–78, 2017, doi: 10.1016/j.aos.2017.06.005.
- [32] J. Seawright, *Strategies for Social Inquiry Multi-Method Social Science: Combining Qualitative and Quantitative Tools.* Cambridge University Press, 2016.
- [33] K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," *Accounting, Organ. Soc.*, vol. 39, no. 7, pp. 559–566, 2014, doi: 10.1016/j.aos.2014.06.002.
- [34] L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," *Int. J. Sustain. High. Educ.*, vol. 22, no. 1, pp. 44–58, 2021, doi: 10.1108/IJSHE-11-2019-0333.
- [35] A. N. Tsuma and F. M. Mwiringi, "Factors Influencing Performance of Income Generating Units in Public Universities," *Eur. J. Bus. Manag.*, vol. 6, no. 10, pp. 87–92, 2014.
- [36] H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," *International Journal of African and Asian Studies.*, vol. 21, pp. 6–16, 2016.
- [37] R. L. Dipboye and R. L. Dipboye, "3. *Work Motivation*," The Emerald Review of Industrial and Organizational Psychology., pp. 103-174, 2018.
- [38] D. V. Didenko, "Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late Nineteenth–Early Twenty-first Centuries), "vol. 36, pp.45-107, 2020
- [39] R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," *Int. J. Soc. Econ.*, vol. 44, no. 12, pp. 2271–2286, 2017, doi: 10.1108/IJSE-09-2016-0260.

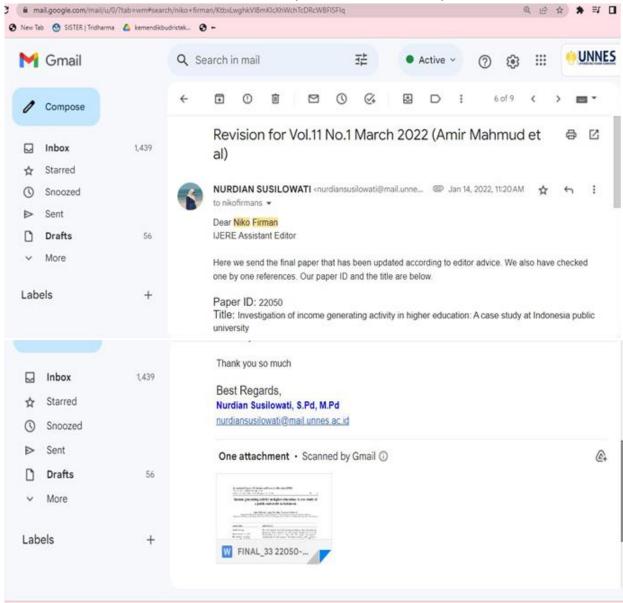
- [40] A. Butare, "Income-Generating Activities in Higher Education: The Case of Kigali Institute of Science, Technology and Management (KIST)," *J. High. Educ. Africa / Rev. l'enseignement supérieur en Afrique*, vol. 2, no. 3, pp. 37–53, 2004, [Online]. Available: http://www.jstor.org/stable/24486293.
- [41] P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial Performance of Public Secondary Schools in Kenya," *Chinese Bus. Rev.*, vol. 12, no. 06, pp. 375–394, 2013, doi: 10.17265/1537-1506/2013.06.001.

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Proses Submit Revisi Artikel oleh Author – 14 Januari 2022 *Revision* for Vol. 11 No. 1 March 2022 (Amir Mahmud et al)



International Journal of Evaluation and Research in Education (IJERE) Vol. 11, No. 1, March 2022, pp. 1~1x ISSN: 2252-8822, DOI: 10.11591/ijere.v11i1.22050

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Income generating activity in higher education: A case study of a public university in Indonesia

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ABSTRACT

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Article Info

Article history: Received Apr 20, 2021 Revised Nov 13, 2021 Accepted Dec 17, 2021

Keywords:

Higher education Income-generating Laboratory Study programs This study aimed to identify the income-generating activities and explore its management model using the case study method. In-depth interviews and documentation were used to collect data. The sample used purposive sampling from 26 study programs. Government subsidy, which is meant to cater to tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Income-generating supplemented the budget of the university. The income is beneficial to hiring additional project personnel, purchasing supplies, materials and equipment, and improving facilities for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of a study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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1. INTRODUCTION

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities were forced to set high fees collected from the community to support their operations. This reality shows that higher education products from science results cannot produce income-generating that can support university funding [3], [4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, which is insufficient, yet maintaining national quality standards and increasing access to tertiary institutions requires more significant funding. Public institutions, including universities, apply the public service agency (*Badan Layanan Umum*) pattern to reduce bureaucracy and at the same time improve the quality of government

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services to the public [6]. As part of a public service agency's financial management flexibility, public service agency income (the entire income is *PNBP* of Non-Tax State Revenues) can be used directly. According to the business and budget plan, they were first deposited into the state treasury account. The operating income surplus becomes deposits used in the following year's budget.

Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [7], [8]. Hence, the university income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

Most schools lack supervision, so they cannot implement income-generating programs properly [9], [10], [11]. The role of staff and all academic community influences the implementation of the incomegenerating program. In addition, the personal qualifications of the team, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school academic communities. The universities play an essential role in providing competitive graduates for professional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, internal universities can meet university needs and not rely on government funding.

To improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, efficiently and accountable. University as a public service agency needs to explore resources funds from education funding and other funding sources [2]. Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic and non-academic income consists of grants and research grants [2], [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia [16]. One way to increase university income from income-generating besides the single tuition or the institutional development agency managed by the business development agency is to utilize study programs through research centres and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [17]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The university research centres and laboratories can also be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory to increase the income of higher education [18], [19]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more revenue to reduce the government budget for universities. Therefore, the business units in higher education can increase financial resources to reduce dependence on the government budget. Furthermore, being able to meet the needs of financial resources, higher education institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [20], [21].

The university performance appraisal seems to be most important after the customer's perspective from a financial perspective [22]. Resources dependence theory is applied to describe the behaviour of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs [23]. The characteristics of the resource's dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in view, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the organization's existence [24], [25].

Furthermore, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational

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behavior requires a suitable environment that can reduce external influences and increase their strength [26]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [27], [28]. Resource dependence theory studies how external organizational resources influence organizational behaviour. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [29], [30]. At the same time, the theory of resource dependence is one of many organizational theories that characterize organizational behavior.

This research focuses on identifying income-generating in each study program, investigating laboratory services, and finding the management model. To get autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income-generating aims to improve learning facilities that will enhance the welfare of students, lecturers, and education staff.

This research contributes to the development of higher education institutions in public service bodies towards legal entities in Indonesia by strengthening exploration and identification of incomegenerating sources in each study program. Every study program has its characteristics and uniqueness to promote and generate income by offering its services to the community. In addition, this research contributes to strengthening the capability of income-generating sources so that good management is needed in managing income-generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Mapping the advantages of the study program and the income-generating management model can be used as the basis for the implementation of better income-generating. This management model is derived from Resource Dependence Theory which explains the behaviour of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

University performance measures from the financial perspective are the most important one after a customer perspective. Thus, university income generating is interesting because of its diversity among units. Business corporations and political authorities have put forward the principles of good governance for public institutions. However, there has been less discussion about income-generating in higher education. Therefore, this study aimed to identify income-generating activities and explore management models.

2. RESEARCH METHOD

We used qualitative research employed a case study design. A case study is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang, Indonesia. Universitas Negeri Semarang was chosen because it will become a Legal Entity State University, generating additional incomegenerating the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has 69 study programs that can be developed so that the knowledge produced at each study centre can be helpful for all people. The data sources were 52, the head of the department, the head of the laboratory, the head of the program, and the head of the study centre in each faculty obtained using purposive sampling from 26 study programs. Purposive sampling is a sampling technique of data sources with specific considerations or purposes.

This research refers to the development of the accounting science paradigm, which reflects the interpretative paradigm [31]. Its basic assumption is the knowledge explored by explaining human intention scientifically in a series of subjective interpretations and is confirmed by the people's common sense in daily activities. This study reveals various university activities as additional sources of income and designs the management models from the perspective of activity doers and leaders who have been directly involved. A case study approach is applied. It aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyze the types of outcomes and impacts.

The primary data sources in this qualitative research were words and actions [32]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze the qualitative data obtained more deeply. The data collection method was undertaken in two ways, following the research purpose. This research employed two collecting data proposed [31]; documentation and interview strategies. First, the documentation is gathered from the university's annual financial report.

Furthermore, an in-depth interview was conducted involving key informants. After all, data were collected, they are clustered based on the themes and sub-themes referring to the research topic. Researchers

contemplate the mind content by remembering, perceiving, and designing the themes at this stage. Collecting data with documentation is carried out by taking existing data from the university annual financial report. This research was also carried out with an in-depth interview process (in-depth interview) to explore and collect data from informants. Based on the collected data, the compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage, the researcher understands contemplating the content of the mind by remembering, perceiving, and desiring activities leading to the research theme.

Comprehensive questions were made for the interview use, covering types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staff, the head of the laboratory, the head of the study program, and those in charge of activities. The person in charge of the action selected was meant to use the triangulation technique. According to Lukka [33], this technique usually refers to using various perceptions to clarify meaning and verify the possibility of repetition of observation or interpretation. It holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the rule of Universitas Negeri Semarang Chancellor, and scientific journals. This triangulation technique is applied to determine the amount of income-generating obtained for universities, faculties, and majors/study programs.

3. RESULTS AND DISCUSSION

3.1. Profile of income-generating sources in the study program

Based on the focus group discussion and in-depth interviews, a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang was obtained. A total of 52 participants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. Table 1 shows the profile of income-generating sources in the study program.

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. Regarding the length of its establishment, the excellent product of study programs vary from one semester, more than five years up to 16 years. The research results revealed a significant relationship between long-term income-generating operations and income-generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a central assessment which includes psycho assessment services, counselling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

The study program that has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. It was due to the average service user being only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Indonesian literature study program was excellent in theatre, journalism, and *BIPA*. However, there has been no excellent coordination between the manager. The pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, study programs with minimum income-generating contributions are Education Technology, Visual Communication Design, Guidance, Counselling, Early and Childhood Education, Geography, and Management. The participants felt that the gift of laboratories and products to the excellent study programs was still limited in contribution to income-generating universities.

The staff profile needs to be identified in assessing the readiness of the study centre based on the excellence of study programs to support income-generating. It includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. The results of previous studies [9], [18] revealed that personal qualifications and staff support positively affected the implementation of income-generating.

	Table 1. Mapping the income generating sources of study programs and laboratories									
Number		Study programs	Laboratories/Research Centr	re Type of goods or services						
1.	Biology		Biology Laboratory	Cellular and molecular biology						

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Number	Study programs	Laboratories/Research Centre	Type of goods or services				
	Natural Science Education	Indonesian Journal of Science Education	Journal publication fee				
	Informatic Engineering Education	Informatic Engineering Education Laboratory	Training media based on android				
	Chemistry	Chemistry Laboratory	Alternative energy				
	Mathematics Education	Mathematics Education Laboratory	Math City Map Learning Media, mathematic olympiad, and seminar				
	Chemical Engineering	Chemical Engineering Laboratory	Instrumentation Laboratory				
	Electrical Engineering	Electrical Engineering Laboratory	The laboratory of integrated computer				
	Family Welfare Education	Family Welfare Education Laboratory	Batik production, Catering, and Makeup Services				
	Indonesian Language and Literature Education	Indonesian Language and Literature Education	Journalism, Indonesian Language for Foreign Speakers (Bahasa Indonesia bagi Penutur				
0.	English Language and Literature	Laboratory Literacy Study Center	Asing/BIPA), Entrepreneurship Indonesian Language for Foreign Speakers,				
1	Education	Low Colonas Laborator	Theater, Journalism, and Editor of Book				
1.	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment services for prospective foreign workers				
2.	History Education	History Laboratory	Training of learning media and consultant of teaching, learning in history courses, and journal publication fee				
3.	Visual Communication Design	Visual Communication Design Laboratory	Computer studio, ceramic studio, batik studi and workshop centre of art				
4.	Art Education	Art Education Laboratory	Journal publication fee				
5.	Economic development	Economic development laboratory	Training in economic analysis, study, and development of science tools, also journal				
			publication fee				
.6.	Psychology	Psychology laboratory	The centre assessment is in the form of psycho-mental services, counselling, therapy and training				
7.	Educational Technology	Educational technology Laboratory	Training services making learning media, filh production training services, curriculum analysis services, and textbook, learning resource writing training, technopreneur training services, and webinar-based training services				
8.	Early Childhood Education	Early childhood education program laboratory	Microteaching laboratory, dance laboratory, recording lab, and music laboratory for early childhood				
19.	Guidance and Counseling	Guidance and counselling laboratory	Counselling services, educational testing services, centre for education and commun counselling, training services, and continui professional development program				
20.	Primary School Teacher Education	Primary school teacher education laboratory	Media learning and mentoring for elementary teachers				
1.	Non-formal education	Non-formal education laboratory	Community learning activity centre in the form of homeschooling				
2.	Geography	Geography laboratory	Mapping based on geographic information systems (GIS) and photogrammetry training, and remote sensing				
	Accounting	Accounting laboratory	Tax centre, brevet training centre, and accounting, also journal publication fee				
4.	Management	Management laboratory	Capital market training, marketing, human resources training, statistics and research				
25.	Economics Education	a. Integrated office and administration laboratory	methods training, also journal publication fee Training and mentoring professionalism of teacher, study centre of archives				
		 Bank laboratory Microteaching laboratory 	Training of bank for teacher and students Development learning media and quality of teacher				
		d. Center for accounting education studies	Training and mentoring accounting teacher, seminar and completion of accounting				
26.	Physical Education and Recreation	Athletic laboratory	Athletic room rent, swimming pool rent, training and services of sport				

The research found that the average research centre manager consisted of two to six people. The position includes the chairman of the research centre and their staff. Besides, the laboratory consists of the

Investigation of income generating activity in higher education: ... (Amir Mahmud)

chairman, laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratories. The doctoral or professors typically hold the role of the head research centre. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research centre staff made various efforts, such as attending management laboratory, finance, and administration [34].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff experience and insight can increase [35], [36]. The laboratory staff attended the training varied enough from the International Standard Operations, the primary standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.

