Islamic Higher Education in Indonesia

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Contents

Acknowledgments

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Abbreviations

ASEAN	Association of Southeast Asian Nations
AUN-QA	ASEAN University Network-Quality Assurance
BAN-PT	*Badan Akreditasi Nasional Perguruan Tinggi* (National Agency of Higher Education Accreditation)
BLU	*Badan Layanan Umum* (PTKIN's General Service Unit)
BOPTN	Operational Assistance for PTKIN
DGIE	Directorate General for Islamic Education
DGHE	Directorate General for Higher Education
EQA	External Quality Assurance
FAI	*Fakultas Agama Islam* (Faculties of Islamic Religion)
GDP	Gross Domestic Product
HEI	Higher Education Institution
ICT	Information and Communication Technology
ILMIA	Institute of Labour Market Information and Analysis
IP	Intellectual Property
IQA	Internal Quality Assurance
ISCED	International Standard Classification of Education
Kopertais	*Koordinator Perguruan Tinggi Agama Islam Swasta*
KPI	Key Performance Indicator
LAM	*Lembaga Akreditasi Mandiri* (Independent Accrediting Institution)
LLL	Life-long Learning
LP2PM	Institutes for Research and Community Service
MoEC	Ministry of Education and Culture
MoF	Ministry of Finance
MoNE	Ministry of National Education
MoRA	Ministry of Religious Affairs
MoRTHE	Ministry of Research, Technology and Higher Education
NGO	Non-governmental Organization
NPM	New Public Management
PNBP	*Pendapatan Negara Bukan Pajak* (Non-tax State Revenue)
PTKI	*Perguruan Tinggi Keagamaan Islam* (Islamic HEIs)
PTKIN	*Perguruan Tinggi Keagamaan Islam Negeri* (Public Islamic HEIs)
PTKIS	*Perguruan Tinggi Keagamaan Islam Swasta* (Private Islamic HEIs)
PTN-BH	*Perguruan Tinggi Negeri Badan Hukum* (Public University)
QA	Quality Assurance
QFS	Qualifications Framework System
R&D	Research and Development

RIRN	*Rencana Induk Riset Nasional* (Master Plan of National Research) 2017–2045
RPJMN	*Rencana Pembangunan Jangka Menengah Nasional* (Medium-term National Development Plan)
RPL	Recognition of Prior Learning
Satker	*Satuan Kerja* (Work Units)
STEM	Science, Technology, Engineering, and Math
SSBOPT	*Standar Satuan Biaya Operasional Perguruan Tinggi* (Standard Unit Fee for Tertiary Education)
TEI	Tertiary Education Institution
UIN	*Universitas Islam Negeri* (State Islamic University)
UKT	*Uang Kuliah Tunggal* (Single Tuition Fee)
USPTO	United States Patent and Trademark Office
WIPO	World Intellectual Property Organization
YÖK	*Yükseköğretim Kurulu* (Higher Education Council [Turkey])

Executive Summary

Tertiary education in Indonesia is expected to continue its strong growth over the next 10 years. This predicted growth will take place in both Islamic and non-religious tertiary institutions. Historically, Islamic education in Indonesia developed as a separate branch of the education system. The Ministry of Education and Culture (MoEC), and previously the Ministry of Research, Technology and Higher Education (MoRTHE), as well as the Ministry of Religious Affairs (MoRA), are responsible for the management of non-religious higher education (HE) in Indonesia and religious HE, respectively. Within religious education, Islamic education is by far the most prevalent in Indonesia. The HE subsector under the MoRA is much smaller than that under MoEC, but it has been steadily growing, particularly the public branch. It is important to note that the majority of HE under the MoRA is *not* religious in nature, but includes secular study programs such as nursing, economics and foreign languages. Moreover, the HE subsector as a whole is expected to continue its strong growth, given the demands of the labor market and the increasing number of young people completing secondary education. As the enrolments in Islamic HEIs and programs continue to grow, their graduates will need more skills relevant to jobs in the private and non-Islamic-related labor market than today.

MoRA plans to improve the education system under its supervision, including HE, as stated in the current strategic plan. To provide technical advice and support in the reform of the MoRA HE system, this study analyzed the current Islamic HE system in terms of governance, quality assurance (QA), relevance, finance, research and internationalization. Improvement of these aspects of HE system is part of the current target stated in the MoRA strategic planning 2020-2024[1].The primary sources of information for this study were face-to-face interviews with leaders of Islamic higher education institutions (HEIs) and other key stakeholders in 2018 and 2019. Eight representative institutions in terms of geographical coverage, size of institution, and legal status were selected for interviews. Wherever possible, the analysis included benchmarking with Malaysia, China and Turkey.

This study presents two types of policy recommendations based on key findings. The first type of recommendation is addressed to the MoRA's management and HEIs under the MoRA's jurisdiction. These recommendations could be implemented at the MoRA's discretion without system-level reforms. Wherever appropriate, the recommendations are differentiated by type of institution. Most of the recommendations fall into this category. The second type of recommendation is targeted at the subsector level because, even though Islamic HE is managed by MoRA, MoEC is responsible for the overall HE policies and regulations. Recommendations are prioritized based on importance and urgency. The first list of recommendations includes the most urgent actions for MoRA to take. The second list includes six general reform areas in order of priority. Most of these reforms will involve policy reforms and will not require considerable expenditures. Key findings of the study are followed by the recommendations.

Key findings

Governance

The Higher Education Strategy 1996–2005 brought a paradigm shift in HE, which set the foundation to empower public universities with autonomy, transparency and accountability. After some controversy over the pros and cons of granting autonomy to HEIs, Law No. 12/2012 on Higher Education provided

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[1] Ministerial Regulation No 18/2020 of Ministry of Religious Affairs 2020-2024

autonomy at such levels as organization, finance, student affairs, staffing, and facilities and infrastructure, though not academic freedom. Autonomy was expected to be key for an attractive, effective and successful HE system. The implementation of autonomy has been seriously infringed both at the policy and implementation levels, however. The legacy of central control has limited the extent of autonomy, particularly of financial and staffing autonomy, at the policy level, whereas inadequate capacity at the institutional level to exercise autonomy has contributed to incomplete implementation of the policy.

To be successful, the autonomy of HEIs needs to be balanced with a robust accountability mechanism, which Indonesia currently lacks. Academic accountability was first introduced in Indonesia in 1994 in the form of the accreditation system by the National Agency of Higher Education Accreditation (known by its Indonesian acronym, BAN-PT). Despite Law No. 12/2012 on Higher Education requiring all HEIs and programs to be accredited, only about 35 percent of HEIs under MoRA have been accredited by the end of 2020. In terms of accountability to the public at large, apart from the partially implemented accreditation, no other mechanism is in place to keep the public informed on institutional performance. Policy changes in 2020 enacted by MoEC to the overall tertiary accreditation system appear to increase accountability and allow international accreditation processes. These initial reforms should be deepened and extended by MoRA.

Quality assurance

The current organizational structure of BAN-PT threatens its independence, while its own quality is not externally assessed. Established and fully funded by the government and reporting directly to the MoRTHE (now MoEC), BAN-PT first began functioning in 1994 as the sole national independent agency that accredits HEIs and programs in Indonesia on a mandatory basis. Since 2012, BAN-PT has been assigned to accredit HEIs. Academic study program accreditation is to be carried out by independent accreditation agencies called LAMs. In case of lack of a subject-specific LAM, BAN-PT is to cover the field. The current operational and decision-making structures for both BAN-PT and LAMs undermine their independence from the MoEC (in the case of BAN-PT) and BAN-PT and the institutions they accredit (in the case of LAMs). Furthermore, while LAMs are evaluated externally by BAN-PT, BAN-PT itself has never undergone external reviews by international or regional bodies for recognition purposes, which is an attestation of credibility and validity in the operations and decision-making of an accrediting body.

Accreditation standards are input-based rather than process- or outcome-based. The initial assessment at the entry point is well established, but other aspects of the Quality Assurance (QA) system, such as monitoring and enhancement, accountability, professional certification and public information, are weak. The accreditation standards started to shift from an input focus to consideration of the processes, outputs and outcomes (July 2019). Additional reforms to simplify the indicators and focus even more on processes and outcomes are expected and much needed.

Not all HEIs have been externally reviewed and accredited using any set of accreditation standards. Accreditation standards have been revised several times since 2004, but no set of standards has completed accreditation of all HEIs in a single round. Only about 34 percent of Islamic HEIs and 20 percent of study programs in Islamic HEIs have been accredited. Legally, qualifications from non-accredited HEIs are not formally recognized in the country, but in reality, they are often accepted in the job market.

Internal QA (IQA) systems are still in their infancy, where HEIs tend to establish IQA to comply with External QA systems. Islamic HEIs have established IQA units, but they lack a commonly accepted definition of quality and QA mechanisms among internal stakeholders to guide the process of building IQA

and thus a quality culture. Instead, there is a strong tendency to establish IQA as a compliance mechanism rather than an enhancement tool.

The National Qualifications Framework (NQF), which is meant to cover both MoRA and MoEC HEIs, is not yet fully operationalized and is not yet supported by robust QA mechanisms. The NQF lacks clear methodologies and mechanisms for implementation, as well as robust QA systems to ensure recognition of formal, non-formal, and informal learning as well as life-long learning (LLL) and recognition of prior learning (RPL).

Relevance

With more than 2 million graduates joining the workforce nationwide every year, the HE subsector is seen as responsible for human capital growth. However, survey findings indicated a skills mismatch between industrial needs and graduate skills with employers looking for graduates to have some industrial training, soft skills such as communication, creative/critical thinking, and analytical and problem-solving experience. Integration of various information channels would help better match students and employers. Open information on the quality of HEIs and their accreditation statuses is as important for students and parents making career choices as is information on the labor market and employment services.

The most popular job destination for MoRA HEI graduates is education or teaching at various levels followed by government or civil service jobs. Graduates of both large and small Private Islamic HEIs (PTKIS) find jobs directly related to their majors in Islamic education-related areas. As the system grows and the economy changes, it is important to expand the types of degrees and course work offered to better align with non-religious as well as private sector employment rather than continue to focus uniquely on the civil-service and religious sector.

Finance

Government spending on HE in Indonesia is small for the entire HE subsector, but government spending is greater than private spending for religious HE. The Indonesian Constitution stipulates that a minimum of 20 percent of the government's budget must be allocated to education, but HE receives less than 5 percent of the total government spending on education. This is equivalent to 0.4 percent of gross domestic product (GDP), which is much lower than neighboring countries, for instance, 1.7 percent in Malaysia and 0.7 percent in Thailand. Public spending is estimated to be around one-quarter of total spending on HE, and the rest is funded by private sources. However, in contrast to the HE subsector as a whole, 72 percent of students in the religious HE subsector go to public institutions and therefore, public spending is much greater than private spending. The vast majority of these institutions are Islamic.

While MoRA's budget for Islamic public HEIs has increased in recent years, institutions gradually have come to depend less on government funding. Larger institutions are given considerable financial autonomy, whereas smaller ones are not. Larger institutions raise their own revenues from tuition fees and other sources, and can keep them at the institutional level, but smaller institutions transfer their own incomes to the central government. On the other hand, the MoRA sets the standard unit cost for tuition fees for each public institution and study program, and institutions—even larger ones—are not allowed to charge fees beyond the unit cost. This prevents institutions from charging higher tuition fees to those who can afford them, which could be used to subsidize poorer students. Regardless, Islamic public HEIs haver rarely run a budget deficit. In contrast, government spending on private religious institutions is negligible. Private institutions tend to charge lower fees than the public institutions to serve the poor.

Public funding does not incentivize institutions to improve performance. MoRA allocates public funding primarily based on historical allocations, negotiations and enrolment levels, with the bulk of its funding being used to pay salaries directly to Higher Education Institution (HEI) staff. The existing funding mechanisms do not promote higher performance or competition. MoRA provides almost no financial support for private HEIs under its jurisdiction, losing an opportunity to encourage competition between public and private institutions.

As public funding to help access HE is limited, MoRA HEIs aim to increase access for the poor. It is estimated that financial aid provided to students enrolled in HE covers only 3 percent of the total costs to attend. There is no student loan scheme to serve the poor. To help students from lower socioeconomic status access HE, Islamic HEIs generally offer lower tuition fees compared with HEIs under MoEC.

Research

Indonesia's policy statements and strategic plans on research in HEIs indicate an awareness of the critical role that research plays in boosting a country's growth and productivity. With its population of more than 270 million, its young demographic profile, and having the largest economy in Southeast Asia, Indonesia could be poised to achieve its market and human resources potential, but what may hold it back could be its low competitiveness and innovation levels.

MoRA focuses on supporting research related to Islamic education, but the logistics and structure to allocate research funding could be improved. MoRA has well-established institutions for teaching and research in disciplines related to Islamic education. However, the funding mechanisms are rigid, lack incentives and are generally insufficient for research. Even though larger public Islamic HEIs (PTKIN) tend to have more PhDs and a better management system for research, overall, the small number of PhDs is insufficient to provide a critical mass of researchers and staff in leadership and advisory roles.

Overall, a research culture needs to be developed. The academic research publication culture in Indonesia is still at a fairly early stage. Indonesia is far behind its peers in terms of publications and patent applications and registrations are extremely limited. Few opportunities exist for the majority of HEIs to participate in national conferences and seminars, and fewer still manage to gain access to international interactions at all. International collaboration is essential to enhance the quality, but it is very limited in Indonesia. To develop a research culture in HEIs, particularly in the smaller and relatively isolated PTKIS, the MoRA could initiate more lateral collaborations and substantive interactions between well-performing and weaker HEIs.

Internationalization

The Indonesian government's policies only partially support internationalization. The government supports internationalization through various programs, including seminars/workshops on internationalization and network establishment. On the other hand, the government's protectionist policy has been preventing international branch campuses from entering the HE market, though the government has recently shown some interest to open the HE market up to foreign universities.[2] Policy changes initiated in 2020 by MoEC show promise for increasing internationalization.

In general, HEIs lack the formal structures needed to promote internationalization that take place both at home and abroad. Internationalization, and especially student mobility, is impeded due to the lack of

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[2] http://monitor.icef.com/2018/04/indonesia-prepared-welcome-foreign-universities/.

clear mechanisms promoting it. Even though HEIs often have a foreign language policy in place, they tend not to teach the foreign languages, most importantly English, as required by their own policy. International mobility of students is still limited. Not only student mobility but also interaction between international and Indonesian students is limited. Faculty mobility is even more limited than student mobility. The reasons for limited internationalization include a lack of any legal framework, language barriers, lack of high-quality lecturers and staff, financial constraints, and fear of foreign influence, among others. Internationalization is particularly difficult for smaller non-university higher education institutions (TEIs) that may lack the resources and knowledge needed to create these links.

Policy recommendations

1. Most Urgent Actions

For MoRA

Priority Action 1: Define an accountability and autonomy framework

- Define an accountability framework (that is, to whom HEIs are accountable and for what), and develop mechanisms and tools, and provide funding to effectively implement the accountability framework.

- Develop a detailed framework for autonomy of Islamic HEIs, including clear dimensions of autonomy—academic, structural, financial, and staffing—and types of autonomy—content and procedural. The level of autonomy may be differentiated by type of HEIs, depending on the capacity of institutions.

Priority Action 2: Define the External and Internal Quality Assurance framework

- Define 'quality' and purposes of QA in the effective performance of HE in wide consultation with key stakeholders among the MoRA and Islamic HEIs, which should include both large and small, public and private HEIs.

- Identify key stakeholders and define what processes and decision-making for external quality assurance (EQA) they should be included in.

- Work with MoEC to establish an independent accrediting institution (*Lembaga Akreditasi Mandiri*, LAM) for accreditation of Islamic religious study programs.

Priority Action 3: Enhance equity of funding

- Set the ceiling for tuition fees for each study program above the unit cost on the condition that public HEIs use the surplus to provide more needs-based scholarships.

- Fully fund *Bidik Misi* scholarships rather than providing a partial scholarship and asking institutions to shoulder the rest of the cost.

For Islamic HEIs

Priority Action 1: Improve the relevance of study programs

- Assess the labor market relevance of their study programs through internal quality audits, program accreditation and annual tracer studies.

- Revise the content of study programs or create new programs that promote the use of new teaching and learning approaches, establish career support centers, and link university research to local industry. Where the research capacity is limited or non-existent at non-university HEIs, the focus should be to improve the relevance of their programs to respond to the local labor market demand beyond Islamic-related jobs. New teaching and learning approaches should include:

  o Engagement with industry or relevant potential employers beyond government and teaching positions, across a spectrum of interactions, as part of students' learning experience throughout their study period, with faculty concurrently engaged in the workplace, to keep abreast with changes and trends in the workplace.

  o Learning that goes beyond immediate geographical boundaries. HEIs can supplement their programs by taking advantage of online offerings nationally and internationally, which would provide additional certification to match skills required by employers.

  o Delivery of teaching and student learning that harnesses 'disruptive' information/ communication channels such as smartphones, videos, and blogs as part of learning modules. Utilization of these tools should be high in terms of collaborative assignments, assessment and critical thinking, while allowing faculty to monitor and support student progress more accurately. In the short term, well-performing HEIs could develop modules that include classroom practices to be shared with remaining HEIs in batches in the medium and long term. Peer training should be an approach to be considered.

2. *Comprehensive policy reform areas to be tackled in the medium term*

   Priority Area 1: Define an autonomy and accountability framework

   - Focus on implementing increased academic autonomy of HEIs, as defined in the current legal framework. Regardless of the type of institutions, they should be able to develop academic programs as long as they meet quality standards that the national QA guidelines require. Private HEIs are already given a high level of autonomy, which should be maintained and monitored through QA mechanisms rather than regulations. Develop QA mechanisms and key performance indicators (KPIs) to support the implementation.

   - Engage international experts and participate in international programs such as twinning programs and provide long-term capacity-building training for HEIs to manage an academic autonomy and accountability framework.

   Priority Area 2: Strengthen external and internal QA mechanisms

   External quality assurance of HEIs

   - Train new staff of the LAM on external evaluations and skillful application of such principles of QA as consistency, relevance, reliability, validity and objectivity in external evaluations.

   - Provide capacity building for MoRA HEIs to ensure common understanding on the key concepts and mechanisms for QA of religious study programs.

Internal quality assurance of HEIs

Recommendations for the MoRA

- Develop guidelines on internal quality assurance (IQA) for MoRA HEIs, suitable for different types of institutions and supplemented with the best international practices fit for the country's context and culture.

- Provide system-wide capacity building on setting up and operationalizing IQA systems for MoRA HEIs; large HEIs may assist smaller HEIs in improving IQA systems.

Recommendations for HEIs

- Taking into account the national-level definition of 'quality' and expectations from the national guide on IQA, define 'quality' for each institution.

- Design an IQA system that is linked to the strategic priorities and guides institutional funding allocation and allows informative decision-making, making IQA a key driver for efficient and effective operations of the HEIs, which also promotes relevance of HE provisions.

External quality assurance at system level (MoEC and MoRA)

- Revise the current legal and regulatory framework to promote more independent and transparent decision-making at the institutional level.

- Enhance the technical capacity and legitimacy of the National Agency of Higher Education Accreditation (BAN-PT) by going through an international external review against internationally set standards and obtaining international recognition as an independent QA agency.

- Strengthen the capacity of BAN-PT and existing LAMs to cover all HEIs and programs in a single round of accreditation, as required by the law.

- Revise the standards for both HEIs and programs to link them with the system needs and performance outcomes and outputs, as well as with the national qualifications framework.

- Provide system-wide capacity building on the IQA and EQA for all HEIs under the MoRA and MoEC to make both complementary to each other's mechanism, leading to the establishment of culture of quality improvement.

Priority Area 3: Reform funding mechanisms

Quality enhancement

- Introduce competitive-based and performance-based funding to gradually replace the historical-based and negotiation-based. As a start, competitive-based funding could be introduced for capital expenditure, which is currently based on negotiations between the MoRA and HEIs on a case-by-case basis. As for recurrent expenditure, the MoRA could introduce performance-based allocation to provide incentives for public Islamic HEIs (*Perguruan Tinggi Keagamaan Islam Negeri*, PTKIN)/private Islamic HEIs (*Perguruan Tinggi Keagamaan Islam Swasta*, PTKIS) to enhance the quality.

- Create a more competitive environment for the overall Islamic HE by leveraging private HEIs that can bring in more entrepreneurship and innovation. MoRA could provide financial incentives for private HEIs to go through the accreditation process and provide competitive funding for both accredited public and private HEIs to enhance entrepreneurship and innovation.

Equity

- Explore options to increase the enrolment of low-income students. One possibility is the introduction of a student loan scheme at the national level, preferably an income-contingent loan system. This would be the most challenging recommendation but would have the largest impact on increasing enrolment. The system would have to start small to address teething issues, for example, by providing the loan only in selected study programs or only to a small number of creditors. Other options to improve equity include changes to the university finance system that could link higher tuition fee ceilings to higher numbers of tuition and cost waivers for low-income students, among other options including *Biaya Operasional Perguruan Tinggi Negeri.*

Priority Area 4: Boost research outputs and outcomes

Recommendations for MoRA

- Develop and disseminate to all HEIs that conduct, or wish to conduct research, a set of criteria for research outputs and publications to guide researchers, helping them work toward qualitatively strong research outputs and publications. While research capacity at institutes and colleges may be limited, it is important that instructors have access to research opportunities to improve their teaching quality and relevance at the local level.

- Develop strategies in discussion with the MoEC and the Ministry of Finance (MoF) for increasing selective, merit-based financial support for PhD programs for academic staff in Islamic education, as well as science and technology-based areas.

- Increase allocations for research funding, building in block grants, competitive grants and performance-based grants, while lobbying for resources from other government agencies, businesses and industry sectors, as well as international partners. An integrated approach involving relevant parties from the public (national and local) and the private sectors is part of RPJMN 2020–2024.

- Develop revised guidelines to provide HEIs with greater flexibility for the research grant application and approval process and budgeting, and to promote collaboration across HEIs.

- Proactively seek out support from those public and private HEIs working well in international collaborative work, building an enabling platform for less-informed HEIs to seek information and assistance.

Recommendation for HEIs

At the institutional level, the research landscape could be strengthened by the following actions:

- Implement and execute criteria for research outputs and publications developed by the MoRA, enhanced by HEIs to match institutional priorities that better meet international requirements.

- Review the MoRA, the MoEC, and institutional regulations and guidelines to support a more effective research environment, increasing researchers' knowledge and understanding of criteria that constitute qualitatively strong research outputs and publications, both in national and international terms.

- Review roles and responsibilities of research personnel, including administrators, to identify and put in place a more efficient and supportive framework for research.

- Identify working partners among local and international HEIs to develop specific areas of expertise.

- Establish regular contact and pathways with local industry and community in terms of curriculum, training and research activities.

- Implement the MoRA's guidelines with a monitoring system for better record-keeping of research activities and outputs, reporting to relevant personnel, sharing, communicating, and disseminating key information and data.

Priority Area 5: Enhance the relevance of HE programs

Recommendations for the MoRA

- Put in place legal and regulatory frameworks to support the implementation of the following two portals:

  o Develop an integrated labor market information and employment services portal for undergraduates, to be put in place and maintained by the MoRA in partnership with related agencies and industry to support its HEIs.

  o Develop and maintain an integrated database that provides students, parents and other stakeholders updated information on the quality of HEIs, their accreditation status and performance, as well as details of study programs and student learning outcomes.

Priority Area 6: Internationalize HE under the MoRA

- Develop a framework and then a national strategy on internationalization, based on wide consultations on the benefits and costs of internationalization. Cascade the national strategy down to the institutional level. Approaches to internationalization may be different by type of institutions as their needs and capacity vary.

- Revise the legal and regulatory frameworks to support the defined scope of internationalization.

- Create opportunities for developing foreign language capacity of faculty, administrative staff and students.

- Build on the capacity of key stakeholders in terms of internationalization and mechanisms to operationalize and evaluate it.

Introduction

Background

Overview of the Indonesian Islamic higher education system[3]

Higher education (HE) is the main provider of high-level skills. Indonesia is an upper middle-income country with gross domestic product (GDP) per capita of US$4,136 in 2019. It is the fourth-largest country in the world and a young country with 44 percent of the total population of 266.8 million people under 25 years of age in 2018.[4] As its economy grows, the country increasingly requires a meaningful share of the labor force with a high level of skills.

The Ministry of Education (MoEC) and the Ministry of Religious Affairs (MoRA) are currently responsible for the management of HE in Indonesia. Back in January 2015, based on Presidential Decree No 13/2015, the merger of the Ministry of Research and Technology (*Kementerian Riset dan Teknologi*, RISTEK) and the Directorate General of Higher Education (DGHE) of the Ministry of Education and Culture (MoEC) formed the Ministry of Research Technology and Higher Education (MoRTHE). MoRTHE was responsible for managing HE for about five years. Then, in October 2019, based on Presidential Decree No. 72/2019, this responsibility was shifted back to the MoEC.

Historically, Islamic education in Indonesia developed as a separate branch in the whole education system, which was predominantly established based on a Dutch model (MoRA, 2015). Islamic education was initiated in the 1950s as a response to the need to increase access to education for the indigenous population. With the adoption of Law No. 2/1989 on the National Education System, Indonesia became one of the few countries where Islamic education was recognized as an integral part of the national education system and considered equal to general education. While the overall responsibility of HE falls under the MoEC, MoRA is assigned the responsibility for specific aspects of implementation related to religious education.[5] Islamic higher education institutions (HEIs) (*Perguruan Tinggi Keagamaan Islam*, PTKIs) consist of universities, institutes, colleges and academies.[6] PTKIs are all or in part under MoRA management. In addition, faculties of Islamic religion (*Fakultas Agama Islam*, FAI) located in private universities under the MoRA are under MoRA management.

The mandate of Islamic HE is to advance science and technology programs, and to integrate Islam into the teaching and research of general subjects. Islamic HE offers both general education with religious

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[3] 'Higher education', also known as tertiary education in some countries, refers to all postsecondary education, including both public and private universities, colleges, technical training institutes, and vocational schools (World Bank, http://www.worldbank.org/en/topic/tertiaryeducation#what_why). Typically, 'higher education' includes only International Standard Classification of Education (ISCED) Level 6 (bachelor's degree or equivalent) and above, while tertiary education includes ISCED Level 5 (short-cycle tertiary education, often designed to provide participants with professional knowledge, skills and competencies). See UNESCO Institute for Statistics (2012) for details.

