

Sustainable Research and Community Engagement Model in Indonesian Public Universities: Legal and Policy Perspectives

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Abstract

Universities must not stand alone and act as institutions that are not related to communities. Education should elevate scholars, not only in terms of thinking but also in terms of giving positive contribution to communities. In Indonesia, there are some types of status of universities, one of them is named public universities with legal entity (PTN-BH). This type of status is also mandated to provide contributions to communities that should be aligned with results of previous research conducted by universities' scholars or vice versa. Nevertheless, regulations on how research and community engagement through such model may be realized remain limited. Thus, this work aims to establish a model for such



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research and community engagement by considering the existing policy and regulations. This research used quantitative approach. Data gathered through semi-structured interviews, documents analysis, and case studies from selected PTN-BH. Methods of analyzing data were thematically identified patterns, challenges, and best practices. The findings were: (1) it is essential for PTN-BH to establish robust policy and regulations, (2) constitute how to have sustainable engagement projects between PTN-BH with communities, and (3) determine sustainable mutual benefits. The model that is proposed has been developed through careful consideration of policy and laws that have been there as enabling factors not as barriers. Thus, the contribution of this study is the notion of the necessity of sustainable connection between PTN-BH with community that corresponds with the existing policy and regulations. This aligns with Sustainable Development Goals (SDGs) 4: Quality Education.

KEYWORDS *Research Collaboration, Community Engagement, Higher Education Law, Policy Frameworks, Sustainable Development Goals (SDGs).*

Introduction

Nowdays, roles of universities have transformed from teaching and knowledge dissemination to becoming agents in societal transformation.¹ The transformation has been happening globally, as can be seen, that universities are expected not only to produce skilled graduates but also to bring their research results and conduct community engagement to realize social, economic, and technological developments.² In regards with community engagement role—called “third mission”, in economic developing countries where the gap between academic knowledge and societal needs remain significant, this particular role has been taken as

¹ Verena Peer, and Gernot Stoeglehner. "Universities as change agents for sustainability—framing the role of knowledge transfer and generation in regional development processes." *Journal of Cleaner Production* 44 (2013): 85-95.

² John Goddard, and Jaana Puukka. "The engagement of higher education institutions in regional development: An overview of the opportunities and challenges." *Higher Education Management and Policy* 20, no. 2 (2008): 11-41.

crucial.³ While historically, in Indonesia, public universities have emphasized academic excellence and research output; however, the societal impact of these activities has often been limited due to the lack of structured engagement mechanisms.⁴ Previous studies found that universities play important roles in sustaining socio and economic of community developmental by linking academic research with community-oriented programs, such as local economic development projects, environmental management initiatives, and campaigns on public health.⁵ Taken into account as examples are some of the programs that have been conducted by Universitas Gadjah Mada (UGM) and Institut Teknologi Bandung (ITB), they have developed community programs that incorporate their academic expertise with what local communities needs. The results of such programs are the improvements in agricultural productivity and technological adoption.⁶ Their success is considered as valid evidence that with appropriate measurements, universities can become vehicles for meaningful societal development. Nevertheless, to have sustainable and elevate the

³ Paulina Spânu, Mihaela-Elena Ulmeanu, and Cristian-Vasile Doicin. "Academic third mission through community engagement: An empirical study in European universities." *Education Sciences* 14, no. 2 (2024): 141; Hans G. Schuetze, "Universities and their communities—Engagement and service as primary mission." *Higher education and civic engagement: Comparative perspectives*. New York: Palgrave Macmillan US, 2012, pp. 61-77.

⁴ Rochman Achwan, et al. "University reform and the development of social sciences in Indonesia." *International Journal of Educational Development* 78 (2020): 102269; Hartono Hartono. "Research Developments in Quality Management at Universities in Indonesia: A Systematic Literature Review." *AL-ISHLAH: Jurnal Pendidikan* 16, no. 2 (2024): 661-669.

⁵ Hossein Mousazadeh, "Unraveling the nexus between community development and sustainable development goals: A comprehensive mapping." *Community Development* 56, no. 2 (2025): 276-302; Isabel B. Franco, and James Tracey. "Community capacity-building for sustainable development: Effectively striving towards achieving local community sustainability targets." *International Journal of Sustainability in Higher Education* 20, no. 4 (2019): 691-725.

⁶ Kuswarini Sulandjari, et al. "The Effect of Community Participation, Knowledge Transfer, Technology Adoption on Community Food Security and Agricultural Sustainability in Farm Entrepreneurs in Indonesia." *West Science Interdisciplinary Studies* 1, no. 10 (2023): 1080-1091.

programs--there are some challenges that should be overcome, namely institutional policies, regulations ambiguities, and ad hoc implementation practices.

Indonesia has divided public universities into some types, one of them is public universities with legal entity status (Perguruan Tinggi Negeri Berbadan Hukum and abbreviated as PTN-BH). Universities of this type have greater autonomy compared to the other types of state universities.⁷ PTN-BH institutions have the authority to manage financial resources, enter into contractual agreements, and design institutional structures tailored to their strategic priorities. Thus, universities that belong to this type have the right to tailor their environment to accommodate the needs for the implementation of sustainable research and community engagement programs. In addition to that, the Ministry of Education, Culture, Research and Technology (2023) stated that 15 universities with this PTN-BH type manage financial budget as much as IDR 2 trillion together for research and community service annually. Therefore, PTN-BH with such authority and sufficient finance enables universities that belong to PTN-BH to design long-term collaborations that align with the needs of societies and objectives of the universities. Even though the aforementioned factors enable PTN-BH in doing so, many programs have been running ineffective and inefficient with short term, fragmented

⁷ Iis Nur Rodliyah, and Hsueh-Hua Chuang. "Assessing the Impacts of National Policies on Indonesian Autonomous Universities' Research Performance." *Erudio Journal of Educational Innovation* 10, no. 2 (2023): 154-164. See also R. Benny Riyanto, and Sucihatiningih Dian Wisika Prajanti. "The Grand Design of LPPM UNNES Innovation in Supporting UNNES Towards PTNBH." *Unima International Conference on Social Sciences and Humanities (UNICSSH 2022)*. Atlantis Press, 2023; Rodiyah Rodiyah, et al. "Redesign Practices for Acceleration of Educational Independence UNNES PTNBH." *4th International Conference on Social Sciences and Law (ICSSL 2024)*. Atlantis Press, 2024; Achmad Nuryana Saputra, and Supratiwi Supratiwi. "Evaluasi Pengelolaan Perguruan Tinggi Negeri Badan Hukum (PTNBH) (Studi Kasus Universitas Diponegoro dan Universitas Negeri Semarang)." *Journal of Politic and Government Studies* 14, no. 2 (2025): 335-354; Evita Septiana Tyas Utami, Wahyu Setyaningsih, and Galih Niken Anggoro Sulaksmi. "Analysis Policy Scheme Study and Devotion to The Community in UNNES as PTN BH." *Jurnal Abdimas* 27, no. 2 (2023): 338-343.

coordination between departments, and overreliance on individual academic champions.⁸ Lesson learned from previous programs conducted by PTN-BH so far is that despite some universities have developed model programs that linking research to community services, but the success of those programs often isolated and are not prepared to become replicate and adopted framework for broader environmental. All in all, it is urgent to understand the structural, legal, and policy dimensions of sustainable engagement to realize optimum potential of PTN-BH autonomy in advancing meaningful societal impact.⁹

Other measurements that influence the sustainability and effectiveness of university-community engagement programs are regulations and policy frameworks. Law No. 12/2012 on Higher Education accompanied by related regulations (such as government regulations) that enable PTN-BH to conduct research and community service, highlighting some principles—those are relevance, accountability, and societal impact. Based on those regulations, PTN-BH can establish formal partnerships, manage intellectual property resulting from joint research, and conduct sustainable (multiyears) community development projects.¹⁰ Even though the formal partnership has been there, there are some challenges for a sustainable collaboration in areas such as liability management, resource allocation, and intellectual property ownership still happen. Results from some comparative studies suggest that there are more factors that allow sustainability collaboration, such as institutions should have mechanisms

⁸ See Ali Masyhar, Siti Mursidah, and Ali Murtadho. "Formulating Institutional Harmonization of UNNES Legal Entity Organs in The Frame of Check and Balances System." *Pandecta Research Law Journal* 18, no. 1 (2023): 47-52.