Furthermore, the research result shows income-generating sources, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of income with the most considerable nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshops, and training income. Meanwhile, journal publications contributed revenue of IDR 437,501,272 and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the most significant contribution to the amount of income-generating universities.

Based on the data, the second contribution is from the journal publication fee, and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a generating source. Factually, based on the mapping of the identification of the advantages of the study program, many fields can generate additional income. However, other areas seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be designed to generate additional income. Figure 3.1 shows the largest income-generating sources in the study program.

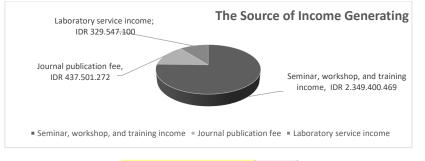


Figure 3.1 The source of income generating

The findings confirm that income-generating management between one unit and another is diverse. For example, in journal publication fees for journals ranked Second Grade (*Sinta 2*), the nominal amount in income-generating differs between departments. Likewise, the nominal is also different with journals ranked First Grade (Sinta 1). Thus, creating a system and mechanism for determining the income-generating journal publication fee to be equal among units could be necessary. It aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand laboratory services and product promotion development. For example, laboratory services can cooperate with government agencies or companies to provide team member lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network. Students can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

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Furthermore, to further identify the readiness of the research centre in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are:

i) Socialization and work meetings

The university socialization can be carried out and delivered to the faculty and departmental and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research centre excellence to contribute more to supporting income-generating universities. ii) Building awareness

Many courses' certification follows professional building awareness. The competency upgrading program for all laboratory staff is also seeking to improve their experience and expertise.

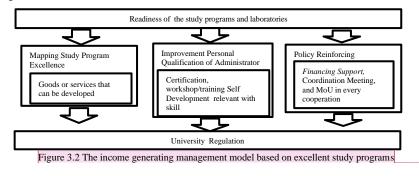
iii) Collaboration with agencies

Some study programs have established relationships and cooperation. Department of art collaborates with small-medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brilliant Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or a memorandum of agreement.

3.2. Model of income-generating management based on excellent study programs

The university study program and laboratory management model need to be considered a reference and guideline for each study program in developing program excellence (figure 3.2). A model in the management of the study centre aims to boost each study program to contribute to supporting incomegenerating universities. The management model is sourced from the resource dependence theory, which describes the behaviour of institutions to carry out business initiatives as the additional income. The model can describe the behaviour of institutions in developing business ventures for supplemental income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus, the model in this study benefits the university development towards Legal Entity State University and the fundamental role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps taken by study programs and universities to implement income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study centre or laboratory management model that the researchers propose. The study program's first step is identifying advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Universitas Negeri Semarang Number 25 of 2018. To increase university income from income-generating outside the *UKT* or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency and generating outsides the used in the community, utilizes study programs through research centres and laboratory optimization. University business activities cover all productive activities organized by the university in business units and other business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university service to the community. Therefore, identifying the product superiority of the study program should have been the focus of attention. Figure 3.2 shows the income generating management model based on excellent study programs.



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Investigation of income generating activity in higher education: ... (Amir Mahmud)

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Furthermore, the staff qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [37]. The study program and tertiary institution are obliged to create an institutional culture and harmonize the differences between the various cultures brought by each individual to become a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that follows the mission, vision, and objectives of the college work program and is in harmony with the culture that grows and develops in its adaptive environment [18].

The determination of policy support gives the primary role [38], [39]. It is done so that incomegenerating activities can be a concern. It aligns with the resources dependence theory characteristics to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [29]. Necessary policy support is one of which is supporting financing or funding [40], [41]. But unfortunately, funding support for the development of this laboratory has not been seen, so the effect of laboratory services tends to be slow. Limited resources will undoubtedly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector regulations must strengthen the research centre management model based on the advantages of this study program. The rule of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

CONCLUSION 4.

This finding confirms that income-generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports and existing operational problems. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the actual condition and promote and create a more effective working atmosphere and collaborative mechanism among stakeholders. Since this was a qualitative study, future research needs to apply a quantitative approach. It is essential to determine the implementation of income-generating policies regarding staff support, head of department support, head of the laboratory, lecturers, and existing facilities.

ACKNOWLEDGEMENTS

Authors' appreciation is dedicated to the institute of research and community service of Universitas Negeri Semarang to fund the research.

REFERENCES

- [1]
- KENCES J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: From monitoring to management," *Qual.* Assur. Educ., vol. 11, no. 1, pp. 5–14, 2003, doi: 10.1108/09684880310462038.
 T. F. Nur, A. Widodo, and R. Mutiara, "State University with Legal Entity and the Impact to the Rights and Obligations of the Tax Transaction: Case of the University of Indonesia," *KnE Soc. Sci.*, vol. 3, no. 11, p. 1388, 2018, doi: 10.1070/10.1016 [2] 10.18502/kss.v3i11.2857.
- S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," *Res. J. Financ. Accounting*, vol. 6, no. 7, pp. 2222–2847, [3] 2015. F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct investment:
- [4] Empirical evidence in OECD countries," *Int. J. Sustain. High. Educ.*, vol. 22, no. 1, pp. 77–99, 2021, doi: 10.1108/IJSHE-10-2019-0306.
- A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," Int. J. Educ., vol. 9, no. 3, p. 183, 2017, doi: 10.5296/ije.v9i3.11705. [5]
- A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," VINE J. Inf. Knowl. Manag. Syst., 2020, doi: 10.1108/VJIKMS-01-2020-0003. [6]
- [7] L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education: A review of some concepts and models," J. Small Bus. Enterp. Dev., vol. 15, no. 1, pp. 202–226, 2008, doi: 10.1108/14626000810850937.
- H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," Accounting, Audit. Account. J., vol. 32, no. 5, pp. 1500–1531, 2019, doi: 10.1108/AAAJ-03-2018-3391. [8]
- S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools in Isiolo North Sub County, Kenya," *Int. Acad. J. Inf. Sci. Proj. Manag.*, vol. 2, no. 1, pp. 558–573, 2017. [9]

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- S. Nair, "School block grants as a model of financial decentralization in Iraq," Int. J. Comp. Educ. Dev., vol. 20, no. 3–4, pp. 165–175, 2018, doi: 10.1108/IJCED-05-2018-0009. [10]
- P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: On the role of university board members," *High. Educ.*, vol. 65, no. 1, pp. 39–58, 2013, doi: 10.1007/s10734-012-9580-x. [11]
- H. Sampaio, "Higher education in Brazil: Stratification in the privatization of enrollment," Adv. Educ. Divers. Communities Res. Policy Prax., vol. 11, pp. 53–81, 2015, doi: 10.1108/S1479-358X20150000011005. [12]
- C. Wardoyo, A. Herdiani, N. Susilowati, and M. S. Harahap, "Professionalism and professionalization of early stage teachers in higher education," J. Appl. Res. High. Educ., vol. 12, no. 5, pp. 1175–1187, 2020, doi: 10.1108/JARHE-04-2019-0100. [13]
- [14]
- B. Y. Boadi, "Income-generating activities: A viable financial source for African academic libraries?," *Bottom Line*, vol. 19, no. 2, pp. 64–77, 2006, doi: 10.1108/08880450610663609.
- [15]
- [16]
- no. 2, pp. 64–77, 2006, doi: 10.1108/08880430610665609.
 A. Mahmud, N. Susilowati, and T. Tusyanah, "Human Values Model Analysis on Organizational Commitment in Higher Eduation," J. Din. Manaj., vol. 10, no. 1, pp. 46–57, 2019, doi: 10.15294/jdm.v10i1.17569.
 M. Khoiruddin, S. Martono, N. A. Wulansari, and S. Ridloah, "Examining the excellence in higher education (EHE) program in the disruptive era," Int. J. Innov. Creat. Chang., vol. 7, no. 11, pp. 274–287, 2019.
 T. Azinar Ahmad, N. Susilowati, E. Subkhan, and S. Amin, "Historiopreneurship and Commercialization of History Laboratory in Universitas Negeri Semarang," KnE Soc. Sci., vol. 2019, pp. 706–715, 2019, doi: 10.18502/kss.v3i18.4760.
 M. Imam and H. Pera, "Sustainability in Higher Education Charger Education System", SACE [17] [18] M. Imam and H. Reza, "Sustainability in Higher Education : Perspectives of Malaysian Higher Education System," SAGE
- Open, vol. 6, no. 3, pp. 1–9, 2016, doi: 10.1177/2158244016665890. A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government [19] academic institution in The Philippines," Asia Pacific J. Innov. Entrep., vol. 10, no. 1, pp. 5-16, 2016, doi: 10.1108/apjie-12-
- 2016-006 Z. Sakhiyya and E. Rata, "From 'priceless' to 'priced': the value of knowledge in higher education," *Glob. Soc. Educ.*, vol. 17, no. 3, pp. 285–295, 2019, doi: 10.1080/14767724.2019.1583089. [20]
- [21]
- J. Schmidt and L. Peachey, "Funding down under: Entrepreneurial approaches to generating income at the University of Queensland Cybrary," *New Libr. World*, vol. 104, no. 1194, pp. 481–490, 2003, doi: 10.1108/03074800310509406.
- J. Panigrahi, "Innovative Financing of Higher Education : Changing Options and Implications," *SAGE Open*, vol. 5, no. 1, pp. 61–74, 2018, doi: 10.1177/2347631117738644. A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource dependence theory: A review," *J. Manage.*, vol. 35, no. 6, pp. [22]
- [23] 1404-1427, 2009, doi: 10.1177/0149206309343469.
- A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on [24] knowledge sharing and employee performance," J. Manag. Dev., vol. 38, no. 7, pp. 538-560, 2019, doi: 10.1108/JMD-07-2018-0190
- L. Guo, B. Wong-On-Wing, and G. Lui, "Input-based performance evaluation incentive intensity and proactive work behavior," Advances in Management Accounting., vol. 22, pp. 185-223, 2014, https://doi.org/10.1108/S1474-[25] 7871(2013)0000022013
- X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect employee well-[26]
- being? A mediated moderation model," *Empl. Relations*, vol. 42, no. 4, pp. 903–919, 2020, doi: 10.1108/ER-08-2019-0320. M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for [27] business model innovation," Int. J. Entrep. Behav. Res., vol. 27, no. 2, pp. 520–546, 2021, doi: 10.1108/IJEBR-10-2020-0679. J. L. Price, "Handbook of organizational measurement," Int. J. Manpow., vol. 18, no. 4, pp. 305–558, 1997, doi:
- [28] 10.1108/01437729710182260.
- [29] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices
- III. L. Adurch, Nessource dependence and metrogramational relations. Relations, Relations, Relations, Parkons, New Proceedings, Science and Social Service sector organizations, "Adm. Soc., vol. 8, no. January 1976, pp. 419–453, 1976.
 R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: Internal and external accountability of principals in varied contexts," *J. Educ. Adm.*, vol. 51, no. 3, pp. 383–406, 2013, doi: 10.1108/09578231311311528.
 S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actornetwork theories in accounting research," *Accounting, Organ. Soc.*, vol. 60, pp. 62–78, 2017, doi: 10.1016/j.aos.2017.06.005.
 J. Seawright, Strategies for Social Inquiry Multi-Method Social Science: Combining Qualitative and Quantitative Tools. Cambridge University Press. 2016. [30]
- [31]
- [32] Cambridge University Press, 2016. [33]
- K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," *Accounting, Organ. Soc.*, vol. 39, no. 7, pp. 559–566, 2014, doi: 10.1016/j.aos.2014.06.002.
 L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," *Int. J. Sustain. High. Educ.*, vol. 22, no. 1, pp. 44–58, 2021, doi: 10.1108/IJSHE-11-2019-0333. [34]
- A. N. Tsuma and F. M. Mwiringi, "Factors Influencing Performance of Income Generating Units in Public Universities," *Eur. J. Bus. Manag.*, vol. 6, no. 10, pp. 87–92, 2014. [35]
- H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," International Journal of African and Asian Studies., vol. 21, pp. 6–16, 2016.
 R. L. Dipboye and R. L. Dipboye, "3. Work Motivation," The Emerald Review of Industrial and Organizational Psychology., [36]
- [37] D. DOS 1074 2018.
 D. V. Didenko, "Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late Nineteenth–Early)
- [38] Twenty-first Centuries), "vol. 36, pp.45-107, 2020
- [39]
- R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," *Int. J. Soc. Econ.*, vol. 44, no. 12, pp. 2271–2286, 2017, doi: 10.1108/USE-09-2016-0260. A. Butare, "Income-Generating Activities in Higher Education: The Case of Kigali Institute of Science, Technology and [40]
- A. budate, income-Generating Activities in Higher Education. The case of Regan institute of Science, recliniology and Management (KIST)," J. High. Educ. Africa / Rev. 1'enseignement supérieur en Afrique, vol. 2, no. 3, pp. 37–53, 2004, [Online]. Available: http://www.jstor.org/stable/24486293.
 P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial Performance of Public Secondary Schools in Kenya," Chinese Bus. Rev., vol. 12, no. 06, pp. 375–394, 2013, doi: 10.17265/1537-[41] 1506/2013.06.001.