[4] United Nations, Department of Economic and Social Affairs, Population Division. 2017. *World Population Prospects: The 2017 Revision*. Custom data acquired through website (https://population.un.org/wpp/DataQuery/).

[5] MoRA supervises all religious education (Islamic, Catholic, Christian, Buddhist, and Hindu).

[6] Law No. 12/2012 on Higher Education specifies types of HEIs that can be established in the country—university, institute, college, polytechnic, academy, and community academy—and provides respective definitions, but Islamic HEIs do not include polytechnic and community academy. Higher education consists of vocational programs (diploma) and academic programs. Universities offer diploma, Stratum 1 (S1) (bachelor's), Stratum 2 (S2) (master's), and Stratum 3 (S3) (doctoral) degrees; institutes offer diploma, S1, S2, and S3 degrees; and colleges offer diploma (1 to 3 years postsecondary), S1, and S2 degrees. The act further requires that all HEIs be nonprofit, which automatically excludes for-profit providers from the system.

subjects and theological education. Law No. 12/2012 on Higher Education defines six clusters of science (*bidang ilmu*) for academic programs: religious, humanities, social, natural, formal (pure), and applied science clusters. UINs offer five of these programs except for formal science. MoEC authorizes and regulates the standards of all academic programs except religion, which is under MoRA management. Within each academic program area, there are programs of study (*prodi*).

According to the MoRA's standards, Islamic institutes and colleges are authorized to offer fewer programs than universities. Institutes are allowed to offer only religious academic programs (for example, *tarbiyah* for preparing teachers for madrasah and religious subjects, and *syariah* for preparing Islamic law professionals) and special courses on math, physics, chemistry and biology to enhance the professional development of junior and senior secondary teachers. Colleges can provide three types of religious majors: *tarbiyah* for preparing teachers, *syariah* for preparing Islamic law professionals, and *ushuluddin* for preparing religious leaders and preachers (*ulama*).

The overall enrolments in HE are relatively low compared with neighboring countries. Higher education enrolments in Indonesia grew from 200,000 in 1975 to 5.3 million in 2010. By 2017, 7.8 million HE students were enrolled in 4,484 HEIs in total (Figure 1). HEIs under the MoRA consisted of 27 percent of the total HEIs and enrolled 11 percent of HE students (Table 1 and 2). The enrolment rate7 also increased from 14.9 percent in 2000 to 23.0 percent in 2010, but it has been stagnant since then. In 2016, it remained low at 27.9 percent, which is the lowest among the regional peers (Figure 2). Whereas the overall enrolment rate has stagnated, more females than males have been enrolling in HE since the early 2010s (Figure 3).

The Islamic HE subsector is much smaller than the secular HE subsector, but it has been growing. The number of Islamic HEIs increased by 121 percent from 546 in 2007/08 to 1,208 in 2017/18 (Figure 4). In 2018, 5,853 programs were registered under the MoRA's jurisdiction.[8] During the same period, the total number of students in Islamic HEIs increased by 23 percent from 703,748 to 869,077. Though public Islamic HEIs are only one-tenth of the total Islamic HEIs, the number of students in those institutions has been the focus of recent growth and constitutes more than 70 percent of all Islamic HE students today.

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[7] Precisely, the enrolment rates shown here are 'tertiary' education enrolment rates, which are available for international comparisons. The term 'higher' education was used here because it is the generally used terminology in Indonesia and actually covers tertiary education and hence is comparable with other countries' tertiary education enrolment rates.
[8] Source: forlap.ristekdikti.go.id.

Figure 1: Enrolments in HEIs have steadily increased since 2010/11

Higher education enrollment, 2007/08-2018/19
in thousands

Year	Total MoRA	Total MoRTHE
2007/08	704	3,805
2010/11	577	4,788
2011/12	617	5,617
2013/14	614	5,840
2014/15	689	6,119
2015/16	776	5,154
2016/17	811	6,925
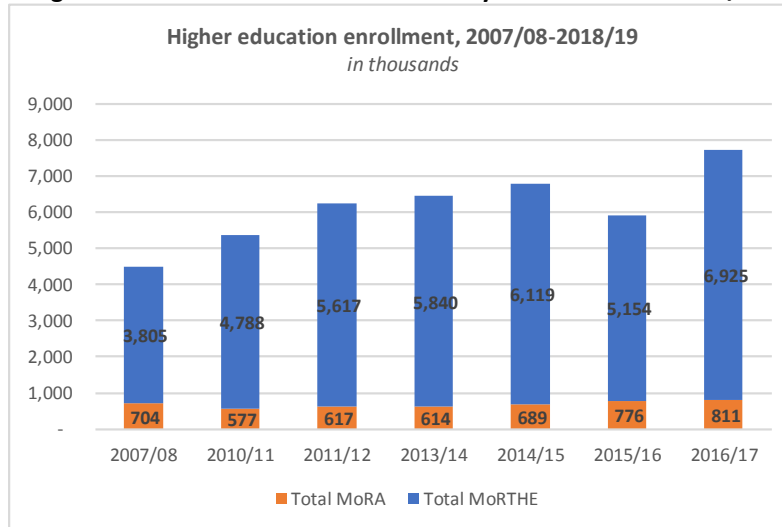
Sources: Statistik Perguruan Tinggi 1999/2000–2013/2014; Statistik Indonesia, various years.

Note: It is likely that the MoRTHE data for 2015/16 is incomplete as there is no known explanation for the sharp drop in enrolments in that year, followed by a sharp increase in the following year.

Table 1: Number of HEIs by ownership and type of institutions, 2018

	MoEC			MoRA			TOTAL
	Public	**Private**	**Total**	**Public**	**Private**	**Total**	
Universities	63	500	563	17	107	124	687
Institutes	12	79	91	24	69	93	184
Colleges		1,449	1,449	17	640	657	2,106
Polytechnics	43	156	199				199
Academies		973	973				973
Community academies	4	14	18				18
Total	122	3,171	3,293 (79%)	58	816	874 (21%)	4167
	(3%)	(97%)		(6%)	(94%)		

Sources: Numbers for the MoRA are from http://diktis.kemenag.go.id/, accessed on April 24, 2020. The numbers for the MoRTHE are from Buku Statistik Pendidikan Tinggi 2018 (MoRTHE, 2018).

Table 2: Number of higher education students by ownership and type of institutions, 2017

	MoEC			MoRA			TOTAL
	Public	Private	Total	Public	Private	Total	
Universities	2,240,176	2,701,392	4,941,568				4,941,568
Institutes	94,579	189,397	283,976				283,976
Colleges		1,251,226	1,251,226				1,251,226
Polytechnics	156,461	89,821	246,282				246,282
Academies		226,235	226,235				226,235
Community academies	887	950	1,837				1,837
Total	2,492,103	4,459,021	6,951,124 (90%)	502,879	255,416	758,295 (10%)	7,709,419
	(35%)	(65%)		(66%)	(34%)		

Source: Total numbers for the MoRA are from forlap.ristekdikti.go.id, accessed on April 24, 2020. Breakdown by the type of institutions is not available. The numbers for the MoRTHE are from *Buku Statistik Pendidikan Tinggi* 2018 (MoRTHE, 2018).
Note: The figures are slightly different from those Figure 4.

Figure 2: Indonesia's higher gross enrolment rate is the lowest among the regional peers today
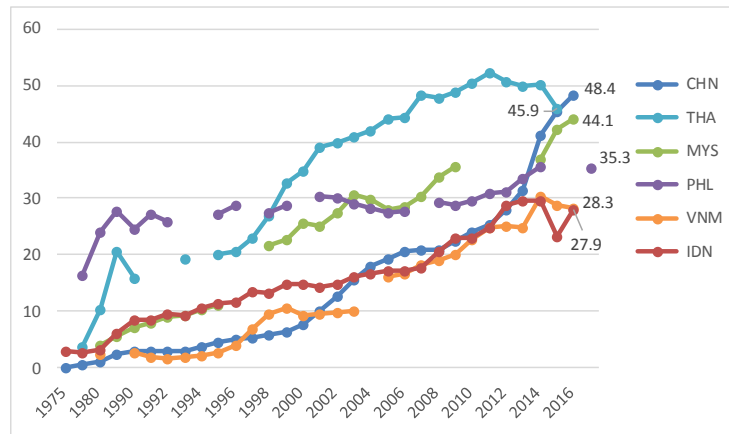
Source: EdStats.
Note: CHN = China; IDN = Indonesia; MYS = Malaysia; PHL = The Philippines; THA = Thailand; VNM = Vietnam.
Precisely, the enrolment rates shown here are 'tertiary' education enrolment rates, which are available for international comparisons. The term 'higher' education was used here because it is the generally used terminology in Indonesia and actually covers tertiary education and hence is comparable with other countries' tertiary education enrolment rates.

Figure 3: More females have been enrolling in higher education than males since the early 2010s
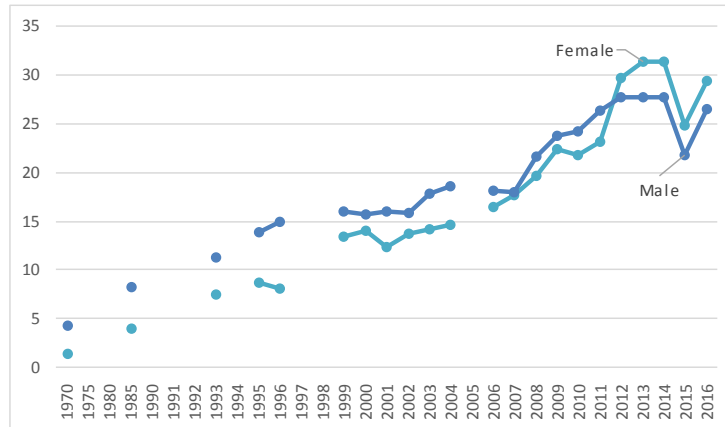
Source: EdStats.

Figure 4: Though public Islamic HEIs are only one-tenth of the total Islamic HEIs, the number of students in those institutions has steadily increased and constitutes more than 70 percent today

Figure 4a: Number of Islamic HEIs by ownership, 2007/08-2018/19

Figure 4b: Number of students in Islamic HEIs by ownership, 2007/08-2018/19, in thousands
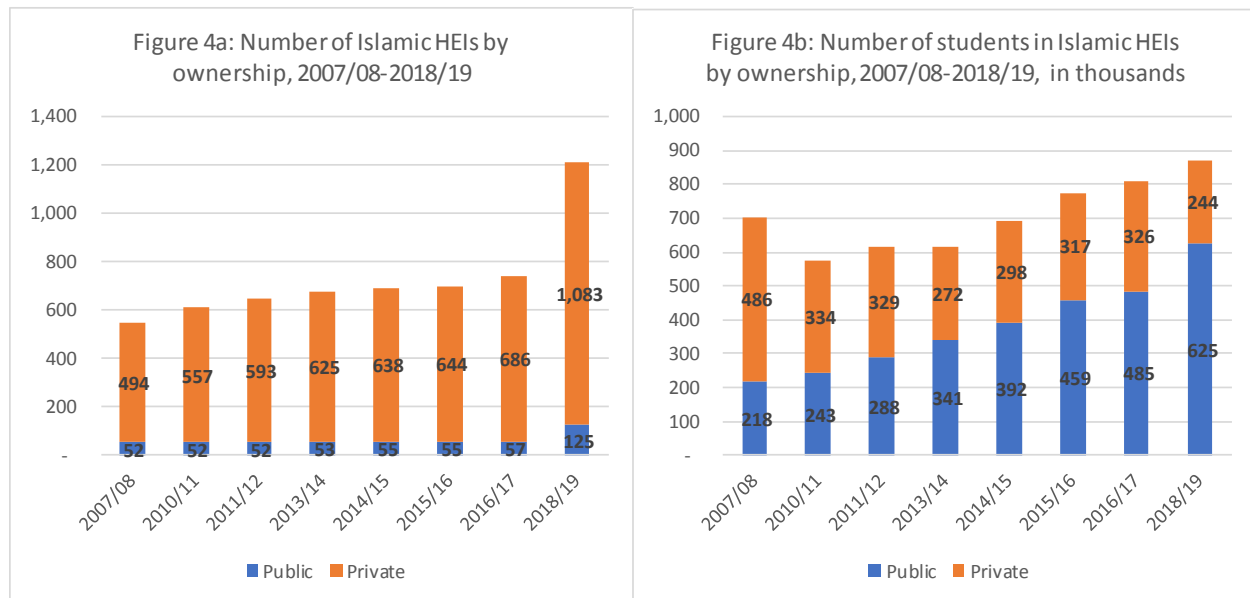
Source: 2018/2019: forlap.ristekdikti.go.id; other years: Statistik Indonesia, various years.

Rationale for the study

MoRA is aiming to strengthen the education system under its supervision, including higher education. To achieve this, MoRA requested the World Bank to provide technical support for a study on Islamic Higher Education. The technical support areas that were agreed focus on financing, governance, and QA and include research and publication issues, as well as internationalization. MoRA highlights, among others, the following missions: (i) the integration of Islam with science; and (ii) a focus on moderate Islam.[9]

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[9] Based on interviews with MoRA officials in April 2018.

Objectives

The objective of this technical assistance is to provide advisory services and technical support to reform the MoRA HE system. This report aims to analyze key issues and challenges of the Islamic HE system in Indonesia, identify reform priority areas, and draw a road map for the proposed reforms. It will also discuss relevant successful reform examples from around the world, particularly taking into account the uniqueness of religious educational institutions.

Methodology

The primary sources of information for this study were face-to-face interviews with Islamic HEIs and other stakeholders. In addition to an analysis of the Islamic HE system based on available literature including the 2015-2019 strategic planning of Directorate of Islamic Higher Education, government budget data, and education statistics, based on an initial workshop with several Islamic HEIs and government officials (see Appendix 1 for the list of people interviewed), the team developed in-depth questionnaires for HEIs and external quality assurance (EQA) bodies, which were answered in writing and through follow-up face-to-face interviews. The institutional questionnaire consisted of questions regarding basic information about the institutions, governance, QA, finance, research, relevance and internationalization (see Appendix 2 for the questionnaire). The institutional questionnaire was sent out to all public MoRA HEIs and *Koordinator Perguruan Tinggi Agama Islam Swasta* (Kopertais) through the MoRA, indicating the MoRA's full support for this study, but unfortunately none of them responded without follow-up interviews.

Eight institutions that are as representative as possible in terms of geographical coverage, size of the institution, and legal status were selected for interviews. Interviews took place between September 2018 and January 2019. Two of the institutions have a license to operate granted by MoEC/MoRTHE and six granted by the MoRA, yet all of the religious study programs are under the MoRA's jurisdiction. The oldest university in the sample (UIN Jakarta) was established in 1957, and the most recent one (Batusangkar State Islamic Institute) was established in 2015. The sizes of the HEIs are also diverse with UIN Jakarta being a full university with 12 faculties and 28,137 students, and Tazkia School of Islamic Economics being one subject-specific institution with 1,353 students. Out of the eight HEIs, only one did not offer degrees at the doctoral level. Smaller HEIs offer only Islamic studies. On the other hand, larger HEIs offer many non-Islamic study programs. For instance, UIN Jakarta offers 72 programs in total, out of which only 39 are Islamic studies, and only one-third of their academic staff are dedicated to the latter. All of the eight HEIs have been accredited by the national authorities. One HEI (UIN Jakarta) has had four Islamic study programs accredited by the ASEAN University Network-Quality Assurance (AUN-QA), and most other programs are covered by BAN-PT or LAMs. It should be noted, however, that even though these institutions were selected to be as representative as possible to cover the diversity of the Islamic HEIs, findings based on the small sample size may not accurately represent the characteristics of the entire sector (see Appendix 3 for a list of institutions).

Wherever possible, the analysis included benchmarking with Malaysia, China, Turkey and Japan. These countries were selected based on the geographical, socioeconomic and cultural similarities where the HE systems are at a relatively more advanced level.

Outline

The report consists of an introduction, six chapters and a conclusion. The introduction describes the overall background information about the Islamic higher education system and presents the rationale and objectives of the study. Subsequently, the chapters discuss (i) governance, (ii) QA, (iii) relevance, (iv) finance, (v) research, and (vi) internationalization. Finally, the report ends with a summary of key findings and policy recommendations for the government's consideration.

This study presents two types of policy recommendations based on key findings. The first type of recommendation is addressed to MoRA's management and HEIs under MoRA's jurisdiction. These recommendations could be implemented at MoRA's discretion without system-level reforms. Most of the recommendations fall into this category. The second type of recommendation is targeted at the subsector level because even though Islamic HE is managed by MoRA, MoEC is responsible for the overall HE policies and regulations. MoRA's Directorate for Higher Education (DGHE) should coordinate system-wide policy recommendations with MoEC at the director level. In the Executive Summary, recommendations are prioritized based on importance and urgency. The first list of recommendations includes the most urgent actions for MoRA to take. The second list includes six general reform areas in order of priority. Most of these reforms will involve policy reforms and will not require considerable expenditures. Key findings of the study follow the recommendations.

Chapter 1: Governance

An overview of the autonomy and accountability policies

The Higher Education Strategy 1996–2005 brought a paradigm shift in higher education, which laid the foundation to empower public universities with autonomy, transparency and accountability. In 1999, two critical laws promoting decentralization—Law No. 22/1999 on Local Government and Law No. 25/1999 on Fiscal Balance—were passed. The laws aimed to give more independence to regions in the management of finance, human resources, physical plant, organization, decision-making and new accountability (DGHE, 1999). In 2000, four of the most established public universities, University of Indonesia (Jakarta), Bogor Agricultural University (Bogor), Bandung Institute of Technology (Bandung), and Gadjah Mada University (Yogyakarta), were selected as forerunners to become new legal entity universities.

In 2003, the Higher Education Long-term Strategy 2003–2010 further envisioned the decentralization of public HEIs with the aspiration to transform them into autonomous institutions.[10] It was anticipated that providing HEIs with an autonomous status would enable them to manage their own organization and sources of income, leading to more efficient and effective implementation of academic activities (Koning and Massen, 2012). A high degree of institutional autonomy was considered the best-suited approach to managing the highly complex Indonesian HE system. The policy shifts necessitated adjustments in a number of areas, including funding policy, personnel policy, governance and QA systems. As a consequence, the role of the central government shifted systematically from that of controlling to steering the system through various mechanisms and peer organizations, including the Board of National Education Standard, the National Agency of Higher Education Accreditation (*Badan Akreditasi Nasional Perguruan Tinggi,* or BAN-PT), and the Board of Higher Education.

In 2009, the long-awaited Law on National Education as a legal entity was passed by Parliament with the objective of laying a firmer foundation for the establishment of legal entity universities. In January 2010, the government issued Regulation PP No. 17/2010 on the Governance and Management of Education Establishments, designed to provide the operational framework to implement the act. This regulation replaced the earlier regulations such as PP No. 61/1999 on the Determination of Higher Education as a Legal Agency, which was used as the foundation for the establishment of piloted legal-entity universities.

However, the reform sparked controversy, provoked by public perception of Law No. 24/2009 on National Education as a means to liberalize and even commercialize the education sector. After a long battle, on April 1, 2010, the Constitutional Court revoked the law on the grounds that it would deny the right of pluralism in education governance. There were also fierce criticisms, mostly from private HEIs that feared the law would reduce the control of private foundations over their HEIs. After the revocation of the law, legal entity institutions lost their legal grounds to exist and the legal framework to operate. To overcome this, the government issued Regulation PP No. 66/2010 on Amendment to Government Regulation PP No. 17/2010 on the Management of Higher Education to augment and complement Regulation PP No. 17/2010 on the Management of Higher Education (Varghese and Martin, 2014).

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[10] The Directorate General of Higher Education (DGHE) of the Ministry of National Education (MoNE) developed the strategy. MoNE was renamed as the Ministry of Education and Culture (MoEC) when the DGHE was transferred to MoRTHE in 2014.

Subsequently, in 2012, Law No. 12/2012 on Higher Education provided autonomy only at such levels as organization, finance, student affairs, staffing, and facilities and infrastructure but not academic freedom. While the law does define academic freedom and autonomy, at no point does it touch upon the academic freedom and autonomy to take decisions on the academic matters. The process is highly selective, since Section 64 further specifies the criteria based on which the selection of institutions eligible for autonomy is conducted, which is based on their performance, and even for the selected ones, autonomy seems to be seriously infringed, as discussed below.

Despite the long transition and significant efforts to operationalize the new governance model for HEIs, the full implementation was challenged predominantly in terms of financial and staffing matters. In terms of financial autonomy, the Ministry of Finance failed to provide legal grounds to support the reform related to the transition from line budgets to block grants. The transfer of assets to the autonomous universities did not materialize either, except for the Bogor Institute of Agriculture. Furthermore, in terms of staffing, there were challenges while transitioning the staff from civil servant status to university staff status, due to the lack of clear implementation mechanisms. Thus, both the central government and institutions failed to convince the public of the benefits of autonomy for society (Varghese and Martin, 2014). The concept of autonomy is perceived differently by different groups. For some, autonomy is a threatening reality (job losses, new job requirements, and leadership), while for others it is empowering (finally being able to set own institutional objectives) (Koning and Massen, 2012).

The legacy of central control and a specific institutional culture have contributed to incomplete implementation of autonomy at the institutional level.[11] The management is too centralized, and the government treats the HE subsector in the same way as other government agencies. The centralized system led to a bureaucratic working atmosphere in HEIs with a tendency of responsibility toward the government official in charge rather than to stakeholders (Koning and Massen, 2012). At the institutional level, most people were unaware of how to proceed with implementing decentralization, as they had no experience with issues of supervision and accountability under the top-down New Order regime. Most "have never participated in decision-making processes" and "do not have the courage, the willingness and the capability to materialize their sovereignty" (Suwondo, 2002, 9).

The next sections explore the international trends in the implementation of autonomy and accountability, and examine the state of affairs of HE governance, in particular autonomy and accountability of HEIs under the MoRA's jurisdiction, and the impact of the reforms.

Autonomy

International trends

Autonomy is a key factor for an attractive, effective and successful HE system. In addition, there are many more factors that affect the success of university performance, including the level of economic development, local government officials' ideas, the degree of democracy, values systems built around the culture, context and national perceptions of quality, implementation mechanisms promoting the developed policies, and the like. An important factor for an effective autonomy exercise is its balance with, and support by, a respected robust accountability system. If the balance is broken, autonomy on its own might even become a problem in itself.

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[11] According to a study by Nuffic (2008a, 2008b).

Rhodes (2004, 11) describes five fundamental powers of universities that are crucial for successful operations and maintaining their relevance and quality of provisions, as follows:

(a) The power to select, admit, instruct and certify or graduate students in fields that are represented by the institution;

(b) The power to select what to teach and how to teach;

(c) The freedom to study, explore and publish on any topic;

(d) The power to accept funds and create partnerships; and

(e) The autonomy of the institution and the independence of its governance.

The powers outlined above need to be supplemented by robust accountability mechanisms linked to financial, legal and regulatory frameworks to ensure the necessary balance. Previous studies have two main approaches to conceptualize the notion of autonomy: (i) traditionally and literally, autonomy means 'self-government' or 'self-administration' and is conceptualized as the authority of an HEI in making a decision without external intervention; and (ii) an alternative approach to regard autonomy is from the aspect of institutional autonomy and under the relationship with the state/government. However, contextual intricacies have a greater weight when it comes to the application of the new management approaches in a diversity of contexts. Box 1 summarizes international trends in autonomy.

Box 1: Benchmarking - international trends in autonomy

An in-depth analysis of regional and international trends was undertaken. For this particular purpose, the following countries/regions were identified due to the reasons outlined below:

Japan. To ensure consideration of the cultural and regional norms and trends in our analysis, Japan was identified for the following reasons. First, the higher education system in Japan is one of the leading ones in the region, the one to be benchmarked against. Second, while making changes in the system and moving to the New Public Management (NPM) model for HEIs, due to the strong traditional system in Japan, Japanese academics have managed to retain more power over substantive matters than their peers regionally and internationally. Undoubtedly, with the introduction of the NPM governance reform, the managerial power of the Japanese HEIs has increased significantly to the detriment of academic self-governance in terms of procedural matters. Japan is a good example of how the power over substantive matters could be delegated to HEIs while preserving the one at the procedural level to the managerial bodies. It is also a good example of a robust accountability system that balances out the autonomy of HEIs, thus making the system perform efficiently (Westerheijden, 2017).

China. Traditionally, education in China has been subjected to rigorous central regulation by the central government. During the past two decades, it has undergone a process of decentralization to reduce centrally directed activity. Similar to Indonesia, where the power is distributed between national, provincial and HEI levels, policy-makers in China are wrestling with identifying the most acceptable role of the central government, the provincial government, and HEIs in overseeing the Chinese HEIs. The overall story revolves around conversion from a highly centralized approach to decentralization and award of autonomy, and recently reverting to re-regulation due to the fear of the government's ultimate authority being challenged. The current dilemma the Chinese government is facing is due to the excessive autonomy granted by Higher Education Law 1998. Thus, in 2010, National Outline for Medium and Long-term Educational Reform and Development (2010–2020) was issued. The outline signaled the government's intent to reduce its direct participation and control over higher education system while trying to find a balance between local autonomy and state control. But without macro-regulation and coordination of the government, the university 'autonomy' is significantly missing intrinsic motivation and not knowing its functional directions. In addition, if HEIs lack financial support from the government, it is difficult to seek their own development and growth, not to mention their autonomy.

Thus, HEIs do not want to separate from the government completely, but are expecting more autonomy and independence, while the government wants HEIs to be more financially self-sufficient but does not want to reduce its authority in terms of operation of HEIs. Therefore, achieving a balance of power between the government and HEIs has become a major challenge for school autonomy reform. On the other hand, due to the deep-rooted authoritarian consciousness, the government still regards colleges and universities as its subordinate institutions, meaning that the government has direct and comprehensive control on almost all the procedural and substantial matters of HEIs. The relationship between HEIs and the government in the administrative system of higher education could be considered as the one between higher authorities and lower authorities (Liu, Leng and Tang, 2016).