⁹ Siti Mursidah, et al. "How Can Law and Policy Reform Shape Human Resource Strategies in Indonesian State Universities Post-Law No. 20 of 2023?." *Journal of Law and Legal Reform* 5, no. 4 (2024): 1737-1762; R. Benny Riyanto, et al. "Advocating for Excellence: Legal Strategies in Shaping Higher Education as a World-Class Research and Education Hub (Case of Indonesia, Oman, and United Arab Emirates)." *Indonesian Journal of Advocacy and Legal Services* 7, no. 2 (2025): 593-618.

¹⁰ Isra Nurhanifa, and Eny Kusdarini. "The Policy of Legal-Entity State Higher Education Institutions (PTN-BH) Determination Viewed from Material Law." *Education* 6, no. 2 (2019): 33-52.

that provide universities with translation of regulations into operational strategies. For instance, universities in Australia and the United Kingdom constantly equip collaborations with their counterparts with memoranda of understanding (MoUs) and legally binding partnership agreements to ensure sustainable and accountability engagement programs. This practice rarely take place in Indonesian context. Thus, this gap should be addressed by examining how PTN-BH operate existing regulations and policies established by the government to constitute appropriate frameworks for engagement programs that sustain and mutually beneficial with communities.¹¹

Based on the survey conducted by the Indonesian Higher Education Research Association, more than 60% of community service programs in PTN-BH only run for two years maximum with implication sustain objectives have not achieved yet. Some obstacles that frequently happen are, among others, funding volatility, academic staff and institutional priorities shifting. It is worth mentioning there are some individual programs achieve success with the objectives that have been set but in terms of sustainability remain forfeit. Moreover, many of PTN-BH are not equipped with proper management knowledge and mechanisms for monitoring and evaluation heighten the possibility of program to discontinue. Another factor that also prevents sustainability programs is social factors. Society accepts community service programs when they have trust and are culturally harmonious with their values and norms, and relevant to their urgency. As for example, when the program focuses on technological solutions for rural agricultural communities, it is often failed when the conditions (community technology knowledge and practice) of the society has not been considered. Based on the publication of what happened in another countries, collaborations may be categorised as sustainable collaborations when long-term relationships take place, both parties shared goals and maintained evaluation to overcome the shortages. Thus, it is crucial that

¹¹ Elisa Brewis, "Fair access to higher education and discourses of development: a policy analysis from Indonesia." *Compare: A Journal of Comparative and International Education* 49, no. 3 (2019): 453-470.

PTN-BH applies the principles with careful consideration for Indonesian context.

Roles that should be accomplished by universities not only conducting research and community engagements but how to establish those two roles as an integration and sustain programs with communities that take part as partners. Nevertheless, such programs must compliance with existing regulations within the framework of policy. Unfortunately, in Indonesia such integrated model has not developed yet.¹² However, previous studies only focus on some factors, namely the evaluation of such programs, mechanisms of the funding, or community satisfaction, without further examinations on comprehensive factors that could establish sustainable collaborations. This gap addressed in PTNBH, despite the authonomy of PTN-BH could allow them to construct potential innovative as well as align with regulations. Thus, this study aims to establish robust policy and regulations, constitute how to have sustainable engagement projects between PTN-BH with communities, and determine sustainable mutual benefits. The method apply to this work is qualitative methods. Selected PTN-BH has been chosen to provide data through document analysis, interviews with administrators and community parties, and case studies. This work depicts best practices, righteous stakeholders, structural mechanisms that promote sustainable engagement programs. Results of this work are intended to contribute to establishing legally sound, policy-aligned, and sustainable societal benefit actionable guidance for universities authorities, policymakers, and academics.

¹² See Milind Sohoni, et al. "New Models of University Social Engagement in Asia." *Innovations in Asian Higher Education*. Routledge, 2019, pp. 51-63; Rini Ambar Sari, Matin Matin, and Maruf Akbar. "Policy Evaluation on International Research Quality Management of Universitas Indonesia: Impact Towards Development of the Nation." *ASEAN Journal of Community Engagement* 7, no. 2 (2023): 179-195.

Result & Discussion

A. Institutional and Structural Analysis of PTN-BH Engagement Programs

Research and community engagement programs may run well when universities have established sufficient frameworks of design and implementation programs. Bringle and Hatcher¹³ stated that universities structural support, namely formal policies, dedicated staff, and coordination mechanisms, is crucial to allow individual academic initiatives into sustained institutional impact. The existing regulations regarding PTN-BH in conducting those two roles allow them the authority to create organizational structures suited to strategic priorities. For example, Universitas Gadjah Mada (UGM) has established centers dedicated to community development that coordinate research, outreach, and training activities.¹⁴

Furthermore, it is important to have a clear guidance of roles and responsibilities within the engagement programs to avoid overlaps, conflicts, and inefficiencies. Perkman and Walsh¹⁵ state that when universities have laid down vivid roles and responsibilities, accountability and performance of collaboration between university-industry or university- community will increase. In Indonesian context, PTN-BH, the arrangement of research and community service are commonly coordinated by a particular office, and lecturers conduct projects align with their expertise. At Institut Teknologi Bandung (ITB), for instance, they run a program named "*Innovation Village*" by assigning faculty coordinators, alumni, and administrative staff with clear cut duty, ranging from project

¹³ Robert G. Bringle, and Julie A. Hatcher. "Implementing service learning in higher education." *The Journal of Higher Education* 67, no. 2 (1996): 221-239.

¹⁴ See Djarot Heru Santosa, "Pemberdayaan Masyarakat Berkonsep Pembangunan Berkelanjutan (SDGs) dalam Kegiatan Kuliah Kerja Nyata Universitas Gadjah Mada di Masa Pandemi Covid-19." *Unri Conference Series: Community Engagement*. Vol. 2. 2020.

¹⁵ Markus Perkman, and Kathryn Walsh. "University-industry relationships and open innovation: Towards a research agenda." *International Journal of Management Reviews* 9, no. 4 (2007): 259-280.

planning to community liaison and impact evaluation. With such vivid delineation safeguards each actor recognize and play their roles to bring expected contributions to the table, minimize redundancy, and increase efficiency of the program.¹⁶ In addition to that, when programs are well arranged in the institution—interdisciplinary approaches that is a vital matter become easier to be conducted for addressing complex societal issues such as rural technology adoption, environmental management, and public health initiatives.

One of key factors in having sustainable collaboration is effective coordination mechanisms. Austin¹⁷ states it is critical for long-term programs to sustain is that when internal stakeholders and external partners maintain structured coordination that could promote their synergy. However, PTN-BH in Indonesia more common to employ hierarchical and networked coordination models. Hierarchical model places the leader to be responsible for overall management, as with networked approaches place collaborative committees (comprising faculty, administrative staff, and community representatives) to have responsible collectively. It is worth noting that in UGM, they apply both models in the community engagement programs with these details: a central office oversees policy compliance, funding allocation, and monitoring. While local program committee facilitate direct interaction with community stakeholders. The mechanism of coordination comprises routine meetings, structured reports, and communication via digital platforms. All of them allow for adaptive management, enabling programs to respond to evolving community needs, funding constraints, and policy changes not only as means for operations tools. With structured coordination, universities minimize and mitigate risks that might happen caused by staff turnover because all operations are shared among the stakeholders.

¹⁶ See Indra Budiman Syamwil, "Enhancing knowledge-based industry: The Case of ITB's New Industrial Research Campus Plan in Bekasi, West Java." *Arte-Polis 3 International Conference on Creative Collaboration and the Making of Place*. Bandung: Institut Teknologi Bandung. 2010.

¹⁷ James E. Austin, "Strategic collaboration between nonprofits and businesses." *Nonprofit and Voluntary Sector Quarterly* 29, no. 1_suppl (2000): 69-97.

Universities' long-term strategic planning is a critical factor in sustaining impact, therefore the engagement initiatives should be integrated into that plan. The "scholarship of engagement" theory from Boyer¹⁸ highlights to generate societal benefits, universities should align community-oriented activities with their teaching and research missions. As at PTN-BH, in Indonesian context, it is depicted that they apply difference degrees of integrations at each PTN-BH. As for an example, university's strategic plan at ITB where the community innovation programs are inserted into the strategic plan. By doing so, the allocations of budget, indicators of performance, and incentives for faculty have been secured. The results are faculty participation, institutional accountability, and sustain multiple planning cycles boost. While projects operate detached from the strategic plan, they often discontinued because the funding for the projects expired or the leaders are changed. Furthermore, since PTN-BH must align their programs with national development priorities by incorporating engagement program into core university strategies, the alignment could be ensured. Not only that, proactive respond to community needs and effective internal resources leveraged may be achieved. The positive impacts by the integration into strategic plans that are essential for scaling successful initiatives across regions are cross-departmental collaboration, knowledge sharing, and institutional learning are facilitated.