ISSN: 2252-8822

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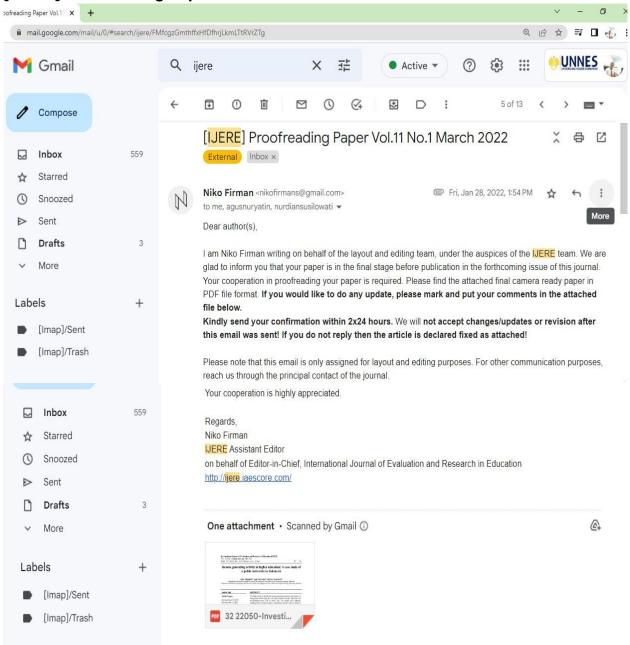
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Income generating activity in higher education: A case study of a public university in Indonesia

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Article Info

Article history:

Received Apr 20, 2021 Revised Nov 13, 2021 Accepted Dec 17, 2021

Keywords:

Higher education Income-generating Laboratory Study programs

ABSTRACT

This study aimed to identify the income-generating activities and explore its management model using the case study method. In-depth interviews and documentation were used to collect data. The sample used purposive sampling from 26 study programs. Government subsidy, which is meant to cater to tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Income-generating supplemented the budget of the university. The income is beneficial to hiring additional project personnel, purchasing supplies, materials and equipment, and improving facilities for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of a study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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1. INTRODUCTION

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities, is funding that relies on the disbursement of the state budget [2]. In comparison, private universities were forced to set high fees collected from the community to support their operations. This reality shows that higher education products from science results cannot produce income-generating that can support university funding [3], [4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, which is insufficient, yet maintaining national quality standards and increasing access to tertiary institutions requires more significant funding. Public institutions, including universities, apply the public service agency (*Badan Layanan Umum*) pattern to reduce bureaucracy and at the same time improve the quality of government

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Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [7], [8]. Hence, the university income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

Most schools lack supervision, so they cannot implement income-generating programs properly [9], [10], [11]. The role of staff and all academic community influences the implementation of the income-generating program. In addition, the personal qualifications of the team, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school income, which is helpful for the academic and non-academic development of students, teachers, and all school academic communities. The universities play an essential role in providing competitive graduates for professional works [12], [13]. Therefore, education funding is needed to create competitive graduates. The unprofessional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, internal universities can meet university needs and not rely on government funding.

To improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, efficiently and accountable. University as a public service agency needs to explore resources funds from education funding and other funding sources [2]. Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic aspects are single tuition (*Uang Kuliah Tunggal/UKT*), while non-academic income consists of grants and research grants [2], [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia [16]. One way to increase university income from income-generating besides the single tuition or the institutional development agency managed by the business development agency is to utilize study programs through research centres and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [17]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The university research centres and laboratories can also be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory to increase the income of higher education [18], [19]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more revenue to reduce the government budget for universities. Therefore, the business units in higher education can increase financial resources to reduce dependence on the government budget. Furthermore, being able to meet the needs of financial resources, higher education institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [20], [21].

The university performance appraisal seems to be most important after the customer's perspective from a financial perspective [22]. Resources dependence theory is applied to describe the behaviour of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs [23]. The characteristics of the resource's dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in view, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the organization's existence [24], [25].

Furthermore, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational

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behavior requires a suitable environment that can reduce external influences and increase their strength [26]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [27], [28]. Resource dependence theory studies how external organizational resources influence organizational behaviour. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [29], [30]. At the same time, the theory of resource dependence is one of many organizational theories that characterize organizational behavior.

This research focuses on identifying income-generating in each study program, investigating laboratory services, and finding the management model. To get autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income-generating aims to improve learning facilities that will enhance the welfare of students, lecturers, and education staff.

This research contributes to the development of higher education institutions in public service bodies towards legal entities in Indonesia by strengthening exploration and identification of incomegenerating sources in each study program. Every study program has its characteristics and uniqueness to promote and generate income by offering its services to the community. In addition, this research contributes to strengthening the capability of income-generating sources so that good management is needed in managing income-generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Mapping the advantages of the study program and the income-generating management model can be used as the basis for the implementation of better income-generating. This management model is derived from Resource Dependence Theory which explains the behaviour of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

University performance measures from the financial perspective are the most important one after a customer perspective. Thus, university income generating is interesting because of its diversity among units. Business corporations and political authorities have put forward the principles of good governance for public institutions. However, there has been less discussion about income-generating in higher education. Therefore, this study aimed to identify income-generating activities and explore management models.

2. RESEARCH METHOD

We used qualitative research employed a case study design. A case study is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang, Indonesia. Universitas Negeri Semarang was chosen because it will become a Legal Entity State University, generating additional incomegenerating the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has 69 study programs that can be developed so that the knowledge produced at each study centre can be helpful for all people. The data sources were 52, the head of the department, the head of the laboratory, the head of the program, and the head of the study centre in each faculty obtained using purposive sampling from 26 study programs. Purposive sampling is a sampling technique of data sources with specific considerations or purposes.

This research refers to the development of the accounting science paradigm, which reflects the interpretative paradigm [31]. Its basic assumption is the knowledge explored by explaining human intention scientifically in a series of subjective interpretations and is confirmed by the people's common sense in daily activities. This study reveals various university activities as additional sources of income and designs the management models from the perspective of activity doers and leaders who have been directly involved. A case study approach is applied. It aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyze the types of outcomes and impacts.

The primary data sources in this qualitative research were words and actions [32]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze the qualitative data obtained more deeply. The data collection method was undertaken in two ways, following the research purpose. This research employed two collecting data proposed [31]; documentation and interview strategies. First, the documentation is gathered from the university's annual financial report.

Furthermore, an in-depth interview was conducted involving key informants. After all, data were collected, they are clustered based on the themes and sub-themes referring to the research topic. Researchers

contemplate the mind content by remembering, perceiving, and designing the themes at this stage. Collecting data with documentation is carried out by taking existing data from the university annual financial report. This research was also carried out with an in-depth interview process (in-depth interview) to explore and collect data from informants. Based on the collected data, the compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage, the researcher understands contemplating the content of the mind by remembering, perceiving, and desiring activities leading to the research theme.

Comprehensive questions were made for the interview use, covering types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staff, the head of the laboratory, the head of the study program, and those in charge of activities. The person in charge of the action selected was meant to use the triangulation technique. According to Lukka [33], this technique usually refers to using various perceptions to clarify meaning and verify the possibility of repetition of observation or interpretation. It holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the rule of Universitas Negeri Semarang Chancellor, and scientific journals. This triangulation technique is applied to determine the amount of income-generating obtained for universities, faculties, and majors/study programs.

3. RESULTS AND DISCUSSION

3.1. Profile of income-generating sources in the study program

Based on the focus group discussion and in-depth interviews, a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang was obtained. A total of 52 participants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. Table 1 shows the profile of income-generating sources in the study program.

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. Regarding the length of its establishment, the excellent product of study programs vary from one semester, more than five years up to 16 years. The research results revealed a significant relationship between long-term income-generating operations and income-generating implementation [1]. Thus, the longer the product stands should show more mature readiness in generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a central assessment which includes psycho assessment services, counselling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

The study program that has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. It was due to the average service user being only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Indonesian literature study program was excellent in theatre, journalism, and *BIPA*. However, there has been no excellent coordination between the manager. The pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, study programs with minimum income-generating contributions are Education Technology, Visual Communication Design, Guidance, Counselling, Early and Childhood Education, Geography, and Management. The participants felt that the gift of laboratories and products to the excellent study programs was still limited in contribution to income-generating universities.

The staff profile needs to be identified in assessing the readiness of the study centre based on the excellence of study programs to support income-generating. It includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. The results of previous studies [9], [18] revealed that personal qualifications and staff support positively affected the implementation of income-generating.

	Table 1. Mapping the income generating sources of study programs and laboratories								
Number	Study programs	Laboratories/Research Centre	Type of goods or services						
1.	Biology	Biology Laboratory	Cellular and molecular biology						

5

Number	Study programs	Laboratories/Research Centre	Type of goods or services
2.	Natural Science Education	Indonesian Journal of Science Education	Journal publication fee
3.	Informatic Engineering Education	Informatic Engineering Education Laboratory	Training media based on android
4.	Chemistry	Chemistry Laboratory	Alternative energy
5.	Mathematics Education	Mathematics Education Laboratory	Math City Map Learning Media, mathematic olympiad, and seminar
6.	Chemical Engineering	Chemical Engineering Laboratory	Instrumentation Laboratory
7.	Electrical Engineering	Electrical Engineering Laboratory	The laboratory of integrated computer
8.	Family Welfare Education	Family Welfare Education Laboratory	Batik production, Catering, and Makeup Services
9.	Indonesian Language and Literature Education	Indonesian Language and Literature Education Laboratory	Journalism, Indonesian Language for Foreign Speakers (<i>Bahasa Indonesia bagi Penutur</i> <i>Asing/BIPA</i>), Entrepreneurship
10.	English Language and Literature Education	Literacy Study Center	Indonesian Language for Foreign Speakers, Theater, Journalism, and Editor of Book
11.	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment
12.	History Education	History Laboratory	services for prospective foreign workers Training of learning media and consultant of teaching, learning in history courses, and journal publication fee
13.	Visual Communication Design	Visual Communication Design Laboratory	Computer studio, ceramic studio, batik studio and workshop centre of art
14.	Art Education	Art Education Laboratory	Journal publication fee
15.	Economic development	Economic development laboratory	Training in economic analysis, study, and development of science tools, also journal publication fee
16.	Psychology	Psychology laboratory	The centre assessment is in the form of psycho-mental services, counselling, therapy and training
17.	Educational Technology	Educational technology Laboratory	Training services making learning media, file production training services, curriculum analysis services, and textbook, learning resource writing training, technopreneur training services, and webinar-based training services
18.	Early Childhood Education	Early childhood education program laboratory	Microteaching laboratory, dance laboratory, recording lab, and music laboratory for early childhood
19.	Guidance and Counseling	Guidance and counselling laboratory	Counselling services, educational testing services, centre for education and communit counselling, training services, and continuing professional development program
20.	Primary School Teacher Education	Primary school teacher education laboratory	Media learning and mentoring for elementary
21.	Non-formal education	Non-formal education laboratory	Community learning activity centre in the form of homeschooling
22.	Geography	Geography laboratory	Mapping based on geographic information systems (GIS) and photogrammetry training, and remote sensing
23.	Accounting	Accounting laboratory	Tax centre, brevet training centre, and accounting, also journal publication fee
24.	Management	Management laboratory	Capital market training, marketing, human resources training, statistics and research methods training, also journal publication fee
25.	Economics Education	 a. Integrated office and administration laboratory b. Bank laboratory c. Microteaching laboratory d. Center for accounting education studies 	Training and mentoring professionalism of teacher, study centre of archives Training of bank for teacher and students Development learning media and quality of teacher Training and mentoring accounting teacher, seminar and completion of accounting
26.	Physical Education and Recreation	Athletic laboratory	Athletic room rent, swimming pool rent, training and services of sport

The research found that the average research centre manager consisted of two to six people. The position includes the chairman of the research centre and their staff. Besides, the laboratory consists of the

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chairman, laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratories. The doctoral or professors typically hold the role of the head research centre. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research centre staff made various efforts, such as attending management laboratory, finance, and administration [34].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff experience and insight can increase [35], [36]. The laboratory staff attended the training varied enough from the International Standard Operations, the primary standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.

Furthermore, the research result shows income-generating sources, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of income with the most considerable nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshops, and training income. Meanwhile, journal publications contributed revenue of IDR 437,501,272 and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the most significant contribution to the amount of income-generating universities.

Based on the data, the second contribution is from the journal publication fee, and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a generating source. Factually, based on the mapping of the identification of the advantages of the study program, many fields can generate additional income. However, other areas seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be designed to generate additional income. Figure 3.1 shows the largest income-generating sources in the study program.

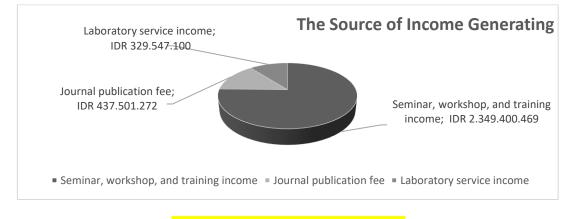


Figure 3.1 The source of income generating

The findings confirm that income-generating management between one unit and another is diverse. For example, in journal publication fees for journals ranked Second Grade (*Sinta 2*), the nominal amount in income-generating differs between departments. Likewise, the nominal is also different with journals ranked First Grade (Sinta 1). Thus, creating a system and mechanism for determining the income-generating journal publication fee to be equal among units could be necessary. It aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand laboratory services and product promotion development. For example, laboratory services can cooperate with government agencies or companies to provide team member lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network. Students can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

Furthermore, to further identify the readiness of the research centre in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are:

i) Socialization and work meetings

The university socialization can be carried out and delivered to the faculty and departmental and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research centre excellence to contribute more to supporting income-generating universities.

ii) Building awareness

Many courses' certification follows professional building awareness. The competency upgrading program for all laboratory staff is also seeking to improve their experience and expertise.

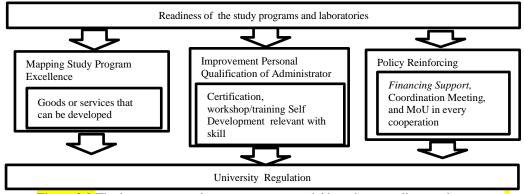
iii) Collaboration with agencies

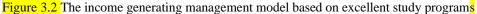
Some study programs have established relationships and cooperation. Department of art collaborates with small-medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brilliant Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or a memorandum of agreement.

3.2. Model of income-generating management based on excellent study programs

The university study program and laboratory management model need to be considered a reference and guideline for each study program in developing program excellence (figure 3.2). A model in the management of the study centre aims to boost each study program to contribute to supporting incomegenerating universities. The management model is sourced from the resource dependence theory, which describes the behaviour of institutions to carry out business initiatives as the additional income. The model can describe the behaviour of institutions in developing business ventures for supplemental income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus, the model in this study benefits the university development towards Legal Entity State University and the fundamental role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps taken by study programs and universities to implement income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study centre or laboratory management model that the researchers propose. The study program's first step is identifying advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Universitas Negeri Semarang Number 25 of 2018. To increase university income from income-generating outside the *UKT* or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency manages university assets, works the innovative products of lecturers to be used in the community, utilizes study programs through research centres and laboratory optimization. University business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university service to the community. Therefore, identifying the product superiority of the study program should have been the focus of attention. Figure 3.2 shows the income generating management model based on excellent study programs.





