Universiti Putra Malaysia

SELF-REVIEW PORTFOLIO

for

Institutional Maintenance Audit
of Self Accreditation Status | 2020

PART C

CRITERIA AND STANDARDS FOR SELF-ACCREDITING INSTITUTION

Universiti Putra Malaysia Self-Review Portfolio
for Institutional Maintenance Audit
of Self Accreditation Status 2020

AREA 4

Continual Quality Improvement and Sustainability

Universiti Putra Malaysia Self-Review Portfolio
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AREA 4

CONTINUAL QUALITY IMPROVEMENT AND SUSTAINABILITY

		Supporting Document
4.1	**MECHANISMS FOR PROGRAMME MONITORING, REVIEW AND EVALUATION**	
	UPM policy on programme monitoring, reviewing and evaluation has resulted in programme improvement and enables it to overcome current and future challenges. **(4.1.1)**	
a.	**Policy on Programme Monitoring, Review, and Evaluation**	
4.1.1	**The HEP must have policy on monitoring, reviewing, and evaluating its programmes, covering the need and/or benchmarking analysis, teaching-learning activities, student assessment, administration, and related educational and support services, which must be regularly reviewed and updated.** The policy on monitoring, review and evaluation of academic programmes is outlined in the Quality Management System (QMS) in practice at the University (*Prosedur Pembentukan Program Baharu dan Semakan Semula Program Prasiswazah (UPM/PU/PS/P001) dan Prosedur Semakan Semula Kurikulum Program Pengajian Siswazah* (UPM/PU/S/P003). **(Appendix 4.1.1 a and 4.1.1 b)** The Quality Policy of UPM approved by the Chairman of LPU in **Appendix 4.1.1 c** encompasses the core activities, including the scope of teaching and learning. UPM's QMS is based on MS ISO 9001:2015, and UPM has been certified to ISO 9001 since 2011 for the scope of "teaching and learning services at tertiary level". The latest certification is valid from 20th August 2018 to 6th July 2021. All procedures, including work directives, guidelines, forms, and logs for development, monitoring, and evaluation of undergraduate and postgraduate programmes, are accessible online via the University's e-ISO Portal (http://reg.upm.edu.my/eISO).	**Appendix 4.1.1 a** **Refer to 2.1.1 a** *Prosedur Pembentukan Program Baharu dan Semakan Semula Program Prasiswazah* **Appendix 4.1.1 b** **Refer to 2.1.1 c** *Prosedur Semakan Semula Kurikulum Program Pengajian Siswazah* **Appendix 4.1.1 c** UPM Quality Policy **Refer to the link :** MS ISO 9001:2015 UPM ISO Certification

		Supporting Document
	The Centre for Quality Assurance (CQA) was established directly under the Vice Chancellor's office to oversee the overall QMS implementation, including programme monitoring, review, and evaluation. Details and flow charts of the procedures are shown in **Appendix 4.1.1 a** and **4.1.1 b.** The QMS is audited yearly by an independent third party to ensure continual quality improvement. Findings from the audits are used to improve the existing policies involving: a) monitoring, b) review and evaluation, c) covering the need and/or benchmarking analysis, d) teaching-learning activities, e) student assessment, f) administration and related educational, and g) support services CQA is responsible for updating the owner of the programmes based on the requirements (circular and notification letters) of MQA and KPM to be considered during the review process. As part of continual improvement efforts, programmes offered at each faculty are reviewed before reaching one full cycle of three (3) to five (5) years or depending on the current and latest policies, for instance, the revision of the programme standard, which requires changes and review of the curriculum. This is to ensure that the curricula offered are relevant to the current job market and the needs of the nation. Individual instructors (lecturers or teaching assistants) may review the course content, delivery, and assessment without compromising the course synopsis and LOs. Reviewing and updating the programmes were based on the latest and current policies and information from MQA, JPT, CEM, Board of Studies and internal and external stakeholders' feedback. These changes are reflected in teaching plans submitted to Head of Department for endorsement.	