Positive lessons learnt from program at ITB called Innovation Village, it shows the potential of structured, institutionally embedded engagement initiatives. The program focuses on co-developing technology based solutions tailored to the needs of rural communities, for examples renewable energy systems and digital agricultural tools. The establishment of the program is collaborative with local governments and community groups. ITB Annual Report of 2022 records that based on the internal evaluation of the program, more than 15 villages gain advantage from multi-year engagement cycles with measurable productivity and local income

¹⁸ Ernest L. Boyer, *Scholarship reconsidered: Priorities of the professoriate*. Princeton University Press, 3175 Princeton Pike, Lawrenceville, NJ 08648., 1990. See also Ernest L. Boyer, "The scholarship of engagement." *Building the Field of Higher Education Engagement*. Routledge, 2023, pp. 15-25.

improvements. The program runs with well-defined institutional framework, clear organizational roles, and continuous coordination mechanisms between faculty, students, and community stakeholders. Furthermore, the success of the program also benefitted from ITB's autonomy as a PTN-BH university that allows ITB to be more flexible in allocating their budgets, establishing agreements with communities, and planning strategic plan that aligns with national innovation policies. The practice from ITB in the program falls under what Van der Meulen and Rip¹⁹ state as "mode 2 knowledge production", where research is context-driven, socially accountable, and collaborative. The ITB case illustrates that structural and institutional design is not merely administrative but a fundamental determinant of sustained engagement impact.

Another practice that can serve as illustrative example of structured engagement comes from Universitas Gadjah Mada (UGM). The university has developed extensive community agricultural programs, in some rural areas of Central Java and Yogyakarta, with goals to boost agricultural productivity, encourage sustainable practices, and increase local livelihoods by transferring suitable knowledge, training, and conducting research collaboration. Baiquni and Astuti²⁰ state that for the project—to design interdisciplinary interventions that address both technical and socio-economic dimensions--there are three faculties engaged, those are agriculture, engineering, and social sciences. The operation of the program is under supervision of UGM's Center for Community Development, which oversees planning, monitoring, and coordination with local government authorities. Thus, the approach that applies to the program is institutionalized to ensure the program embedded in university operation instead of solely dependent on individual researchers. The program's sustainability is further reinforced by aligning activities with national agricultural development policies and integrating student participation through service-learning modules. Some lessons learned from the program run by UGM that measurable outcomes may be achieved by conducting

¹⁹ Barend Van der Meulen, and Arie Rip. "Evaluation of societal quality of public sector research in the Netherlands." *Research Evaluation* 9, no. 1 (2000): 11-25.

²⁰ Muhammad Baiquni, and Puji Astuti. *Merajut pengalaman: Pendidikan untuk pembangunan berkelanjutan UGM*. UGM Press, 2018.

structured institutional framework, interdisciplinary collaboration, and strategic planning—those are parallel with fostering long-term university-community relationships.

Perkmann²¹ is one of scholars that state financial autonomy alone will not be sufficient to keep sustainability of programs since universities should also manage well in structured allocation policies, transparent monitoring, and contingency planning. However, financial sustainability is critical for long-term engagement. In Indonesian context, the universities include into PTN-BH types benefit their authorities, one of them in budget allocation that enabling flexible budgeting for multi-year projects. In addition to that, according to the Ministry of Education, Culture, Research, and Technology (2023), the number of budgets for research and community engagement managed by all PTN-BH is as much as IDR 2 trillion per year. Even so, programs conducted in many PTN-BH financed from some funding sources, namely government grants, internal funds, and external partnerships. ITB is one of the PTN-BH that doing so with Innovation Village program. The funding sources come from university, provincial development grants, and private sectors to ensure continuity despite fluctuations in individual funding sources. Furthermore, there are some matters that should be considered to ensure universities may run sustainable societal benefit programs, namely prioritization based on impact potential, scalability, and strategic alignment.

Another factor that is vital to enable faculty and staff to implement engagement initiatives efficiently is administrative support. According to Bringle and Hatcher²² dedicated administrative structures minimize the operational burden on academics, allowing them to focus on research and interaction with communities. In Indonesian context with PTN-BH, such universities often provide staff in community service offices in some positions. Such positions are coordinators, legal advisors, and financial managers. They assist in designing projects, regulatory compliance, and writing reports. As one of efforts to train both faculty and administrative

²¹ Markus Perkmann, et al. "Academic engagement and commercialisation: A review of the literature on university-industry relations." *Research Policy* 42, no. 2 (2013): 423-442.

²² Robert G. Bringle and Julie A. Hatcher. "Implementing service learning in higher education." *The Journal of Higher Education* 67, no. 2 (1996): 221-239.

staff to manage projects, community engagement strategies, and to monitor and evaluate techniques by conducting capacity-building programs. ITB, for example, hold workshops every year for lecturers of Innovation Villages team. The workshop delivers participatory research methods, partnership management, and knowledge dissemination. Such activities are considered as crucial attempts to establish institutional memory, continuity, and professionalization of engagement practices, mitigating risks associated with staff migration or ad hoc project implementation.

This work also finds some challenges to keep programs sustainable, namely structural barriers, reliance on a particular individual, fragmented department structures, and short-term funding. Structural barriers affect the scalability and sustainability of programs. When a program relies on one staff member and he/she migrates, most likely the program fades. Regarding fragmented department structures, it often creates high walls that minimize interdisciplinary collaboration and communications. Lastly, the short-term funding often constrains program expansion, requiring new proposals submitted and renegotiations that disturb the continuity of the existing programs. Some scholars including Etzkowitz²³ warn that the urgency of establishing proper institutionalized mechanism for knowledge transfer, otherwise engagement initiatives risk in episodic rather than systemic. Regarding what happen in Indonesia, programs such as community agriculture projects or small-scale technological interventions often facing barriers to continue and elevate from pilot phases to regional or national impact due to the structural limitations matter. Therefore, those challenges must be overcome by establishing institutional frameworks that desegregate program succession planning, effective coordination among whole team, and strategies for multi-year funding.

One of theoretical frameworks named Mode 2 Knowledge Production²⁴ highlight that it is important that research projects should

²³ Henry Etzkowitz, "Innovation in innovation: The triple helix of university- industry-government relations." *Social Science Information* 42, no. 3 (2003): 293-337.

²⁴ See Michael Gibbons, Camille Limoges, and H. Nowotny. "Evolution of knowledge production." *Knowledge: Critical Concepts* 2 (2005): 274-301. See also Jonathan D. Jansen, "Mode 2 knowledge and institutional life: Taking Gibbons on a walk through a South African University." *Higher Education* 43, no. 4 (2002): 507-521.

align to empirical issues with multidisciplinary approaches. Based on that perspective--it is urgent for PTN-BH to establish programs addressing complex societal issues that arrays from technical, social, and economic domains through interdisciplinary collaborations to achieve effectiveness of the programs. PTN-BH in Indonesia have been more aware the urgency on structural integration to facilitate such collaboration. Programs that establish at UGM and ITB may use as suitable examples.

B. Legal and Policy Compliance Analysis

Law No. 12/2012 on Higher Education mandates tertiary education institutions conducting three primary tasks including teaching, researching, and conducting community service programs (known as the “Tri Dharma”).²⁵ In addition to that, Article 4 of this law states that higher education “plays a strategic role ... advancing science and technology by taking into account and applying the sustainable humanities and cultivating and empowering Indonesia people”. PTN-BH Authonomy in budgeting, staffing, and asset management power are given through this law as well as accountability to national education goals. Based on institutional legitimacy²⁶ and organizational governance,²⁷ institutions must adhere to mandates stated in regulations while leveraging authonomy for strategic responsiveness.

Law No. 12/2012 together with another related regulations and ministerial decrees (established as operational provisions of the law)—for example, the requirement for internal and external quality assurance system. According to a JICA-funded study, the Law emphasises the

²⁵ See Bukman Lian, “Tanggung jawab Tridharma perguruan tinggi menjawab kebutuhan masyarakat.” Prosiding Seminar Nasional Program Pascasarjana Universitas PGRI Palembang. 2019; Gunawan Gunawan, et al. “Penyuluhan Tentang Peluang dan Tantangan Penerapan Tri Dharma Perguruan Tinggi di Era Revolusi Industri 4.0.” Jurnal Pendidikan dan Pengabdian Masyarakat 3, no. 2 (2020).

²⁶ Mark C. Suchman, “Managing legitimacy: Strategic and institutional approaches.” *Academy of Management Review* 20, no. 3 (1995): 571-610.