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Furthermore, the staff qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [37]. The study program and tertiary institution are obliged to create an institutional culture and harmonize the differences between the various cultures brought by each individual to become a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that follows the mission, vision, and objectives of the college work program and is in harmony with the culture that grows and develops in its adaptive environment [18].

The determination of policy support gives the primary role [38], [39]. It is done so that incomegenerating activities can be a concern. It aligns with the resources dependence theory characteristics to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [29]. Necessary policy support is one of which is supporting financing or funding [40], [41]. But unfortunately, funding support for the development of this laboratory has not been seen, so the effect of laboratory services tends to be slow. Limited resources will undoubtedly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector regulations must strengthen the research centre management model based on the advantages of this study program. The rule of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

4. CONCLUSION

This finding confirms that income-generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports and existing operational problems. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the actual condition and promote and create a more effective working atmosphere and collaborative mechanism among stakeholders. Since this was a qualitative study, future research needs to apply a quantitative approach. It is essential to determine the implementation of income-generating policies regarding staff support, head of department support, head of the laboratory, lecturers, and existing facilities.

ACKNOWLEDGEMENTS

Authors' appreciation is dedicated to the institute of research and community service of Universitas Negeri Semarang to fund the research.

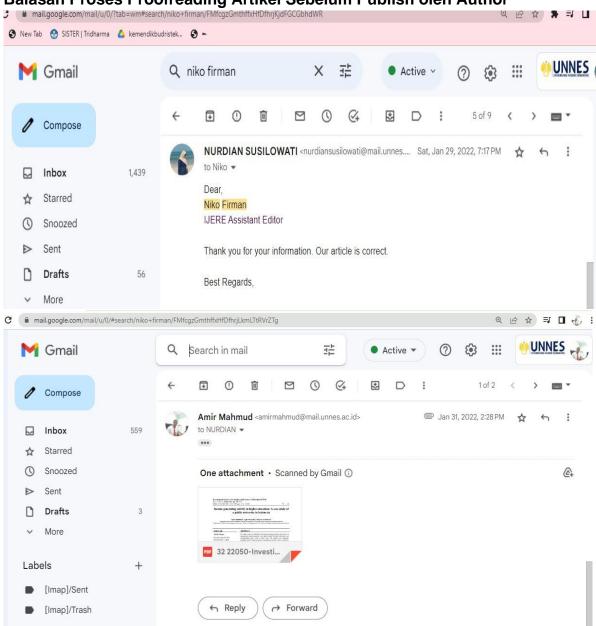
REFERENCES

- J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: From monitoring to management," *Qual.* Assur. Educ., vol. 11, no. 1, pp. 5–14, 2003, doi: 10.1108/09684880310462038.
- [2] T. F. Nur, A. Widodo, and R. Mutiara, "State University with Legal Entity and the Impact to the Rights and Obligations of the Tax Transaction: Case of the University of Indonesia," *KnE Soc. Sci.*, vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," *Res. J. Financ. Accounting*, vol. 6, no. 7, pp. 2222–2847, 2015.
- [4] F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct investment: Empirical evidence in OECD countries," Int. J. Sustain. High. Educ., vol. 22, no. 1, pp. 77–99, 2021, doi: 10.1108/IJSHE-10-2019-0306.
- [5] A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," Int. J. Educ., vol. 9, no. 3, p. 183, 2017, doi: 10.5296/ije.v9i3.11705.
- [6] A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," VINE J. Inf. Knowl. Manag. Syst., 2020, doi: 10.1108/VJIKMS-01-2020-0003.
- [7] L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education: A review of some concepts and models," J. Small Bus. Enterp. Dev., vol. 15, no. 1, pp. 202–226, 2008, doi: 10.1108/14626000810850937.
- [8] H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," Accounting, Audit. Account. J., vol. 32, no. 5, pp. 1500–1531, 2019, doi: 10.1108/AAAJ-03-2018-3391.
- [9] S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools in Isiolo North Sub County, Kenya," *Int. Acad. J. Inf. Sci. Proj. Manag.*, vol. 2, no. 1, pp. 558–573, 2017.

- [10] S. Nair, "School block grants as a model of financial decentralization in Iraq," Int. J. Comp. Educ. Dev., vol. 20, no. 3–4, pp. 165–175, 2018, doi: 10.1108/IJCED-05-2018-0009.
- [11] P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: On the role of university board members," *High. Educ.*, vol. 65, no. 1, pp. 39–58, 2013, doi: 10.1007/s10734-012-9580-x.
- [12] H. Sampaio, "Higher education in Brazil: Stratification in the privatization of enrollment," Adv. Educ. Divers. Communities Res. Policy Prax., vol. 11, pp. 53–81, 2015, doi: 10.1108/S1479-358X20150000011005.
- [13] C. Wardoyo, A. Herdiani, N. Susilowati, and M. S. Harahap, "Professionalism and professionalization of early stage teachers in higher education," J. Appl. Res. High. Educ., vol. 12, no. 5, pp. 1175–1187, 2020, doi: 10.1108/JARHE-04-2019-0100.
- [14] B. Y. Boadi, "Income-generating activities: A viable financial source for African academic libraries?," *Bottom Line*, vol. 19, no. 2, pp. 64–77, 2006, doi: 10.1108/08880450610663609.
- [15] A. Mahmud, N. Susilowati, and T. Tusyanah, "Human Values Model Analysis on Organizational Commitment in Higher Eduation," J. Din. Manaj., vol. 10, no. 1, pp. 46–57, 2019, doi: 10.15294/jdm.v10i1.17569.
- [16] M. Khoiruddin, S. Martono, N. A. Wulansari, and S. Ridloah, "Examining the excellence in higher education (EHE) program in the disruptive era," *Int. J. Innov. Creat. Chang.*, vol. 7, no. 11, pp. 274–287, 2019.
- [17] T. Azinar Ahmad, N. Susilowati, E. Subkhan, and S. Amin, "Historiopreneurship and Commercialization of History
- Laboratory in Universitas Negeri Semarang," *KnE Soc. Sci.*, vol. 2019, pp. 706–715, 2019, doi: 10.18502/kss.v3i18.4760.
 M. Imam and H. Reza, "Sustainability in Higher Education : Perspectives of Malaysian Higher Education System," *SAGE Open*, vol. 6, no. 3, pp. 1–9, 2016, doi: 10.1177/2158244016665890.
- [19] A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government academic institution in The Philippines," *Asia Pacific J. Innov. Entrep.*, vol. 10, no. 1, pp. 5–16, 2016, doi: 10.1108/apjie-12-2016-006.
- [20] Z. Sakhiyya and E. Rata, "From 'priceless' to 'priced': the value of knowledge in higher education," *Glob. Soc. Educ.*, vol. 17, no. 3, pp. 285–295, 2019, doi: 10.1080/14767724.2019.1583089.
- [21] J. Schmidt and L. Peachey, "Funding down under: Entrepreneurial approaches to generating income at the University of Queensland Cybrary," *New Libr. World*, vol. 104, no. 1194, pp. 481–490, 2003, doi: 10.1108/03074800310509406.
- [22] J. Panigrahi, "Innovative Financing of Higher Education : Changing Options and Implications," *SAGE Open*, vol. 5, no. 1, pp. 61–74, 2018, doi: 10.1177/2347631117738644.
- [23] A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource dependence theory: A review," J. Manage., vol. 35, no. 6, pp. 1404–1427, 2009, doi: 10.1177/0149206309343469.
- [24] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on knowledge sharing and employee performance," *J. Manag. Dev.*, vol. 38, no. 7, pp. 538–560, 2019, doi: 10.1108/JMD-07-2018-0190.
- [25] L. Guo, B. Wong-On-Wing, and G. Lui, "Input-based performance evaluation incentive intensity and proactive work behavior," Advances in Management Accounting., vol. 22, pp. 185-223, 2014, https://doi.org/10.1108/S1474-7871(2013)0000022013
- [26] X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect employee wellbeing? A mediated moderation model," *Empl. Relations*, vol. 42, no. 4, pp. 903–919, 2020, doi: 10.1108/ER-08-2019-0320.
- [27] M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for business model innovation," *Int. J. Entrep. Behav. Res.*, vol. 27, no. 2, pp. 520–546, 2021, doi: 10.1108/IJEBR-10-2020-0679.
- [28] J. L. Price, "Handbook of organizational measurement," Int. J. Manpow., vol. 18, no. 4, pp. 305–558, 1997, doi: 10.1108/01437729710182260.
- [29] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," Adm. Soc., vol. 8, no. January 1976, pp. 419–453, 1976.
- [30] R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: Internal and external accountability of principals in varied contexts," J. Educ. Adm., vol. 51, no. 3, pp. 383–406, 2013, doi: 10.1108/09578231311311528.
- [31] S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actornetwork theories in accounting research," *Accounting, Organ. Soc.*, vol. 60, pp. 62–78, 2017, doi: 10.1016/j.aos.2017.06.005.
- [32] J. Seawright, Strategies for Social Inquiry Multi-Method Social Science: Combining Qualitative and Quantitative Tools. Cambridge University Press, 2016.
- [33] K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," *Accounting, Organ. Soc.*, vol. 39, no. 7, pp. 559–566, 2014, doi: 10.1016/j.aos.2014.06.002.
- [34] L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," Int. J. Sustain. High. Educ., vol. 22, no. 1, pp. 44–58, 2021, doi: 10.1108/IJSHE-11-2019-0333.
- [35] A. N. Tsuma and F. M. Mwiringi, "Factors Influencing Performance of Income Generating Units in Public Universities," *Eur. J. Bus. Manag.*, vol. 6, no. 10, pp. 87–92, 2014.
- [36] H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," International Journal of African and Asian Studies., vol. 21, pp. 6–16, 2016.
- [37] R. L. Dipboye and R. L. Dipboye, "3. Work Motivation," The Emerald Review of Industrial and Organizational Psychology., pp. 103-174, 2018.
- [38] D. V. Didenko, "Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late Nineteenth–Early Twenty-first Centuries)," vol. 36, pp.45-107, 2020
- [39] R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," *Int. J. Soc. Econ.*, vol. 44, no. 12, pp. 2271–2286, 2017, doi: 10.1108/IJSE-09-2016-0260.
- [40] A. Butare, "Income-Generating Activities in Higher Education: The Case of Kigali Institute of Science, Technology and Management (KIST)," J. High. Educ. Africa / Rev. l'enseignement supérieur en Afrique, vol. 2, no. 3, pp. 37–53, 2004, [Online]. Available: http://www.jstor.org/stable/24486293.
- [41] P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial Performance of Public Secondary Schools in Kenya," *Chinese Bus. Rev.*, vol. 12, no. 06, pp. 375–394, 2013, doi: 10.17265/1537-1506/2013.06.001.

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Balasan Proses Proofreading Artikel Sebelum Publish oleh Author

Income generating activity in higher education: A case study of a public university in Indonesia

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ABSTRACT **Article Info**

Article history:

Received Apr 20, 2021 Revised Nov 30, 2021 Accepted Dec 27, 2021

Keywords:

Higher education Income-generating Laboratory Study programs

This study aimed to identify the income-generating activities and explore its management model using the case study method. In-depth interviews and documentation were used to collect data. The sample used purposive sampling from 26 study programs. Government subsidy, which is meant to cater to tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Income-generating supplemented the budget of the university. The income is beneficial to hire additional project personnel, purchase supplies, materials and equipment, and improve facilities needed for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of a study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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INTRODUCTION 1.

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities, is funding that relies on the disbursement of the state budget [2]. In comparison, private universities were forced to set high fees collected from the community to support their operations. This reality shows that higher education products from science results cannot produce income-generating that can support university funding [3], [4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, which is insufficient, yet maintaining national quality standards and increasing access to tertiary institutions requires more significant funding. Public institutions, including universities, apply the public service agency (Badan Layanan Umum) pattern to reduce bureaucracy and at the same time improve the quality of government services to the public [6]. As part of a public service agency's financial management flexibility, public service agency income (the entire income is PNBP or Non-Tax State Revenues) can be used directly. According to the business and budget plan, they were first being deposited into the state treasury account. The operating income surplus becomes deposits that can be used in the following year's budget.

Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [7], [8]. Hence, the university income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

According to previous studies, most schools are lack of supervision, so they cannot implement income-generating programs properly [9]–[11]. The role of staff and all academic community influences the implementation of the income-generating program. In addition, the personal qualifications of the team, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school income, which is helpful for the academic and non-academic development of students, teachers, and all school academic communities. Several researchers stated that the universities play an essential role in providing competitive graduates for professional works [12], [13]. Therefore, education funding is needed to create competitive graduates. The unprofessional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, fulfilling university needs can be met by internal universities and not relying on government funding.

As an effort to improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, and efficiently and accountable. University as a public service agency needs to explore resources funds that not only come from educational funding but also other funding sources [2]. Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic aspects are single tuition (*Uang Kuliah Tunggal*/UKT), while non-academic income consists of grants and research grants [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia [16]. One way to increase university income from income-generating besides the single tuition or the institutional development agency managed by the business development agency is to utilize study programs through research centers and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [17]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The university research centers and laboratories can also be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory to increase the income of higher education [18], [19]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more revenue to reduce the government budget for universities. Therefore, the business units in higher education can increase financial resources to reduce dependence on the government budget. Furthermore, being able to meet the needs of financial resources, higher education institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [20], [21].

From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [22]. Resources dependence theory is applied to describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs [23]. The characteristics of the resource's dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in view, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the organization's existence [24], [25]. Furthermore, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their strength [26]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [27], [28]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [29], [30]. At the same time, the theory of resource dependence is one of many organizational theories that characterize organizational behavior.