Malaysia. The case of Malaysia is another example of the necessity to exercise caution in the grant of full autonomy and the high significance of the factors outlined above in the success of higher education governance reforms. In 2012, the Government of Malaysia announced that five of the oldest universities in Malaysia (University of Malaya [UM], Universiti Kebangsaan Malaysia [UKM], Universiti Teknologi Malaysia [UTM], University of Science, Malaysia [USM], and International Islamic University Malaysia [UIA]) were granted autonomous status, meaning that these universities would not be tied down by government rules and processes once they received the autonomous status. To date, through a staggered approach, 17 of 20 public universities have received this autonomous status. Yet, if one is to compare the autonomous status granted with Malaysian public universities by the government and the universal definition of autonomy provided earlier, it is evident that the autonomy enjoyed by Malaysian public universities is merely superficial. For instance, the power to appoint leaders in public universities remains in the hands of the minister instead of the governing body of the universities. Public universities, including those with autonomous status, are subject strictly to the framework that is used to govern civil servants by the Public Service Department. Although, in theory, public universities are federal statutory bodies and the staff are not civil servants, lecturers still have to follow the same pay scale as civil servants and universities do not have the autonomy to hire and fire staff. Likewise, public universities have to adhere to the procurement and financial procedures of the Ministry of Finance and Treasury. More troubling, in recent months, staff of public universities have to seek permission from not only the Vice Chancellor but also the Chairman of the Board of Directors of the university, as well as the Chief Secretary of the Ministry of Higher Education, before they can travel abroad to attend conferences or present a paper. Even though private universities do not receive financial support from the state, they also do not enjoy a high degree of autonomy. Private universities are subject to extensive administrative circulars, directives, and instructions from the Ministry of Higher Education, and have to rely on license approvals by external bodies such as the Malaysian Qualifications Agency. Private universities also need ministry approval to set tuition fees. A common argument is that as long as public universities receive funding from the government, they cannot be fully autonomous. However, the lack of university autonomy even among private universities has by and large rebutted this argument. Despite not receiving financial support from the government, private universities are not fully autonomous. The legislative changes have rendered the concept of autonomy in Malaysian universities to mere rhetoric (Wan, 2017).

Turkey. The Turkish HE system was looked at due to the geographical and cultural similarities, and the extent of democracy exercised. In terms of autonomy of HEIs, when compared against the European countries, Turkey scores by far the lowest against the Autonomy Scorecard (2017). Turkey was at the bottom in all dimensions of university autonomy scorecard. In terms of organizational autonomy, the executive heads of universities, the rectors, had to be validated in Turkey by Higher Education Council (YÖK)—the national quality assurance body. The president assigns the rector. The findings about provisions regarding the qualification requirements for rectors are specified by law. The integral structure of universities in Turkey is determined by the Higher Education Law. It is prohibited for state universities to include an external member in the governing body, while private universities have no restrictions. In terms of financial independence, all the actions are strictly controlled by the government. There is a special line item budget system to fund state HEIs, universities can carry over the funds from one fiscal year to another with the approval of the Education Ministry, they have no right to borrow money, nor can they sell real estate—special restrictions apply. All senior academic staff are regulated by YÖK. The academic staff are employed by the government, and promotions are made with the approval of the ministry. YÖK decides on the overall student numbers for each degree, and there is cooperation

between universities and YÖK about setting admission criteria. YÖK's approval is required for the introduction of new academic programs (Beytekin and Uslu, 2016).

Advanced systems. In terms of advanced systems, the United Kingdom and the Netherlands have been identified for the following reasons. We looked at the systems that are centrally controlled and yet enjoy autonomy and perform effectively. The United Kingdom has one of the most autonomous systems in the world in most regards, but also has some procedural and substantive dependencies. There are some countries that have good experience in performance-based contracting and are worth looking at, and the Netherlands and United Kingdom are some of the good examples.

Autonomy in Indonesia

This study looked at academic, staffing, organizational and financial autonomy among MoRA HEIs.[12] It differentiated between substantive (for example, content) and procedural autonomy to better understand the links that make a well-balanced approach to HE governance, and distribution of powers between the government and HEIs. The study also explored concepts of quality as perceived by the stakeholders to better understand the level of autonomy, its practice and effectiveness.

Academic autonomy to decide the student size is relatively high, but decisions over curricula are limited. The study looked at the determination of the overall student number, admission procedures, introduction and termination of programs, choice of the language instruction, autonomy to choose QA mechanisms and providers, and capacity to design content of the programs. In terms of regulation on determining the student number, it revolves around two key components: (i) the process to get approval of the student number to be enrolled; and (ii) the formula to estimate the student size. HEIs enjoy greater autonomy in deciding the overall student number, admissions, introduction of new programs and selection of the language of instruction. To a lesser extent, HEIs exercise autonomy in the termination of degree programs, selection of QA mechanisms and QA providers, and design of the content of degree programs. Law No. 12/2012 on Higher Education, Section 35, delegates the authority to develop curricula to HEIs with a reference to the National Higher Education Standards for each study program. However, it also stipulates mandatory inclusion of subjects such as religion, Pancasila, civics and Indonesian language in bachelor's and diploma programs, which entails imposition of a certain percentage of the curricula content at the specified levels. While public Islamic HEIs (*Perguruan Tinggi Keagamaan Islam Negeri*, PTKIN) and private Islamic HEIs (*Perguruan Tinggi Keagamaan Islam Swasta*, PTKIS) set the number of intakes based on room availability, number of available lecturers, and the previous year's intake, the PTKIN still need approval from the MoRA on the size of intake.

Staffing autonomy is restricted. The level of autonomy further decreases when it comes to staffing matters: appointment, salaries, dismissal, and promotion of senior academic and senior administrative staff. As supported by the data from the literature review (Varghese and Martin, 2014), lack of clear mechanisms for implementing the staffing reform—namely transition from the status of civil servants to university staff—caused challenges in implementing the reform; thus, it is also evaluated by our respondents as a less autonomous aspect of university operations. Currently, a significant proportion of PTKIN staff are civil servants. Their salaries are set and paid by MoRA based on civil service regulations. Some PTKIS are provided with civil servants by MoRA/MoEC. In most cases, these civil servants are assigned to PTKIS to fill an identified gap.

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[12] Using the methodology developed on the basis of the European University Autonomy Scorecard (Estermann, Nokkala and Steinel, 2017).

Organizational autonomy is limited. Law No. 12/2012 defines the governance model that is unitary, where one independent governing body makes decisions rather than a dual model where two bodies—strategic decision-making and academic—coexist, sharing responsibilities for strategic, financial and academic matters. As it surfaced from the responses to the survey, decisions related to administrative, financial and academic matters are taken either by an individual or by an established single body, which questions the validity and legitimacy of the decision-making lines. Furthermore, HEIs seem to have limited autonomy to decide on organizational matters, such as selection procedure and criteria, dismissal and definition of the terms of office of the executive heads. However, HEIs do enjoy, to some extent, autonomy on creating legal entities and decisions related to the academic structures.

Financial autonomy is relatively high for the larger and more established HEIs, but not for the smaller HEIs. The public institutions demonstrate a significant level of autonomy to decide on the duration of public funding and headings for funding, ability to borrow funds, keep surpluses and own buildings. However, the financial arrangements differ when it comes to different types of HEIs, even among the public HEIs. The 16 largest public Islamic HEIs (PTKIN general service units [*Badan Layanan Umum*, BLUs]) enjoy virtually full authority to raise funds. Often, the additional income comes from offering weekend classes and short courses. For example, UIN Syarif Hidayatullah in Jakarta operates a hospital and a shopping strip. Meanwhile, the smaller public Islamic HEIs (PTKIN work units [*Satuan Kerja*, Satker]) have less financial autonomy. Furthermore, in some cases, the income is collected and transferred to the central government. While PTKIN BLUs hardly ever suffer from a budget deficit because of the flexibility in managing funds, PTKIN Satker still need to report to the government when changes are required. Regardless of the size of HEIs, tuition fees are still set by the MoRA for each standard program offered by PTKIN, while PTKIS are free to set their tuition fees, though they prefer to use the MoRA criteria (see the Finance chapter for detailed discussion on financial autonomy).

Accountability

The existing literature has various ways to conceptualize the notion of accountability. Trow (1996, 130) define accountability as the "obligation to report to others, to explain, to justify, to answer questions about how resources have been used, and to what effect." In the same vein as Trow, Millet[13] conceptualizes accountability from a cost-effectiveness perspective: "Accountability is the responsibility to demonstrate that specific and carefully defined outcomes result from higher education and that these outcomes are worth what they cost" (Minnesota Office of Higher Education, 2008, 3). Salmi (2009, 3) further broadens the concept of accountability as the representation of "the ethical and managerial obligation to report on their activities and results, explain their performance, and assume responsibility for unmet expectations." According to Taylor, Quintyn and Hüpkes (2005), while the traditional approach viewed the accountability from the vertical relationship, that is, the relationship between the principal (government) and the agent (the HEI), the modern approach views the accountability from a more complex relationship. In particular, Taylor, Quintyn and Hüpkes (2005) argue that apart from vertical accountability, horizontal accountability with participation of multiple stakeholders (that is, peers, customers or students and parents, and the general community at large) should also be taken into account. There are different types of accountability mechanisms that evolve around such aspects as finances, transparency in operations, quality of academic provisions, and service delivery.

Academic accountability was first introduced in Indonesia in 1994 in the form of the accreditation system by BAN-PT. Law No. 20/2003 on the National Education System made it compulsory for every

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[13] A former Senior Vice President of the Academy for Educational Development.

education program to be accredited. It also required every HEI to have an internal quality assurance (IQA) system. Government provision of public resources demanded accountability from HEIs. In addition to publicly auditing the HEIs, the DGHE of the MoNE also became responsible for periodically collecting data related to performance indicators and presenting them to the public. The data collected could then become a reliable source of information in the evaluation of institutional performance and the development of system-wide policies.

In Indonesia, accountability mechanisms are only partially in place. Table 3 summarizes the accountability tools in place by the major areas that the HEIs are kept accountable for—academic, financial, organizational, and staffing, as well as the groups to whom they are accountable—government and public at large. In terms of the accountability to the government, tools such as licensing and accreditation, financial audits, and other reporting mechanisms based on predefined key performance indicators (KPIs) are in place at the policy level. However, in practice, a very small segment of the higher education system is covered by the system, despite more than a decade of its functioning. For instance, de jure, all the HEIs are subject to external accountability schemes, but de facto, only about 20 percent of the HEIs under the MoRA have been externally evaluated. Moreover, the overall state budget (APBN) accountability system is more directed at financial audits, not program audits. As a result, minimum efforts had been made to evaluate program results and impact in general. In terms of accountability to the public at large, apart from the partially implemented accreditation, no other mechanism is in place to keep the public informed on the institutional performance.

Table 3: Accountability matrix of the Indonesian HEIs: The current state

		Accountable for what			
		Academic	**Financial**	**Organizational**	**Staffing**
Accountable to whom	Government	• Licensing • Accreditation	• Financial audits	• Licensure • Accreditation • Reporting mechanisms	• Accreditation
	Students, parents, and community at large	• Accreditation	• No clear transparency mechanisms	• No clear transparency mechanisms	• No clear transparency mechanisms

Recent policy changes enacted by the MoEC to the overall tertiary accreditation system appear to increase accountability and allow international accreditation processes. Based on MoEC Regulation No. 5/2020, there is an improved accountability mechanism for the LAMs, in which they need to submit annual reports to BAN-PT and go through an audit process by public accountant. The results need to be made publicly available. On top of this, the new MoEC regulation now allows universities to be accredited by international accreditation agencies. These initial reforms should be deepened and extended.

Key findings

The MoRA's HE system contains a clear imbalance between autonomy and accountability, with a heavy weight on autonomy. The balance between HE autonomy and state control is obviously important, especially in developing systems. While increased autonomy can empower people to innovate and experiment, unchecked autonomy can easily lead to inefficiency and even organizational mayhem. However, while noble in its intentions to strengthen HEIs by granting autonomy, the poor design of the

whole implementation phase resulted in failure of the reform on autonomy. The accountability mechanisms are poorly implemented as well, particularly as seen in the fact that the accreditation requirements are not enforced.

- **The long-promoted autonomy of HEIs faces serious challenges.** Despite more than two decades of importance attached to granting HEIs due autonomy, in general HEIs do not enjoy the autonomy necessary for effective and efficient functioning. While it is supported by the respective legal framework, the autonomy granted to HEIs is not fully and adequately exercised due to the deficiencies in the policy and implementation mechanisms. Major issues are related to financial and staffing autonomy, which is infringed due to conflicting regulations issued by different governmental bodies. Private HEIs, while fully autonomous in nature, tend to follow strict governmental rules to comply with the current accountability mechanisms and be recognized. Thus, the system, while granting autonomy, does not provide for the mechanisms to fully operationalize it, neither to public nor to private HEIs.

- **Accountability mechanisms are not clearly defined, developed and operationalized.** The major areas the HEIs are kept accountable for are academic, financial, organizational and staffing. The major groups to whom they are accountable are the government and public at large. In terms of the accountability to the government, tools such as licensing and accreditation, financial audits, and other reporting mechanisms based on predefined KPIs are in place at the policy level. However, a very small segment of the HE system actually implements those policies. Accountability mechanisms to the public at large on the institutional performance are practically non-existent beyond the partially implemented accreditation (Table 3).

Policy changes in 2020 enacted by the MoEC to the overall tertiary accreditation system appear to increase accountability and allow international accreditation processes. These initial reforms should be deepened and extended.

Chapter 2: Quality Assurance

To better understand the accountability system of HEIs in Indonesia, this chapter looks at the status of EQA and IQA systems.

External quality assurance

EQA for the overall higher education system in Indonesia

Established and fully funded by the government and reporting directly to MoEC, BAN-PT began functioning in 1994 as a sole national independent agency that accredits HEIs and programs in Indonesia on a mandatory basis. The evolution of regular evaluations of HEIs in Indonesia legally started with the enactment of Law No. 2/1989 on the National Education System. Article 46 of the law requires that the government assess every education unit periodically and that the results be openly announced to the public. In 1994, the government established BAN-PT with a mandate to manage the accreditation of higher education programs and institutions (BAN-PT, 2017). The first accreditation of the study programs was carried out in 1996. In 2000, BAN-PT started developing an accreditation system for institutions and finalized the procedures and criteria by 2002. Following a government decree in 2003, the HE system moved to evaluation of both programs and HEIs.

Since 2012, BAN-PT is assigned to accredit institutions, while program accreditation is to be carried out by independent accrediting agencies (*Lembaga Akreditasi Mandiri*, LAMs). As the system evolved and considering the scope of operations, Law No. 12/2012 on Higher Education specified the responsibilities for improving QA and licensure of HEIs, and stipulated that the lead ministry for the higher education affairs is MoRTHE (now MoEC). It assigned BAN-PT as an agency for institutional accreditation, while program accreditation is to be carried out by independent, discipline-based accreditation agencies (LAMs). Whereas public LAMs should be proposed by MoEC, private LAMs can be proposed by any party.[14] Where a LAM has not yet been established, accreditation of study programs is conducted by BAN-PT. While program accreditation is no longer an exclusive mandate of BAN-PT, its mandate has been extended to the evaluation of evaluators (for example, LAMs). BAN-PT now monitors and evaluates the performance of LAMs and recognizes QA providers. The law also delegated the responsibilities, tasks and authority for religious HE to MoRA. MoRA has drafted a government regulation pertaining to religious HE but is still in discussion with MoEC, since the latter has some disagreement on the draft due to inconsistencies with the main law.

Independence of BAN-PT is infringed by the reporting requirement and the structure of the secretariat, and its quality is not assessed externally. According to Law No. 12/2012 on Higher Education, BAN-PT is supposedly an independent organization. However, structurally, its independence is infringed. First, to maintain the credibility and accountability of accreditation, the ministers of MoEC and MoRA supervise the implementation of accreditation by BAN-PT, leaving a question over its independence in the procedures and decision-making. Second, BAN-PT's policy-making body, the Accreditation Council, is supported by the secretariat, which is headed by a MoEC official. BAN-PT should also be evaluated by international/national bodies for credibility and reliability purposes, but that has not been the case.

The independence of LAMs is also in question. There are two types of LAMs—private and public. A public or government LAM is established by the minister of MoEC upon the recommendation from BAN-PT. A

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[14] According to this definition, it is unclear as to whether the LAM that is proposed by the MoRA will be a public or private LAM.

private or community LAM takes the form of a non-profit legal entity established by initiators comprising professional organizations and/or associations of study program management units with a legal entity specializing in one cluster, tree, and/or branch of science. Community LAMs are established upon the minister's approval on the basis of a BAN-PT recommendation. Although legally independent, LAMs are required to report to BAN-PT and the host organization (in the case of public LAMs, this is a public HEI). BAN-PT supervises the implementation of accreditation by LAMs and evaluates the implementation of accreditation by LAMs on a regular basis, every two years at the earliest. If the evaluation suggests that a LAM does not perform the accreditation according to regulation, then the LAM conducts the accreditation under the guidance and supervision of BAN-PT for one year. If within the period of guidance and supervision by BAN-PT, the LAM cannot show sufficient improvement in the execution of its duties, BAN-PT recommends to the minister the termination of the relevant government LAM or revocation of the community LAM. BAN-PT also supervises the implementation of accreditation of study programs by regional and international accreditation agencies that have been recognized by BAN-PT.

The national budget is allocated for the accreditation activities conducted by BAN-PT and government LAM, while the cost of accreditation organized by community LAM is derived from public funds, other sources, or the government. Where a community LAM charges fees for the accreditation of study programs, the amount is subject to approval from the minister, which again questions the independence of provisions.

While accreditation standards have been revised several times since 2004, no set of standards has completed accreditation of all HEIs in a single round. The accreditation instrument was revised in 2004 and used to accredit 55 new institutions in 2007. Then, the instrument was revised again, reducing the accreditation standards from 14 to 7. The revised instrument was then used to perform the accreditation of 25 universities in 2008. In 2011, the instrument used for institutional accreditation in 2008 was reexamined for improvement. Law No. 12/2012 made it mandatory for HEIs and programs to be accredited to ensure recognition of the awarded qualification. However, since its launch, the current QA system has been able to cover only 16 percent (746) of all HEIs (4,615)—both non-Islamic and Islamic— and 27 percent (7,280) of all programs (26,846) are accredited by BAN-PT.[15]

The standards are predominantly input-based and take little consideration of the processes, let alone the outcomes. The latest revision of the standards was completed in 2011 and, currently, the official standards are spelled out in six books.[16] The standards cover the following seven major dimensions:

    (a)   Vision, mission, goals and objectives, and achievement strategies;

    (b)   Faculty members, leadership, system management, and QA;

    (c)   Student and assessment system;

    (d)   Human resources;

    (e)   Curriculum, learning and academic atmosphere;

    (f)   Financing, facilities, infrastructure and information systems; and

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[15] Higher Education Planning and Budgeting Bureau: *Bahan Paparan Studi Pembiayaan Pendidikan Tinggi Islam oleh* World Bank (presentation delivered in May 2018).

[16] Including Book I: Academic Text, Book II: Standards and Procedures, Book III: Building Guidelines, Book IV: Guidelines for Preparing Self-evaluation, Book V: Personal Assessment Guidelines and Self-evaluation, and Book VI: Materials of Personal Assessment and Self-evaluation.

(g)   Research, service/community service, and cooperation (BAN-PT 2011).

The accreditation standards started to shift from an input focus to consideration of the processes, outputs and outcomes. In the new accreditation instrument, which was released in July 2019, the accreditation process started to give more weigh for outputs and outcomes indicators, compared with input and process indicators. Additional reforms to simplify the indicators and focus even more on processes and outcomes are expected and much needed. The dimensions covered in the new standard are now reduced to four:

i.   Quality of leadership and management, including mission and vision, strategic partnership, and internal quality assurance;

ii.   Quality of productivity measured in output and outcomes, including quality of graduates, research and innovation products, and social community program;

iii.   Quality of process, covering the process of learning, research, community program and learning environment; and

iv.   Quality of inputs, including human resources (lecturers and education staff), students, curricula, infrastructure and financing.

The Indonesian QA system is well established for the initial assessment at the entry point, but is weak in monitoring and enhancement, accountability, professional certification and public information. Table 4 summarizes the Indonesian QA system by units of assessment and by function. The QA system covers only HEIs and their programs at the entry point, to a very limited extent during each cycle. Interim procedures such as audits, monitoring and enhancement do not seem to be present in the system. There is no mechanism to assess student learning outcomes. While all the measures for assessment are put in place, they only provide proxies for quality, leaving the core of the matter—learning outcome assessment—out of the system. Recognition of qualifications is one of the key elements of the QA, but it is not considered to any extent.

Table 4: An overview of the Indonesian QA system

		Units of Assessment			
	Entry point/Initial assessment	**HEIs**	**Programs**	**Students**	**EQA body**
Functions	**Monitoring/ Enhancement**	Licensure Government Authority	Licensure Government Authority	Admission tests	Government decree or license to operate for private providers
	Interim reviews	Interim reviews/audits done by: HEIs	Interim reviews/audits done by: HEIs	Interim assessment done by: HEIs	Audits not in place
	Accountability/ credibility	Accreditation done by: EQA body (partially done)	Accreditation done by: EQA body or LAM (partially done)	Not in place	International recognition: Not in place
	Professional certification	n.a.	Professional associations/government-supported units not in place	Professional associations/government-supported units not in place	n.a.
	Public information	Government authority/HEI/EQA body (partially done)	Government authority/HEI/EQA body (partially done)	n.a.	Government authority/international networks: Not in place

Source: Authors.

EQA for MoRA HEIs

The Directorate General for Islamic Education (DGIE) of the MoRA assures the quality of Islamic HEIs by providing guidance and supervision in the areas of institutional organization and management, academic programs and standards, personnel management, and infrastructure and facility needs in line with national standards. To assist the DGIE to carry out QA of private institutions, the government has developed a coordinating unit called *Koordinator Perguruan Tinggi Keagamaan Islam Swasta* (Kopertais).[17]

Only a small portion of Islamic HEIs and programs are accredited, hardly contributing to the overall system's performance improvement. As of May 2018, only 8.6 percent of Islamic HEIs (101 of 1,169) and 20 percent of study programs in Islamic HEIs (1,097 of 5,462) have been accredited.[18] Among 57 public PTKIs, only three are accredited A, 34 accredited B, and 12 accredited C, while eight PTKIs are not accredited at all. The quality of private PTKIs is unknown, but it is generally believed to be low. Second, only a few subject-specific LAMs have been established for Islamic studies and programs. As for the HEIs responding to the survey, all of the eight HEIs have been accredited institutionally by BAN-PT and 261 out of 292 programs have been accredited by BAN-PT or LAMs. Even though the eight institutions were selected to be as representative as possible of the entire MoRA HEIs, they do not represent well all the MoRA HEIs because the majority are not accredited and have not established an IQA mechanism.

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[17] There are 13 Kopertais regions across the country, which are led by the rector of the leading UIN within each region. The MoRTHE has a similar organization for its HEIs, called Kopertis.

[18] Note that these figures do not cover all Islamic study programs on which no information is available (*Bahan Paparan Studi Pembiayaan PT Islam*, slide 18).

Internal quality assurance

No HEIs in the survey have an official definition of quality to guide the process of building a concept commonly accepted by internal stakeholders. The HEIs define quality differently, ranging from promoting compliance with the national accreditation system to continuously improving the quality and enhancing accountability to key stakeholders—students and parents. However, none of the definitions are shared among key stakeholders such as top management, faculty, administrative staff and students. Furthermore, in almost all the HEIs in the sample stated, there is a strong link between the strategic plan and the QA mechanisms, but they do not have specific mechanisms to implement the strategic plans.

IQA units exist, but their capacity to involve all key stakeholders and enhance quality may be limited. All the HEIs in the sample have IQA units, which were established relatively recently, with the earliest one being established in 2004 and the most recent one in 2017. The IQA units are relatively independent in many cases directly reporting to the rector or vice chancellor. They involve faculty members and administrative staff through all types of activities: surveys, self-study reports and design of the QA tools. However, the involvement of the top management is limited to only decision-making levels, which could be resulting in the lack of ownership of IQA among top management.

There is a strong tendency to establish IQA as a compliance mechanism rather than an enhancement tool. Some HEIs conduct internal reviews/self-assessments annually, but some others align the cycle of internal reviews/self-assessments with the external review cycles, which is once every five years. HEIs tend to see activities leading to compliance with EQA requirements to obtain accreditation status as achievements of IQA, including establishment of databases, lecturer and staff evaluations, controlling of lecturer attendance, development of procedural manuals, and the follow-up on the recommendations of the external reviews. The responses clearly reveal the nature of the IQA to be mainly that of compliance rather than of promoting the establishment of quality culture—the latter not being clearly specified at any of the sample HEIs. While half of the eight HEIs responded positively about transparency in making self-evaluation reports publicly available, the majority make them public only to the internal audiences within the respective HEIs.

IQA systems are still in their infancy stage with many challenges and are isolated from the institutions' life. Major challenges include lack of resources, lack of capacity in terms of knowledge on IQA, lack of support from the top management, frequent changes in the benchmarks for accreditation, no shared understanding of quality or a quality culture, and an uneven level of quality in the provisions. IQA is still an externally imposed element that finds difficulties in serving the aim it is supposed to serve, leading to a conclusion of the lack of ownership for IQA on the part of HEIs.

National Qualifications Framework

The National Qualifications Framework (NQF)[19] is not fully operationalized and is not supported by robust QA mechanisms. Unlike most of the HE systems all over the world that pursue unitary or binary education systems, Indonesia's HE system is three separate components with a clear separation between academic, vocational and professional tracks. The NQF lacks clear methodologies and mechanisms, as well as robust QA systems, to ensure the recognition of formal, non-formal and informal learning, as well as life-long learning (LLL) and recognition of prior learning (RPL). To add to this, the QA tools are not equipped

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[19] Adopted by Presidential Decree No. 8/2012.

to support the types of provisions envisioned by the NQF. Non-formal and informal education underpinned by Law No. 20/2003 is not covered by a robust QA system.