²⁷ Allen J. Scott, “Globalization and the rise of city-regions.” *European Planning Studies* 9, no. 7 (2001): 813-826.

national quality assurance system for higher education, with institutions required to set up their own quality assurance units. Moreover, Regulation of the Minister of Education and Culture Number 3 of 2020 concerning National Higher Education Standards (as listed in institutional legal bases) further details institutional obligations. The presence of such regulatory instruments reflects a multi-level governance approach, where legal mandates are complemented by regulatory detail — consistent with the principal-agent theory²⁸ in which the regulator (state) defines standards and monitors the agent (university). For engagement programmes, clear regulatory instruments are crucial as they define enabling frameworks for MOUs, partnerships, evaluation and reporting. However, inconsistency or gaps in regulation may create ambiguity as to how community service functions should be organised and reported, which may hamper sustainable collaboration.

To operationalise community engagement and research collaboration, universities often employ legal instruments such as memoranda of understanding (MOUs), contracts and partnership agreements. In the Indonesian context, and particularly for PTN-BH, these legal documents serve as formal mechanisms to define roles, responsibilities, resource contributions, timelines, intellectual property (IP) arrangements, and liability issues. Scholars such as Perkmann & Walsh²⁹ and Austin³⁰ emphasise that formal agreements help institutionalise collaboration, reduce risk, and increase trust among partners. Empirically, in Indonesian context—ITB run the *Innovation Village* program rely on multi-year MoUs with local governments and community groups. Such MoU ensures continuity for the project funding cycles as well as the maturity and commitments from all involved parties. Furthermore, from the perspective of the resource-based view³¹, formalised partnerships create relational assets

²⁸ Kathleen M. Eisenhardt, "Agency theory: An assessment and review." *Academy of Management Review* 14, no. 1 (1989): 57-74.

²⁹ Roger N. Walsh, *The world of shamanism: New views of an ancient tradition*. Llewellyn Worldwide, 2007.

³⁰ Austin, "Strategic collaboration between nonprofits and businesses."

³¹ Jay Barney, "Firm resources and sustained competitive advantage." *Journal of Management* 17, no. 1 (1991): 99-120.

that can be leveraged over time—but only if the legal frameworks underpinning them are properly managed.

Based on collaborative governance theory--³²institutional policy, stakeholder interests and external regulations should be aligned so that sustainable partnership could be realized. Since engagement programs commonly generate innovations, knowledge, technology transfer or community interventions that implicate Intellectual Property (IP), liability for outcomes (or failures) and ethical concerns about community participation and benefit-sharing, in Indonesian context PTN-BH must establish institutional statues or policies to regulate these matters. It is because the existing regulations are still limited in governing those matters. Based on Law No. 12/2012, higher education institutions must manage their financial, assets and human resources accordance with the law so that when PTN-BH govern the previous discussed matters, PTN-BH must align their policies and regulations with the existing regulations established by the government of Indonesia.

In Indonesia, when tertiary education institutions establish their own policies and regulations—they must also make alignment with the Sustainable Development Goals (SDGs), national innovation startegy, regional development plans, and the national medium-term development plan (RPJMN). Law No. 12/2012 emphasized the strategic roles of higher education that must be accomplished, those are advancing science and technology as well as empowering society. When PTN-BH align their policies and regulations with existing policies and regulations established by the government of Indonesia, based on strategic management perspective—the alignment enhances institutional legitimacy, access to funding incentives and stakeholder support³³. For instance, when a PTN-BH university develops a community engagement program focused on rural agriculture, connecting the initiative with SDG 2 (*Zero Hunger*) as well as the Ministry of Agriculture's modernization policies can enhance the program's legitimacy and increase the likelihood of long-term institutional

³² Chris Ansell, and Alison Gash. "Collaborative governance in theory and practice." *Journal of Public Administration Research and Theory* 18, no. 4 (2008): 543-571.

³³ Lourdesamy Iruthayasamy, *Understanding Business Strategy*. Springer Singapore, 2021.

support. Nevertheless, a major challenge arises in converting these broad policy objectives into concrete university programs and regulatory frameworks. Without a standardized approach to linking institutional regulations with national policy priorities, implementation may become fragmented, poorly coordinated, and less effective, ultimately limiting opportunities for broader expansion and impact.

As mentioned before, PTN-BH are given greater autonomy based on Law No. 12/2012. One of articles that may be used as an example is Article 72 of the Law govern that Minister of Education grants the authority to assign professors and recognises institutional self-governance. Nevertheless, the autonomy must be taken with appropriate accountability which means that PTN-BH must align with national legislation, financial and audit regulations, and standards of quality assurance. Thus, it can be identified that on one side—PTN-BH have their own autonomy while on the other side they must keep on trackt with the established government policies and regulations. Such conditions could become a challenge. However, the concept of organizational ambidexterity³⁴ is relevant here—universities must be both autonomous (to innovate) and compliant (to maintain legitimacy). Thus, PTN-BH must establish their own policies and governance suitable to research-community collaboration and structures that align with regulations established by the government. Without such statutes, engagement programs risk falling into informal practices, which weakens sustainability and exposes PTN-BH to legal risk or stakeholder distrust. Without well-established systems for monitoring and accountability, community engagement initiatives may continue to be viewed merely as short-term or project-based activities rather than as sustainable institutional commitments. This situation can weaken both regulatory compliance and the strategic importance of engagement programs within higher education institutions.

Although Law No. 12 of 2012 and related regulations provide a broad legal foundation for higher education, significant ambiguities and

³⁴ Michael L. Tushman, and Charles A. O'Reilly III. "Ambidextrous organizations: Managing evolutionary and revolutionary change." *California Management Review* 38, no. 4 (1996): 8-29.

regulatory shortcomings still exist in the governance of community engagement (pengabdian masyarakat). Scholars such as Riyanto and Prajanti argue that, while the Higher Education Law formally establishes the Tri Dharma principle, it does not clearly regulate how community service activities should be managed, assessed, or integrated into institutional strategies.³⁵ For example, there is still limited national guidance regarding standardized Memorandums of Understanding (MOUs) for university–community partnerships, mechanisms for benefit-sharing, liability arrangements, exit strategies, or frameworks for scaling successful programs. These regulatory weaknesses create structural vulnerabilities, as many engagement initiatives continue to rely on temporary arrangements or the commitment of individual actors rather than well-established institutional legal frameworks. From the perspective of institutional theory³⁶, the absence of formal and consistent rules may encourage universities to adopt symbolic or superficial practices without implementing meaningful structural reforms. As a result, community engagement may appear formally recognized at the policy level, while in practice it remains informal and poorly institutionalized, reducing its long-term sustainability. At the same time, university community engagement involves collaboration among various stakeholders in order to address societal challenges collectively. Universities contribute academic expertise, research capacity, innovation, and human resources that support evidence-based solutions. Local governments play a role in ensuring policy alignment, providing regulatory support, and facilitating access to public services. The private sector contributes financial resources, technological support, and industry expertise, which can help expand and commercialize innovative solutions. Non-governmental organizations (NGOs) often act as intermediaries by building trust with communities, encouraging

³⁵ See Riyanto, R. Benny, and Sucihatiningsih Dian Wisika Prajanti. "The Grand Design of LPPM UNNES Innovation in Supporting UNNES Towards PTNBH." Unima International Conference on Social Sciences and Humanities (UNICSSH 2022). Atlantis Press, 2023.

³⁶ DiMaggio, Paul J., and Walter W. Powell. "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields." *American Sociological Review* 48, no. 2 (1983): 147-160.

participation, and ensuring inclusiveness throughout the process. Meanwhile, community groups themselves remain central actors because they identify local needs, contribute contextual knowledge, and sustain initiatives over time. Through this multi-stakeholder collaboration, community engagement becomes more relevant, accountable, and impactful, while also transforming universities from mere producers of knowledge into active partners in social development.³⁷

Each stakeholder or activity involved in community engagement may fall under different legal and policy frameworks. To give an example, a university partnership in the agricultural sector may be subject to regulations issued by the Ministry of Agriculture, local government ordinances, environmental policies, and national laws on higher education as well. As a result, the governance structure becomes highly complex and often vulnerable to overlapping or even contradictory regulatory requirements. Within the Indonesian higher education system, constitutional law also reveals an ongoing tension between institutional autonomy and state oversight. This situation can be understood through the lens of the principal–agent dilemma, where universities, as agents, are granted a degree of independence but remain accountable to the government as the principal authority. Conflicts may arise when different policies promote competing priorities. For example, higher education regulations may emphasize university autonomy, while local government rules require strict compliance with local content provisions. Such inconsistencies can create delays, legal uncertainty, and additional administrative or transaction costs for community engagement programs. In the long term, these unstable regulatory conditions may weaken the sustainability and expansion of collaborative initiatives, since institutions and partners become more cautious about entering into long-term commitments under uncertain legal circumstances.