This research focuses on identifying income generating in each study program and investigating laboratory services and finding the management model. To get autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income-generating aims to improve learning facilities which at the same time will enhance the welfare of students, lecturers, and education staff.

This research contributes to the development of higher education institutions in public service bodies towards legal entities in Indonesia by strengthening exploration and identification of incomegenerating sources in each study program. This is because every study program has its characteristics and uniqueness to promote and generate income by offering its services to the community. In addition, this research contributes to strengthening the capability of income-generating sources so that good management is needed in managing income-generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Mapping the advantages of the study program and the income-generating management model can be used as the basis for the implementation of better income-generating. This management model is derived from Resource Dependence Theory which explains the behavior of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

University performance measures from the financial perspective are the most important one after a customer perspective. Thus, university income generating is interesting because of its diversity among units. Business corporations and political authorities have put forward the principles of good governance for public institutions. However, there has been less discussion about income-generating in higher education. Therefore, the purpose of this study was to identify income-generating activities and explore management models.

2. RESEARCH METHOD

This was qualitative research employed a case study design. A case study is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang, Indonesia. Universitas Negeri Semarang was chosen because it will become a Legal Entity State University, which can generate additional income-generating the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has 69 study programs that can be developed so that the knowledge produced at each study center can be helpful for all people. The data sources were 52, the head of the department, the head of the laboratory, the head of the program, and the head of the study center in each faculty obtained using purposive sampling from 26 study programs. Purposive sampling is a sampling technique of data sources with specific considerations or according to purpose.

This research refers to the development of the accounting science paradigm, which reflects the interpretative paradigm [31]. Its basic assumption is the knowledge explored by explaining human intention scientifically in a series of subjective interpretations and is confirmed by the people's common sense in daily activities. This study reveals various activities conducted in universities as additional sources of income and designs the management models from the perspective of activity doers and leaders who have been directly involved. A case study approach is applied. It aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyze the types of outcomes and impacts.

The primary data sources in this qualitative research were words and actions [32]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in two ways, following the purpose of the research. This research employed two collecting data proposed [31]; documentation and interview strategies.

First, the documentation is gathered from the annual financial report of the university. Furthermore, an in-depth interview was conducted involving key informants. After all, data were collected, they are clustered based on the themes and sub-themes referring to the research topic. At this stage, researchers contemplate the mind content by remembering, perceiving, and designing the themes. Collecting data with documentation is carried out by taking existing data from the university annual financial report. This research was also carried out with an in-depth interview process (in-depth interview) to explore and collect data from informants. Based on the collected data, the compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage, the researcher understands contemplating the content of the mind by remembering, perceiving, and desiring activities leading to the research theme.

Comprehensive questions were made for the interview use, which covers types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staff, the head of the laboratory, the head of the study program, and those in charge of activities. The selection of the person in charge of the action was meant to use the triangulation technique. According to Lukka [33], this technique usually refers to using various perceptions to clarify meaning and verify the possibility of repetition of observation or interpretation. It holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the rule of Universitas Negeri Semarang Chancellor, and scientific journals. This triangulation technique is applied to determine the amount of income-generating that will be obtained for universities, faculties, and majors/study programs.

3. RESULTS AND DISCUSSION

3.1. Profile of income generating sources in the study program

Based on the focus group discussion and in-depth interviews, a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang was obtained. A total of 52 participants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. Table 1 shows the profile of income-generating sources in the study program.

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. In terms of the length of its establishment, the excellent of the product of study programs vary from one semester, more than five years up to 16 years. The research results revealed a significant relationship between long-term income-generating operations and income-generating implementation [1]. Thus, the longer the product stands should show more mature readiness in generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a central assessment which includes psycho assessment services, counselling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

The study program that has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. It was due to the average service user was only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Indonesian literature study program was excellent in theatre, journalism, and Indonesian Language for Foreign Speakers (*Bahasa Indonesia bagi Penutur Asing*/BIPA). However, there has been no excellent coordination between the manager. The pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, study programs with minimum income-generating contributions are Education, Geography, and Management. The participants felt that the gift of laboratories and products to the excellent study programs was still limited in contribution to income-generating universities.

The staff profile needs to be identified in assessing the readiness of the study center based on the excellence of study programs to support income-generating. It includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. The results of previous studies [9], [18] revealed that personal qualifications and staff support positively affected the implementation of income-generating.

	Table 1. Maj		urces of study programs and laboratories
No	Study programs	Laboratories/Research center	Type of goods or services
1	Biology	Biology Laboratory	Cellular and molecular biology
2	Natural Science	Indonesian Journal of Science	Journal publication fee
	Education	Education	
3	Informatic Engineering	Informatic Engineering Education	Training media based on android
	Education	Laboratory	
4	Chemistry	Chemistry Laboratory	Alternative energy
5	Mathematics Education	Mathematics Education Laboratory	Math City Map Learning Media, mathematic olympiad, and seminar
6	Chemical Engineering	Chemical Engineering Laboratory	Instrumentation Laboratory
7	Electrical Engineering	Electrical Engineering Laboratory	The laboratory of integrated computer
8	Family Welfare	Family Welfare Education	Batik production, Catering, and Makeup Services
	Education	Laboratory	
9	Indonesian Language	Indonesian Language and	Journalism, Indonesian Language for Foreign Speakers (BIPA),
	and Literature Education	Literature Education Laboratory	Entrepreneurship
10	English Language and Literature Education	Literacy Study Center	Indonesian Language for Foreign Speakers, Theater, Journalism, and Editor of Book
11	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment services for prospective foreign workers
12	History Education	History Laboratory	Training of learning media and consultant of teaching, learning in history courses, and journal publication fee
13	Visual Communication	Visual Communication Design	Computer studio, ceramic studio, batik studio, and workshop
10	Design	Laboratory	center of art
14	Art Education	Art Education Laboratory	Journal publication fee
15	Economic	Economic development Laboratory	Training in economic analysis, study, and development of
	Development	1 5	science tools, also journal publication fee
16	Psychology	Psychology Laboratory	The center assessment is in the form of psycho-mental services, counselling, therapy, and training
17	Educational	Educational Technology	Training services making learning media, film production
	Technology	Laboratory	training services, curriculum analysis services, and textbook,
		-	learning resource writing training, technopreneur training
			services, and webinar-based training services
18	Early Childhood	Early Childhood Education	Microteaching laboratory, dance laboratory, recording lab, and
	Education	Program Laboratory	music laboratory for early childhood
19	Guidance and	Guidance and Counselling	Counselling services, educational testing services, center for
	Counseling	Laboratory	education and community counselling, training services, and
• •			continuing professional development program
20	Primary School	Primary School Teacher Education	Media learning and mentoring for elementary teachers
~ .	Teacher Education	Laboratory	
21	Non-Formal Education	Non-Formal Education Laboratory	Community learning activity center in the form of
22	Commuter	Coordinates I also internet	homeschooling
22	Geography	Geography Laboratory	Mapping based on geographic information systems (GIS) and
22	Assounting	A accuration a Laboratory	photogrammetry training, and remote sensing
23	Accounting	Accounting Laboratory	Tax center, brevet training center, and accounting, journal publication fee
24	Management	Management Laboratory	Capital market training, marketing, human resources training,
24	Management	Management Laboratory	statistics and research methods training, journal publication fee
25	Economics Education	Integrated Office and	Training and mentoring professionalism of teacher, study center
23	Economics Education	Administration Laboratory	of archives.
		Bank Laboratory	Training of bank for teacher and students.
		Microteaching Laboratory	Development learning media and quality of teacher.
		Center for Accounting Education	Training and mentoring accounting teacher, seminar and
		Studies	completion of accounting.
26	Physical Education and	Athletic Laboratory	Athletic room rent, swimming pool rent, training and services of
-	Recreation		sport
			· ·

Table 1. Mapping the income generating sources of study programs and laboratories

The research found that the average research center manager consisted of two to six people. The position includes the chairman of the research center and their staff. Besides, the laboratory consists of the chairman, laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratory. The doctoral or professors typically hold the role of the head research center. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research center staff made various efforts, such as attending management laboratory, finance, and administration [34].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff experience and insight can increase [35], [36]. The training was attended by laboratory staff varied enough from the International Standard Operations, the primary standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book

writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.

Furthermore, the result shows income-generating sources, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of income with the most considerable nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshops, and training income. Meanwhile, journal publication contributed a revenue of IDR 437,501,272, and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the largest contribution to the amount of income generating universities.

Based on the data, the second contribution is from the journal publication fee, and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a generating source. Factually, based on the mapping of the identification of the advantages of the study program, many fields can generate additional income. However, other fields seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be designed to generate additional income. Figure 1 shows the largest income-generating sources in the study program.

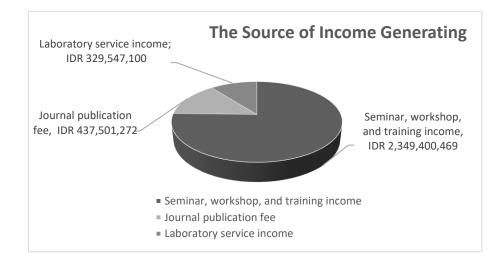


Figure 1. The source of income generating

The findings confirm that income-generating management between one unit and another is diverse. For example, in journal publication fees for journals ranked Second Grade (Sinta 2), the nominal amount in income-generating differs between departments. Likewise, the nominal is also different with journals ranked First Grade (Sinta 1). Thus, creating a system and mechanism for determining the income-generating journal publication fee to be equal among units could be necessary. It aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand the development of laboratory services and product promotion. For example, laboratory services can establish cooperation with government agencies or companies in providing team member lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network. Students can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

Furthermore, to further identify the readiness of the research center in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are:

i) Socialization and work meetings

The university socialization can be carried out and then delivered to the faculty and departmental and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research center excellence to contribute more to supporting income-generating universities.

ii) Building awareness

Professional building awareness is followed by many courses' certification. The competency upgrading program for all laboratory staff is also sought to improve their experience and expertise.

iii) Collaboration with agencies

Some study programs have established relationships and cooperation. Department of art collaborates with small-medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brilliant Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or a memorandum of agreement.

3.2. Model of income generating management based on excellent of the study programs

The university study program and laboratory management model need to be considered a reference and guideline for each study program in developing program excellence (Figure 2). A model in the management of the study center aims to boost each study program to contribute to supporting incomegenerating universities. The management model is sourced from the resource dependence theory, which describes the behavior of institutions to carry out business initiatives as the additional income. The model can describe the behavior of institutions in developing business ventures for supplemental income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus, the model in this study benefits the university development towards Legal Entity State University and the fundamental role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps taken by study programs and universities to implement income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study center or laboratory management model that the researchers propose. The study program's first step is identifying advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Universitas Negeri Semarang Number 25 of 2018. To increase university income from income-generating outside the UKT or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency manages university assets, works the innovative products of lecturers to be used in the community, utilizes study programs through research centres and laboratory optimization. University business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university service to the community. Therefore, identifying the product superiority of the study program should have been the focus of attention. Figure 2 shows the income generating management model based on the excellent of study programs.

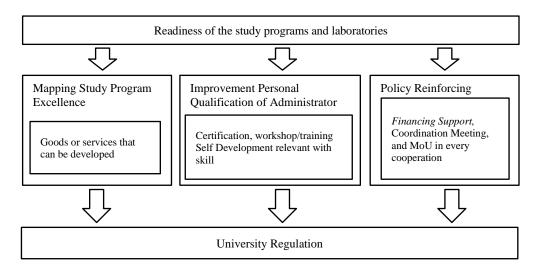


Figure 2. Model of income generating management based on excellent of the study programs

Furthermore, the staff qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [37]. The study program and tertiary institution are obliged to create an institutional culture and harmonize the differences between the various cultures brought by each individual to become a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that is following the mission, vision, and objectives of the college work program and in harmony with the culture that grows and develops in its adaptive environment [17].

The determination of policy supporting gives the primary role [38], [39]. It is done so that incomegenerating activities can be a concern. It is in line with the resources dependence theory characteristics to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [29]. Necessary policy support is one of which is supporting financing or funding [40], [41]. But unfortunately, funding support for the development of this laboratory has not been seen, so the effect of laboratory services tends to be slow. Limited resources will undoubtedly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector regulations must strengthen the research centre management model based on the advantages of this study program. The rule of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

4. CONCLUSION

This finding confirms that income-generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports and existing operational problems. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the actual condition and promote and create a more effective working atmosphere and collaborative mechanism among stakeholders. Since this was a qualitative study, future research needs to apply a quantitative approach. It is essential to determine the implementation of income-generating policies regarding staff support, head of department support, head of the laboratory, lecturers, and existing facilities.

ACKNOWLEDGEMENTS

Authors' appreciation is dedicated to the institute of research and community service of Universitas Negeri Semarang to fund the research.

REFERENCES

- [1] J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: from monitoring to management," *Quality Assurance in Education*, vol. 11, no. 1, pp. 5–14, Mar. 2003, doi: 10.1108/09684880310462038.
- [2] T. F. Nur, A. Widodo, and R. Mutiara, "State University with Legal Entity and the Impact to the Rights and Obligations of the Tax Transaction: Case of the University of Indonesia," *KnE Social Sciences*, vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857.
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," *Research Journal of Finance and Accounting*, vol. 6, no. 7, pp. 247– 254, 2015.
- [4] F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct investment," *International Journal of Sustainability in Higher Education*, vol. 22, no. 1, pp. 77–99, Jan. 2021, doi: 10.1108/JJSHE-10-2019-0306.
- [5] A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," *International Journal of Education*, vol. 9, no. 3, p. 183, Sep. 2017, doi: 10.5296/ije.v9i3.11705.
- [6] A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," VINE Journal of Information and Knowledge Management Systems, Nov. 2020, doi: 10.1108/VJIKMS-01-2020-0003.
- [7] L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education," Journal of Small Business and Enterprise Development, vol. 15, no. 1, pp. 202–226, Feb. 2008, doi: 10.1108/14626000810850937.
- [8] H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," Accounting, Auditing & Accountability Journal, vol. 32, no. 5, pp. 1500–1531, Aug. 2019, doi: 10.1108/AAAJ-03-2018-3391.