Legally, qualifications from non-accredited HEIs are not formally recognized in the country. Law No. 12/2012 mandates HEIs and programs to be accredited, and academic and vocational degrees are to be declared invalid and revoked if they are issued by a non-accredited HEI and/or study program. This means that qualifications from non-accredited providers are not legal and not formally recognized in the country. In reality, the job market often accepts them, indicating that the legal framework is not followed.

Key findings

- **There is no shared/common understanding of quality and QA across the system,** leading more to system malfunctioning rather than improvement. Although revised several times, the EQA standards are not commonly agreed upon and accepted by all the stakeholders as being useful for the system, and contributing to the HE system enhancement and improved performance.

- **The EQA system is mainly input-oriented, attaching negligent importance to the performance and HE outcomes.** The EQA policies and standards are mainly input- and process-oriented, and do not evaluate the core outcomes such as student learning outcomes, research outputs, and other indicators demonstrating actual performance and effectiveness.

- **Independence and transparency of EQA are challenged.** Both BAN-PT and the public and private LAMs are still highly influenced by the government in terms of decision-making on their operations, financing, staffing, standards approval, and the like, which limits the capacity of the given QA bodies to perform the external reviews objectively, while ensuring no third-party involvement in the procedure and decision-making. Even in the case of LAMs, both public and private, the requirement is to be evaluated externally by BAN-PT, as well as reporting (expected to be done at two levels, the host institution and the government in case of the public LAMs). When it comes to transparency, the data for the public are limited to announcing only the results of accreditation.

- Despite the long history of accreditation, only around 16 percent of all HEIs and 27 percent of all programs are officially accredited. The ratios become even lower for Islamic HEIs and programs—only 8.6 and 20 percent, respectively. BAN-PT and the existing four LAMs do not have sufficient capacity to conduct accreditation of institutions and programs according to the legal requirements. As a result, the majority of HEIs and programs operate outside a legal framework, which established accreditation of HEIs and programs as mandatory.

- IQA of HEIs in Indonesia operates purely to comply with external accreditation requirements and has not found its due integration into the HEI culture to date. There is significant lack of capacity in terms of mechanisms operationalizing the IQA to benefit and support the HEI enhancement. As a result, HEIs have not benefited from IQA's multiple benefits in terms of quality enhancement.

- **The NQF is not fully operationalized and is not supported by robust QA mechanisms.** The NQF makes provisions for formal, non-formal, and informal learning, as well as LLL and RPL. However, the elements linked to LLL, RPL and non-formal and informal learning are not yet in place. To add to this, the QA tools are not equipped to support the types of provisions

envisioned by the NQF. Non-formal and informal education underpinned by Law No. 20/2003 are not covered by a robust QA system.

- The accreditation standards started to shift from an input focus to consideration of the processes, outputs and outcomes (July 2019). Additional reforms to simplify the indicators and focus even more on processes and outcomes are expected and much needed.

Chapter 3: Relevance

Skills demand and supply

HEIs around the world are increasingly held responsible for the employability of their graduates. Graduate employability has become as significant as academic excellence, both seen as key benchmarks of a quality tertiary system. Global competitiveness and technological change require that HEIs need to rise to the occasion, and ensure that outdated curricula and traditional teaching and learning methods undergo a sea change to remain relevant, and contribute to economic growth and technological innovation.

The HE subsector is a key factor in Indonesia's economic growth. As the most populous country in the Association of Southeast Asian Nations (ASEAN) and one of the largest 20 economies in the world, Indonesia faces both opportunities and challenges in its plans to achieve high-income status by 2030 (World Bank, 2014a). A highly skilled workforce graduating from the country's HE system is required to contribute to and underpin growth of a globally competitive, innovative and knowledge-based economy with the relevant knowledge, experience and skills required by the labor market.

Yet, higher education is not sufficiently providing relevant skills for Indonesian graduates. As the national unemployment rate fell from 5.6 percent in December 2016 to 5.5 percent in December 2017,[20] the graduate unemployment rate in 2018 was 9.4 percent.[21] This is not a unique phenomenon, however. Indonesia's neighbor and ASEAN colleague, Malaysia, found that while its total unemployment rate was at 3.4 percent, unemployed graduates constituted 40.5 percent of the country's total youth unemployment rate of 10.8 percent.[22] Survey findings indicated a skills mismatch between industrial needs and graduate skills with employers looking for graduates to have some industrial training, soft skills such as communication, creative/critical thinking, and analytical and problem-solving experience (World Bank, 2014b). The official unemployment rate of 12.8 percent among Turkey's university graduates is said to be much higher, as the figures reflected only those who registered with government agencies.[23] For China, from 2015 to 2017, the unemployment rate for new graduates was 8.2 percent, and one view is that the rate of job creation has not kept pace with the annual production of new graduates.[24]

Integration among various information channels would help better match students and employers. The skills produced by HEIs need to match the skills demanded by employers. Data provided by labor market information systems are important sources of education and skills planning. In Indonesia, at a macro level, Statistics Indonesia provides information on employment and unemployment based on labor force surveys. It also undertakes surveys of enterprises. The Ministry of Manpower and Transmigration has the authority and responsibility to develop and supervise employment services and labor market information systems. Employment services are available online, as well as face-to-face, from both public and private organizations. The decreasing number of HE graduates using these services indicates that other avenues, such as job fairs organized by institutions allowing face-to-face meetings between employers and students, are increasing. The ministry also provides online employment services, as do private

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[20] https://www.ceicdata.com/en/indicator/indonesia/unemployment-rate.
[21] https://www.bps.go.id/website/images/Tenaga-Kerja-Agustus-2018-ind.jpg.
[22] https://www.humanresourcesonline.net/malaysias-unemployment-rate-at-3-3-in-february.
[23] Daily News, *Hurryet*, February 11, 2018. Turkey.
[24] https://www.statista.com/statistics/.../employment-rate-of-university-graduates-in-china/.

employment agencies. Better integration of these various information channels would improve the quality and usefulness of data, and help better match students and employers.

Relevance of study programs

Changing the content of study programs and obtaining approval for new study programs involve an extended duration of time for the completion of formal regulatory procedures. HEIs' performance in market responsiveness would improve if they could take independent or autonomous decisions on introducing new study programs. The outcomes could be monitored in terms of agreed and appropriate performance indicators. The circular stipulating that new study programs at the bachelor level should be in science, technology, engineering and math (STEM) areas (Surat Edaran Menristekdikti No. 2/M/SE/IX/2016) would therefore take time before implementation and execution.

Not all HEIs in Indonesia have career support centers. To support student identification of possible careers, universities around the world offer a range of services through designated units or career development centers, assisting students in identifying and selecting appropriate study programs. The value of the study programs selected is enhanced by support through career counseling, specific soft-skills training, arranging apprenticeships, providing job vacancy information, organizing job fairs, and undertaking tracer studies. Unfortunately, not all HEIs in Indonesia have such centers.

Studies have found that much university research lacks relevance for local industry. Partnerships between HEIs and industry can provide valuable input into the development and emphases of study programs, helping narrow the gap between learning and the workplace. Among other findings, Moeliodihardjo (2013) concludes that universities distrusted industry's profit orientation, while industry saw universities as too bureaucratic and idealistic to be useful, with inflexible institutional financial management and cumbersome bureaucratic procedures that are incompatible with the dynamic and fast-paced industrial world. In addition, there is lack of institutional support for individuals who initiate industrial partnerships, and industries that require interdisciplinary solutions are not supported by the mono-disciplinary nature of academic study programs.

Open information on the quality of HEIs and their accreditation statuses are as important for students and parents making career choices as is information on the labor market and employment services. An integrated source that integrates databases such as BAN-PT's on accreditation and the DGHE's websites and institutional websites on the large number of study programs, for example, including their costs, would help students and parents make informed choices. However, as indicated in the study findings on QA, the lack of information on student learning outcomes and overall institutional performance reduce the usefulness of available information. In addition, the low level of officially accredited Islamic HEIs (8.6 percent) and study programs (20 percent) does not provide a strong basis for student and parental selection of HEIs.

Measuring labor market relevance

Measures used by HEIs to gauge labor market relevance of their study programs include internal quality audits, program accreditation and annual tracer studies. Practices used to increase the relevance of study programs within institutions include visits to appropriate agencies, short-term internships, participation of alumni and personnel from industry in academic workshops, and invitational lectures by practitioners. HEIs may also conduct surveys of market needs to identify new programs to be considered such as new areas in science and technology, information systems and environmental engineering. It is

not clear if HEIs undertake such surveys regularly and if they are able to utilize the results as inputs into their study programs.

Tracer studies are conducted annually either by institutions or, in some cases, by individual study programs. Tracer study results are shared usually with academic staff, administrative and management staff, employer groups, key non-governmental organizations (NGOs), community groups and occasionally government agencies. None of the sample HEIs mentioned is sharing its results with students, their most important stakeholder. Students would benefit in the selection of study programs if they were better informed on the market demand for content and skills linked to those programs, particularly in areas where career counseling or identification of student aptitude does not exist. Only one HEI reports findings to MoEC, disseminating these nationally on an annual basis and internationally every three years.

The direct impact of tracer studies on study programs is not clear, although sample HEIs show awareness of how they could contribute to a range of qualitative changes. These include evaluating study programs, establishing the basis of new programs or new departments, prompting changes in learning processes or even facilities and infrastructure, and utilizing alumni information to bring study programs and student competencies closer to the world of work.

Labor market information and services

The emerging trends globally are to provide integrated or 'single window' services that tend to be more responsive to market signals. These provide, for example, information on job vacancies, referral mechanisms, training programs, apprenticeships and self-employment information. A concern for a better match between skills of graduates and skills demanded by the labor market is the basis of comprehensive labor market watchdogs, such as the Botswana Labour Market Observatory. It is expected to coordinate data and information "guiding students toward demanded skills, occupations, and economic sectors and informing tertiary and vocational education institutions about the outcomes of their graduates in the labor market" (HRDC and World Bank, 2018), sharing this information with government agencies. Detailed and reliable data reduce the skills mismatch. In Malaysia, the Institute of Labour Market Information and Analysis (ILMIA) is responsible for providing up-to-date market information through its job portal to all stakeholders.

The most popular job destination for MoRA HEI graduates is that of education or teaching at various levels followed by government or civil service jobs. Graduates of Islamic religious study programs become lecturers and researchers in academic institutions; sharia law graduates find legal employment; and others move to government institutions/agencies, particularly those affiliated to the MoRA, in regional governments, as well as NGOs. Graduates from larger public HEIs, apart from education again as the popular sector, had more diverse employment destinations such as economic and banking, information technology, agriculture and jobs in the creative economy. Sample HEIs indicated that job fairs on campus were the major source of student information on available employment.

Both large and small PTKIS graduates found jobs directly related to their majors, by inference, in Islamic education-related areas. Between 75 and 100 percent are employed within nine months of graduation. Two PTKIN had 50 to 70 percent employed in the first nine months. Two PTKIS respondents had no knowledge of graduate employment data, implying that tracer study findings might not have been shared with relevant stakeholders. Students requiring additional training before being employed constituted 5 percent for both these HEIs, which is not surprising as jobs were directly linked to their study program

majors. The six HEIs that included internships estimated that less than 5 percent of course time might be allocated for internships.

Key findings

- Formal regulatory and time-consuming procedures required for approval of new study programs impede HEI responsiveness to labor market changes.

- MoRA graduates' most popular employment destinations are in the education subsector related to Islamic education, followed by government or civil service jobs.

- Students would benefit greatly from information on tracer study results, which are generally not shared with them, indicating a critical need for greater transparency.

- There is limited organized support from HEIs to help students develop varied employment skills that are aligned to industry and other market requirements.

- Internships need to be better organized and managed to add value to broad-based job searches.

Chapter 4: Finance

Government spending on education

The Indonesian Constitution stipulates that a minimum of 20 percent of government budget must be allocated to education. In 2017, the central government allocated IDR 416.1 trillion (about US$30 billion) to education. From that amount, 64.5 percent was transferred to provincial and district governments to fund early childhood, primary and secondary education. Around 10 percent was allocated to MoEC for secular basic education, 12.1 percent to MoRA, which oversees madrasah and religious education at all levels (early childhood to higher education), 9.3 percent to MoEC, and 3.1 percent to line ministries that own and operate specialized HEIs. The rest (about 1 percent) was allocated to the government's Education Trust Fund.

Government spending on higher education

Unlike primary and secondary education, HE remains centralized in Indonesia. The two ministries responsible for HE are MoEC and MoRA. In the 2017 budget, the former received IDR 38.7 trillion from the central government, while the latter received IDR 50.3 trillion for all levels of education, of which IDR 7.4 trillion was allocated to public Islamic HEIs (PTKIN), including salaries to civil servants working in the institutions.[25] Finally, line ministries also received IDR 12.8 trillion for their HEIs. Assuming that virtually all of the IDR 12.8 trillion is used to finance the specialized HEIs owned by the line ministries,[26] the overall central government allocation to higher education (including salaries for ministry staff) in 2017 was IDR 58.9 trillion (about US$4.2 billion).

Government spending on higher education in Indonesia is small. The IDR 58.9 trillion is only about 14 percent of the total central government spending on education and equivalent to 0.4 percent of GDP. While provincial and district governments may allocate some funding to HE, the amount is likely to be negligible. Hill and Thee (2013) state that public expenditure on HE in Indonesia is much smaller than all its Southeast Asian neighbors with the exceptions of Cambodia and Lao PDR. In comparison, public expenditure on higher education was 1.7 percent of GDP in Malaysia and 0.7 percent of GDP in Thailand.

The HE subsector in Indonesia is dominated by private funding. Only 6 percent out of some 4,500 institutions are public, although 36 percent of enrolments are in public institutions. It is estimated that the government finances only about one-quarter of total spending on higher education in the country (Hill and Thee, 2013).

Existing funding models do not provide HEIs with incentives to enhance quality and relevance. There is largely no funding formula for government allocation (Hill and Thee, 2013). Recurrent allocations are historically based and incremental (that is, largely determined by previous year's allocation). While this funding model increases predictability, the amount is unlikely to fulfill institutions' need beyond personnel salaries and recurrent goods. Meanwhile, capital budgets are on a needs basis and negotiated on a case-

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[25] Note that the MoRA is also responsible for all levels of education as well as other religion-based HEIs (that is, Christian, Buddhist, and Hindu). However, these institutions are few, and student enrolments are minuscule. Excluding them from the budget analysis would not significantly affect the findings or conclusions. In addition, they might allocate a small amount of their higher education budget to private institutions (PTKIN), but it is estimated as negligible based on this study findings.

[26] Fifteen line ministries and two central government agencies operate specialized HEIs. Virtually all graduates of these institutions would be absorbed by the respective ministries or agencies. However, there is no information on the number of students in these institutions.

by-case basis. Only in 2016 did the MoEC and the MoRA started providing operational assistance to their public HEIs based on enrolment numbers, called *Bantuan Operasional Perguruan Tinggi Negeri* (BOPTN). However, note that the per-student amount varies year by year depending on available funds.

MoRA higher education institutions

MoRA HEIs face similar conditions and constraints in terms of financing as MoEC HEIs.[27] In effect, the main differences between these HEIs are the main ministry they are attached to (that is, MoEC versus MoRA) and the focus on religious studies/study programs that MoRA HEIs have. The practices around financing, setting tuition fees and salaries, and financial autonomy appear to be very similar.

In contrast to the HE subsector as a whole, 72 percent of students in the religious HE subsector go to public institutions. According to MoEC data center,[28] there are 125 public religious HEIs (including Islamic, Buddhist, Catholic, Protestant and Hindu) in the country, compared with 1,083 private institutions. However, the number of students enrolled is 2.5 times higher in the public institutions, 624,000 students, relative to the 244,000 students in the private institutions. Note that the vast majority of these institutions are Islamic as opposed to being based on other religions.

There are two types of PTKIN, with different levels of financial autonomy. Sixteen public Islamic HEIs are designated as BLUs, which gives them virtually full authority to raise funds. The BLUs are the largest MoRA HEIs. Often, the additional income comes from offering weekend classes and short courses. However, UIN Syarif Hidayatullah in Jakarta operates a hospital and a shopping strip. Meanwhile, the smaller public Islamic HEIs are called Satker and have less financial autonomy. At MoEC, there is a third type of public institution in addition to BLU and Satker, called the PTN-BH (*Perguruan Tinggi Negeri Badan Hukum*), consisting of 11 largest public HEIs with full autonomy that do not need any approval on finances or student recruitment.

PTKIN receive government funding from six sources: the government's own funds (*Rupiah Murni*), foreign loans or grants, government funds to match a foreign loan/grant, own source (more below), domestic grants, and Islamic bonds that the government sells. In 2017, the government's own funds made up 65 percent, own source made up 19 percent, and Islamic bonds contributed 14 percent, with the rest coming from the other sources. Satker institutions must return any surplus or unspent funds to the government at the end of the fiscal year, but BLU institutions can keep them (Moeliodihardjo, 2013). However, the BLU needs approval from the MoRA to spend the surplus.

The central government, through the MoRA, sets income targets for PTKIN. The income, basically own-source revenue, is mainly raised from tuition fees charged to students. This constitutes an income to the central government, called *Pendapatan Negara Bukan Pajak* (non-tax state revenue, PNBP). The income targets are set in a similar way to the allocation arrangements: historical and incremental. According to Moeliodihardjo (n.d.), the Satker institutions collect and transfer the PNBP to the central government, while the BLU institutions could collect and automatically keep their own PNBP.

As a proportion of total allocation received from the central government, PNBP is higher at BLU than at the Satker. In 2017, 25 percent of the allocation to BLU came from PNBP, while only 12 percent of

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[27] See World Bank (2010) and Hill and Thee (2013) for analyses of MoRTHE HEIs.
[28] Source: https://forlap.ristekdikti.go.id/, accessed April 10, 2019.

allocation to Satker came from PNBP. This means that BLU relies less on MoRA than the Satker. But as a corollary, BLU takes on more responsibilities of its finances than the Satker.

PTKIN rarely suffer from a budget deficit. When they do, then they would have to cancel some planned capital or goods spending. However, civil servant lecturers or other civil servant personnel are not affected because they directly receive their salaries from the MoRA. Non-civil servant lecturers are paid from BOPTN, which guides institutions on how many lecturers to hire.

Box 2: BOPTN as supportive mechanism for public higher education

In 2012, the MoEC launched an operational assistance fund (*Bantuan Operational Perguruan Tinggi Negeri*, BOPTN) to support public HEIs. The program works as a support for HEIs as a compensation of the introduction of single tuition fee scheme (*Uang Kuliah Tunggal*, UKT). The purpose of BOPTN is not only to minimize operational costs of HE, but also to increase funding for research in both public and private universities. In addition, BOPTN can ease the tuition fees for students in need and ensure education services for poor students. The target of this program is those students who cannot pay the burden of operational costs that are standardized by minimum service standards (MSS).

BOPTN is allocated based on several components, such as education cost for bachelor/diploma students, achievement of higher education, and the number of students for bachelors/diplomas. BOPTN can be used for research and community service, maintenance, experiment cost, reference, QA, student activities, supportive activities, ICT development, honorary lectures, and equipment costs. Meanwhile, BOPTN cannot be used for capital infrastructure, incentives for civil servant teachers, and operational management needs.

Government spending on private religious HEIs (PTKIS) is negligible. Based on our survey, government spending makes up about only 5 percent of the overall PTKIS revenue, on average. While a small number of lecturers from the private institutions receive doctoral scholarships from the government and hence can be considered as receiving further government support, the overall funding provided by the government to private institutions is very small.

MoRA funding for PTKIN, 2011–17

Between 2011 and 2017, the MoRA's budget allocation to PTKIN almost doubled in nominal terms, from IDR 3.8 trillion to IDR 7.3 trillion. Given that total enrolments in PTKIN in 2017 were 519,415 students, the government budget allocation amounts to IDR 14 million (US$1,000)[29] per student.

In 2011, 79 percent of the public spending on PTKIN came from government funds (*Rupiah Murni*). By 2017, the proportion declined to 65 percent. In the meantime, own-source funds ranged between 15 percent (2011) and 20 percent (2016). The contribution of foreign loan/grant declined from a peak of 4.7 percent (2011) to around 1.7 percent (2017). Meanwhile, the government started using income from its Islamic bonds for PTKIN in 2016. It contributed around 15 percent that year.[30]

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[29] Using an exchange rate of IDR 14,000 per U.S. dollar.
[30] The government started selling Islamic bonds in 2008. In 2016, the total income from Islamic bonds was IDR 31.5 trillion (US$2.25 billion).

Figure 5: Public Islamic HEIs heavily rely on public funding
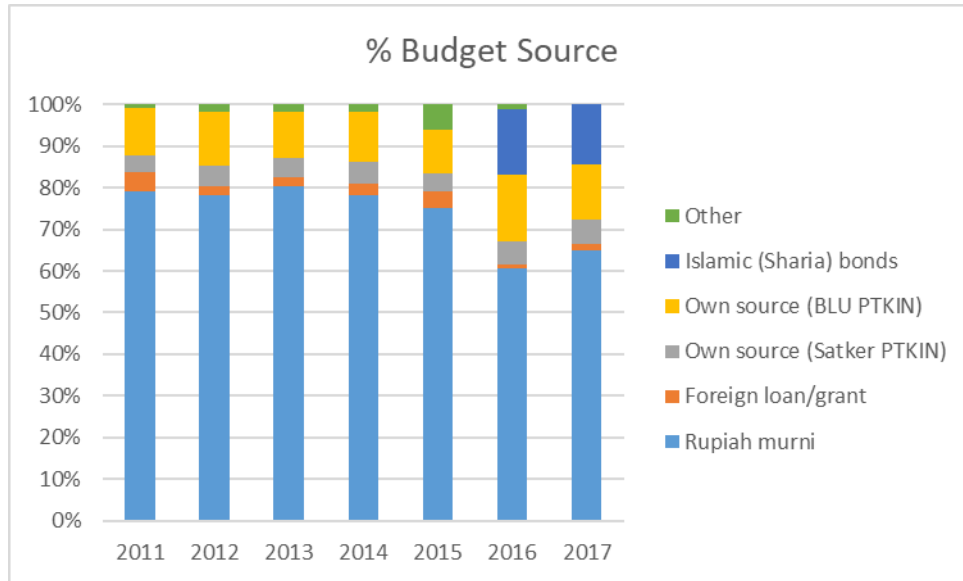
Source: MoRA Islamic Higher Education Budget.
Note: 2011–2016 are realizations; 2017 is budgeted.

The proportion of own-source revenues (the income targets set by the MoRA) at PTKIN BLUs picked up from 19 percent in 2011 to 25 percent in 2017, with the largest proportional increase taking place in 2016. This is likely a reflection of the MoRA's policy to encourage PTKIN BLUs to increase own-source revenues.[31] In contrast, the proportion of own-source revenues at PTKIN Satker has never gone above 13.6 percent and is relatively constant over the period. Although PTKIN appear to have no difficulty in meeting the own-source revenue targets, the data show that PTKIN's reliance on MoRA funds is still very high.

Figure 6: Percentage own-source revenue, by Satker and BLU
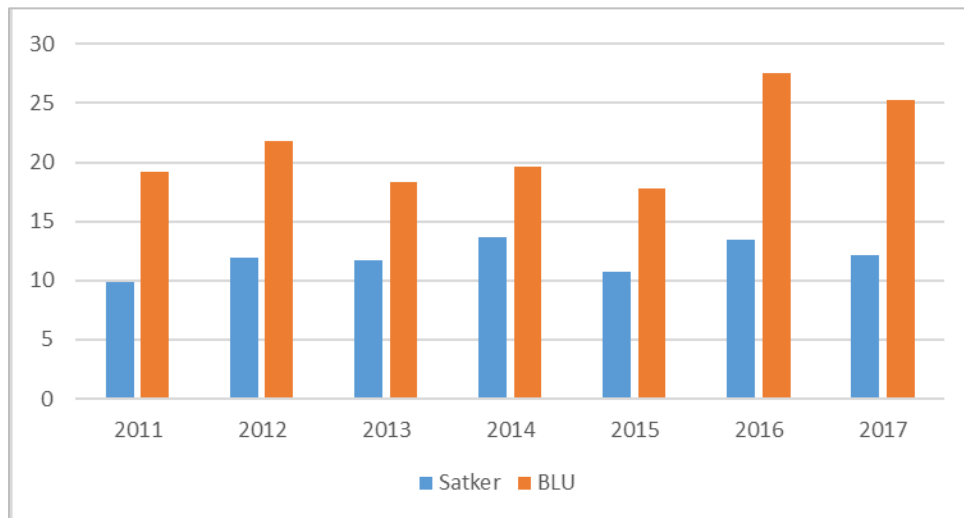
Source: MoRA Islamic Higher Education Budget.
Note: 2011–2016 are realizations; 2017 is budgeted.

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[31] Based on interviews with a PTKIN BLU in May 2018.

Between 2011 and 2017, PTKIN spent their budget on personnel salary and purchase of goods roughly equally. During the period, capital spending ranged from a low of 14.8 percent (2014) to a high of 34.5 percent (2011). Spending on social assistance, which includes, but is not limited to, student scholarships, declined from around 5.4 to 7.7 percent in 2011–14 to about 3 percent in 2015–17.