³⁷ See Yuzhuo Cai, and Henry Etzkowitz. "Theorizing the Triple Helix model: Past, present, and future." *Triple Helix* 7, no. 2-3 (2020): 189-226; Robert G. Bringle, and Julie A. Hatcher. "Campus–community partnerships: The terms of engagement." *Journal of Social Issues* 58, no. 3 (2002): 503-516; Ismael Peña-López. *Rethinking Education: Towards a global common good?* New York: UNESCO, 2015.

Strong compliance practices and sustainable community engagement depend heavily on effective systems of monitoring, reporting, and accountability. Under Law No. 12 of 2012, higher education institutions are required to implement quality assurance mechanisms and undergo institutional accreditation processes. In the context of community engagement programs, this means that universities should incorporate clear monitoring systems into their service activities, evaluate outcomes, ensure adherence to legal and regulatory standards, and provide reports to relevant stakeholders, including government authorities. The transparency and accountability framework³⁸ further stresses that institutions are expected not only to assess their performance, but also to justify their decisions and remain open to external oversight. Within PTN-BH, personnel who are responsible for research and community service commonly prepare annual reports on engagement activities. However, these reports often lack standardized key performance indicators (KPIs), structured mechanisms for collecting feedback from beneficiaries, and comprehensive legal compliance assessments.

Based on the above analysis, PTN-BH could enhance the legal and policy compliance of their community engagement programs through several institutional and structural dimensions. First, universities should establish legal documents that are standardized, including MOUs, partnership contracts, and intellectual property sharing agreements. Those legal documents must be consistent with both national regulations and institutional policies. Second, community engagement initiatives need to be fully integrated into university strategic planning. The programs must be aligned to national development priorities such as the Sustainable Development Goals (SDGs). Furthermore, the programs are supported through long-term budgeting schemes. Third, universities should establish specialized legal compliance units that they are responsible for providing guidance, supervising projects, and ensuring that engagement activities comply with regulatory requirements, contractual obligations, and ethical standards. Fourth, institutions should strengthen their monitoring and

³⁸ Mark Bovens, "Analysing and assessing accountability: A conceptual framework 1." *European Law Journal* 13, no. 4 (2007): 447-468.

evaluation mechanisms. The mechanisms running by incorporating compliance audits, stakeholder feedback systems, and transparent reporting practices to improve institutional accountability. These recommendations are based on the perspectives from institutional theory and corporate governance. The theory emphasizes the importance of formal organizational structures, institutional legitimacy, and ongoing self-evaluation.³⁹ By reinforcing the alignment between legal frameworks and institutional policies, PTN-BH can improve the sustainability, credibility, and scalability of their research and community engagement initiatives.

C. Sustainability and Impact Analysis of University-Community Collaborations

Sustainability in university–community partnerships refer to the ability of engagement programs to maintain their relevance and continue generating positive impacts for both universities and communities over the long term, even when there are changes in personnel, funding availability, or social conditions. Based on Drawing on Brundtland's⁴⁰ concept of sustainability, such programs should address current needs as well as ensuring that future stakeholders can also continue to benefit from them. Within PTN-BH universities, sustainability is closely related to the institutionalization of engagement activities through formal legal arrangements, stable organizational structures, and their integration into long-term strategic planning. A clear example can be seen in ITB's *Innovation Villages* program, which has remained active and effective despite changes in faculty members because it is supported by curriculum integration, dedicated administrative offices, and formal cooperation agreements with local governments. In addition, scholars such as Henry Etzkowitz and Loet Leydesdorff emphasize that sustainable community engagement depends on the development of a “triple helix” relationship

³⁹ DiMaggio, and Powell. "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields." See also Scott, "Globalization and the rise of city-regions."

⁴⁰ Gro Harlem Brundtland, "Our common future—Call for action." *Environmental Conservation* 14, no. 4 (1987): 291-294.

involving universities, government institutions, and society. Through strong coordination and adaptive mechanisms among these actors, engagement initiatives are more likely to remain sustainable and responsive to changing circumstances over time.⁴¹

The long-term sustainability of community engagement programs largely depends on the existence of institutional mechanisms that can protect programs from disruptions caused by changes in personnel or fluctuations in funding. PTN-BH universities that establish dedicated offices for community engagement, implement standardized operational systems, and encourage coordination across faculties are generally more successful in maintaining the continuity of their programs. One example come from what happened in a program establish by UGM. The agricultural community engagement program is supported by multi-year funding arrangements and continuous staff rotation training, allowing institutional knowledge to be preserved while ensuring consistent program implementation. From the perspective of organizational theory, particularly the resource-based view⁴², programs may sustain when they are effectively utilize institutional resources, human capital, and collaborative networks to generate long-term value. In addition to that, strategies such as succession planning, the development of knowledge management systems, and formal documentation of operational procedures can strengthen program resilience when staff changes occur. These mechanisms help ensure that engagement initiatives persist, effective, and capable of creating lasting impacts over time.

The engagement of university–community bring significant contributions to social welfare by promoting inclusive development, encouraging innovation, and strengthening community capacity. While in private universities, when they conduct such collaborations, the program can also improve institutional reputation, increase graduate employability, and strengthen connections with industry, although financial sustainability often remains a challenge. Overall, such engagement enhances both the

⁴¹ Etzkowitz, Henry, and Loet Leydesdorff. "The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university–industry–government relations." *Research Policy* 29, no. 2 (2000): 109-123.

⁴² Barney, "Firm resources and sustained competitive advantage."

social impact and the competitiveness of higher education institutions.⁴³ From the community's perspective, the benefits may include better infrastructure, increased skills and capacity development, as well as access to new knowledge and technology. At the same time, universities benefit through opportunities for applied research, stronger social legitimacy, and more meaningful learning experiences for students. Austin⁴⁴ emphasizes that successful partnerships depend greatly on the alignment of goals between all parties involved, as this encourages shared ownership and long-term commitment. Experiences from PTN-BH universities demonstrate that when communities actively participate in determining program objectives—such as through participatory approaches in rural technology projects—both universities and local communities are more likely to experience fair and balanced benefits. Several strategies can also be used to formalize these mutual advantages, including profit-sharing arrangements for innovations, collaborative authorship in academic publications, and formal acknowledgment of community contributions in university documentation and reports.

Based on the posit of the social capital theory⁴⁵--trust, reciprocity, and networks are essential for effective collaboration. Engagement programs that fail to account for local norms, traditions, or governance structures risk low participation and eventual discontinuation. Thus, a program may sustain when community's acceptance, participations, and co-ownership are there as socio-cultural determinants critical points. For example, UGM's rural agriculture program integrates local wisdom in crop selection and cultivation methods, thereby enhancing participation and ownership. Likewise, programs that respect gender roles, local leadership, and community hierarchies more common to achieve sustainable outcomes. In various studies it is emphasized that socio-cultural assessments in PTN-BH

⁴³ See Etzkowitz, and Leydesdorff. "The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university–industry–government relations"; Bringle, and Hatcher. "Campus–community partnerships: The terms of engagement."

⁴⁴ Austin, "Strategic collaboration between nonprofits and businesses."