- S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools [9] in Isiolo North Sub County, Kenya," International Academic Journal of Information Sciences and Project Management, vol. 2, no. 1, pp. 558-573, 2017.
- S. Nair, "School block grants as a model of financial decentralization in Iraq," International Journal of Comparative Education [10] and Development, vol. 20, no. 3/4, pp. 165-175, Dec. 2018, doi: 10.1108/IJCED-05-2018-0009.
- P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: on the role of university board members," [11] Higher Education, vol. 65, no. 1, pp. 39-58, 2013.
- [12] H. Sampaio, "Higher Education in Brazil: Stratification in the Privatization of Enrollment," in Mitigating inequality: Higher education research, policy, and practice in an era of massification and stratification, Emerald Group publishing limited, 2015, pp. 53-81.
- C. Wardoyo, A. Herdiani, N. Susilowati, and M. S. Harahap, "Professionalism and professionalization of early stage teachers in [13] higher education," Journal of Applied Research in Higher Education, vol. 12, no. 5, pp. 1175-1187, Feb. 2020, doi: 10.1108/JARHE-04-2019-0100.
- [14] B. Y. Boadi, "Income-generating activities: a viable financial source for African academic libraries?" The Bottom Line, vol. 19, no. 2, pp. 64-77, Jun. 2006, doi: 10.1108/08880450610663609.
- A. Mahmud, N. Susilowati, and T. Tusyanah, "Human Values Model Analysis on Organizational Commitment in Higher [15] Eduation," Jurnal Dinamika Manajemen, vol. 10, no. 1, pp. 46-57, Oct. 2019, doi: 10.15294/jdm.v10i1.17569.
- M. Khoiruddina, S. Martonob, N. A. Wulansaric, and S. Ridloah, "Examining the Excellence in Higher Education (EHE) [16] Program in the Disruptive Era," International Journal of Innovation, Creativity and Change, vol. 7, no. 11, pp. 274-287, 2019, [Online]. Available: https://ijicc.net/images/vol7iss11/71119_Khoiruddin_2019_E_R.pdf.
- [17] T. Azinar Ahmad, N. Susilowati, E. Subkhan, and S. Amin, "Historiopreneurship and Commercialization of History Laboratory in Universitas Negeri Semarang," KnE Social Sciences, vol. 6, no. 3, p. 2158244016665890, Jul. 2019, doi: 10.18502/kss.v3i18.4760.
- M. I. H. Reza, "Sustainability in Higher Education," SAGE Open, vol. 6, no. 3, p. 215824401666589, Jul. 2016, doi: [18] 10.1177/2158244016665890.
- [19] A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government academic institution in The Philippines," Asia Pacific Journal of Innovation and Entrepreneurship, vol. 10, no. 1, pp. 5–16, Dec. 2016, doi: 10.1108/apjie-12-2016-006.
- Z. Sakhiyya and E. Rata, "From 'priceless' to 'priced': the value of knowledge in higher education," Globalisation, Societies and [20] Education, vol. 17, no. 3, pp. 285-295, May 2019, doi: 10.1080/14767724.2019.1583089.
- J. Schmidt and L. Peachey, "Funding down under: entrepreneurial approaches to generating income at the University of [21] Queensland Cybrary," New Library World, vol. 104, no. 11/12, pp. 481–490, Dec. 2003, doi: 10.1108/03074800310509406.
- J. Panigrahi, "Innovative Financing of Higher Education," Higher Education for the Future, vol. 5, no. 1, pp. 61-74, Jan. 2018, [22] doi: 10.1177/2347631117738644.
- [23] A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource Dependence Theory: A Review," Journal of Management, vol. 35, no. 6, pp. 1404-1427, Dec. 2009, doi: 10.1177/0149206309343469.
- [24] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on knowledge sharing and employee performance," Journal of Management Development, vol. 38, no. 7, pp. 538-560, Aug. 2019, doi: 10.1108/JMD-07-2018-0190.
- L. Guo, B. Wong-On-Wing, and G. Lui, "Input-Based Performance Evaluation, Incentive Intensity, and Proactive Work [25] Behavior," in Advances in Management Accounting, Emerald Group Publishing Limited, 2013, pp. 185-223.
- [26] X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect employee well-being? A mediated moderation model," Employee Relations: The International Journal, vol. 42, no. 4, pp. 903-919, Apr. 2020, doi: 10.1108/ER-08-2019-0320.
- M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for [27] business model innovation," International Journal of Entrepreneurial Behavior & Research, vol. 27, no. 2, pp. 520-546, Feb. 2021, doi: 10.1108/IJEBR-10-2020-0679.
- J. L. Price, "Handbook of organizational measurement," International Journal of Manpower, vol. 18, no. 4/5/6, pp. 305-558, Jun. [28] 1997. doi: 10.1108/01437729710182260.
- [29] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," Administration and Society, vol. 8, no. January 1976, pp. 419-453, 1976.
- R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: internal and external accountability of principals in varied [30] contexts," Journal of Educational Administration, vol. 51, no. 3, pp. 383–406, May 2013, doi: 10.1108/09578231311311528.
- S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actor-network theories in accounting research," *Accounting, Organizations and Society*, vol. 60, pp. 62–78, Jul. 2017, doi: [31] 10.1016/j.aos.2017.06.005.
- [32] J. Seawright, Strategies for Social Inquiry Multi-Method Social Science: Combining Qualitative and Quantitative Tools. Cambridge University Press, 2016.
- [33] K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," Accounting, Organizations and Society, vol. 39, no. 7, pp. 559-566, Oct. 2014, doi: 10.1016/j.aos.2014.06.002.
- L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," International Journal of [34] Sustainability in Higher Education, vol. 22, no. 1, pp. 44–58, Jan. 2021, doi: 10.1108/IJSHE-11-2019-0333.
- [35] A. N. Tsuma and F. Mugambi, "Factors Influencing Performance of Income Generating Units in Public Universities," European Journal of Business and Management, vol. 6, no. 10, pp. 87-92, 2014.
- H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," International [36] Journal of African and Asian Studies, vol. 21, pp. 6-16, 2016.
- [37] R. L. Dipboye and R. L. Dipboye, 3. Work Motivation. 2018.
- D. V Didenko, "Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late Nineteenth--Early [38] Twenty-first Centuries)," in Research in Economic History, Emerald Publishing Limited, 2020.
- R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," [39] International Journal of Social Economics, vol. 44, no. 12, pp. 2271-2286, Dec. 2017, doi: 10.1108/IJSE-09-2016-0260.
- [40] A. Butare, "Income-generating activities in higher education: The case of Kigali Institute of Science, Technology and Management (KIST)," Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique, pp. 37–53, 2004. P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial Performance of Public
- [41] Secondary Schools in Kenya," Chinese Business Review, vol. 12, no. 06, Jun. 2013, doi: 10.17265/1537-1506/2013.06.001.

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Pemberitahuan bahwa Artikel Telah Publish [IJERE] Your Article has been published in Vol. 11 No. 1 March 2022

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Income generating activity in higher education: A case study of a public university in Indonesia

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ABSTRACT **Article Info**

Article history:

Received Apr 20, 2021 Revised Nov 30, 2021 Accepted Dec 27, 2021

Keywords:

Higher education Income-generating Laboratory Study programs

This study aimed to identify the income-generating activities and explore its management model using the case study method. In-depth interviews and documentation were used to collect data. The sample used purposive sampling from 26 study programs. Government subsidy, which is meant to cater to tuition and operational expenses, has been inadequate. Therefore, activities in the laboratory can be optimized as an income generator. The results of mapping activities in the laboratory and study programs are seminars, conferences, workshops, building rent, ballroom rent, laboratory services, vehicle rent, and scientific consulting services. Income-generating supplemented the budget of the university. The income is beneficial to hire additional project personnel, purchase supplies, materials and equipment, and improve facilities needed for instruction, research, extension, training, and productive activities. The development pattern of income-generating management through partnership and cooperation between the rector, head of the business development agency, deans, and head of a study program also laboratory so that all forms of activities that become financial sources can be monitored and evaluated. Moreover, the preparation of the accountability report must be transparent and accountable.

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INTRODUCTION 1.

Education plays a vital role not only for individuals but also for society. Education funding has become a joint partnership between the government and other development partners [1]. However, government subsidies intended to meet tuition fees and operational costs turned insufficient. In this case, universities must overcome the dynamics of macroeconomics without having to submit budget adjustments to parents. The budget for state universities and colleges reduction and the increasing number of students occurs almost in all universities in Indonesia. Nowadays, the university autonomy issue, particularly state universities, is funding that relies on the disbursement of the state budget [2]. In comparison, private universities were forced to set high fees collected from the community to support their operations. This reality shows that higher education products from science results cannot produce income-generating that can support university funding [3], [4].

Indonesia's low quality of education represents by weak personnel, low incentives, limited resources, facilities, and other factors [5]. The state budget has supported financing for higher education services, which is insufficient, yet maintaining national quality standards and increasing access to tertiary institutions requires more significant funding. Public institutions, including universities, apply the public service agency (Badan Layanan Umum) pattern to reduce bureaucracy and at the same time improve the quality of government services to the public [6]. As part of a public service agency's financial management flexibility, public service agency income (the entire income is PNBP or Non-Tax State Revenues) can be used directly. According to the business and budget plan, they were first being deposited into the state treasury account. The operating income surplus becomes deposits that can be used in the following year's budget.

Through flexibility in financial management, tertiary institutions obtain incentives to make incomegenerating through the services provided and the use of assets, both physical and non-physical assets. From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [7], [8]. Hence, the university income is exciting to study because it is very diverse. Numerous business corporations and political authorities have highlighted the principles of good governance for public institutions. Still, the context in higher education, especially related to income-generating have not been examined yet.

According to previous studies, most schools are lack of supervision, so they cannot implement income-generating programs properly [9]–[11]. The role of staff and all academic community influences the implementation of the income-generating program. In addition, the personal qualifications of the team, supervision, and the amount of investment affect income-generating. The income-generating program can significantly increase school income, which is helpful for the academic and non-academic development of students, teachers, and all school academic communities. Several researchers stated that the universities play an essential role in providing competitive graduates for professional works [12], [13]. Therefore, education funding is needed to create competitive graduates. The unprofessional management of the income-generating projects, ineffective policy on income-generating projects, and inadequate central administration support and goodwill were also said to be affecting the efficiency of the income-generating projects [14]. Unprofessional management means that it requires the cooperation and commitment of employees to succeed in implementing the income-generating project. Thus, fulfilling university needs can be met by internal universities and not relying on government funding.

As an effort to improve the quality and quantity of academic business, management units, supporting business units and commercial business units at university need management to run professionally, effectively, and efficiently and accountable. University as a public service agency needs to explore resources funds that not only come from educational funding but also other funding sources [2]. Indonesia's income public university is divided into two categories: income received from academic and non-academic aspects. The revenues derived from academic aspects are single tuition (*Uang Kuliah Tunggal*/UKT), while non-academic income consists of grants and research grants [15].

Universitas Negeri Semarang is one of the most prominent public universities in Indonesia [16]. One way to increase university income from income-generating besides the single tuition or the institutional development agency managed by the business development agency is to utilize study programs through research centers and laboratory optimization. Optimizing the functions of the study programs and laboratory can increase income-generating. All forms of products produced by lecturers in learning methods, learning media, financial services, financial consulting, and appropriate technology can be illustrated to the public [17]. For instance, the activities of the study programs are accounting seminars, accounting workshops, auditing training, and professional certification training. The university research centers and laboratories can also be developed and utilized for income-generating because there are adequate human resources and facilities.

One of the scenarios carried out by the university to meet budgetary needs is to use a laboratory to increase the income of higher education [18], [19]. In addition, the government encourages the state tertiary-level institutions to run businesses to generate more revenue to reduce the government budget for universities. Therefore, the business units in higher education can increase financial resources to reduce dependence on the government budget. Furthermore, being able to meet the needs of financial resources, higher education institutionalism perspective, college participation in expanding in the form of income and cultural changes to the condition individuals, organizations, and society. This view states that neo-institutionalism influences the norms and values of the education system and the economic goals of higher education, namely increasing income [20], [21].

From a financial perspective, the university performance appraisal seems to be most important after the customer's perspective [22]. Resources dependence theory is applied to describe the behavior of institutions in developing business ventures for additional income so that institutions can survive in meeting budgetary needs [23]. The characteristics of the resource's dependence theory are needed to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources. One postulate, in view, is that the organization relies on external resources so that the result is inadequate external environment control that can disrupt the achievement of organizational goals. As a result, it ultimately threatens the organization's existence [24], [25]. Furthermore, the resources dependence theory has been applied to explain how organizations can reduce dependency and uncertainty in their organizational environment. Understanding organizational behavior requires a suitable environment that can reduce external influences and increase their strength [26]. The resource dependence theory recognizes the impact of external factors. A manager in an organization can decide to reduce the uncertainty of the organization's environment as control over critical resources [27], [28]. Resource dependence theory is the study of how external organizational resources influence organizational behavior. The resources dependence theory explains that organizational actions, such as forming interlocks, alliances, joint ventures, and mergers and acquisitions, are some effort to overcome dependency and improve organizational autonomy and legitimacy [29], [30]. At the same time, the theory of resource dependence is one of many organizational theories that characterize organizational behavior.

This research focuses on identifying income generating in each study program and investigating laboratory services and finding the management model. To get autonomy to increase income other than funds from the government, one of the strategic sources is managing the excellence of study programs and managing laboratory services. Furthermore, the income-generating aims to improve learning facilities which at the same time will enhance the welfare of students, lecturers, and education staff.

This research contributes to the development of higher education institutions in public service bodies towards legal entities in Indonesia by strengthening exploration and identification of incomegenerating sources in each study program. This is because every study program has its characteristics and uniqueness to promote and generate income by offering its services to the community. In addition, this research contributes to strengthening the capability of income-generating sources so that good management is needed in managing income-generating. Furthermore, it can provide benefits for the development of Universitas Negeri Semarang towards Legal Entity State University (*Perguruan Tinggi Berbadan Hukum*) and realize excellent service for the community.