Figure 7: Percentage spending, by type
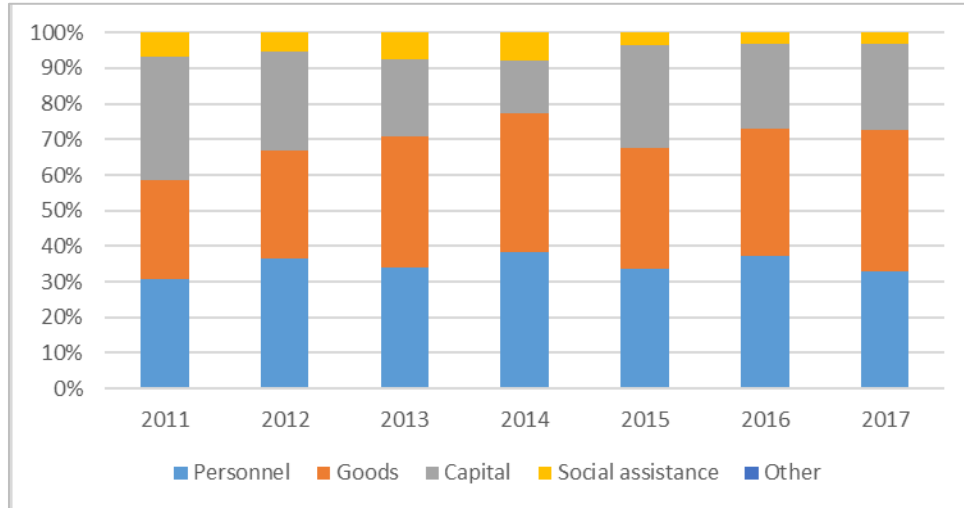
Source: MoRA Islamic Higher Education Budget.
Note: 2011–2016 are realizations; 2017 is budgeted.

After 2012, spending on research increased from IDR 14.5 billion (2012) to IDR 170.2 billion (2017). Spending on research activities was only around IDR 29 billion in 2011 (60 percent BLU and 40 percent Satker). Since then, growth in BLU spending on research averaged 93 percent annually, while growth in Satker spending on research has averaged 54 percent annually. In 2017, BLU allocated IDR 109.1 billion, while Satker allocated IDR 61.1 billion. Much of the increase was caused by a MoRA stipulation in 2017 that at least 30 percent of BOPTN (PTKIN operational assistance) must be spent on research.[32] (See the Research chapter for further discussion on research funding.)

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[32] https://kemenag.go.id/berita/read/504973/kemenag-pastikan-30-persen-anggaran-ptkin-untuk-penelitian.

Figure 8: Research spending (IDR, billion)
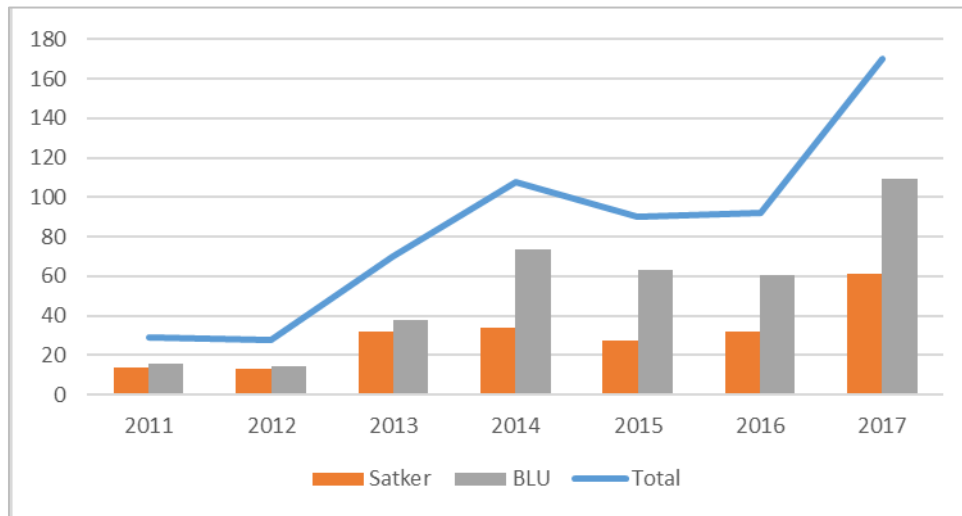
Source: MoRA Islamic Higher Education Budget.
Note: 2011–2016 are realizations; 2017 is budgeted.

Access to higher education

Overall, the accessibility of the Indonesian HE subsector for students from poor families is very low. Hill and Thee (2013) examine the 2011 national socioeconomic survey and find that 55 percent of HE students come from the top quintile. In contrast, only 2.6 percent come from the bottom quintile. The central government has attempted to address this issue by providing scholarships and subsidies, but studies find that this is not enough (more below).

It is estimated that financial aid provided to students enrolled in higher education covers only 3 percent of the total costs to attend (World Bank, 2012). In addition, the *Bidik Misi* (targeted mission) scholarship, which stipulates that up to 20 percent of seats in HEIs should be given to high-performing students from poor backgrounds, has not been successful in meeting the stipulation, as most students with this condition fail the merit eligibility requirement (Hill and Thee, 2013).

From 2013 to 2017, the MoRA's allocation for needs-based scholarship increased by more than 10 times in nominal terms, from IDR 18.5 billion to IDR 221.8 billion. In contrast, merit-based scholarships are very rare, with an allocation that hovered around IDR 1 billion in the same period. This shows that the government is trying to address equity issues. Whether this amount is enough to improve equity in access remains to be seen. However, Hill and Thee (2013) find significant issues with the rules governing the scholarships, such as the complicated rules to determine eligibility. The authors also state that *Bidik Misi* is not a fully funded obligation imposed on universities. Therefore, simply increasing scholarship allocation is not sufficient. A better-governed scholarship scheme is also needed.

Figure 9: Scholarship spending (IDR billion)
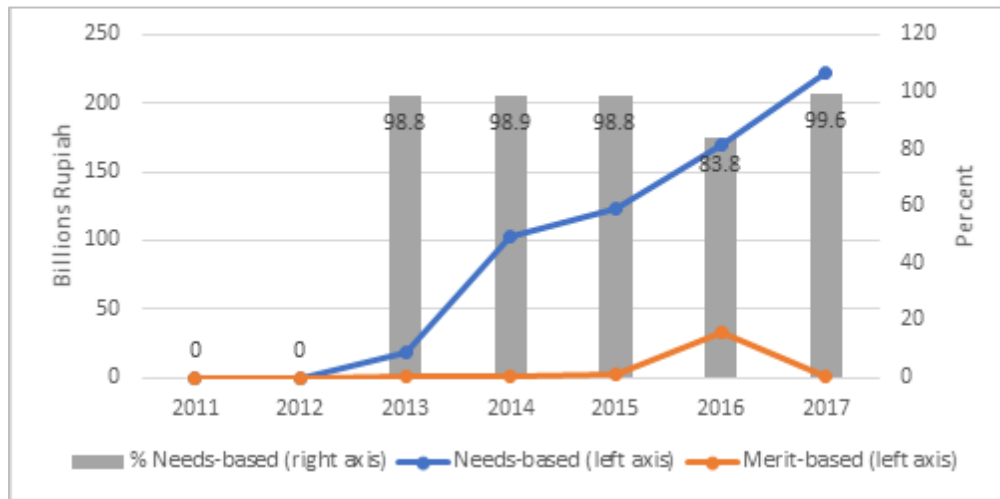
Source: MoRA Islamic Higher Education Budget.
Note: 2011–16 are realizations; 2017 is budgeted.

All PTKIS in our survey provide scholarships, albeit with different levels and eligibility criteria. Overall, the proportion of students receiving scholarships ranges from 2 to 40 percent. The amount of scholarship also varies, from a full scholarship to a 50 percent tuition reduction. There are more needs-based scholarships than merit-based scholarships, and all scholarships are funded by private donations or the PTKIS themselves.

Many countries address equity in access issue by providing student loans. In Indonesia, HE student loans are practically non-existent. A small number of financial institutions, sometimes helped by development partners, offer mortgage-type student loans. These loans are rarely taken up, because they all entail significant repayment burdens (Chapman and Suryadarma, 2012). A simulation of an income-contingent loan (Elmira and Suryadarma, 2018) finds that such a loan scheme has the potential to be applied in Indonesia. However, the question of whether the Indonesian tax system is capable of handling an income-contingent loan should first be addressed before such a system is implemented.

Box 3: Indonesia Student Loan 1.0

In the 1980s, the government worked with Bank Negara Indonesia (BNI) to issue an Indonesian Student Loan (KMI), which was only offered to students of public universities. Each student was entitled to a loan of IDR 750,000 with loan interest of 6 percent per year. The maximum credit period was 10 years. Undergraduate students (Strata one or S1) who were eligible to receive a loan were those who already had graduated baccalaureate, while for Strata two (S2) and Strata three (S3) students, as well as D3 non-degree programs, they had to have passed the first semester courses.[33] The loan could be used to support the implementation of research activities in the context of making a thesis. The funds could be used to buy a typewriter (at that time the price of a new typewriter was IDR 100,000), to spend on operational costs of research such as transportation during research, handling research permits to government institutions, and purchasing reference books. The loan guarantee was the student diploma (after completion of education). After the loan was paid off, the diploma could be returned to the loan recipient.

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[33] Dasar-dasar Perkreditan Edisi Keempat, Drs. Thomas Suyatno et. al., PT. Gramedia, 2007.

In its implementation, many problems occurred, among others: student loan recipients use the funds to buy a motorbike, administrative staff in university give the loan to their families or friends, students do not reimburse, either because they are reluctant or they have financial problems. Detention of a diploma as a guarantee was also not very effective, because still without a diploma student could apply for a job by using a legalized photocopy of the diploma. The incident eventually led to non-performing loans (NPLs), which resulted in the termination of KMI in 1981–82.[34]

Indonesia Student Loan 2.0

In March 2018, President Jokowi proposed that public banks should provide education loans for people who wanted to continue their study to tertiary education but were constrained by financial problems. Improved capacity of human resources was expected to contribute to the economic growth target, i.e., 5.4 percent in that year. The proposed education loan is a low-interest loan that is paid in installments after the recipient has graduated and got a job. The legal basis for the loan is Law No. 12/2012 article 76. Following up on the President's request, in 2018, three public banks, Bank Rakyat Indonesia (BRI), Bank Negara Indonesia (BNI) and Bank Mandiri provided interest-bearing educational loans.[35]

The three banks provide student loan for S2 and S3 students who have a job with steady income. BNI and Bank Mandiri provide loans to S1 students, but only for those who have an outstanding performance in their studies, with GPA 3.25 minimum. BRI planned to give loans for S1 students taking engineering and design study programs. The credit tenures for loans in tertiary education range from three years to 10 years. The loan interest rates range from 0.7 to 1.3 percent per month. Loans range from IDR 70 million to IDR 500 million. BRI provides loans to students of the four big universities on Java.[36] BNI, on the other hand, provides loans to students and lecturers in all universities in Indonesia that have already become BNI partners. Bank Mandiri provides its education loans for students from the preschool level to the tertiary education level.

There are three established private educational institutions that provide interest-free education loans for outstanding students, namely: (i) Putra Sampoerna Foundation (PSF) Foundation; (ii) Cilacap Sosial Bina Sejahtera Foundation (YSBS); and (iii) Surya University Tangerang. The recipients of the credit installments should return the loan after starting work. The repayments will be rolled back to other students who need loans.

Therefore, in the current system, outstanding students will have more opportunities to continue their studies at the tertiary level. They can receive scholarships, as well as student loans. However, S1 students who have average performance in their studies and/or who are not studying on promising study programs, as well as S2 students who have no stable income, will have no opportunity to receive student loans.

Our survey respondents consider HE loan systems to be inferior to a scholarship program. None of our survey respondents provides student loans. Students facing hardship are allowed to pay in installments or to postpone payments until the end of the semester. However, students who cannot make the payment are suspended until they can pay the outstanding fees. Therefore, in addition to technical questions in the previous paragraph, the feasibility of a student loan system depends on changing the current paradigm of HE financing in Indonesia.

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[34] *Belajar-dari-pengalaman-kredit-mahasiswa-masa-lalu*, 18 Maret 2018, Antaranews.com, retrieved from https://www.antaranews.com/berita/693913/artikel-belajar-dari-pengalaman-kredit-mahasiswa-masa-lalu.

[35] *Lika-liku-kredit-pendidikan-di-indonesia*, 23 April 2018, hipwee.com, retrieved from https://www.hipwee.com/opini/lika-liku-kredit-pendidikan-di-indonesia.

[36] *Lanjutkan Kuliah Dengan BRIGuna Pendidikan, 1 Agustus 2019, infobanknews.com*, retrieved from https://infobanknews.com/etalase/info-anda/lanjutkan-kuliah-dengan-briguna-pendidikan/

Student fees at PTKIN and PTKIS

The MoRA sets the standard unit cost—which is equal to the full tuition fee—for each study program offered at PTKIN, including setting a ceiling for tuition fees.[37] The unit cost, called *Standar Satuan Biaya Operasional Perguruan Tinggi* (SSBOPT), depends on: (i) the direct and indirect costs to run the study program, for example, laboratory costs and maintenance costs; (ii) the institutional accreditation, with a higher unit cost for accredited institutions; (iii) the program accreditation, with a higher unit cost for accredited study programs; (iv) BLU/Satker status; and (v) location, to accommodate price differences across regions. SSBOPT is an admirable effort in recognizing diversity in the cost of providing education.

The MoRA requires each PTKIN to set a uniform tuition fee structure for each study program. The policy, called *Uang Kuliah Tunggal* (UKT), means that the tuition fee that students must pay in a study program within a PTKIN is the same. Similar to SSBOPT, UKT could be different across study programs. Within a study program, UKT has between three and seven levels for subsidies that the institution provides. The subsidy levels range from IDR 0 (full subsidy) to the unit cost discussed in the previous paragraph (zero subsidy). A student is assigned to a particular subsidy level based on her/his ability to pay. At least 5 percent of students must receive a full subsidy. Note that the full subsidy is different from the flagship central government scholarship (*Bidik Misi*).

PTKIN can only charge at maximum the unit cost. Therefore, the possibility for a cross-subsidy is virtually precluded. A cross-subsidy, for example, could take place if PTKIN are allowed to set the top UKT level higher than the unit cost and then use the 'profit' to cover the 'loss' from providing subsidies at the lower UKT levels. In practice, because the standard unit cost is always lower than the actual cost, all students, including those in the top UKT level, receive a government subsidy.

All PTKIN respondents consider UKT a good policy to improve equity. However, they seem to be missing a larger picture that implementing such a policy requires a large subsidy from the government. This could be addressed if PTKIN are allowed to charge students with high socioeconomic backgrounds above the unit cost.

PTKIS are free to set their own tuition fees. Some use similar criteria set by the MoRA. Other criteria include the tuition fees set by competitors (including nearby PTKIN), purchasing power/willingness to pay for potential students; type of students (that is, night/weekend classes or classes for professionals are more expensive); and predicted expenses plus profit margin. There is an indication that PTKIS are more flexible at setting tuition fees, even to the individual student level. In other words, where PTKIN have at most seven tuition fee levels, PTKIS could have significantly more levels. Within a PTKIS, the most popular study programs are usually charged the most expensive fees.

Relatedly, some PTKIS serve only the poorest students, and hence charge very low fees. However, there are elite PTKIS that provide high-quality courses at high fees (even higher than PTKIN). At the same time, there are low-end PTKIS providing relatively low-quality courses—often unaccredited by MoRA/MoEC— at very low fees.

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[37] The latest regulation is MoRA Regulation No. 7/2018.

Student recruitment

Both PTKIN and PTKIS serve students from lower socioeconomic status than the MoEC or private non-religious HEIs. All our respondents state that the majority of their students come from economically disadvantaged backgrounds. They consider providing low-cost HE to this segment of the population as their mission.

Overall, PTKIN provides better-quality education than PTKIS, often at lower fees. This makes PTKIN the institution of choice, with most PTKIS—with the exception of elite PTKIS—serving the students who could not enter PTKIN due to the relatively high admission standards and intense competition.

PTKIN and PTKIS report that student intake has consistently increased over the past five years. Some explanations for the increasing trend include higher awareness on the benefits of HE and an ability to attract students who could not access non-religious HEIs. In addition, institutions or study programs with better accreditation are more popular. Therefore, all institutions strive to be accredited or to open as many study programs as they can.

PTKIN and PTKIS set the number of the intake based on room availability, the number of available lecturers, and the previous year's intake. For PTKIN, the size of the intake needs to be approved by the MoRA. For PTKIS, the rector has the authority to approve. In an extreme case, one of the PTKIS responded that it does not set a maximum number. If a particular study program is very popular, then it would hire more lecturers.

Most students come from the local area. Even the largest PTKIN and PTKIS mainly serve the local population. Therefore, a particular institution's market share is determined mainly by the number of other institutions in the city—not province or region. If the region has a particularly large PTKIN (a PTKIN BLU) or a public university, then the PTKIS would mainly be serving students who are not admitted to those institutions.

Staff recruitment and salary levels

A significant proportion of PTKIN staff are civil servants, but PTKIN also recruit non-civil servant lecturers. Civil servants' salary is set and paid by the MoRA based on civil service regulations. As mentioned below, civil servant lecturers receive much higher salaries than non-civil servant lecturers. The latter mostly receive a salary that is around the legislated minimum wage (a minimum amount calculated to cover the living costs of an unmarried worker with zero work experience). BOPTN could be used to pay for the salaries of these lecturers. There is no standard in the recruitment process or salary levels for non-civil servant lecturers.

Some PTKIS are provided with civil servants by MoRA/MoEC. In most cases, these civil servants are assigned to PTKIS to fill an identified gap. However, these civil servants only make up a small proportion of lecturers in PTKIS.

There is a high variation in the way PTKIS recruit lecturers, mainly determined by the accreditation status of the PTKIS, their track record, and size. Some large PTKIS with excellent track records are more professional in their recruitment process, while smaller ones simply accept individuals who happen to apply. The government does not set any recruitment standard for PTKIS.

Similarly, the salary levels and schemes among PTKIS vary considerably. Interviews with PTKIS show that most PTKIS only aim to pay their lecturers the legislated minimum wage level, not higher. Some PTKIS, usually the smaller ones, could not even pay their lecturers the legislated minimum wage levels. Yet, no PTKIS respondent experiences any difficulty in recruiting lecturers. Larger and more established PTKIS could match the civil servant salary levels or even offer more benefits, such as health benefits and additional allowances. Some of the factors considered in determining salaries include years of experience, education qualifications, teaching load, and whether the lecturer also holds a structural position.

Financial sustainability of PTKIN and PTKIS

There is virtually no chance of PTKIN being closed down. Overall, the MoRA provides 70 to 80 percent of PTKIN income (Figure 5), with BLU relying less on MoRA budget than Satker, given their greater financial strength. There is no indication that the MoRA would let a financially struggling PTKIN close down.

PTKIN are generally financially healthy, with increasing student numbers and study programs. Student numbers and study programs offered have continued to increase over time. The MoRA even sets an unofficial target that some PTKIN institutes will be in a position to be upgraded to university status in the near future. Similarly, the MoRA hopes that all PTKIN colleges are eventually upgraded to institute status. Finally, the MoRA also aspires to have a university in every province of Indonesia.

The conditions among PTKIS are not as certain. Although the overall number and capacity of PTKIS continue to increase, our survey finds that some PTKIS are stagnating. These PTKIS would probably not be closed down (due to an absence of the strict application of accreditation requirements) but would not grow either. In addition, the MoRA also states that some PTKIS, usually colleges, are unable to attract students. On the other hand, some PTKIS are really thriving, including those that were able to upgrade from college status to institute status. However, we have no data on the flow of PTKIS over time. It is certain that net growth of PTKIS is positive.

As previously mentioned, the MoRA's role in PTKIS finances is very limited. The sample PTKIS in this study stated that on average, funding from the MoRA makes up 5 percent of PTKIS income, with a minimum of 0 percent and a maximum of 20 percent. In essence, the MoRA's small contribution also diminishes its influence on PTKIS.

The dominant sustainability strategy for both PTKIN and PTKIS is to charge low tuition fees and enroll as many students as possible. This is different, for example, to a 'boutique' approach where an institution remains small but charges high tuition fees.

Comparison with Malaysia, Turkey and China

Public funding for Islamic HE is not very different from overall HE financing in benchmarking countries. Table 5 compares characteristics of HE financing for Indonesia's religious HE subsector with those for the overall HE systems in Malaysia, Turkey and China. A noticeable difference is the absence of student loan schemes in Indonesia.

Table 5: Cross-country comparison of higher education financing

	Indonesia (religious subsector)	Malaysia	China	Turkey
Government level responsible for higher education	Central	Central	Central and local	Central
Government spending on higher education as % of GDP	0.4 (2017)	1.1 (2016)	0.4 (1999)	1.1 (2017)
Allocation type	Grant to cover salaries and recurring costs	Grant to cover salaries and recurring costs	Grant to cover salaries and recurring costs	Grant to cover salaries and recurring costs
Performance-based allocation (Yes/No)	No	No	No	No
Competitive-based allocation (Yes/No)	No	No	No	No
Autonomy for public institutions to raise own funds (Yes/No)	Yes (16 out of 125 institutions)	Yes (12 out of 20 institutions)	Yes	Yes
Cost sharing in the public system (Yes/No)	Yes	Yes	Yes	No
If yes, proportion of private contribution in the public system (%)	25 (2017)	10 (2015)	52.6 (2008)	n.a.
Proportion of students enrolled in private institutions (%)	28 (2017)	50 (2008)	30 (2005)	4.3 (2006)
Government funding to private institutions	Very small	Very small	None	Yes, up to half per-student allocation provided to public institutions
Student loan system (Yes/No)	No	Yes, mortgage type	Yes, mortgage type	Yes, mortgage type

Sources: Caner and Okten 2012; Cao and Levy 2005; Dong and Wan 2012; Erguder n.d.; Gur et al. 2017; Guruz 2006; Shen and Li 2003; Tierney and Sirat 2008; Wenli and Qiang 2013; World Bank EdStats; World Bank 2007a, 2007b; Yang, Vidovich, and Currie 2007; MoRA budget data; survey respondents in Indonesia; UNESCO Institute of Statistics.

Key findings

The World Bank (2007a) provides two frameworks for characterizing a country's HE system. The first framework looks at whether the system is governed by regulatory or market-based approaches. The characteristics of each approach are shown Table 6.

Table 6: Frameworks for characterizing a country's higher education system

Regulatory Approaches	Market-based Approaches
• Highly centralized • Government makes and enforces decisions ○ Defines rules and regulations	• Highly decentralized • Government sets the framework and provides incentives

○ Input-based with strong audit function - Heavy reliance on public funding - Limited role for the private sector - Little autonomy for institutions - Little choice for students in deciding where to enrol - Little attention to outcomes, for example labor market outcomes, graduation rates - Limited information and data - Lack of transparency - Rigid and nonresponsive to changes in society and economy	○ Structures policies to provide incentives for desired results ○ Output and outcome-oriented results with accountability - Increased reliance on private funding - Strong role for the private sector - Extensive autonomy for institutions - Significant choice and flexibility for students to choose where to enrol - Strong attention to outcomes, for example labor market outcomes, graduation rates - Extensive information and data - High degree of transparency - Responsive to changes in society and economy

Source: World Bank 2007a, Table 2.

Based on this framework, the Islamic HE system in Indonesia appears to have a mixed approach. On the one hand, the system is highly centralized in the sense that only the MoRA has the authority to provide operating licenses for both the public and private institutions. The PTKIN rely on public funding for three-quarters of their operating budgets, and funding is allocated largely on the basis of inputs (number of students and number of lecturers).

On the other hand, the private institutions are very lightly regulated. In addition, 16 PTKIN are given BLU status, which means that they have full autonomy and authority with regard to raising additional funds. In addition, about 28 percent of students are enrolled in private institutions, which is still a smaller percentage than the students enrolled in public institutions. Finally, students are free to choose the institutions that they want to enroll in, provided they pass the admission tests and fulfill the admission criteria.

The second framework is related to the degree of cost sharing, which defines growth models for Islamic higher education. As shown in Table 7, reproduced from World Bank (2007a), there are four models of growth. For the MoRA, given its budget constraints, Model 1 is not a feasible option. Looking at the current levels of spending, especially the large increase in needs-based scholarships, it appears that the MoRA is closer to Model 3. However, solely relying on Model 3 is not feasible, as the government is already spending 20 percent of its budget on education. There is little chance that the government could provide additional resources needed to give sufficient scholarships to increase the HE enrolment rate.

Table 7: Examples of public and private spending on higher education as a percentage of GDP

Model	Country Examples	Spending as Percent of GDP		
		Public	Private	Total
	Turkey	1.1	.1	1.1
Model 1: Expansion of public sector charging low or no tuition fees (e.g., US in 1950s and 1960s)	Norway	1.5	.1	1.5
	Sweden	1.6	.2	1.8
	Finland	1.7	.1	1.8
Model 2: Publicly financed fees repaid	Australia	.8	.8	1.5
Model 3: Increased cost-sharing combined with higher levels of student aid	United States	1.2	1.6	2.9
	New Zealand	.9	.6	1.5
	Canada	1.3	1.0	2.4
Model 4: Expanded number of private sector institutions	Japan	.5	.8	1.3
	Korea	.6	2.0	2.6

Source: World Bank 2007, Table 3.

The most feasible model of growth that the government could apply is a mix of Models 2 and 4. Currently, Model 4 is already in operation as 28 percent of the students in the MoRA HE system are enrolled in private institutions. The government must introduce a sustainable HE loan system to increase enrolment. Judging from the negative experience of implementing mortgage-type loans, for instance in Malaysia, China and the United States, the Indonesian government should instead consider an income-contingent loan system that has been successful in Australia (Elmira and Suryadarma, 2018).

Chapter 5: Research

Governments investing in higher education recognize that a highly skilled workforce is a prerequisite for national innovation and growth. Graduates are more employable, earn higher wages and cope better with economic shocks. Underscoring the contribution of HE to national productivity is its investment in research and innovation. The world is becoming "more knowledge-intensive, more open and more interconnected," the European Commission asserted in 2016 (WEF, 2016), leading to all regions investing heavily in research and development (R&D). But this is a shifting landscape. In 2000, the United States and the EU accounted for nearly two-thirds of global R&D expenditure. This fell to about 50 percent by 2013. Over the same period, China increased its R&D expenditure from below 5 percent in 2000 to about 20 percent in 2013.

With its huge population of 250 million and being the largest economy in Southeast Asia, Indonesia could be poised to achieve its market and human resources potential, but what may hold it back could be its low competitiveness and innovation levels. The Global Competitiveness Report (2016) points out that Indonesia lags behind its neighboring countries in both these aspects. In addition, assessments made by the Organisation of Economic Co-operation and Development (OECD) of Indonesia's higher education sector suggest that it "does not provide the necessary research to support innovation" (OECD, 2012, 89).