⁴⁵ Putnam, Robert D. *Bowling alone: The collapse and revival of American community*. Simon and schuster, 2000.

show that aligning programs with local values increases trust, participation, and sustainability, while identifying barriers such as cultural gaps and power imbalances. These findings highlight the importance of developing interventions that are more inclusive and responsive to local contexts and community needs. PTN-BH play a significant role in generating positive social impacts through wider access to education, community empowerment initiatives, and development driven by innovation. The institutional autonomy given to PTN-BH allows them to build stronger partnerships and facilitate more effective knowledge transfer, which can contribute to better social outcomes as well. However, there are some issues related to equality and equal access that remain important concerns that need continuous attention.⁴⁶

Comprehensive monitoring and feedback systems play crucial parts in assessing the effectiveness of community engagement programs and maintaining their long-term impact. Programs that administer ongoing evaluation mechanisms are more likely enable identifying weaknesses, respond to changing circumstances, and demonstrate accountability to stakeholders. A lesson learned from what happened with ITB's *Innovation Villages* program that utilizes structured monitoring approaches. Such as community surveys, student progress reports, and impact assessments to support continuous program improvement and adjustment. Based on the perspective of organizational learning theory, these evaluation processes not only boost program performance but also assist institutionalize knowledge within the organization. As a result, valuable experience and insights can still be retained and applied even when there are changes in personnel. Furthermore, effective monitoring frameworks make universities easier to

⁴⁶ See Neka Erlyani, et al. "Tantangan Perguruan Tinggi Negeri dalam Kesiapan untuk Berubah." *Jurnal Pengabdian ILUNG (Inovasi Lahan Basah Unggul)* 2, no. 2 (2022): 162-172; Fatia Ainur Rosyida, Zumrotus Sa'diyah, and Abdul Aziz. "Analisis Tantangan dan Peluang Kebijakan PTN-BH: Studi Kebijakan Pendidikan Tinggi di Indonesia." *Dirasah: Jurnal Studi Ilmu dan Manajemen Pendidikan Islam* 8, no. 1 (2025): 147-160; Peny Cahaya Azwari, and Fenny Purwani. "Desain Model Transformasi Perguruan Tinggi Keagamaan Islam Negeri Menjadi Perguruan Tinggi Negeri Badan Hukum (PTN-BH) Menggunakan Pendekatan Metode TOPSIS." *Jurnal Akuntansi Dan Keuangan* 12, no. 1 (2024): 122-130.

clearly document their social contributions, strengthen accountability, justify continued funding, and expand successful initiatives to a broader scale.⁴⁷

International approaches to a sustained university–community engagement offer valuable references and lessons for PTN-BH in Indonesia. In the United States of America, for example, many service-learning programs integrate community involvement into academic coursework by giving academic credit for students who participate in the programs. This approach helps keeping the continuity of the program since engagement activities become part of the curriculum itself. Meanwhile, universities in Europe tend to targetting on establishing long-term collaborations with local governments and non-governmental organizations (NGOs), supported by formal agreements and systematic evaluation mechanisms. Other example is programs run in Brazil. In this country, extension programs create strong relationships between universities and communities through participatory planning and collaborative knowledge production, highlighting the urgency of cultural compatibility and reciprocal benefits for all stakeholders involved. Comparative studies show that sustainable engagement programs generally share several common characteristics. They are strong institutional structures, formal legal arrangements, sensitivity to socio-cultural contexts, and effective monitoring and evaluation systems. PTN-BH can adopt and adapt these principles within the Indonesian setting by considering local governance systems, regulatory frameworks, and cultural values in the design and implementation of their programs.

Long-term cooperation between university and community can be achieved more effectively whereas structural, legal, and socio-cultural aspects are integrated in a balanced and strategic manner. Structural mechanisms—such as the establishment of dedicated engagement personnels and standardized operational procedures—assist creating organizational stability and support consistent of the program

⁴⁷ See Viviane MJ. Robinson, "Descriptive and normative research on organizational learning: locating the contribution of Argyris and Schön." *International Journal of Educational Management* 15, no. 2 (2001): 58-67.

implementation. Concurrently, legal instruments—including MoUs, intellectual property agreements, and compliance with regulatory frameworks—provide legitimacy, clarify responsibilities, and protect the interests of all involved stakeholders. Other critical matter is socio-cultural alignment, which encourages community acceptance, strengthens trust, and elevates active participation in engagement activities. Scholars such as Chris Ansell and Alison Gash state that these three dimensions are closely interconnected and mutually reinforcing. Powerful legal arrangements can enhance institutional stability, while socio-cultural compatibility increases community involvement and shared ownership of programs. As a result, PTN-BH initiatives that successfully integrate structural, legal, and socio-cultural elements commonly demonstrate higher chance of continuity, stronger effectiveness, and broader social impact. Evaluating the impact of university–community engagement requires attention to both measurable and non-measurable outcomes. Tangible impacts may include improvements in infrastructure, the adoption of new technologies, and increased economic benefits for communities. On the other hand, intangible impacts involve broader social changes such as stronger community cohesion, greater empowerment, wider dissemination of knowledge, and an enhanced institutional reputation for universities. As an example, the UGM’s agricultural engagement program, such program has contributed to higher agricultural productivity and increased local income. Not only that, it is also creating valuable hands-on research experiences for students. According to social impact theory⁴⁸, engagement initiatives that emphasize participation and adaptability are generally generate meaningful and lasting benefits for society. To fully understand these outcomes, PTN-BH need to conduct continuous evaluations, gather responses from stakeholders, and establish long-term studies. These approaches are urgent since it is not only measuring impact, but also to improve and refine programs over time.

Even though university–community engagement programs may already be supported by institutional structures, legal frameworks, and

⁴⁸ Stephen P. Borgatti, and Rob Cross. "A relational view of information seeking and learning in social networks." *Management Science* 49, no. 4 (2003): 432-445.

socio-cultural alignment, number of challenges still there. Unstable funding, bureaucratic complexities, changes in personnel, and changing community priorities can be overcome through continuity and effectiveness of these initiatives. In addition, uncertain monitoring and evaluation capacities may make it difficult to identify programs that are not performing effectively or achieving their targets. Scholars such as Mark Perkmann et al.⁴⁹ and colleagues argue that long-term sustainability is more likely to be achieved when engagement programs become embedded within institutional culture and policy frameworks, rather than depending primarily on the efforts of individual actors. For PTN-BH universities, overcoming these obstacles requires adaptive and forward-looking strategies, including flexible funding models, stronger institutional planning, and continuous capacity-building efforts for both university personnel and community members involved in the programs.

Collaborations conducted by PTN-BH and community have been increasingly become a fundamental component of PTN-BH, reflecting their responsibility not only to pursue academic excellence but also to contribute actively to social development. For these autonomous universities, engagement programs enhance institutional relevance, strengthen research capabilities, and encourage innovation by connecting academic theory with practical realities in society. Through such collaborations, students and academic staff gain opportunities for experiential learning, applied research, and collaborative knowledge generations. Such opportunities are enabled PTN-BH to respond more effectively to important local challenges in areas such as education, public health, agriculture, and environmental sustainability. Scholars such as Henry Etzkowitz and Loet Leydesdorff⁵⁰ explain through the Triple Helix model that continuous interaction among universities, governments, and communities can generate both innovation and broader social values. For PTN-BH universities, community engagement initiatives are not merely supplementary activities. Instead, they form an essential part of

⁴⁹ Perkmann, et al. "Academic engagement and commercialisation: A review of the literature on university–industry relations."

⁵⁰ Etzkowitz, and Leydesdorff. "The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university–industry–government relations."

institutional responsibilities as mandated by legal and policy frameworks, including Law No. 12 of 2012 on Higher Education and Government Regulation No. 4 of 2014 concerning PTN-BH autonomy. These regulations highlight that community engagement should be unified into the strategic development and long-term mission of tertiary education institutions.

Apart from accomplishing obligations stated in regulations, university–community collaborations also provide essential advantages in elevating institutional reputation and public visibility. Well-designed engagement programs depict a university's social responsibility, establish shared trust of all stakeholders, and create opportunities for partnerships with government agencies, non-governmental organizations, and private sector parties. By connecting engagement activities with national development agendas—such as the Sustainable Development Goals (SDGs), rural development initiatives, and innovation policies, PTN-BH may utilize these collaborations to secure funding opportunities, support policy development, and widen their research partnerships and academic networks. Through this strategic approach, PTN-BH are positioned not only as centers for knowledge generations, but also as active contributors to social welfare and community development. This role has become more significant as societal impact and community engagement are now considered as crucial indicators in national accreditation systems and university ranking assessments.

UNNES provides examples of how PTN-BH implement some advantages from collaborations conducted between universities and communities in practice. One example is the Community-Based Literacy Development Program, which has contributed to improving literacy skills in schools and local communities while also providing opportunities for students and lecturers to conduct research and develop innovative teaching methods.⁵¹ Furthermore, UNNES has implemented various environmental

⁵¹ For further examples, please also see Cahya Wulandari, Sonny Saptioajie Wicaksono, and Umi Faridatul Khikmah. "Paralegal Existence in Providing Access to Justice for the Poor in Central Java." *Indonesian Journal of Criminal Law Studies* 4, no. 2 (2019): 199-206; Indah Sri Utari, and Ridwan Arifin. "Law Enforcement and Legal Reform in Indonesia and Global Context: How the Law Responds to Community

initiatives, such as sustainable waste management programs and mangrove restoration projects in Central Java. These programs indicate how academic knowledge and research expertise can be directly applied to address environmental as well as socio-economic issues faced by society. The programs performed by UNNES depict the principle of mutual benefit within university–community engagement. Communities advantaged from practical solutions, knowledge transfer, and capacity-building support from UNNES expertises. While the university benefits from expanded research opportunities, experiential learning for students, and stronger institutional legitimacy and reputation. Through these structured initiatives, PTN-BH universities demonstrate how community service can be integrated into their primary academic responsibilities.