Mapping the advantages of the study program and the income-generating management model can be used as the basis for the implementation of better income-generating. This management model is derived from Resource Dependence Theory which explains the behavior of institutions to carry out business initiatives as additional income to make institutions able to survive in meeting budgetary needs and are not dependent on education funds from the government. Through the flexibility of financial management, universities get incentives to generate income either through the services provided or the utilization of assets, both physical and non-physical assets.

University performance measures from the financial perspective are the most important one after a customer perspective. Thus, university income generating is interesting because of its diversity among units. Business corporations and political authorities have put forward the principles of good governance for public institutions. However, there has been less discussion about income-generating in higher education. Therefore, the purpose of this study was to identify income-generating activities and explore management models.

2. RESEARCH METHOD

This was qualitative research employed a case study design. A case study is considered more flexible in helping researchers find essential factors that arise from real-life contexts that cannot be directly manipulated [10]. A case study was conducted at Universitas Negeri Semarang, Indonesia. Universitas Negeri Semarang was chosen because it will become a Legal Entity State University, which can generate additional income-generating the study programs and laboratory-based on the excellence of study programs. Universitas Negeri Semarang has 69 study programs that can be developed so that the knowledge produced at each study center can be helpful for all people. The data sources were 52, the head of the department, the head of the laboratory, the head of the program, and the head of the study center in each faculty obtained using purposive sampling from 26 study programs. Purposive sampling is a sampling technique of data sources with specific considerations or according to purpose.

This research refers to the development of the accounting science paradigm, which reflects the interpretative paradigm [31]. Its basic assumption is the knowledge explored by explaining human intention scientifically in a series of subjective interpretations and is confirmed by the people's common sense in daily activities. This study reveals various activities conducted in universities as additional sources of income and designs the management models from the perspective of activity doers and leaders who have been directly involved. A case study approach is applied. It aims to explore and describe the performance evaluation of revenue sources from the leadership perspective, identify, and analyze the types of outcomes and impacts.

The primary data sources in this qualitative research were words and actions [32]. Therefore, the main instrument in this study was the researchers through interviews who are expected to analyze more deeply the qualitative data obtained. The method of data collection was undertaken in two ways, following the purpose of the research. This research employed two collecting data proposed [31]; documentation and interview strategies.

First, the documentation is gathered from the annual financial report of the university. Furthermore, an in-depth interview was conducted involving key informants. After all, data were collected, they are clustered based on the themes and sub-themes referring to the research topic. At this stage, researchers contemplate the mind content by remembering, perceiving, and designing the themes. Collecting data with documentation is carried out by taking existing data from the university annual financial report. This research was also carried out with an in-depth interview process (in-depth interview) to explore and collect data from informants. Based on the collected data, the compilation is carried out according to the theme, where the data is sorted into sub-themes according to the theme of this research. At this stage, the researcher understands contemplating the content of the mind by remembering, perceiving, and desiring activities leading to the research theme.

Comprehensive questions were made for the interview use, which covers types of excellence of the study program, laboratory, the main program, and the legality. The interview in this case study was conducted involving the laboratory management staff, the head of the laboratory, the head of the study program, and those in charge of activities. The selection of the person in charge of the action was meant to use the triangulation technique. According to Lukka [33], this technique usually refers to using various perceptions to clarify meaning and verify the possibility of repetition of observation or interpretation. It holds on the principle that no observation or interpretation is 100% repeatable. In addition, it was also in the form of literature studies, government regulations regarding the implementation of income-generating in the university environment, the rule of Universitas Negeri Semarang Chancellor, and scientific journals. This triangulation technique is applied to determine the amount of income-generating that will be obtained for universities, faculties, and majors/study programs.

3. RESULTS AND DISCUSSION

3.1. Profile of income generating sources in the study program

Based on the focus group discussion and in-depth interviews, a mapping of the excellent study programs and laboratories in Universitas Negeri Semarang was obtained. A total of 52 participants from the dean of faculty, head of the department, and laboratory chairpersons conveyed the readiness of the study program to sell goods and services that are intellectual products of lecturers. Table 1 shows the profile of income-generating sources in the study program.

The excellent product of each study program in Table 1 can be used as a business unit to manage business units, one of which is used to gain an income-generating to support academic and non-academic activities. In terms of the length of its establishment, the excellent of the product of study programs vary from one semester, more than five years up to 16 years. The research results revealed a significant relationship between long-term income-generating operations and income-generating implementation [1]. Thus, the longer the product stands should show more mature readiness in generating income so that the contribution toward the income-generating is also high. For example, legal aid services in the Law science studies program have been established for more than five years. This service has been institutionalized. In addition, psychology study programs have started to open services sixteen years ago, currently running a business unit in a central assessment which includes psycho assessment services, counselling, therapy, and training. Based on the focus group discussion results, informants concluded that the development of these services was felt to have met the targets set by the faculty and the university.

The study program that has not been maximizing the contribution toward the income-generating universities was the Department of Family Welfare Education. It was due to the average service user was only from the internal party. They were only the students, so there has been no contribution from the excellent of the study program toward university income generating. Indonesian literature study program was excellent in theatre, journalism, and Indonesian Language for Foreign Speakers (*Bahasa Indonesia bagi Penutur Asing*/BIPA). However, there has been no excellent coordination between the manager. The pattern of collaboration was still independent and personally (not yet institutionalized) and used only by students. Likewise, study programs with minimum income-generating contributions are Education, Geography, and Management. The participants felt that the gift of laboratories and products to the excellent study programs was still limited in contribution to income-generating universities.

The staff profile needs to be identified in assessing the readiness of the study center based on the excellence of study programs to support income-generating. It includes study program age, educational background, training and seminars, and workshops attended. These determinants affect staff professionalism in managing and developing the excellence of study programs in supporting income-generating universities. The results of previous studies [9], [18] revealed that personal qualifications and staff support positively affected the implementation of income-generating.

	Table 1. Maj	oping the income generating so	urces of study programs and laboratories
No	Study programs	Laboratories/Research center	Type of goods or services
1	Biology	Biology Laboratory	Cellular and molecular biology
2	Natural Science	Indonesian Journal of Science	Journal publication fee
	Education	Education	
3	Informatic Engineering	Informatic Engineering Education	Training media based on android
	Education	Laboratory	
4	Chemistry	Chemistry Laboratory	Alternative energy
5	Mathematics Education	Mathematics Education Laboratory	Math City Map Learning Media, mathematic olympiad, and seminar
6	Chemical Engineering	Chemical Engineering Laboratory	Instrumentation Laboratory
7	Electrical Engineering	Electrical Engineering Laboratory	The laboratory of integrated computer
8	Family Welfare	Family Welfare Education	Batik production, Catering, and Makeup Services
	Education	Laboratory	
9	Indonesian Language	Indonesian Language and	Journalism, Indonesian Language for Foreign Speakers (BIPA),
	and Literature Education	Literature Education Laboratory	Entrepreneurship
10	English Language and Literature Education	Literacy Study Center	Indonesian Language for Foreign Speakers, Theater, Journalism, and Editor of Book
11	Law science	Law Science Laboratory	Legal assistance, legal services for making academic drafts per law, and recruitment services for prospective foreign workers
12	History Education	History Laboratory	Training of learning media and consultant of teaching, learning in history courses, and journal publication fee
13	Visual Communication	Visual Communication Design	Computer studio, ceramic studio, batik studio, and workshop
	Design	Laboratory	center of art
14	Art Education	Art Education Laboratory	Journal publication fee
15	Economic	Economic development Laboratory	Training in economic analysis, study, and development of
	Development	1 v	science tools, also journal publication fee
16	Psychology	Psychology Laboratory	The center assessment is in the form of psycho-mental services, counselling, therapy, and training
17	Educational Technology	Educational Technology Laboratory	Training services making learning media, film production training services, curriculum analysis services, and textbook, learning resource writing training, technopreneur training
			services, and webinar-based training services
18	Early Childhood Education	Early Childhood Education Program Laboratory	Microteaching laboratory, dance laboratory, recording lab, and music laboratory for early childhood
19	Guidance and	Guidance and Counselling	Counselling services, educational testing services, center for
	Counseling	Laboratory	education and community counselling, training services, and continuing professional development program
20	Primary School Teacher Education	Primary School Teacher Education Laboratory	Media learning and mentoring for elementary teachers
21	Non-Formal Education	Non-Formal Education Laboratory	Community learning activity center in the form of
<i>4</i> 1	1,011 I Official Education	Tion I office Education Eaboratory	homeschooling
22	Geography	Geography Laboratory	Mapping based on geographic information systems (GIS) and photogrammetry training, and remote sensing
23	Accounting	Accounting Laboratory	Tax center, brevet training center, and accounting, journal publication fee
24	Management	Management Laboratory	Capital market training, marketing, human resources training,
25	Economics Education	Integrated Office and	statistics and research methods training, journal publication fee Training and mentoring professionalism of teacher, study center
		Administration Laboratory	of archives.
		Bank Laboratory	Training of bank for teacher and students.
		Microteaching Laboratory	Development learning media and quality of teacher.
		Center for Accounting Education	Training and mentoring accounting teacher, seminar and
24	Dhysical Education and	Studies	completion of accounting. Athletic room rent, swimming pool rent, training and services of
26	Physical Education and Recreation	Athletic Laboratory	
	Refeation		sport

Table 1. Mapping the income generating sources of study programs and laboratories

The research found that the average research center manager consisted of two to six people. The position includes the chairman of the research center and their staff. Besides, the laboratory consists of the chairman, laboratory staff, and laboratory assistants. The average educational background of the laboratory chairman is magister and doctoral. The undergraduates usually occupy a position as technicians and laboratory. The doctoral or professors typically hold the role of the head research center. Most of them are still attending the university in the 4-6 semesters in their respective study programs for laboratory assistants. Development competence of laboratory and research center staff made various efforts, such as attending management laboratory, finance, and administration [34].

On the other hand, the intensity of staff participation in seminars, workshops, or training is essential to know. The staff experience and insight can increase [35], [36]. The training was attended by laboratory staff varied enough from the International Standard Operations, the primary standard competency requirements for testing and calibration labs, international seminars with indexed proceedings, editorial workshops, book

writing workshops, and self-development. Self-development aims to upgrade laboratory staff a capability related to their expertise in their respective fields. For example, a seminar attended by the laboratory of psychology study program staff to update the psychology profession likes workshop about test mental and school health.

Furthermore, the result shows income-generating sources, namely seminars, workshops, training income, journal publication fees, and laboratory service income. The three sources of income with the most considerable nominal amount contributed IDR 2,349,400,469 in revenue are seminars, workshops, and training income. Meanwhile, journal publication contributed a revenue of IDR 437,501,272, and laboratory service income of IDR 329,547,100. Based on these data, it is seen that seminars, workshops, and training activities in the study program provide the largest contribution to the amount of income generating universities.

Based on the data, the second contribution is from the journal publication fee, and the third is in the laboratory service. Thus, it implies that the study program still focuses on these three fields as a generating source. Factually, based on the mapping of the identification of the advantages of the study program, many fields can generate additional income. However, other fields seem to be less managed in an optimum way. Therefore, it is necessary to develop management capacity, promotion, and policy support so that other fields can also be designed to generate additional income. Figure 1 shows the largest income-generating sources in the study program.

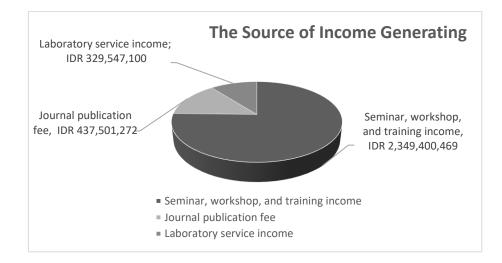


Figure 1. The source of income generating

The findings confirm that income-generating management between one unit and another is diverse. For example, in journal publication fees for journals ranked Second Grade (Sinta 2), the nominal amount in income-generating differs between departments. Likewise, the nominal is also different with journals ranked First Grade (Sinta 1). Thus, creating a system and mechanism for determining the income-generating journal publication fee to be equal among units could be necessary. It aims to avoid inequality in determining income generating. This will lead to benefit all parties without burdening others. Besides, the rates for workshops, seminars, and training activities also need to be reviewed according to the essence and characteristics of the activity outputs.

Finally, it is necessary to expand the development of laboratory services and product promotion. For example, laboratory services can establish cooperation with government agencies or companies in providing team member lunches or various activities. Likewise, for beauty and fashion, they collaborate with bridal makeup, graduation, or other ceremonies. Science laboratories can also expand their network. Students can enter the laboratory, but the general public or middle/high school students can also enjoy its services.

Furthermore, to further identify the readiness of the research center in supporting income-generating universities, it can be seen from the policy support. The result of the study shows that some of the policies that support income-generating universities are:

i) Socialization and work meetings

The university socialization can be carried out and then delivered to the faculty and departmental and study programs. Work meetings are held to improve coordination between the chairman in discussing the management of research center excellence to contribute more to supporting income-generating universities.

ii) Building awareness

Professional building awareness is followed by many courses' certification. The competency upgrading program for all laboratory staff is also sought to improve their experience and expertise.

iii) Collaboration with agencies

Some study programs have established relationships and cooperation. Department of art collaborates with small-medium enterprise offices, and the Department of Development Economics has collaborated with Indonesia Bank and Central Java Province. Department of Accounting has collaborated with Central Java Tax Office. Department of management has teamed with the Indonesia Stock Exchange, TICMI corporation, MARK PLUS corporation, and Brilliant Certification Institute for competencies test. All cooperation is accompanied by a memorandum of understanding or a memorandum of agreement.

3.2. Model of income generating management based on excellent of the study programs

The university study program and laboratory management model need to be considered a reference and guideline for each study program in developing program excellence (Figure 2). A model in the management of the study center aims to boost each study program to contribute to supporting incomegenerating universities. The management model is sourced from the resource dependence theory, which describes the behavior of institutions to carry out business initiatives as the additional income. The model can describe the behavior of institutions in developing business ventures for supplemental income so that institutions can survive in meeting budgetary needs and not depend on government education funds. Thus, the model in this study benefits the university development towards Legal Entity State University and the fundamental role of Universitas Negeri Semarang in realizing service excellence for the community.