To better understand issues and achievements in HEIs, and their implications for research policy and practice in Indonesia as a whole, the findings of the section on research issues in the survey conducted by the study team are discussed against a broader canvas of parallel activities in some other countries. The survey reviewed, among others, funding allocations, research publications, citations and patent registration, and the number of academic staff and researchers, as well as doctoral candidates at the institutional level, as these are the producers of research and publications. Institutional research allocations and research income data have also been sought, as the availability of increased financial support and resources point to possibly a larger number of researchers and research activities leading to more research outputs and publications. Information was also sought on collaborative research, both local and international. The level of international collaborative research, particularly on multidisciplinary approaches, is important as it points to the exchange of knowledge and technology with the potential of reaching cutting-edge research working with global partners.

Research policy

Indonesia's policy statements and strategic plans on research in HEIs indicate awareness of the critical role that research plays in a country's growth and productivity. In celebrating University of Indonesia's leap to the top 100 universities in emerging economies in a recent *Times Higher Education* ranking exercise, *The Jakarta Post* (Khalfi, 2019, 1) reflected the performance criteria universities need to meet.

> "The first area is teaching, which includes learning environment. Next is research, comprising its volume, income and reputation. The third area is citations, which takes into account research influence. Fourth is international outlook, which covers staff, students and research. And finally, the fifth area is industry income, in which knowledge transfer is evaluated."

Given the trends emerging from the university subsector, however, research related to ranking purposes is not as significant as its role and motivating force in keeping universities abreast with reforms and trends. These indicate the continuing viability of academic staff as mentors and trainers of their students.

Law No. 12/2012 opened the door to a greater focus on science and technology, as well as on the relevance of research to public wellbeing and national competitiveness.[38] The passing of the law, providing universities with greater power and autonomy over their management, curriculum, and use of resources, intended to support the upgrading of the large, structurally differentiated system. As part of the *Tridharma*, it is "the institution's obligation to provide education, research and public dedication" (Chapter 1, General Provisions Section 1, 9). The dissemination of research outputs through seminars, publications including international journals, and/or patents are desired outcomes, as is their relevance to industry.[39] Collaboration in research and publications could be part of international cooperation in higher education.[40]

A recent key policy document, the Master Plan of National Research 2017–2045 (RIRN), aims to increase the contribution of research to national economic growth (ACDP, 2017). The plan provides details on strategy and performance indicators, such as macro research groups, priority research areas, the number of researchers, research funding as a percentage of GDP and the number of publications. Intended to provide direction until 2045, it has a built-in arrangement for monitoring, evaluating and updating recommendations in keeping with changing requirements over the years. Included in its highlights is support for learning from countries whose economies have progressed based on science and technology. RIRN is currently in the process of approval to become a presidential decree.

MoRA and MoEC

MoRA focuses on supporting research related to Islamic education. At the national level, MoRA has several research units in Jakarta, as well as in some regions. Under the Research and Development Agency, Education and Training (*Badan Penelitian dan Pengembangan, Pendidikan dan Pelatihan*), there are a number of research sections in units relating to education and religious subsectors, such as madrasah, management, umrah and halal products. One such unit deals with tertiary education focusing on religious education and religious higher education—the Research and Development of Religious Education and Religious Higher Education (*Bidang Penelitian dan Pengembangan Pendidikan Agama dan Pendidikan Tinggi Keagamaan*). In principle, MoRA could fund research undertaken in five of the six majors/disciplines offered by HEIs in Indonesia: religion, social sciences, humanities, sciences, and applied sciences (engineering and medicine) except for 'formal sciences' (for example, computer sciences, mathematics and statistics) that are under the jurisdiction of MoEC. In practice, MoRA has a well-established infrastructure for teaching and research in disciplines related to Islamic education. In a system where there are 3,000 programs in Islamic studies being offered under the 58 study program categories available, the predominance of leadership and support for research in areas related to religious education is understandable, as would be the low-profile performance in non-Islamic-based study programs and research.

MoRA academic and research staff under PTKIS in particular face financial constraints to participating in research training programs. MoEC is the focal point for formulating frameworks and policies related to research and the innovation system. MoEc conducts workshops on research methodology and other research-related courses, which are open to both MoEC and MoRA faculty. While there are no data to indicate participation by institution, anecdotal observations indicate that lack of finances is a major constraint preventing the participation of PTKIS' academic staff in MoEC-organized research training programs. It is also unclear if MoRA and many of its private HEIs have sufficient numbers of staff

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[38] Part 10, Research, Section 45, (1).
[39] Part 10, Research, Section 45, (2), (3).
[40] Part 14, Section 50.

experienced in research to identify relevant training programs and support/advise academic staff in choices available.

Institutional organizational structure of research units

Organizational structure

Given the diversity of institutional structure, history, ownership, location, financial resources and staffing qualifications, HEI research units in those surveyed for this study are located in a variety of homes. Patterns emerging from the study follow.

The number of postgraduate students is a good indicator for HEIs' research functions. Research institutes, departments and the appointment of chairs or heads appeared to be linked to the number of postgraduate students. Except for a small PTKIS with a full-time student enrolment of 1,685 at the bachelor's level, all survey HEIs had master's programs and four had doctoral programs (three public and one private).

Larger PTKIN tend to have a better management system for research. Larger PTKIN tend to have at least one senior management staff responsible for research activities at the institutional level among other responsibilities, working with cluster/department-level units. These have Institutes for Research and Community Service (LP2PM), while smaller HEIs have departments such as Research and Publication. Private universities under MoEC have a research unit at the central institutional level in addition to a research center in each faculty. It was not apparent from responses whether dedicated staff have been appointed. Heads of research units reported either to the rector or vice chancellor, the chair of the research and publishing center, or designated individuals.

Internal logistical and structural issues are daunting for fledgling academic researchers. Apart from the ubiquitous issue of access to funding are the lack of experienced leadership and support for junior staff to develop proposals for grants, the paucity of academic staff in some HEIs whose main responsibility it is to teach, the time it takes to process proposals for research grant funding (nine months to one year), the timely transfer of grant amounts to researchers, and the building of sustained research teams. It was noted that peer review is not the norm in the evaluation of proposals, a practice to be encouraged as it strengthens the competitive grant system. Grant proposal budgets are detailed with line item budgeting, which limits flexible and innovative use of available funds. Unused research allocations cannot be transferred to the following academic year, and this may work against the objective of encouraging researchers to complete research activities.

Research strategies

The development of institutional research strategies reveals different approaches. These include an overarching institutional research strategy that provides the basis for research group activities, selection of proposed substantive areas based on staff competency and/or competitive mechanisms, formation of multidisciplinary research groups to help integrate 'religious science and general science', and use of a Standards of Procedures manual with guidebooks for staff. In addition, research strategies may start with discussions at study program and faculty levels, working with the research center coordinator, or be based on areas developed by an institute for research and service following institutional research guidelines.

Large HEIs include non-Islamic themes in research areas. While all survey HEIs included themes related to Islam such as sharia law, religion and education, integration between science and religion, and religion and culture, those with larger enrolments and doctoral programs identified more areas in technology, modern business practices including accounting and banking, environmental sciences, policy research, gender and humanities. Two PTKIN highlighted the need for basic, applied and development-oriented research.

Research capacity

While the number of PhDs is growing, it is not fast enough to provide a much-needed critical mass of researchers and staff in leadership and advisory roles, keeping in mind the need to increase Indonesia's global competitiveness. In terms of numbers of researchers relative to populations, in 2016, Indonesia had only 1,071 researchers per 1 million of the population compared with Malaysia's 2,590 and Singapore's 7,000, indicating that research capacity needs to be developed if the country is to become globally competitive. The low proportion of PhDs among academic staff at 10 percent with the largest share in larger PTKIN questions the probability of adequate leadership and mentoring in the smaller PTKIS (World Bank, 2014c, 36).

Low salaries and a lack of incentives to reward research prompt academic staff to engage in part-time teaching elsewhere and, given the opportunity, move up to better-paying administrative positions rather than be engaged in research. This is especially true of small, poorly funded PTKIS that do not attract better-qualified staff. In stronger HEIs, a survey showed that about three-quarters of researchers' incomes came from supplementary or non-core activities such as research projects, consulting and additional teaching, often in another institution (Suryadarma et al., 2011, 169)*.*

Box 4: Chinese government and HEIs have invested in STEM research by providing monetary and nonmonetary incentives for researchers

One country, China, Asia's high performer, worked diligently on increasing and strengthening its low human resource capacity, which had been decimated during the Cultural Revolution of 1966–76. National, local and donor resources were poured into local and foreign training of staff in every sector with a strong focus in STEM areas. Special monetary and non-monetary incentives such as higher salaries, fast-track tenure, preferential access to research grants, improved housing, and priority for publications saw the return of many studying and working abroad. About three decades ago, a US$25 reward was given for published journal papers by Nanjing University. More recently, bonuses range up to US$165,000 for a paper in *Nature,* amounting to 20 times the salary of an average academician (The Economist, 2018)*.* Changes in recruitment and internal reward systems such as promotions have been revamped in China, basing these on administrative regulations and merit rather than on familial ties, friendship and loyalty. One of the outcomes of such investments, excessive at times, was the phenomenal increase in research outputs (see the section on Publication of research papers).

Access to a free flow of quality research and publications will be an important input to improve quality, as well as introduce Indonesian researchers to global developments and innovations. Academic staff and researchers can keep abreast with the latest in research and innovations globally through international journals. Journal subscriptions, however, are expensive and international journals even more so, putting them beyond the reach of poorly financed HEIs.

Research publications, citations and patents

The volume of research publications nationally provides an indicator of academic staff productivity. Citations indicate the overall quality of publications and their usability. Despite its flaws, the registration of patents may be seen as a proxy measure of technological inventions with the potential of transforming these into commercial outputs.

Both MoEC and MoRA offer training programs for research. The MoRTHE supports HEI research units in both PTKIN and PTKIS under its jurisdiction. Training programs, which run annually, semiannually, or on request, include, particularly in the larger HEIs, workshops on preparing research proposals and financial reports, desk evaluation of research proposals, M&E research implementation internally and externally, research results seminars and relevant documentation. Lecturers also participate in programs conducted by MoRA and MoEC that focus on the preparation of papers for publication.

Publication of research papers

The overall academic research publication culture in Indonesia is still at a fairly early stage. Over the period 2000–05, Indonesia produced about 524 scholarly publications of international quality, compared with Thailand's 2,059 (Hill and Thee, 2013, 192). A World Bank study points out that "Indonesian researchers published 16,139 scientific papers between 1996 and 2011, an average of 1,000 papers per year, placing the country in 63rd position globally and 11th place within the region" (World Bank, 2014c, 36).

Indonesia is far behind its peers in terms of publications. Based on Scopus data, Indonesia (4,615 HEIs) published 728 research papers in 2000, increasing to 20,413 papers in 2017. Its regional colleague, Malaysia (517 public and private universities and university colleges), started at 1,637 papers in 2000, increasing to 32,777 in 2017. Putting aside the fact that the Indonesian HE system is extremely large compared with Malaysia's, it is noted that the volume of publications in Indonesia increased about threefold over the 17-year period, while the latter's output increased 20 times. In 2000, Turkey's HEIs published about 5,000 papers, reaching above 20,000 by 2012 (Web of Science data in Shakiba et al., 2016, Figure 3; The Economist, 2018).

These figures are dwarfed by China. In 2016, 2,825 universities in China published 426,000 studies, which constituted 18.6 percent of the total documented in Elsevier's Scopus database, comparing well with 409,000 by the United States. In fact, China's share of STEM papers in Scopus rose from 4 percent in 2000 to 19 percent in 2016, more than that of the United States, signaling perhaps the rise of the developing world, particularly Asia. Among scientific publications globally, China's share increased by 6 percent to nearly 20 percent in 2013, while continuing to address successfully the gap between scientific research and patent applications.

Generally, PTKIN and PTKIS with larger doctoral programs and students tended to have higher numbers of international peer-reviewed publications. Between 2005 and 2018, findings from the eight HEIs engaged in discussions for this study ranged from 423 through 87 to none in a small PTKIS. The HEIs did better in regionally based publications and in nationally peer-reviewed publications. Unfortunately, some HEIs did not provide complete data, as shown in Table 8.

Table 8: Summary of HEI profiles, local and international research publications, citations, and patents for eight tertiary education institutions (TEIs), 2015–18

HEI type	PU 1	PU 2	PU 3	PU 4[a]	PR 1	PR 2	PR 3	PR 4
No. of full-time students	26,180	17,670	7,405	28,132	1,685	12,751	1,353	4,274
No. of academic staff	805	609	188	972	64	338	57	192
Staff with PhDs (%)	338 (42)	8 (1.3)	41 (22)	388 (40)	6 (9.4)	86 (25)	14 (25)	38 (20)
Research papers published locally	**569**	**—**	**362**	**429**	**36**	**964**	**14**	**7**
Total no. of citations	**22,703**	**—**	**22**	**1,066**	**52**	**349**	**—**	**—**
Papers on Islamic education	108	—	86	270	27	54	2	—
Citations	4,850	—	1	465	37	123	—	—
Humanities and social sciences	296	—	179	142	9	51	—	4
Citations	12,201	—	2	325	15	208	—	—
Science and technology	165	—	77	27	—	29[a]	—	8
Citations	5,469	—	7	276	—	95	—	—
Local patent registration	**592**	**—**	**—**	**1**	**—**	**104**	**14**	**—**
Research papers published internationally	**423**	**—**	**96**	**273**	**—**	**42**	**—**	**—**
Total no. of citations	**618**	**—**	**91**	**489**	**—**	**87**	**—**	**—**
Papers on Islamic education	—	—	16	151	—	—	—	—
Citations	—	—	—	244	—	—	—	—
Humanities and social sciences	113	—	46	107	—	13	—	—
Citations	1	—	6	160	—	22	—	—
Science and technology	254	—	42	15	—	26	—	—
Citations	617	—	86	85	—	59	—	—
International patent registration	**1**	**—**	**—**	**—**	**—**	**—**	**—**	**—**

Source: Survey responses from eight public and private TEIs. PTKIN – PU 1 to PU 4; PTKIS - PR 1 to PR 4.
Note: PR = Private HEI; PU = Public HEI. a. Complete data for 2018 unavailable.

Productivity and quality of local and international research publications were led by PTKIN and large PTKIS. PTKIN and PTKIS that had large staff complements provide a critical mass of researchers, at least 40 percent of whom possessed PhDs. Other factors such as funding availability and access to local and international research networks also play a part, but doctoral qualifications may be taken here as a proxy indicator of transferable research experience. One PTKIN with staff strength of 609, of whom only 1.3 percent possess PhDs, did not report on publications. Notable is the fact that with about 40 percent of staff engaged in Islamic education in a PTKIN BLU (PU 4), this HEI produced 151 international papers on Islamic education and 122 international papers in the areas of humanities and social sciences, and science and technology between 2015 and 2018, with data for 2018 as yet incomplete. In contrast, except for one institution in the study sample, PTKIS did not have any papers published internationally. Performance in terms of local publications was not strong either except for PR 2, which had the highest number (964) of locally published papers among all eight sample HEIs. Three PTKIS stated that reports on publications had not been completed, as did one PU.

Citations

Citations of papers generally indicate their high quality, but citations by Indonesian HEIs have declined in recent years. Generally, highly cited papers serve as a proxy for excellence. Researchers studying

characteristics of highly cited papers (Noorhidawati et al., 2017, 85-99) in China, Norway, the Russian Federation and Taiwan, China, have identified some common elements that cut across countries. These include collaborative (particularly cross-national) studies with a large number of authors, domination by sciences, low level of self-citations, and publication in high-impact journals (ibid., 87). In addition, in Malaysia, highly cited papers were largely outcomes of nationally funded research, particularly in five designated research universities. Between 2000 and 2015, the number of international citations from Indonesian HEIs moved from 10,459 up to the peak in 2015 at 41,470 but fell to 22,074 in 2017. The number of citations per paper shows a different story, peaking in 2005 at 22.1 per paper then falling to 5.0 in 2015 and 1.5 in 2017.

In terms of total world citations between 1990 and 2012, Turkey scored 0.49 percent, with Malaysia claiming a low 0.08 percent. For Malaysia, figures show movement from around 31,699 in 2000 to below 20,000 in 2009, dropping in 2011 to around 15,000. Based on Web of Science data, Turkey starts off with a high of 50,000 citations in 1996 peaking around 150,000 in 2004, falling to below 20,000 in 2011 (Shakiba et al., 2016, 8). Turkey also managed to achieve 1.5 percent of engineering publications in globally ranked 1 percent of highly cited publications.

As in the case of publications, HEIs with a larger number of staff with at least 40 percent PhDs garnered the highest number of international citations. In Table 8, it is noted that one PTKIN BLU led the group where local and international research papers and citations are concerned for the four-year period. It could have been two PTKIN BLUs except that 2018 data had yet to be recorded. PR 2 was competitive with 964 research papers published locally but managed to get only 29 published internationally. It also did best in local publications on both humanities and social sciences (12,201 citations for 296 papers), as well as science and technology (5,469 citations for 165 papers). The three PTKIN that had responded published 86, 108, and 270 papers, respectively, on Islamic education, with one achieving 4,850 citations for 108 papers, but had no papers published internationally in this area. Despite incomplete data for 2018, PU 4 has achieved international publications in three areas: Islamic education, 151 papers with 244 citations; humanities and social sciences, 107 papers with 160 citations; and science and technology, 15 papers and 85 citations.

Registration of patents

A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem.[41] Patent information becomes pertinent when managers and funding authorities gauge the applicability of research outputs. Patents grow out of research and its application: university, research institutes, and industry often work together to produce a solution that is relevant locally or internationally, establishing markets for the output.

Patents are extremely limited in Indonesia. Between 2015 and 2018, Indonesia registered a total of just 25 patents with the United States Patent and Trademark Office (USPTO), compared with 400 for Malaysia, 547 for Turkey, and a huge 49,818 for China (Table 9). According to the World Intellectual Property Organization (WIPO), patent applications rose by 5.8 percent in 2017, the eighth straight yearly increase, with China recording the highest volume of applications. These figures indicate that innovation backed by intellectual property (IP) rights is a critical element of economic growth, competition and commercial activity. In 2017, 10 Asian universities were in the top 20 universities, predominantly U.S.-based, filing for

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[41] https//www.wipo.int/patents/en/faq_patents.html

patent applications. In 2018, University of California topped followed by the Massachusetts Institute of Technology, with Shenzen University and South China University of Technology in third and fourth places, respectively, closely followed by Harvard University in fifth place (WIPO, 2018).

Table 9: Patents by selected countries - USPTO 2015–18

	2015	**2016**	**2017**	**2018**	**Total**
Indonesia	7	10	5	3	25
Malaysia	93	106	99	102	400
Turkey	105	111	171	160	547
China	8,706	10,975	14,036	16,101	49,818

Source: USPTO (https://statnano.com/report/s135).

Responses from HEIs for data on patents requested for this study were less than satisfactory, except in two cases. Reporting was patchy in some HEIs, a sign that record-keeping, communication or the sharing of information needed upgrading and attention. Between 2015 and 2018, one of the PTKIN registered 592 patents locally and one patent internationally, while a large college that had an impressive number of local and international research publications has only registered just one patent locally and none internationally. PTKIS fared well locally with 118 locally registered patents (none international) but the lion's share (104) came from one PTKIS that has a noteworthy number of local publications and some international.

Collaborative research papers

Findings from research on local, national and international studies suggest that few opportunities exist for the majority of HEIs to participate in national conferences and seminars, and even fewer manage to gain access to international interactions at all. Collaborative research activities have become increasingly important with the global knowledge explosion, the unprecedented role of technology in learning, and developing new skills for new solutions. It may be seen as fundamental to interdisciplinary learning, using multiple sources of expertise, and seeking of solutions that go beyond existing knowledge and skills. However, collaborative research is limited in Indonesia. Two PTKIN were involved in 63 projects, while two PTKIS, both medium and large, worked on 23. Access to publications and journals was not readily available to all either due to scarcity of funds or absence of academic leadership. Sabbatical arrangements, which can initiate long-term academic and research partnerships, are almost non-existent even for the better-resourced TEIs. There is anecdotal evidence, however, that research collaborations are more extensive than recorded by many institutions.

International collaboration is essential to enhance the quality, but it is very limited in Indonesia. It is instructive to note that a significant proportion of Malaysia's research publications is the outcome of international collaboration, with Indonesia occupying fifth place as a collaborative partner (Table 10). The total list of 20 countries includes 11 Middle-Eastern and Asian countries, including two collaborative research publications with China. In China's case, 47 percent of its collaborative research papers listed in the Web of Science are with eight highly industrialized countries (Noorhidawati et al., 2017, 86). Turkey demonstrates the value of sharing expertise, costs and resources well: by 2011, 16 percent of research output in the country was the result of external collaborations—of which the United States, Germany, and the United Kingdom were the top partners (Thomson Reuters, 2011).

Table 10: Top six international collaborative countries for Malaysian research papers (2017)

	Country	No. of papers (percentage of total, n = 188)	Citations
1	Iran	29 (10.7)	1,578
2	Australia	25 (9.2)	2,777
3	United Kingdom	20 (7.4)	1,943
4	India	19 (7.0)	858
5	Indonesia	18 (6.6)	1,650
6	United States	17 (6.3)	1,267

Source: Noorhidawati et al. 2017.

Funding of research

Funding for research activities remains an issue, one that policy- and decision-makers have taken some action on. As the Finance chapter points out, the MoRA's budget allocation to PTKIN increased by more than fivefold between 2012 and 2017. This has been reflected in annual growth in research spending by BLU and Satker. In 2017, the stipulation by the MoRA to utilize 30 percent of the BOPTN on research gave added impetus. However, this will take time to be reflected in terms of national performance as seen in local and international arenas.

The primary funding source for research for PTKIN is the government, whereas PTKIS have access to more diverse sources. Research funds for PTKIN BLU and PTKIN are derived from government sources and institutional funds, with the latter limited in most cases. PTKIS receive government funds as well, and while the quantum is significantly lower than allocations to public universities, they constitute the lion's share of research funds available. PTKIS under the MoEC, particularly those with larger enrolments and postgraduate programs, receive larger allocations than smaller MoRA PTKIS. Large and small PTKIS have access to more diverse sources than the PTKIN. Apart from government sources and their own institutional funds, they receive funds from the corporate sector and foundations. Some foundations may own the PTKIS and also run commercial activities, which, if successful, would be to its advantage. Small PTKIS, funded largely through tuition fees from primarily local students, are sometimes successful in applying to local governments for research grants although funding may be small and irregular (Royono and Rakwidiati, 2013, 218). Grants have also been obtained by small PTKIS with initiatives from other ministries, such as the Ministry of Social Affairs and the Ministry of Finance, as well as partner universities. Support needs to be given to HEIs so that they can make better use of available fundraising rules, as well as use their initiative in exploring fresh sources.

Establishing a research culture

To develop a research culture in HEIs, particularly in the smaller and relatively isolated PTKIS, the MoRA could initiate more lateral collaborations and substantive interactions between well-performing and weaker HEIs. Establishing and disseminating criteria for qualitatively strong research outputs and publications is a responsibility that the MoRA would need to focus on to bring about systemic improvements. There are good illustrations of how some research groups have linked their research to teaching, thus helping others internalize research objectives and outcomes. Relevant research outputs have strengthened teaching materials and textbooks. Other strategies include the formation of research groups with weekly forums mandatory for lecturers, student participation as research assistants, and students as co-researchers whose reports may be submitted as theses. Generally, it is difficult to plan for student involvement in research as institutions do not budget for this, leaving it to individuals to work it

out within their own allocations. Earlier discussions on stepping up and supporting interactions locally and internationally remain relevant here, particularly to infuse in HEIs the competitiveness seen in some of the country examples reviewed.

Key findings

Challenges faced by the MoRA, particularly with the private HEIs, in improving research outputs and competitiveness, include the following:

- Human resources issues are seen as a priority, particularly the dearth of qualified and experienced academic staff who are needed in sufficient numbers to lead, mentor and train, as well as conduct, research and prepare publications in both Islamic-based, as well as science and technology-based, areas.

- Low salary levels signal the need for both monetary and non-monetary incentives for academic staff and researchers.

- Clarity is needed regarding career paths, promotions and recognition for research faculty.

- The scourge of scarce funding limits and prevents free access to publications, local and international research networks, and academic conferences and workshops.

Chapter 6: Internationalization

Overview of internationalization of Indonesian higher education

Every university is expected to play a role to improve national competitiveness, as well as to counter the possibility of negative effects from globalization. Internationalization is grounded in the National Education Strategic Plan and the Higher Education Long-term Strategic Plan 2003–2010. The government's response to globalization with the need to move toward international standards of quality, for example, accreditation from international professional bodies, seems to be the rationale for internationalization (Soejatminah, 2009). Indonesia HEIs perceive internationalization as both an opportunity and a threat. On the one hand, HEIs see internationalization as a tool to promote international collaboration. For instance, seven of the eight sample HEIs consider internationalization of curriculum, research, attraction of international faculty and international students as part of their internationalization strategy. International accreditations are also seen as a priority for the HEIs' success. On the other hand, HEIs fear that internationalization could endanger national education through the transfer and imposition of foreign values, becoming a threat to local HEIs, causing increased competition between local and international graduates for local employment opportunities, and making use of international rankings as a benchmarking tool. It is also perceived as a challenge requiring a response in terms of strengthening capacities in enhancing foreign language—English in particular—competencies and information, and information and communication technology (ICT) skills.

The government supports internationalization through various programs, including seminars/ workshops on internationalization, network establishment such as the Indonesia Higher Education Network and Global Development Learning Network (Irwandi, 2008), and the production of a book titled 50 Promising Universities and Scholarships. However, as the results of the study demonstrate, further improvements in the legal and regulatory frameworks are needed if the system is to welcome internationalization.

Yet, the government's protectionist policy has prevented international branch campuses from entering the higher education market. As of 2018, the Indonesian government still prevented foreign HEIs from opening a branch campus. Both public and private HEIs interviewed have also opposed the opening of the sector to foreign providers. They voice concern over neo-colonialism and the commodification of higher education if international branch campuses are allowed into the country. Some urge the government to only allow research-intensive international universities to operate in the country, and that too only in remote border areas.