An important aspect of these collaborations is their contributions to feasibility and institutional resilience. Programs implemented by Universitas Negeri Semarang are generally designed with mechanisms that support continuity--such as formal partnerships with local governments—periodically monitoring and evaluation processes, and integration into academic curricula. These mechanisms assist to ensure the programs do not rely to just few personnel and are able to continue functioning even when there are changes in funding or staffs. Furthermore, by encouraging community participations and foster socio-cultural compatibility, these initiatives strengthen trust, collective responsibility, and stakeholders feel that the programs belong to them all. Such elements are essential for maintaining the long-term impact of engagement programs. For PTN-BH, integrating collaborative engagement into institutional strategic planning is not only a way to fulfill legal and policy obligations, but also a means of

Development?." *Journal of Law and Legal Reform* 1, no. 1 (2020): 1-4; Sarno Setiawan, et al. "Community empowerment on establishment of friendly-village for women and children." *Indonesian Journal of Advocacy and Legal Services* 1, no. 1 (2019): 5-22; Aprila Niravita, et al. "Community Involvement in Spatial Planning: A Study of Public Participation in Lerep Tourism Village Perspective of Indonesian Spatial Planning Law." *Unnes Law Journal* 7, no. 2 (2021): 237-256; Ary Purwantiningsih, "Interconnection Between Citizenship Education and Law: Understanding the Role of Education in Shaping Community Legal Awareness." *Pandecta Research Law Journal* 19, no. 1 (2024): 122-145.

reinforcing their identity as autonomous, innovative, and socially responsible institutions. Through sustained collaborations with communities and external partners, PTN-BH are placed in a better positioned to contribute continuously to regional and national development.

Conclusion

The result of this study indicates that PTN-BH may realize sustainable collaboration with communities through constitute robust and blend mechanisms among integrating structural, regulations, and socio-cultural. The analysis shows that the most essential matters for the organizational framework, among other things, are committed community engagement partnerships, effective communication between parties, continuous funding, and effective supervision. Although, there is a possibility that staff on both sides will change from time to time. Furthermore, based on what happens in ITB, UGM, and UNNES, the vital measurement for a sustain collaboration lies on structural enablers.

Another crucial factor that needs to be in place is policy and legal compliance on both PTN-BH and communities. PTN-BH must establish university statutes correspond with Law No. 12/2012 regarding Higher Education, Government Regulation No. 42/2014 on PTN-BH to safeguard lawful, financial backups access, and intellectual property protection. Programs that have run with unambiguous MoUs, contracts, and ethical guidelines lessen conflict, promote union, and maintain accountability. Simultaneously, some determinan factors that may influence acceptance and community participation are mutual benefit, trust, and the program calibrates with social norm of the community (socio-cultural factors). The findings suggest that sustainable university–community engagement can only be achieved when structural, legal, and socio-cultural aspects are managed simultaneously and in an integrated manner. This indicates such sustainable and meaningful collaborations within PTN-BH are shaped not by a single factor, but by the combined

interactions of organizational structures, supports by regulations and policies, and effective relationships between universities and communities.

To strengthen the sustainability and social impact of community engagement programs, PTN-BH need to implement integrated approaches that constitute well combined structural, legal, and socio-cultural elements. Some urgent measures can support this objective, including establishing dedicated offices for community engagement, developing formal legal agreements, integrating engagement activities into academic curricula, and creating comprehensive monitoring and evaluation systems. PTN-BH should encourage active community participation and shared ownership in every stage of the program as well. In addition, PTN-BH need to expand their funding sources, design adaptive strategies to respond to changes in staffing or resources, and reinforce collaboration with multiple stakeholders such as government institutions, private sectors, and community organizations. By addressing structural, legal, and socio-cultural dimensions in a systematic and balanced way, PTN-BH can develop collaborations that are more resilient, sustainable, and scalable, while also generating mutual benefits for both universities and communities. Ultimately, such an approach supports community welfare and helps universities achieve their broader strategic goals, thereby providing a comprehensive response to the study's main research question.

References

- Achwan, Rochman, et al. "University reform and the development of social sciences in Indonesia." *International Journal of Educational Development* 78 (2020): 102269.
- Ansell, Chris, and Alison Gash. "Collaborative governance in theory and practice." *Journal of Public Administration Research and Theory* 18, no. 4 (2008): 543-571.
- Austin, James E. "Strategic collaboration between nonprofits and businesses." *Nonprofit and Voluntary Sector Quarterly* 29, no. 1_suppl (2000): 69-97.

- Azwari, Peny Cahaya, and Fenny Purwani. "Desain Model Transformasi Perguruan Tinggi Keagamaan Islam Negeri Menjadi Perguruan Tinggi Negeri Badan Hukum (PTN-BH) Menggunakan Pendekatan Metode TOPSIS." *Jurnal Akuntansi Dan Keuangan* 12, no. 1 (2024): 122-130.
- Baiquni, Muhammad, and Puji Astuti. *Merajut pengalaman: Pendidikan untuk pembangunan berkelanjutan UGM*. UGM Press, 2018.
- Barney, Jay. "Firm resources and sustained competitive advantage." *Journal of Management* 17, no. 1 (1991): 99-120.
- Borgatti, Stephen P., and Rob Cross. "A relational view of information seeking and learning in social networks." *Management Science* 49, no. 4 (2003): 432-445.
- Bovens, Mark. "Analysing and assessing accountability: A conceptual framework 1." *European Law Journal* 13, no. 4 (2007): 447-468.
- Boyer, Ernest L. "The scholarship of engagement." *Building the Field of Higher Education Engagement*. Routledge, 2023, pp. 15-25.
- Boyer, Ernest L. *Scholarship reconsidered: Priorities of the professoriate*. Princeton University Press, 3175 Princeton Pike, Lawrenceville, NJ 08648., 1990.
- Brewis, Elisa. "Fair access to higher education and discourses of development: a policy analysis from Indonesia." *Compare: A Journal of Comparative and International Education* 49, no. 3 (2019): 453-470.
- Bringle, Robert G., and Julie A. Hatcher. "Campus–community partnerships: The terms of engagement." *Journal of Social Issues* 58, no. 3 (2002): 503-516.
- Bringle, Robert G., and Julie A. Hatcher. "Implementing service learning in higher education." *The Journal of Higher Education* 67, no. 2 (1996): 221-239.
- Brundtland, Gro Harlem. "Our common future—Call for action." *Environmental Conservation* 14, no. 4 (1987): 291-294.
- Cai, Yuzhuo, and Henry Etzkowitz. "Theorizing the Triple Helix model: Past, present, and future." *Triple Helix* 7, no. 2-3 (2020): 189-226.

- DiMaggio, Paul J., and Walter W. Powell. "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields." *American Sociological Review* 48, no. 2 (1983): 147-160.
- Eisenhardt, Kathleen M. "Agency theory: An assessment and review." *Academy of Management Review* 14, no. 1 (1989): 57-74.
- Erlyani, Neka, et al. "Tantangan Perguruan Tinggi Negeri dalam Kesiapan untuk Berubah." *Jurnal Pengabdian ILUNG (Inovasi Lahan Basah Unggul)* 2, no. 2 (2022): 162-172.
- Etzkowitz, Henry, and Loet Leydesdorff. "The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university-industry-government relations." *Research Policy* 29, no. 2 (2000): 109-123.
- Etzkowitz, Henry. "Innovation in innovation: The triple helix of university-industry-government relations." *Social Science Information* 42, no. 3 (2003): 293-337.
- Franco, Isabel B., and James Tracey. "Community capacity-building for sustainable development: Effectively striving towards achieving local community sustainability targets." *International Journal of Sustainability in Higher Education* 20, no. 4 (2019): 691-725.
- Gibbons, Michael, Camille Limoges, and H. Nowotny. "Evolution of knowledge production." *Knowledge: Critical Concepts* 2 (2005): 274-301.
- Goddard, John, and Jaana Puukka. "The engagement of higher education institutions in regional development: An overview of the opportunities and challenges." *Higher Education Management and Policy* 20, no. 2 (2008): 11-41.
- Gunawan, Gunawan, et al. "Penyuluhan Tentang Peluang Dan Tantangan Penerapan Tri Dharma Perguruan Tinggi di Era Revolusi Industri 4.0." *Jurnal Pendidikan dan Pengabdian Masyarakat* 3, no. 2 (2020).
- Hartono, Hartono. "Research Developments in Quality Management at Universities in Indonesia: A Systematic Literature Review." *AL-ISHLAH: Jurnal Pendidikan* 16, no. 2 (2024): 661-669.
- Iruthayasamy, Lourdesamy. *Understanding Business Strategy*. Springer Singapore, 2021.