The model that the author intends is illustrated through concrete steps taken by study programs and universities to implement income-generating universities. This step starts from establishing the study programs readiness to the implications for implementing an income-generating university. The following is a study center or laboratory management model that the researchers propose. The study program's first step is identifying advantages, including any goods or services that can be developed into marketable products based on the Rector Regulation of Universitas Negeri Semarang Number 25 of 2018. To increase university income from income-generating outside the UKT or the contribution of institutional development managed by the Business Development Agency. The Business Development Agency manages university assets, works the innovative products of lecturers to be used in the community, utilizes study programs through research centres and laboratory optimization. University business activities, whether directly coordinated by the Business Development Agency or not, to produce goods and services to gain profits to increase university service to the community. Therefore, identifying the product superiority of the study program should have been the focus of attention. Figure 2 shows the income generating management model based on the excellent of study programs.

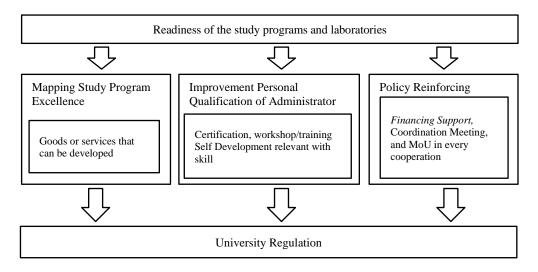


Figure 2. Model of income generating management based on excellent of the study programs

Furthermore, the staff qualifications need to be improved. Some ways that can be done require managers to have certification and include managers in workshops, which relates to the capacity building according to the demands of expertise in their respective study programs. Good manager qualifications can improve laboratory management as well. The relevance of higher education human resource management to work culture is inseparable [37]. The study program and tertiary institution are obliged to create an institutional culture and harmonize the differences between the various cultures brought by each individual to become a culture accepted in the college environment. For this reason, it is necessary to cultivate a work culture that is following the mission, vision, and objectives of the college work program and in harmony with the culture that grows and develops in its adaptive environment [17].

The determination of policy supporting gives the primary role [38], [39]. It is done so that incomegenerating activities can be a concern. It is in line with the resources dependence theory characteristics to determine the resources, financial, infrastructure needs, and information from an environment that depends on external resources [29]. Necessary policy support is one of which is supporting financing or funding [40], [41]. But unfortunately, funding support for the development of this laboratory has not been seen, so the effect of laboratory services tends to be slow. Limited resources will undoubtedly affect the study program in providing services or creating a sheltered product by the wider community. Another pursued policy is a memorandum of understanding in cooperation with agencies, but this is still done by several study programs and has not yet gone commercially. However, for almost all study programs, coordination meetings have been conducted. The rector regulations must strengthen the research centre management model based on the advantages of this study program. The rule of the rector is related to income-generating based on the superiority of the study program and is expected to be implemented in real terms in the following year.

4. CONCLUSION

This finding confirms that income-generating management must implement a monitoring and evaluation system that can track the economic performance of each study program or laboratory excellence. Monitoring and evaluation activities are carried out by considering periodic financial reports and existing operational problems. A monitoring and evaluation team consisting of representatives from management staff, study program leaders, and the top management at university levels can be formed monitoring and evaluation. This team is expected to improve the system based on the actual condition and promote and create a more effective working atmosphere and collaborative mechanism among stakeholders. Since this was a qualitative study, future research needs to apply a quantitative approach. It is essential to determine the implementation of income-generating policies regarding staff support, head of department support, head of the laboratory, lecturers, and existing facilities.

ACKNOWLEDGEMENTS

Authors' appreciation is dedicated to the institute of research and community service of Universitas Negeri Semarang to fund the research.

REFERENCES

- [1] J. Cullen, J. Joyce, T. Hassall, and M. Broadbent, "Quality in higher education: from monitoring to management," *Quality Assurance in Education*, vol. 11, no. 1, pp. 5–14, Mar. 2003, doi: 10.1108/09684880310462038.
- [2] T. F. Nur, A. Widodo, and R. Mutiara, "State University with Legal Entity and the Impact to the Rights and Obligations of the Tax Transaction: Case of the University of Indonesia," *KnE Social Sciences*, vol. 3, no. 11, p. 1388, 2018, doi: 10.18502/kss.v3i11.2857.
- [3] S. M. Murage and S. O. Onyuma, "Analysis of Financial Performance of Income Generating Activities in Public Higher Learning Institutions: Experience from Egerton University, Kenya," *Research Journal of Finance and Accounting*, vol. 6, no. 7, pp. 247– 254, 2015.
- [4] F. N. Alshubiri, "Analysis of financial sustainability indicators of higher education institutions on foreign direct investment," *International Journal of Sustainability in Higher Education*, vol. 22, no. 1, pp. 77–99, Jan. 2021, doi: 10.1108/JJSHE-10-2019-0306.
- [5] A. Sukasni and H. Efendy, "The Problematic of Education System in Indonesia and Reform Agenda," *International Journal of Education*, vol. 9, no. 3, p. 183, Sep. 2017, doi: 10.5296/ije.v9i3.11705.
- [6] A. Mahmud, "Learning culture, trust culture and knowledge application: the mediating effect of transformational leadership," VINE Journal of Information and Knowledge Management Systems, Nov. 2020, doi: 10.1108/VJIKMS-01-2020-0003.
- [7] L. Pittaway and P. Hannon, "Institutional strategies for developing enterprise education," Journal of Small Business and Enterprise Development, vol. 15, no. 1, pp. 202–226, Feb. 2008, doi: 10.1108/14626000810850937.
- [8] H. Irvine and C. Ryan, "The financial health of Australian universities: policy implications in a changing environment," Accounting, Auditing & Accountability Journal, vol. 32, no. 5, pp. 1500–1531, Aug. 2019, doi: 10.1108/AAAJ-03-2018-3391.

- S. M. Adan and P. Keiyoro, "Factors Influencing the Implementation of Income Generating Projects in Public Secondary Schools [9] in Isiolo North Sub County, Kenya," International Academic Journal of Information Sciences and Project Management, vol. 2, no. 1, pp. 558-573, 2017.
- S. Nair, "School block grants as a model of financial decentralization in Iraq," International Journal of Comparative Education [10] and Development, vol. 20, no. 3/4, pp. 165-175, Dec. 2018, doi: 10.1108/IJCED-05-2018-0009.
- P. M. Kretek, Ž. Dragšić, and B. M. Kehm, "Transformation of university governance: on the role of university board members," [11] Higher Education, vol. 65, no. 1, pp. 39-58, 2013.
- [12] H. Sampaio, "Higher Education in Brazil: Stratification in the Privatization of Enrollment," in Mitigating inequality: Higher education research, policy, and practice in an era of massification and stratification, Emerald Group publishing limited, 2015, pp. 53-81.
- C. Wardoyo, A. Herdiani, N. Susilowati, and M. S. Harahap, "Professionalism and professionalization of early stage teachers in [13] higher education," Journal of Applied Research in Higher Education, vol. 12, no. 5, pp. 1175-1187, Feb. 2020, doi: 10.1108/JARHE-04-2019-0100.
- B. Y. Boadi, "Income-generating activities: a viable financial source for African academic libraries?" The Bottom Line, vol. 19, [14] no. 2, pp. 64-77, Jun. 2006, doi: 10.1108/08880450610663609.
- A. Mahmud, N. Susilowati, and T. Tusyanah, "Human Values Model Analysis on Organizational Commitment in Higher [15] Eduation," Jurnal Dinamika Manajemen, vol. 10, no. 1, pp. 46-57, Oct. 2019, doi: 10.15294/jdm.v10i1.17569.
- M. Khoiruddina, S. Martonob, N. A. Wulansaric, and S. Ridloah, "Examining the Excellence in Higher Education (EHE) [16] Program in the Disruptive Era," International Journal of Innovation, Creativity and Change, vol. 7, no. 11, pp. 274-287, 2019, [Online]. Available: https://ijicc.net/images/vol7iss11/71119_Khoiruddin_2019_E_R.pdf.
- [17] T. Azinar Ahmad, N. Susilowati, E. Subkhan, and S. Amin, "Historiopreneurship and Commercialization of History Laboratory in Universitas Negeri Semarang," KnE Social Sciences, vol. 6, no. 3, p. 2158244016665890, Jul. 2019, doi: 10.18502/kss.v3i18.4760.
- M. I. H. Reza, "Sustainability in Higher Education," SAGE Open, vol. 6, no. 3, p. 215824401666589, Jul. 2016, doi: [18] 10.1177/2158244016665890.
- [19] A. T. Miranda, L. E. Tenedero, J. L. Fiel-Miranda, and E. R. Celestino, "The income-generating projects of a government academic institution in The Philippines," Asia Pacific Journal of Innovation and Entrepreneurship, vol. 10, no. 1, pp. 5-16, Dec. 2016, doi: 10.1108/apjie-12-2016-006.
- Z. Sakhiyya and E. Rata, "From 'priceless' to 'priced': the value of knowledge in higher education," Globalisation, Societies and [20] Education, vol. 17, no. 3, pp. 285-295, May 2019, doi: 10.1080/14767724.2019.1583089.
- J. Schmidt and L. Peachey, "Funding down under: entrepreneurial approaches to generating income at the University of [21] Queensland Cybrary," New Library World, vol. 104, no. 11/12, pp. 481–490, Dec. 2003, doi: 10.1108/03074800310509406.
- J. Panigrahi, "Innovative Financing of Higher Education," Higher Education for the Future, vol. 5, no. 1, pp. 61-74, Jan. 2018, [22] doi: 10.1177/2347631117738644.
- [23] A. J. Hillman, M. C. Withers, and B. J. Collins, "Resource Dependence Theory: A Review," Journal of Management, vol. 35, no. 6, pp. 1404-1427, Dec. 2009, doi: 10.1177/0149206309343469.
- [24] A. Rohim and I. G. S. Budhiasa, "Organizational culture as moderator in the relationship between organizational reward on knowledge sharing and employee performance," Journal of Management Development, vol. 38, no. 7, pp. 538-560, Aug. 2019, doi: 10.1108/JMD-07-2018-0190.
- L. Guo, B. Wong-On-Wing, and G. Lui, "Input-Based Performance Evaluation, Incentive Intensity, and Proactive Work [25] Behavior," in Advances in Management Accounting, Emerald Group Publishing Limited, 2013, pp. 185-223.
- [26] X. Zhang, Z. Lin, Y. Liu, X. Chen, and D. M. Liu, "How do human resource management practices affect employee well-being? A mediated moderation model," Employee Relations: The International Journal, vol. 42, no. 4, pp. 903-919, Apr. 2020, doi: 10.1108/ER-08-2019-0320.
- M. Guerrero, C. A. Santamaría-Velasco, and R. Mahto, "Intermediaries and social entrepreneurship identity: implications for [27] business model innovation," International Journal of Entrepreneurial Behavior & Research, vol. 27, no. 2, pp. 520-546, Feb. 2021, doi: 10.1108/IJEBR-10-2020-0679.
- J. L. Price, "Handbook of organizational measurement," International Journal of Manpower, vol. 18, no. 4/5/6, pp. 305-558, Jun. [28] 1997. doi: 10.1108/01437729710182260.
- [29] H. E. Aldrich, "Resource dependence and interorgnaizational relations: Relations between local service employment offices and social service sector organizations," Administration and Society, vol. 8, no. January 1976, pp. 419-453, 1976.
- R. A. Gonzalez and W. A. Firestone, "Educational tug-of-war: internal and external accountability of principals in varied [30] contexts," Journal of Educational Administration, vol. 51, no. 3, pp. 383–406, May 2013, doi: 10.1108/09578231311311528.
- S. Modell, E. Vinnari, and K. Lukka, "On the virtues and vices of combining theories: The case of institutional and actor-network theories in accounting research," *Accounting, Organizations and Society*, vol. 60, pp. 62–78, Jul. 2017, doi: [31] 10.1016/j.aos.2017.06.005.
- [32] J. Seawright, Strategies for Social Inquiry Multi-Method Social Science: Combining Qualitative and Quantitative Tools. Cambridge University Press, 2016.
- [33] K. Lukka, "Exploring the possibilities for causal explanation in interpretive research," Accounting, Organizations and Society, vol. 39, no. 7, pp. 559-566, Oct. 2014, doi: 10.1016/j.aos.2014.06.002.
- L. Liu and L. Gao, "Financing university sustainability initiatives in China: actors and processes," International Journal of [34] Sustainability in Higher Education, vol. 22, no. 1, pp. 44–58, Jan. 2021, doi: 10.1108/IJSHE-11-2019-0333.
- [35] A. N. Tsuma and F. Mugambi, "Factors Influencing Performance of Income Generating Units in Public Universities," European Journal of Business and Management, vol. 6, no. 10, pp. 87-92, 2014.
- H. N. Nyamwega, "An Evaluation of Income Generating Projects in Public Secondary Schools in Nairobi County," International [36] Journal of African and Asian Studies, vol. 21, pp. 6-16, 2016.
- [37] R. L. Dipboye and R. L. Dipboye, 3. Work Motivation. 2018.
- D. V Didenko, "Trends and Institutional Sources of Financing Russia's Human Capital Formation (Late Nineteenth--Early [38] Twenty-first Centuries)," in Research in Economic History, Emerald Publishing Limited, 2020.
- R. Atan, M. M. Alam, and J. Said, "Practices of corporate integrity and accountability of non-profit organizations in Malaysia," [39] International Journal of Social Economics, vol. 44, no. 12, pp. 2271-2286, Dec. 2017, doi: 10.1108/IJSE-09-2016-0260.
- [40] A. Butare, "Income-generating activities in higher education: The case of Kigali Institute of Science, Technology and Management (KIST)," Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique, pp. 37–53, 2004. P. A. Odundo and C. M. Rambo, "Effect of School-Based Income Generating Activities on the Financial Performance of Public
- [41] Secondary Schools in Kenya," Chinese Business Review, vol. 12, no. 06, Jun. 2013, doi: 10.17265/1537-1506/2013.06.001.

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