A recent policy changes by the MoEC shows promise for increasing internationalization. MoEC Regulation No. 7/2020 mentioned that a private university can be established based on partnerships with foreign universities. Foreign universities that are already accredited or recognized in their home country can partner, or make a new operating institution, to run education services in Indonesia based on recommendations from the related embassies. Although more detailed provisions are unavailable as yet, this signals a promising change for HE in Indonesia.

Internationalization takes place at home and abroad. Knight (2006) identifies two major streams— internationalization at home and internationalization abroad—which she sees as interdependent rather than independent. While the latter consists of all forms of education across borders and mobility of students, teachers, scholars, programs, courses, curriculum and projects, the former comprises activities that help students develop international understanding and intercultural skills due to the special designs

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of the curricula, programs, teaching and learning methodologies, extracurricular activities, coordination with local cultural/ethnic groups, and research or scholarly activities. Thus, the two provide equal opportunities for all types of students enrolled in higher education without privileging only those who can afford a study abroad (see Box 5 for examples of internationalization at Malaysian Islamic HEIs).

Box 5: Examples of internationalization in Islamic universities

Two Malaysian Islamic universities—the International Islamic University of Malaysia (IIUM) and the Universiti Sains Islam Malaysia (USIM)—present good examples on internationalization.

USIM aims to produce thought leaders who achieve a good balance between rigorous Islamic education, and conventional academic and professional training. Degree structures and training are planned with a mix of Islamic studies and modern science, technology and disciplines in the humanities and social sciences. To this end, academic staff are encouraged to undertake at least one degree from outside their home universities, ideally a major Western university, striving to balance teachings of the Quran and Sunnah with professional programs, also seen as a way of achieving moderation. Among strategies used to reach the goal of moderation is the participation in curriculum development of local and/or international experts in professional areas who work with Islamic religious experts. Students are also encouraged to engage themselves in community issues and work with the community outside campus, including those outside the Muslim community.

Part of IUM's mission statement emphasizes the role of internationalization in their effort to foster "an international community of dedicated intellectuals, scholars, professionals, officers and workers who are motivated by the Islamic world-view and code of ethics as an integral part of their work culture." A designated Deputy Rector position in Internationalization bears testimony to the weight IIUM places on this area of their growth. Furthermore, IIUM's mission includes the enhancement of intercultural understanding and the fostering of "civilization dialogues in Malaysia as well as across communities and nations."

Both IIUM and USIM encourage international partnerships providing annual allocations for these activities. In IIUM, for example, the university has strong partnerships with internationally recognized centers of excellence, such as ISESCO (Islamic Educational, Scientific and Cultural Organization, Morocco); IIIT (International Institute of Islamic Thought), the United States, Jordan, Pakistan and Malaysia. To enrich student and staff experience student and staff exchange schemes are organized between IIUM and universities such as Marmara University, Turkey; Tohoku University, Japan and East Delta University, Bangladesh.

Source: Discussions with USIM Deputy Vice-Chancellor and faculty on July 20, 2018; and with IIUM Rector and faculty on October 3, 2018.

This study looked at how the two concepts of internationalization in such areas as strategy, governance, organizational, staffing, academic, and financial perspectives are operationalized at the institutional level. All the sample HEIs but one confirmed that internationalization is clearly defined in their strategy. Below are the key findings.

Internationalization abroad

Internationalization, especially student mobility, is impeded due to the lack of clear mechanisms promoting it. In terms of internationalization abroad, five HEIs stated that they had a credit transfer and accumulation system to promote student mobility. Yet, they face challenges in operationalizing the credit transfer and accumulation system, such as those related to language issues, lack of a nationwide credit transfer and accumulation system, misalignment between the curricula and qualifications, and lack of alignment between the systems. Thus, internationalization, especially student mobility, is impeded due to the lack of clear mechanisms promoting it: lack of clear legal framework promoting mobility of students and faculty, lack of a credit transfer and accumulation system in the country, lack of effective qualifications frameworks that are self-certified and referenced against other national and regional Qualifications Framework Systems (QFS), lack of mechanisms for credits and qualifications recognition, and different levels of expectations among the same study programs at different HEIs.

HEIs lack formal structures promoting internationalization. Only four HEIs have a special unit dedicated to operationalizing the international function, while the rest have it either integrated in the functions of other units or it is part of a foreign language center function. In larger HEIs, the units employed around eight staff to handle the process, while in smaller ones only one person was dedicated for the function. In terms of funding, five HEIs have a special funding allocated for internationalization activities. When it comes to involvement of the stakeholders in the decision-making, faculty seem to be an active part of it, whereas students are not engaged in the processes at all.

Internationalization at home

All the sample HEIs have a foreign language policy in place but all of them implement the policy only partially. At the program level, while policies such as foreign language requirement, admission and graduation requirement, inclusion of international and global dimensions in curriculum, and teaching and learning methodologies are in place, all the HEIs face implementation challenges. For instance, even though all the HEIs mandate Arabic and English as foreign languages, and some Mandarin also, this is not fully implemented.

International mobility of students is still limited. Some HEIs have no foreign (incoming) students. Even among larger HEIs, foreign students constitute only 1.6 percent of the student population. In total, there are only 324 foreign students in the eight HEIs, the majority of whom are enrolled in social sciences. Students primarily come from neighboring countries such as Thailand, the Philippines and Malaysia, as well as outside the region, including Somalia and Libya. As for outgoing students, only three HEIs send their students abroad, primarily to Thailand and Malaysia. All of the 41 outgoing students are in the field of social sciences. In the academic year 2017/18, only two HEIs registered incoming and outgoing exchange students. In total, the two HEIs exchanged 39 students, predominantly with Japan, Thailand, Uzbekistan, the Arab Republic of Egypt, the Republic of Korea and Malaysia.

Not only student mobility but also interaction between international and Indonesian students is limited. The sample HEIs do not promote student interaction through activities such as pairing international and Indonesian students in projects, and offering meeting platforms, events, student clubs and associations for students to discuss international issues and the predominant response. Furthermore, funds for scholarships for international students from the government, the private sector, and other sources are absent. However, all the HEIs but one allocate funds for students to travel to international conferences and events, and some HEIs manage to provide funds to promote study or work abroad.

Faculty mobility is even more limited than student mobility. For incoming mobility, only one HEI has one international staff. For outgoing mobility, only 12 faculty members—four of whom teach Islamic studies—from four HEIs travel internationally to teach and conduct research. The majority of HEIs in the sample stated that the lack of internal or external funds is the primary constraint for international mobility of staff. Joint projects are another opportunity to promote internationalization, but these are also scarce, with only a couple of projects being identified for three HEIs.

Challenges that MoRA HEIs face for internationalization include the following:

- Language constraints for students and faculty;
- Lack of qualified human resources—administrative staff and faculty members. Faculty are not aware of internationalization practices and are not part of a wider discourse;
- Financial constraints, including unstructured funding;
- Limited access to information, publications and networks, and lack of awareness on internationalization;
- Perception that internationalization will impose foreign values on culture and quality;
- Curriculum, policies and procedures are not yet well developed to support internationalization;
- Lack of appropriate facilities and infrastructure to support internationalization at home; and
- No unified legal and regulatory frameworks for internationalization, especially regarding human resources.

These challenges are even more prominent for smaller TEIs that may lack the resources and knowledge needed to create these links.

Key findings

Internationalization is still in its emerging stage and needs careful planning to become a reality. No policy identifies or supports internationalization. There is no clear definition on what internationalization means for the context and which elements of it are to be capitalized upon (internationalization at home and internationalization abroad). Without a clear understanding of the benefits of internationalization, HEIs as well as the government have been skeptical about internationalization, particularly opening the door to foreign institutions.

Lack of adequate policy, implementation mechanisms and funding for internationalization prevent MoRA HEIs from benefiting from internationalization. HEIs under the MoRA generally lack awareness of internationalization practices, definitions, benefits and methodologies to be able to implement and make use of it. As a result, student and faculty mobility is severely constrained.

Language barriers limit the opportunities for collaboration in teaching and learning, research and overall international partnerships. Language is another major issue, as a result of which internationalization in broader terms is challenged. It prevents faculty from full-fledged engagement in the international discourse in their subject matter and research areas. It prevents fruitful cooperation regionally and internationally.

Faculty and administrative staff of MoRA HEIs lack the capacity to make internationalization at home work and succeed. When it comes to internationalization at home, due to the lack of capacity of the faculty and administrative staff, respective arrangements to take internationalization to curriculum and other levels of HEI operations are not in place.

Conclusions and Policy Recommendations

This concluding chapter summarizes key findings and policy recommendations by chapter topics:

Key findings

Governance

The Higher Education Strategy 1996–2005 brought about a paradigm shift in higher education, which set the foundation to empower public universities with autonomy, transparency and accountability. After some controversy over the pros and cons of granting autonomy to HEIs, Law No. 12/2012 on Higher Education provided autonomy at such levels as organization, finance, student affairs, staffing, and facilities and infrastructure, though not academic freedom. Autonomy was expected to be key for an attractive, effective and successful HE system. But in fact, the implementation of autonomy has been seriously infringed, both at the policy and implementation levels. The legacy of central control has limited the extent of autonomy, particularly of financial and staffing autonomy at the policy level, whereas inadequate capacity at the institutional level to exercise autonomy has contributed to incomplete implementation of the policy.

To be successful, the autonomy of HEIs needs to be balanced with a robust accountability mechanism, which Indonesia lacks. Academic accountability was first introduced in Indonesia in 1994 in the form of the accreditation system by BAN-PT. Despite Law No. 12/2012 on Higher Education requiring all HEIs and programs to be accredited, only about 35 percent of the HEIs under MoRA have been accredited. In terms of accountability to the public at large, apart from the partially implemented accreditation, no other mechanism is in place to keep the public informed on institutional performance. Policy changes in 2020 enacted by MoEC to the overall tertiary accreditation system appear to increase accountability and allow international accreditation processes. These initial reforms should be deepened and extended.

Quality assurance

The current organizational structure of BAN-PT threatens its independence, while its own quality is not externally assessed. Established and fully funded by the government and reporting directly to MoEC, BAN-PT began functioning in 1994 as a sole national independent agency that accredits higher education institutions and programs in Indonesia on a mandatory basis. Since 2012, BAN-PT has been assigned to accredit HEIs. Academic study program accreditation is to be carried out by independent accreditation agencies called LAMs. In case of lack of a subject-specific LAM, BAN-PT is to cover the field. The current operational and decision-making structures for both BAN-PT and LAMs undermine their independence from the MoEC (in the case of BAN-PT) and BAN-PT and the institutions they accredit (in the case of LAMs). Furthermore, while LAMs are evaluated externally by BAN-PT, BAN-PT itself has never undergone external reviews by international or regional bodies for recognition purposes, which is an attestation of credibility and validity in the operations and decision-making of an accrediting body.

Accreditation standards are input-based rather than process- or outcome-based. The initial assessment at the entry point is well established, but other aspects of the QA system, such as monitoring and enhancement, accountability, professional certification and public information, are weak. The accreditation standards started to shift from an input focus to consideration of the processes, outputs and outcomes (July 2019). Additional reforms to simplify the indicators, and focus even more on processes and outcomes are expected, and much needed.

Not all HEIs have been externally reviewed and accredited using any set of accreditation standards. Accreditation standards have been revised several times since 2004, but no set of standards has completed accreditation of all HEIs in a single round. Only 34.4 percent of Islamic HEIs and 20 percent of study programs in Islamic HEIs have been accredited. Legally, qualifications from nonaccredited HEIs are not formally recognized in the country, but in reality they are often accepted in the job market.

IQA systems are still in their infancy, such that HEIs tend to establish IQA to comply with EQA systems. Islamic HEIs have established IQA units, but they lack a commonly accepted definition of quality and QA mechanisms among internal stakeholders to guide the process of building IQA and thus quality culture. Instead, there is a strong tendency to establish IQA as a compliance mechanism rather than an enhancement tool.

The National Qualifications Framework (NQF), which is meant to cover both MoRA and MoEC HEIs, is not fully operationalized and is not supported by robust QA mechanisms. The NQF lacks clear methodologies and mechanisms for implementation, as well as robust QA systems to ensure recognition of formal, non-formal, and informal learning, as well as life-long learning (LLL) and recognition of prior learning (RPL).

Relevance

With more than 2 million graduates joining the workforce nationwide every year, the HE subsector is seen as being responsible for human capital growth. However, survey findings indicated a skills mismatch between industrial needs and graduate skills, with employers looking for graduates to have some industrial training, soft skills such as communication, creative/critical thinking, and analytical and problem-solving experience. Integration of various information channels would help better match students and employers. Open information on the quality of HEIs and their accreditation statuses is as important for students and parents making career choices as is information on the labor market and employment services.

The most popular job destination for MoRA HEI graduates is education or teaching at various levels, followed by government or civil service jobs. Graduates of both large and small PTKIS find jobs directly related to their majors in Islamic education-related areas. Areas of study and coursework should be expanded to better align with private sector demands.

Finance

Government spending on HE in Indonesia is modest for the entire HE subsector, but government spending is larger than private spending for religious HE. The Indonesian Constitution stipulates that a minimum of 20 percent of government budget must be allocated to education, but HE receives less than 5 percent of the total government spending on education. This is equivalent to 0.4 percent of gross domestic product (GDP), which is much lower than in neighboring countries, for instance, 1.7 percent in Malaysia and 0.7 percent in Thailand. Public spending is estimated to be around one-quarter of total spending on HE, and the rest is funded by private sources. However, in contrast to the HE subsector as a whole, 72 percent of students in the religious HE subsector go to public institutions, and therefore public spending is much bigger than private spending. The vast majority of these institutions are Islamic.

While MoRA's budget for Islamic public HEIs has increased in recent years, institutions gradually have come to depend less on government funding. Larger institutions are given considerable financial autonomy, whereas smaller ones are not. Larger institutions raise their own revenues from tuition fees

and other incomes, and can keep them at the institutional level, but smaller institutions transfer their own incomes to the central government. On the other hand, MoRA sets the standard unit cost for tuition fees for each public institution and study program, and institutions—even larger ones—are not allowed to charge fees beyond the unit cost. This prevents institutions from charging higher tuition fees to those who can afford them, which could be used to subsidize poorer students. Regardless, Islamic public HEIs appear to be sufficiently funded by the government and rarely suffer from budget deficits. In contrast, government spending on private religious institutions is negligible. Private institutions tend to charge lower fees than the public institutions to serve the poor.

Public funding does not incentivize institutions to improve performance. MoRA allocates public funding primarily based on historical allocations, negotiations and enrolment levels, with the bulk of its funding being used to pay salaries directly to HEI staff. The existing funding mechanisms do not promote higher performance or competition. MoRA is providing almost no financial support for private HEIs under its jurisdiction, losing an opportunity to encourage competition between public and private institutions.

As public funding to help access HE is limited, MoRA HEIs aim to increase access for the poor. It is estimated that financial aid provided to students enrolled in HE covers only 3 percent of the total costs to attend. There is no student loan scheme to serve the poor. To help students from lower socioeconomic status access HE, Islamic HEIs generally offer lower tuition fees than HEIs under MoEC.

Research

Indonesia's policy statements and strategic plans on research in HEIs indicate an awareness of the critical role that research plays in a country's growth and productivity. With its population of more than 270 million, its young demographic profile, and having the largest economy in Southeast Asia, Indonesia could be poised to achieve its market and human resources potential, but what may hold it back could be its low competitiveness and innovation levels.

MoRA focuses on supporting research related to Islamic education, but the logistics and structure to allocate research funding could be improved. The MoRA has a well-established infrastructure for teaching and research in disciplines related to Islamic education. However, the funding mechanisms are rigid and lack incentives for research. Even though larger PTKIN tend to have more PhDs and a better management system for research, overall, the small number of PhDs is insufficient to provide a critical mass of researchers and staff in leadership and advisory roles.

Overall, a stronger research culture needs to be developed. The academic research publication culture in Indonesia is still at a fairly early stage. Indonesia is far behind its peers in terms of publications. Patent application and registration are extremely limited in Indonesia. Few opportunities exist for the majority of HEIs to participate in national conferences and seminars, and fewer still manage to gain access to international interactions at all. International collaboration is essential to enhance the quality, but it is very limited in Indonesia. To develop a research culture in HEIs, particularly in the smaller and relatively isolated PTKIS, the MoRA could initiate more lateral collaborations and substantive interactions between well-performing and weaker HEIs.

Internationalization

The Indonesian government's policies only partially support internationalization. The government supports internationalization through various programs including seminars/workshops on internationalization and network establishment. On the other hand, the government's protectionist policy

has been preventing international branch campuses from entering the HE market, though the government has recently shown an interest and intention to open it up to foreign universities.[42] Policy changes initiated in 2020 by the MoEC show promise for increasing internationalization.

In general, HEIs lack formal structures to promote internationalization that takes place both at home and abroad. Internationalization, and especially student mobility, is impeded due to the lack of clear mechanisms promoting it. Even though HEIs often have a foreign language policy in place, they tend not to teach the foreign languages, most importantly English, as required by their own policy. International mobility of students is still limited. Not only student mobility but also interaction between international and Indonesian students is limited. Faculty mobility is even more limited than student mobility. The reasons for limited internationalization include lack of legal framework, language barriers, lack of high-quality lecturers and staff, financial constraints, and fear of foreign influence, among others. Internationalization is particularly difficult for smaller TEIs, which may lack the resources and knowledge needed to create these links.

Policy recommendations

Governance

Policy recommendations

Redefine the autonomy and accountability mechanisms that are implementable and well-balanced. The level of autonomy may be different by type of institutions and could be increased gradually.

Autonomy model

- Define a detailed framework for autonomy of Islamic HEIs, including clear dimensions of autonomy—academic, structural, financial and staffing—and types of autonomy—content and procedural.

- Delegate full autonomy for content and partial procedural autonomy to HEIs. Regardless of the type of institutions, they should be able to develop academic programs as long as they meet quality standards that the national QA guidelines require. The level of financial autonomy for institutes and colleges may be limited as their revenue raising capacity is limited and, hence, they depend on public funding more than universities. Private HEIs are already given a high level of autonomy, which should be maintained and only monitored through QA mechanisms rather than regulations. The level of autonomy should be linked to parallel reforms undertaken by MoEC.

- Develop a clear implementation strategy and plan supported with respective QA mechanisms and KPIs to implement the changes.

- Build system-wide capacity on managing autonomy.

Accountability system

- Develop a robust accountability framework supported by respective mechanisms for implementation.

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[42] http://monitor.icef.com/2018/04/indonesia-prepared-welcome-foreign-universities/.

- Clearly define the target stakeholders to whom HEIs are accountable and for what.

- Define mechanisms and tools that promote effective implementation of identified accountability mechanisms for each target group.

- Provide funding and other support structures for the effective exercise of the accountability tools.

- Build system-wide capacity on the concepts, approaches, mechanisms and tools of accountability, as well as on the effective operationalization of the accountability mechanisms.

Quality assurance

External quality assurance (for MoRA)

- Identify key stakeholders and define what processes and decision-making for external quality assurance (EQA) they should be included.

- Define 'quality' and purposes of QA in the effective performance of HE in wide consultation with key stakeholders among MoRA and Islamic HEIs. The MoEC should be a part of this discussion, which should include both large and small, public and private HEIs.

- Develop and adopt the necessary legal and regulatory frameworks supporting EQA of institutions and programs under MoRA, including procedures, standards and KPIs.

- Work with MoEC to establish an independent accrediting institution (*Lembaga Akreditasi Mandiri*, LAM) for accreditation of Islamic study programs.

- Train new staff of the LAM on external evaluations and skillful application of such principles of QA as consistency, relevance, reliability, validity and objectivity in external evaluations.

- Provide capacity building for MoRA HEIs to ensure common understanding on the key concepts and mechanisms for QA of religious study programs.

Internal quality assurance of HEIs

MoRA

- Develop guidelines on internal quality assurance (IQA) for MoRA HEIs, suitable for different types of institutions and supplemented with the best international practices fit for the country's context and culture.

- Provide system-wide capacity building on setting up and operationalizing IQA systems for MoRA HEIs; large HEIs may assist smaller HEIs in improving IQA systems.

HEIs

- Taking into account the national-level definition of 'quality' and expectations from the national guide on IQA, define 'quality' for each institution.

- Design an IQA system that is linked to the strategic priorities and guides institutional funding allocation and allows informative decision-making, making IQA a key driver for efficient and effective operations of the HEIs, which also promotes relevance of HE provisions.

External quality assurance at system level (MoEC and MoRA)

- Revise the current legal and regulatory framework to promote more independent and transparent decision-making at the institutional level.

- Enhance the technical capacity and legitimacy of the National Agency of Higher Education Accreditation (BAN-PT) by going through an international external review against internationally set standards and obtaining international recognition as an independent QA agency.

- Strengthen the capacity of BAN-PT and existing LAMs to cover all HEIs and programs in a single round of accreditation, as required by the law.

- Revise the standards for both HEIs and programs to link them with the system needs and performance outcomes and outputs, as well as with the national qualifications framework.

- Provide a system-wide capacity building on the IQA and EQA for all HEIs under MoRA and MoEC to make both complementary to each other's mechanism, leading to the establishment of culture of quality improvement.

Relevance

To move forward, a triple helix needs to be in place with the enabling framework of government policy, working together with institutions and industry. For MoRA and related ministries and government agencies, a timeline should be shared with stakeholders:

- Put in place legal and regulatory frameworks to support the implementation of the following two portals:

  o Develop an integrated labor market information and employment services portal to be put in place and maintained by MoRA, in partnership with related agencies and industry to support its HEIs.

  o Develop and maintain an integrated database that provides students, parents and other stakeholders updated information on the quality of HEIs, their accreditation status and performance, as well as details of study programs and student learning outcomes.

Teaching and learning approaches need to be seriously revised. As the enrolments in Islamic HEIs and programs continue growing, their graduates will need more skills relevant to jobs in the non-Islamic related labor market than today. For MoRA public and private HEIs, the role of industry cannot be defined in terms of the occasional lecture, meeting or short-term internship. For a large number of PTKIS, recommended actions would require additional funding, which are justifiable in terms of the educational and social contributions they make to higher education in the country. New teaching and learning approaches should include the following as part of institutional study programs:

- To improve their responsiveness to the labor market demand, HEIs should revise the content of study programs or create new programs that promote the use of new teaching and learning approaches, establish career support centers, and link university research to local industry. Where the research capacity is limited or non-existent at non-university HEIs, the focus should be to improve the relevance of their programs to respond to the local labor

market demand beyond Islamic-related jobs. New teaching and learning approaches should include:

- o Engagement with industry or relevant potential employers, across a spectrum of interactions, as part of students' learning experience throughout their study period, with faculty concurrently engaged in the workplace, to keep abreast with changes and trends in the workplace.

- o Learning that goes beyond immediate geographical boundaries. HEIs can supplement their programs by taking advantage of online offerings nationally and internationally, which would provide additional certification to match skills required by employers.

- o Delivery of teaching and student learning that harnesses 'disruptive' information/communication channels such as smartphones, videos and blogs as part of learning modules. Utilization of these tools should be high in terms of collaborative assignments, assessment and critical thinking, while allowing faculty to monitor and support student progress more accurately. In the short term, well-performing HEIs could develop modules, which include classroom practice, to be shared with remaining HEIs in batches in the medium and long term. Peer training would be an approach to be considered.

- HEIs should measure the labor market relevance of their study programs through internal quality audits, program accreditation and annual tracer studies.

Finance

To increase higher education participation rates, especially for the economically disadvantaged, the MoRA should consider the following:

- Set the ceiling for tuition fees for each study program above the unit cost on the condition that public HEIs use the surplus to provide more needs-based scholarships.

- Fully funding *Bidik Misi* scholarships, rather than providing a partial scholarship and asking institutions to shoulder the rest of the cost.

- Explore options to increase enrolment of low-income students. One possibility is the introduction of a student loan scheme at the national level, preferably an income-contingent loan system. This would be the most challenging recommendation but would have the largest impact on increasing enrolment. The system would have to start small to address teething issues, for example, by providing the loan only in selected study programs or only to a small number of creditors. Other options to improve equity include changes to the university finance system that could link higher tuition fee ceilings to higher numbers of tuition and cost waivers for low-income students, among other options including BOPTN .

To improve the quality of the religious higher education subsector, MoRA should replace historical and negotiation and enrolment-based nature of spending with more competitive-based or performance-based funding. As a start, competitive-based funding could replace the current model of allocation for capital expenditure, which is currently based on negotiations between MoRA and PTKIN/PTKIS on a case-by-case basis. As for recurrent expenditure, MoRA could introduce performance-based allocation to provide incentives for PTKIN/PTKIS to enhance quality.

To create a more competitive environment and enhance the overall quality of Islamic higher education, MoRA should leverage PTKIS that could bring in more entrepreneurship and innovation. MoRA could provide financial incentives for PTKIS to go through the accreditation process and then provide competitive funding for accredited PTKIS and PTKIN to finance offerings to enhance innovation and entrepreneurship.

Research

Recommendations for MoRA

- Identify and develop criteria for research outputs and publications, and mechanisms to collect data against those criteria, that better meet international requirements.

- Develop and disseminate to all HEIs that conduct or wish to conduct research a set of criteria to guide researchers, helping them work toward qualitatively strong research outputs and publications. While research capacity at institutes and colleges may be limited, it is important that instructors have access to research opportunities to improve their teaching quality and relevance at local level.

- Develop strategies in discussion with MoEC and the Ministry of Finance for increasing financing support for PhD programs for academic staff in Islamic education, as well as science and technology-based areas.

- Increase allocations for research funding building in block grants, competitive grants and performance-based grants, while lobbying for resources from other government agencies, businesses and industry sectors, as well as international partners. An integrated approach involving relevant parties from the public (national and local) and private sectors is part of RPJMN 2020–2024.

- Develop revised guidelines to provide HEIs with greater flexibility for the research grant application and approval process and budgeting, and to promote collaboration across HEIs.

- Proactively seek out support from those public and private HEIs working well in international collaborative work, building an enabling platform for less-informed HEIs to seek information and assistance.