- Jansen, Jonathan D. "Mode 2 knowledge and institutional life: Taking Gibbons on a walk through a South African university." *Higher Education* 43, no. 4 (2002): 507-521.
- Lian, Bukman. "Tanggung jawab Tridharma perguruan tinggi menjawab kebutuhan masyarakat." *Prosiding Seminar Nasional Program Pascasarjana Universitas PGRI Palembang*. 2019.
- Masyhar, Ali, Siti Mursidah, and Ali Murtadho. "Formulating Institutional Harmonization of UNNES Legal Entity Organs in The Frame of Check and Balances System." *Pandecta Research Law Journal* 18, no. 1 (2023): 47-52.
- Mousazadeh, Hossein. "Unraveling the nexus between community development and sustainable development goals: A comprehensive mapping." *Community Development* 56, no. 2 (2025): 276-302.
- Mursidah, Siti, et al. "How Can Law and Policy Reform Shape Human Resource Strategies in Indonesian State Universities Post-Law No. 20 of 2023?." *Journal of Law and Legal Reform* 5, no. 4 (2024): 1737-1762.
- Niravita, Aprila, et al. "Community Involvement in Spatial Planning: A Study of Public Participation in Lerep Tourism Village Perspective of Indonesian Spatial Planning Law." *Unnes Law Journal* 7, no. 2 (2021): 237-256.
- Nurhanifa, Isra, and Eny Kusdarini. "The Policy of Legal-Entity State Higher Education Institutions (PTN-BH) Determination Viewed from Material Law." *Education* 6, no. 2 (2019): 33-52.
- Peer, Verena, and Gernot Stoeglehner. "Universities as change agents for sustainability—framing the role of knowledge transfer and generation in regional development processes." *Journal of Cleaner Production* 44 (2013): 85-95.
- Peña-López, Ismael. *Rethinking Education: Towards a global common good?* New York: UNESCO, 2015.
- Perkmann, Markus, and Kathryn Walsh. "University–industry relationships and open innovation: Towards a research agenda." *International Journal of Management Reviews* 9, no. 4 (2007): 259-280.

- Perkmann, Markus, et al. "Academic engagement and commercialisation: A review of the literature on university–industry relations." *Research Policy* 42, no. 2 (2013): 423-442.
- Purwantiningsih, Ary. "Interconnection Between Citizenship Education and Law: Understanding the Role of Education in Shaping Community Legal Awareness." *Pandecta Research Law Journal* 19, no. 1 (2024): 122-145.
- Putnam, Robert D. *Bowling alone: The collapse and revival of American community*. Simon and schuster, 2000.
- Riyanto, R. Benny, and Sucihatiningsih Dian Wisika Prajanti. "The Grand Design of LPPM UNNES Innovation in Supporting UNNES Towards PTNBH." *Unima International Conference on Social Sciences and Humanities (UNICSSH 2022)*. Atlantis Press, 2023.
- Riyanto, R. Benny, and Sucihatiningsih Dian Wisika Prajanti. "The Grand Design of LPPM UNNES Innovation in Supporting UNNES Towards PTNBH." *Unima International Conference on Social Sciences and Humanities (UNICSSH 2022)*. Atlantis Press, 2023.
- Riyanto, R. Benny, et al. "Advocating for Excellence: Legal Strategies in Shaping Higher Education as a World-Class Research and Education Hub (Case of Indonesia, Oman, and United Arab Emirates)." *Indonesian Journal of Advocacy and Legal Services* 7, no. 2 (2025): 593-618.
- Robinson, Viviane MJ. "Descriptive and normative research on organizational learning: locating the contribution of Argyris and Schön." *International Journal of Educational Management* 15, no. 2 (2001): 58-67.
- Rodiyah, Rodiyah, et al. "Redesign Practices for Acceleration of Educational Independence UNNES PTNBH." *4th International Conference on Social Sciences and Law (ICSSL 2024)*. Atlantis Press, 2024.
- Rodliyah, Iis Nur, and Hsueh-Hua Chuang. "Assessing the Impacts of National Policies on Indonesian Autonomous Universities' Research Performance." *Erudio Journal of Educational Innovation* 10, no. 2 (2023): 154-164.
- Rosyida, Fatia Ainur, Zumrotus Sa'diyah, and Abdul Aziz. "Analisis Tantangan dan Peluang Kebijakan PTN-BH: Studi Kebijakan

- Pendidikan Tinggi di Indonesia." *Dirasah: Jurnal Studi Ilmu dan Manajemen Pendidikan Islam* 8, no. 1 (2025): 147-160
- Santosa, Djarot Heru. "Pemberdayaan masyarakat berkonsep pembangunan berkelanjutan (SDGs) dalam kegiatan kuliah kerja nyata Universitas Gadjah Mada di masa pandemi Covid-19." *Unri Conference Series: Community Engagement*. Vol. 2. 2020.
- Saputra, Achmad Nuryana, and Supratiwi Supratiwi. "Evaluasi Pengelolaan Perguruan Tinggi Negeri Badan Hukum (PTNBH) (Studi Kasus Universitas Diponegoro dan Universitas Negeri Semarang)." *Journal of Politic and Government Studies* 14, no. 2 (2025): 335-354.
- Sari, Rini Ambar, Matin Matin, and Maruf Akbar. "Policy Evaluation on International Research Quality Management of Universitas Indonesia: Impact Towards Development of the Nation." *ASEAN Journal of Community Engagement* 7, no. 2 (2023): 179-195.
- Schuetze, Hans G. "Universities and their communities—Engagement and service as primary mission." *Higher education and civic engagement: Comparative perspectives*. New York: Palgrave Macmillan US, 2012, pp. 61-77.
- Scott, Allen J. "Globalization and the rise of city-regions." *European Planning Studies* 9, no. 7 (2001): 813-826.
- Setiawan, Sarno, et al. "Community empowerment on establishment of friendly-village for women and children." *Indonesian Journal of Advocacy and Legal Services* 1, no. 1 (2019): 5-22.
- Sohoni, Milind, et al. "New Models of University Social Engagement in Asia." *Innovations in Asian Higher Education*. Routledge, 2019, pp. 51-63.
- Spânu, Paulina, Mihaela-Elena Ulmeanu, and Cristian-Vasile Doicin. "Academic third mission through community engagement: An empirical study in European universities." *Education Sciences* 14, no. 2 (2024): 141.
- Suchman, Mark C. "Managing legitimacy: Strategic and institutional approaches." *Academy of Management Review* 20, no. 3 (1995): 571-610.

- Sulandjari, Kuswarini, et al. "The Effect of Community Participation, Knowledge Transfer, Technology Adoption on Community Food Security and Agricultural Sustainability in Farm Entrepreneurs in Indonesia." *West Science Interdisciplinary Studies* 1, no. 10 (2023): 1080-1091.
- Syamwil, Indra Budiman. "Enhancing knowledge-based industry: The Case of ITB's New Industrial Research Campus Plan in Bekasi, West Java." *Arte-Polis 3 International Conference on Creative Collaboration and the Making of Place*. Bandung: Institut Teknologi Bandung. 2010.
- Tushman, Michael L., and Charles A. O'Reilly III. "Ambidextrous organizations: Managing evolutionary and revolutionary change." *California Management Review* 38, no. 4 (1996): 8-29.
- Utami, Evita Septiana Tyas, Wahyu Setyaningsih, and Galih Niken Anggoro Sulaksmi. "Analysis Policy Scheme Study and Devotion to The Community in UNNES as PTN BH." *Jurnal Abdimas* 27, no. 2 (2023): 338-343.
- Utari, Indah Sri, and Ridwan Arifin. "Law Enforcement and Legal Reform in Indonesia and Global Context: How the Law Responds to Community Development?." *Journal of Law and Legal Reform* 1, no. 1 (2020): 1-4.
- Van der Meulen, Barend, and Arie Rip. "Evaluation of societal quality of public sector research in the Netherlands." *Research Evaluation* 9, no. 1 (2000): 11-25.
- Walsh, Roger N. *The world of shamanism: New views of an ancient tradition*. Llewellyn Worldwide, 2007.
- Wulandari, Cahya, Sonny Saptoajie Wicaksono, and Umi Faridatul Khikmah. "Paralegal Existence in Providing Access to Justice for the Poor in Central Java." *Indonesian Journal of Criminal Law Studies* 4, no. 2 (2019): 199-206.

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