Recommendation for HEIs

At the institutional level, the research landscape could be strengthened by:

- Reviewing MoRA's, MoEC's and institutional regulations and guidelines to support a more effective research environment, increasing researchers' knowledge and understanding of criteria that constitute qualitatively strong research outputs and publications both in national and international terms;

- Reviewing roles and responsibilities of research personnel, including administrators to identify and put in place a more efficient and enabling structure for research;

- Identifying working partners among local and international HEIs to develop specific areas of expertise as a basis for collaborative research and publications;

- Establishing regular contact and communication pathways with local industry and community with a view to updating and upgrading curriculum, training and research activities; and

- Implementing MoRA's guidelines with a monitoring system, increasing transparency, for better record-keeping of research activities and outputs, which would include reporting to relevant personnel, sharing, communicating, and disseminating key information and data.

Internationalization

- Develop a framework and then a national strategy on internationalization, based on wide consultations on the benefits and costs of internationalization. Cascade the national strategy down to the institutional level. Approaches to internationalization may be different by type of institution, as their needs and capacity vary.

- Revise the legal and regulatory frameworks to support the defined scope of internationalization.

- Create opportunities for developing foreign language capacity of faculty, administrative staff and students.

- Build on the capacity of key stakeholders in terms of internationalization and mechanisms to operationalize and evaluate it.

Appendix 1: People Interviewed

Organizations	Positions
MoRA	Prof. Arskal Salim, Director, Directorate of Islamic Tertiary Education Mamat Salamet, Head of Sub Directorate Curriculum, Directorate of Islamic Tertiary Education M. Syafi'i, Head of Sub Directorate of Teacher and Education Personnel, Directorate of Islamic Tertiary Education Mr. Agus Soleh, Head of Sub Directorate Institutional Development, Directorate of Islamic Tertiary Education M. Hanif, Head of Secretariat General Mr. DR. Rochmat Mulyano, Secretary of Balitbang Mr. DR. Ida Bagus Sumbawa, Director, Hindu Education
Bappenas	Amich Alhumami, MA, M.Ed, Ph.D, Director, Directorate of Higher Education, Technology and Culture (DHETC) Tatang Muttaqien, Head of Subdirectorate of Higher Education, DHETC Endang Sulastri, Planner, DHETC
MORTHE	Agus Indarjo, Secretary Erry R.N, Head of Planning and Budgeting Bureau Hadiyansyah, staff of Planning and Budgeting Bureau Mr. Dr. Totok Prasetyo, Director, Director of Higher Education Institutional Enhancement Mr. DR. Ridwan Anzib, Director, Development
Islamic Tertiary Education Institutions	**Azahra University** • Dr. Slamet Saleh, M.Sc • Dr. Syaipudin, M.Si • Dr. Ir Sugeng Mulyono, Head of research and community development **Islamic University of Ibnu Chaldun** • Faizal Martius, Vice Rector of Planning and Budgeting Affair • R. Dimus Gunarto, Head of Academic Devision • Baharudin • Eddy Purwanto **Islamic University of 45 Bekasi** • Dr. Yayat Suharyat, Vice Rector of Academic Affair • Dr. Ibnu Muthi, Lecturer of program Pasca sarjana **Islamic College of Bani Saleh** • Abdul Gofur • Yuli Diah Saptorini • Siti Syarah **Islamic Economic College "Tazkia" Sentul, Bogor** • Mrs. Dr.Murniati Mukhlisin, M. Acc, Director of Islamic Economic College **Universitas Islam Negeri (UIN) Jakarta (Public University, Accredited A)** • Mr. Prof. DR. Dede Rosyada, Rector • Mr. Prof. Dr. Abdul Hamid MS, Vice Rector Financial Affair • Mr. Kuswara, Kopertais Member of Private Islamic Universities Coordinator • Mr. Bardja, Head of Planning and Budgeting • Mr. Achmat Syahid, Internal Auditor

Appendix 2: Survey Questionnaire

Questionnaire for HEIs under the MoRA
Indonesia

All the data provided should be current and reflect the status as of academic year 2017/18.

I. Background information

> This section should be filled in by the staff that is responsible for overall institutional operations (e.g., rector office), registrar and HR

1. Full name of the HEI _____
2. Legal Status (as appears on the license) _____
3. Year of establishment _____
4. Location _____
5. Total number of full-time students _____
6. Total number of part-time students _____
7. Total number of Diploma 1 – Diploma 4 students _____
8. Total number of bachelor's degree students _____
9. Total number of master's degree students _____
10. Total number of doctoral students _____
11. Total number of students on any other status (please, specify the status)
    _____
12. Total number of academic staff (Full-Time Equivalent) _____
13. Total number of academic staff (actual) _____
    ☐ Number of academic staff by Qualification:
    PhD _____ Master _____ Bachelors _____ Diploma _____
    Other ____ (please specify)
14. How many teaching / research staff do you have on Islamic studies?
15. How many teaching / research staff do you have on non-Islamic studies?
16. Has there been an increase, decrease, or same number in the past 5 years?
17. Total number of administrative staff _____
18. The institutional accreditation is renewed every how many years? _____
19. Number of faculties _____
    ☐ Please, list them all
20. Number of study programs _____
    ☐ Of which, please list Islamic study programs
    _____
    _____
    _____
21. Number of study programs accredited by BAN-PT or other national accreditation agencies
    _____
22. Number of study programs accredited by international accreditation agencies
    _____

23. General data on leadership:
    - ☐ Qualifications of Rector_____
    - ☐ Number of years Rector has been leading the institution_____
    - ☐ Number of management staff _____
24. Who approves the number of positions (e.g., MoRA, owner)?
25. Approved positions not filled _____
26. Apart from the government (Ministry of Religious Affairs)'s 5,000 Doktor Plan, are there other ways in which you have or plan to increase the number of faculty members with PhDs in your institution? Please describe briefly. _____
_____
27. Time required from applying for a new member of staff to staff joining the institution _____

II. Governance (autonomy)

> This section should be filled in by the staff that is responsible for overall institutional operations (e.g vice-chancellor's office), VP for finances, HR

28. When did the last revision of your strategic plan take place? _____
    Based on which background information did you revise your strategic plan? (please, specify)
    _____
29. Which body takes decisions on strategic, administrative and financial matters?
    What is the composition of the body?
30. Which body takes decisions on academic matters?
    What is the composition of the body?
31. Autonomy: this section explores the extent of autonomy of HEIs under MoRA in terms of governance, financial management, staffing and organizational matters:

To what extent does your HEI have autonomy to take decisions on the following Please, evaluate on scale from 1 to 10, 1 being no autonomy at all and 10 being full autonomy										
Academic Matters										
	<- No autonomy					Full autonomy ->				
	1	2	3	4	5	6	7	8	9	10
Overall student number										
Admission procedures Bachelor Level (BL)										
Admission procedures Master Level (ML)										
Introduction of programs BL										
Introduction of programs ML										
Introduction of programs Doctoral Level (DL)										
Termination of degree programs										
Selection of language of instruction BL										
Selection of language of instruction ML										
Selection of QA mechanisms (e.g. accreditation, audit, authorization)										
Selection of QA providers (e.g. national accreditation bodies, international accreditation bodies)										
Design of the content of degree programs										

Staffing Matters										
	1	2	3	4	5	6	7	8	9	10
Recruitment procedures for senior academic staff										
Recruitment procedures for senior admin staff										
Salaries for senior academic staff										
Salaries for senior admin staff										
Dismissal of senior academic staff										
Dismissal of senior admin staff										
Promotion procedure of senior academic staff										
Promotion procedure of senior admin staff										
Organizational Matters										
	1	2	3	4	5	6	7	8	9	10
Selection procedure for the executive head										
Selection criteria for the executive head										
Dismissal of the executive head										
Terms of office of the executive head										
External members in university governing body										
Capacity to decide on academic structures (e.g. program directors)										
Capacity to create legal entities (e.g. foundations, centers)										
Financial Matters										
	1	2	3	4	5	6	7	8	9	10
Decide on the length of public funding cycle										
Decide on the type of public funding										
Ability to borrow money										
Ability to keep surplus										
Ability to own buildings										
Tuition fees for national students BL										
Tuition fees for national students ML										
Tuition fees for national students DL										
Tuition fees for non-national students BL										
Tuition fees for non-national students ML										
Tuition fees for non-national students DL										

III. Quality assurance

This section should be filled in by the staff that is responsible for overall institutional operations (e.g vice-chancellor's office), quality assurance and accreditation

32. What is the official definition of quality at your HEI?_____

33. To what extent is the QA policy linked with the strategic priorities of your institution?
   - ☐ Not at all reflected
   - ☐ Partially linked
   - ☐ Closely connected
   - ☐ If yes, please, specify the mechanism: _____

34. The internal quality assurance system of my institution covers the following aspects (select all that applies):

	Included in the IQA policy	Procedures are set	Policies and procedures are			
			fully applied	partially applied	not applied	regularly revised
Strategic planning						
Internal quality assurance system						
Governance and administration						
Design and approval of academic programs						
Student admission, progression, and certification						
Student assessment						
Faculty performance in terms of teaching and learning						
Faculty performance in terms of research						
Physical resources						
Financial resources						
Student support services						
Information management system						
Public information						
On-going monitoring and cyclical review of programs						
Cyclical external quality assurance/accreditation						
Community Engagement						
Internationalization						

35. Is there a QA unit at your institution? _____

36. When was it established? _____

37. Whom does it directly report to? _____

38. How many staff members are there in the QA unit? _____

39. Does your HEI have a special budget line to support the activities of the IQA? _____

40. When was the last time that the IQA policy was revised? _____

41. What were the main revisions and why? _____

_____

_____

42. Which internal stakeholders are usually involved in your IQA processes? Check all that applies:

	Involved in accreditation procedures	Involved in routine IQA activities	Involved in decision-making on IQA	Involved in the self-evaluation team	Involved through surveys	Not involved
Top level management						
Administrative staff						
Faculty members						
Students						
Alumni						
Other: (please specify)						

43. What is the role of management in the QA? _____

44. What is the role of faculty members in the QA? _____

45. Briefly describe how the IQA works:

_____

_____

46. Which external stakeholders are usually involved in your IQA processes? Check all that applies:

	Involved in accreditation procedures	Involved in routine IQA activities	Involved in decision-making on IQA	Involved in the self-evaluation team	Involved through surveys	Not involved
Employers						
Government (e.g. MoRA)						

Professional associations						
International experts						
Labor market representatives						
Other: (please specify)						

47. What is the cycle of your internal quality assurance reviews? _____

48. What are the approaches to the follow up on the recommendations as a result of internal quality assurance reviews? _____

49. What are the major achievements as a result of internal quality assurance system at the HEI? _____

50. What are the approaches to the follow up on the recommendations as a result of external quality assurance reviews/accreditations?

_____

51. What are the major achievements as a result of external quality assurance reviews/accreditations at the HEI?

_____

52. Do you make your internal quality assurance reports publicly available? _____
   ☐   What are the channels? _____

53. What are the major challenges of the internal quality assurance system?

_____

IV. Finances

This section should be filled in by the staff that is responsible for overall institutional operations **(Vice Rector Administration & Finance)**

54. Annual Budgeting
   54.1 What sources of information do you use to create annual budgets? Who prepares and approves them? How does the founder get involved in budgeting process?
   54.2 Renstra is usually for 5 years. How far ahead do you set budget predictions (how many years in the future)?
   54.3 Does the government audit your annual financial statements?
   54.4 Do you publish your annual financial statements (e.g. website, annual financial reports)?

55. Funding sources
   55.1 What kind of financial support do you receive from MoRA (financial, in-kind, or others)? How big is it as a proportion of operating funds and capital funds? Are the funding allocation criteria clear and fair? How predictable is it? Do you think it is sufficient?
   55.2 What is the proportion of per-student funding versus competitive funding, versus other kinds of government funding?
   55.3 Do you receive support from MoRTHE (financial, in-kind, or others)? Compared to MoRA, who in your experience provides more support? What is the difference?

55.4 What are your funding sources (incl. founders, foreign sources, non-regular courses), and proportion?

55.5 Are you free to identify and implement fundraising activities? What are some fundraising activities that you have done (e.g. night classes, more postgraduate courses, more short courses, business)?

55.6 Is the funding you receive from government earmarked for specific purposes, or can you decide on what to spend it on?

55.7 Do you know how the PNBP target is set?

55.8 Is it difficult to meet the PNBP target? Over the past few years, do you feel that it is getting harder or easier to meet the PNBP target? What happens if you do not meet the PNBP target?

55.9 Can you retain the revenues from fees and use them freely, or you need to submit them to MoRA according to the PNBP target?

55.10 What happens if you run a deficit? Does the ministry provide additional funding to cover deficit?

55.11 What kind of financial support do you think works the best, i.e. per seat, performance, competitive?

56. Tuition fees and student recruitment

56.1 Which institutions do you consider as competitors?

56.2 Where do most of your students come from: local residents, other cities/areas in the same province, other provinces?

56.3 Where do most graduates from your institution find employment: large cities in Indonesia (e.g. Jakarta, Surabaya, Medan), the local area, other cities in the same province, other province? Who sets student numbers for each study program? How do you define cut-off points?

56.4 Who sets the number of students for each study program? What are the criteria?

56.5 Who sets tuition fees?

56.6 If you are setting tuition fees, what factors do you take into account?

56.7 Compared to other institutions in your area, are your tuition fees higher, same, or lower? Why?

56.8 Are tuition fees the same for all study programs (*uang kuliah tunggal*) or different levels depending on study programs?

56.9 If above is *uang kuliah tunggal*, do you think it is a good arrangement?

56.10 What kinds of scholarships do you provide (big groups: merit-based and needs-based) and how large is it as proportion of tuition fee? Sources of scholarships? What is proportion of students on scholarships, and proportion paying full fee?

56.11 Who are your target students (by socioeconomic levels, by background, etc.)?

56.12 In the past five years, have your student numbers increased, remained the same, or declined? Why?

56.13 Do your students take out student loan to pay for tuition fees? If so, who provides the loan?

56.14 How much can a student borrow? Is there any document which describes terms of loans?

56.15 If no, do you think the availability of a student loan will help increase access for needy students? Or, rather than a student loan, they need scholarships?

57. Staff salary

57.1 Who sets salaries for staff? Do you need to follow the government regulations to set them? Are there different allowances (which ones are based on performance)? Roughly, what is the proportion of base salary to total salary?

57.2 Roughly, what is the proportion of your teaching staff that is certified (either by MoRA or MoRTHE)? How does the salary level compare between certified and non-certified teaching staff (other than the certification allowance)?

57.3 What is the minimum wage in your region? What is the proportion of your teaching staff who earn the minimum wage?

57.4 Is the salary level considered to be competitive to get the talents you need?

58. Funding mechanisms

58.1 In your opinion, what are the major problems with governmental allocation of the budget for your organization? Are there specific problems with MoRA and/or MoRTHE allocations?

58.2 What other issues related to finances do you think should be addressed by MoRA?

58.3 Do you pay taxes? If so, what kind?

59. Financial sustainability

What do you think is the best scenario for financial sustainability of your institution?

- o Set tuition fees low for everyone
- o Set tuition fees at a higher level, and provide more needs-based scholarships
- o Other, please, specify

V. Research

This section should be filled in by the staff that is responsible for overall institutional research strategy and operations, doctoral programs, heads of academic programs (e.g. deans, program directors (if any))

60. The HEI offers the following qualifications (check all that applies):
    ☐ Professional doctorate
    ☐ Doctor of Philosophy

61. Title and Location of Research Unit within the institution:

_____

62. Who does the head of the research unit report to? _____

63. How are the research strategies set? _____

64. What are the major research areas? _____

65. How many research units are in this institution?

66. Number of internationally peer-reviewed publications in 2017: _____

67. Number of regionally peer-reviewed publications in 2017: _____

68. Number of nationally peer-reviewed publications in 2017: _____

69. Amount of Resource Allocations for Research and Innovation activities

Year	Amount	From Government (please specify)	From Corporate Sector	From Foundations (please specify)	Institutional Funds	% used up in same Financial Year (FY)
2015						
2016						
2017						
Until June 2018						

70. Range of research grant amounts:

        Lowest _____

        Average _____

        Highest _____

71. Average months taken between proposal submission and research grant transfer _____
72. Sources of research grant allocations (Please, check all that applies)
    - ☐ MoRTHE
    - ☐ MoRA
    - ☐ Other ministries (please, specify)
    - ☐ Corporate organizations
    - ☐ Founders (through donations)
    - ☐ Regional grant awarding bodies (please, specify)
    - ☐ International grant awarding bodies (please, specify)
    - ☐ Within the frames of international collaborations
    - ☐ Donations/sponsorships
    - ☐ Other, please, specify
73. Please provide below general information on all your research projects:

Item	2015	2016	2017	2018	Any remarks
Total no. of projects approved					
Total no. of projects completed					
Of which, Islamic education					
Of which, Humanities and social science					
Of which, Science and technology					
Total no. of research papers published					
i. Local					
ii. # citations					
iii. International					
iv. # citations					
Of which, Islamic education					
i. Local					
ii. # citations					
iii. International					
iv. # citations					
Of which, Humanities and social science					
i. Local					

ii. # citations					
iii. International					
iv. # citations[43]					
Of which, Science and technology					
i. Local					
ii. # citations					
iii. International					
iv. # citations					
Total no. of collaborative research projects					
i. Local					
ii. International					
Total no. of registered patents					
i. National					
ii. International					

74. Training and support for research and publications

   Training programs in planning, conducting and disseminating research are planned and conducted by _____ (name of ministry, agency)
   Annually   _____
   On request _____
   Other   _____

75. Relevant training and support in preparation of publications are provided to academic staff by (please specify): _____
76. Sabbatical leave is available:

Locally		Internationally	
Frequency for further studies	**Frequency for research**	**Frequency for further studies**	**Frequency for research**

77. How do you establish and enhance links between research and teaching and learning at your HEI? _____
78. What are the mechanisms to involve students in research? _____
79. What suggestions and recommendations does your institution have to improve the quality and output of research and publications by academic staff?
80. What are the major challenges linked with local and international research activities?

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[43] Note : if they have worked out average number of citations per paper that would be great. Otherwise we can work it out since we shall have the total number of papers and citations.

VI. Relevance

This section should be filled in by the staff that is responsible for academic programs, student career services, advisory committees (if any)

81. What are the mechanisms to link the study programs you offer with the labor market needs?
82. What are the mechanisms to link the research conducted by your HEI with the labor market needs?
83. How do you measure relevance of your study programs?
84. How do you measure relevance of your research?
85. Typical graduates of your institution go on to the following jobs (starting with the most popular, please, list all the fields in the Labor Market that your HEI typically fills in)

    _____
    _____
86. % of students managing to obtain employment within the major offered by the HEI:
    - ☐ 9 months after graduation
    - ☐ 2 years after graduation
    - ☐ 4 years after graduation
    - ☐ after having additional training elsewhere
87. The institution conducts tracer studies at interval of _____years
88. The last tracer study was completed in _____
89. The findings of tracer studies are shared with (please, check all that applies)
    - ☐ All students
    - ☐ All academic staff
    - ☐ All management and administrative staff
    - ☐ Employer groups
    - ☐ Key NGOs
    - ☐ Key community groups
    - ☐ Relevant government bodies
    - ☐ Alumni
    - ☐ Other (please, specify)
90. Briefly describe the extent to which the findings of the Tracer Study impacted on existing and new study programs

91. What percentage of your curriculum is allocated for internships?
92. Do you have student career services? What are the major functions?
93. Does your institution conduct employer surveys? At what intervals?
94. What is the procedure of handling the major findings?

VII. Internationalization

95. Is the international dimension included in your institution wide vision or mission statement?
☐ Yes ☐ No

96. How does your HEI define internationalization?

97. What are the major aspects of your institutional functioning considered for internationalization? (Check all that applies)
☐ Governance (e.g. inviting international representation on the Board)
☐ Academic staff
☐ Student body
☐ Curriculum
☐ Teaching and learning methodology
☐ Research
☐ Quality assurance
☐ Other, please specify

98. Has your institution formally monitored the progress of its internationalization efforts in the last five years?
☐ Yes ☐ No

99. Does your institution have a special promotion of international education programs/activities in student recruitment packages?
☐ Yes ☐ No

100. Does your institution have guidelines that specify international experience as a consideration in faculty recruitment and promotion?
☐ Yes ☐ No

101. Does your institution apply credit transfer and accumulation system against qualifications offered to ensure that students can participate in study abroad programs without delaying graduation?
☐ Yes ☐ No

102. What are the challenges that are linked with the credit transfer and accumulation system? Does the legal and regulatory framework support it?

103. Does your institution have a body responsible for internationalization? How is it operationalized? (Check one that applies)
☐ International Relations Office (IRO)
☐ Institution wide committee/task force that works solely on promoting internationalization
☐ It is integrated in the functions of all the departments and units
☐ Other, please specify

104. How many full staff members are employed for operationalization of the internationalization mission and the IRO/Committee?

105. Is there an active involvement of academic staff in the decision making by the International Office(s)?
☐ Yes ☐ No

106. Is there an active involvement of students in the decision making by the International Office(s)?
☐ Yes ☐ No

107. Does the IRO have a special budget line in the overall institutional budget?
108. Internationalization of curriculum is done in the following ways:

	Policy in place (yes/no)	The policy is			
		Fully implemented	Partially implemented	Not implemented	Regularly revised
Foreign Language Requirement					
Admission requirements					
Graduation requirements					
Mandatory as part of curriculum					
Integrated in other subjects					
Teaching and learning methodologies					
Comparative studies					
Benchmarking					
Mandatory intercultural communication skills					
Mandatory inclusion of international trends along the subject lines					
International internships					
Internships with international organizations at home					

109. Please list foreign languages that are taught in your institution.
110. What does the language policy at your institution promote?
111. What percentage of students are international students in your institution?
112. Please fill in the following table on the number of full time international students in your institution for the 2017-2018 academic year.

Country	Total	Islamic	Science & Technology	Digital innovations	Humanities	Social Sciences
Total						

113. Does your institution allocate funds for providing scholarships for full-time, degree-seeking international students?
      ☐ Yes ☐ No

114. Does your institution have a class in which the interaction between international and Indonesian students is strategically promoted?
115. Does your institution offer any of the following extracurricular activities to students?
    - Program that pairs Indonesians and international students ☐ Yes ☐ No
    - Meeting platforms and/or events for students to discuss international issues
      ☐ Yes ☐ No
    - Student clubs and associations for international activities
      ☐ Yes ☐ No
116. Has your institution received external funding specifically earmarked for providing scholarships for full-time, degree-seeking international students in the last five years?
    - Government ☐ Yes ☐ No
    - Private (foundations, corporations, alumni) ☐ Yes ☐ No
    - Other (specify _____) ☐ Yes ☐ No

    ☐ Yes ☐ No

117. Please fill in the following table on the number of out-going exchange students for the academic year 2017-2018.

Country	Total	Islamic	Science & Technology	Digital innovations	Humanities	Social Sciences
Total						

118. Please fill in the following table on the number of in-coming exchange students for the academic year 2017-2018.

Country	Total	Islamic	Science & Technology	Digital innovations	Humanities	Social Sciences
Total						

119. Does your institution have funds for students to participate in any of the following international opportunities?
    - Travel to meetings or conferences abroad ☐ Yes ☐ No
    - Study abroad opportunities ☐ Yes ☐ No
    - Work abroad opportunities ☐ Yes ☐ No

120. Does your institution receive external funding specifically earmarked for providing Indonesian students with international opportunities?
- Government ☐ Yes ☐ No
- Private (foundations, corporations, alumni) ☐ Yes ☐ No
- Other (specify _____) ☐ Yes ☐ No
121. What percentage of faculty are international faculty in your institution?
122. Please fill in the following table on the number of international faculty in your institution who came to teach or do research for academic year 2017-2018.

Country	Total	Islamic	Science & Technology	Digital innovations	Humanities	Social Sciences
Total						

123. What is the scope of responsibilities of the international faculty? (check all that applies)
☐ Teaching
☐ Research
☐ Supervising students
☐ Other, please, specify
124. Please fill in the following table on the number of faculty in your institution who traveled abroad to teach and/or conduct research in academic year 2017-2018?

Country	Total	Islamic	Science & Technology	Digital innovations	Humanities	Social Sciences
Total						

125. Please fill in the following table on all the joint projects with foreign higher education institutions undertaken in 2017 in your institution.

Project title	Partner		Funding		
	Institution	Country	Source	Period	Total amount (Rp.)

126. Does your institution allocate funds for faculty to participate in any of the following international activities?
- Teaching at institutions abroad ☐ Yes ☐ No
- Travel to meetings or conferences abroad ☐ Yes ☐ No
- Study or conduct research abroad ☐ Yes ☐ No
127. Does your institution receive external funding specifically earmarked for providing faculty with international opportunities?
- Government ☐ Yes ☐ No
- Private (foundations, corporations, alumni) ☐ Yes ☐ No
- Other (specify _____) ☐ Yes ☐ No
128. Please list major challenges in internationalization of your HEI activities

Appendix 3: List of Eight Sample HEIs

Name	Syarif Hidayatullah State Islamic University Jakarta	Sunan Ampel State Islamic University Surabaya	Sunan Gunung Djati State Islamic University Bandung	Batusangkar State Islamic Institute	Al-Qolam Islamic Institute	Tazkia School of Islamic Economics	University of Garut	Malang Islamic University
Type	public university	public university	public university	public institute	private institute	private academy	private university	private university
Permit issued by	MoRA	MoRA	MoRA	MoRA	MoRA	MoRA	MoRTHE	MoRTHE
Year established	1957	1965	1968	2015	1998	2001	1998	1981
Location	Jakarta	City of Surabaya, East Java	City of Bandung, West Java	City of Batusangkar, West Sumatra	Malang Regency, East Java	Bogor, West Java	Garut Regency, West Java	Malang City, East Java
Total number of full-time students	28,132	17,670	26,180	7,405	1,685	1,353	4,274	12,751
Total number of part-time students	0	0	0	0	0	0	876	0
Total number of academic staff	972	609	805	188	64	57	192	338

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