		Supporting Document
b.	**Processes and Outcomes of Programme Monitoring, Review, and Evaluation**	

The programme monitoring, review, and evaluation are exercised through various committees at department, faculty, and University levels and overseen by the Dean as programme owner **(4.1.2).** Various parties are consulted for programme monitoring, review, and evaluation, including students, academic staff, external assessors, alumni, industry representatives, and professional bodies **(4.1.3).** The results of the programme review and evaluation as well as the recommendations and areas of improvement are brought to the UPM Senate and LPU meeting to ensure further appropriate measures being taken to effectively address the gaps **(4.1.4).**

| 4.1.2 | **The programme monitoring, review and evaluation exercises must be headed by designated coordinators and must involve all parties managing the programme, including collaborative partners, if applicable.**

The programme monitoring, review, and evaluation are exercised through various committees at department, faculty, and University levels and overseen by the Deans as programme owners. Various parties are consulted for programme monitoring, review, and evaluation, including students, academic staff, external assessors, alumni, industry representatives, and professional bodies. Their views are solicited through their involvement in market surveys, exit surveys, alumni meetings, academic programme committee meetings, and employer surveys. They provide advice, comments, suggestions and recommendations on the curriculum contents and enhancement, evaluation, and improvement of programmes. **(Appendix 4.1.2 a, 4.1.2 b and 4.1.2 c)**

The programme development and review include the essential input provided by various parties including:
• External assessors
• Programme Advisory Committee
• Professional bodies

The documents related to this process are listed in the *Prosedur Pembentukan Program Baharu* dan *Semakan Semula Program Prasiswazah* (UPM/PU/PS/P001) and *Prosedur Semakan Semula Kurikulum Program Pengajian Siswazah* (UPM/PU/S/P003). (Refer to **Appendix 2.1.1 a and 2.1.1 c)**

Programme delivery performance and outcome mechanisms are monitored through:
• Teaching assessment, blended learning, laboratory survey, and practical survey and to gauge lecturers and students' performance in their programmes of study and satisfaction with facilities provided by UPM, using the Putra Learning Hub (http://learninghub.upm.edu.my/) | **Refer to the link :**
Perintah Universiti dan Kolej Universiti (Pengubahan dari penambahan kepada Perlembagaan Universiti Putra Malaysia) 2010. (Tanggungjawab Dekan perkara 24 (4).

Appendix 4.1.2 a
Example of External Assessor's Appointment Letter and TOR

Appendix 4.1.2 b
Example of Report from External Assessor

Appendix 4.1.2 c
Example of Minute of Board of Studies |

		Supporting Document
	• Programme Outcome Summary Evaluation (POSE) using the Putra Outcome Based Education (PutraOBE) Reporting System (http://putraobe.upm.edu.my/putraobe/) • Tracer Study to determine the employability of graduates six months after graduation **(Appendix 4.1.2 d)** • Employer satisfaction survey **(Appendix 4.1.2 e)** The outcomes of these processes are included in the development and review programme document submitted to the Senate for approval and informed to LPU **(Appendix 4.1.2 f).**	**Appendix 4.1.2 d** Example of Tracer Study Report **Appendix 4.1.2 e** Example of Employer Satisfaction Survey **Appendix 4.1.2 f** Sample of Curriculum Programme Review Document
4.1.3	**The review and evaluation processes for programmes must include student progression and performance analysis, covering the passing, attrition, and employability rates, and review by the programme external advisors to ascertain attainment of the learning outcomes and must be performed with sufficient impartiality.** Review and evaluation of the student performance and progression to ascertain the attainment of learning outcomes through the use of PutraOBE. The results of the PutraOBE outcomes are discussed at the University Curriculum Committee (JKKU/JKPSU). This process is part of the continuous improvement cycle for each academic programme. External assessors are appointed for each programme and provide independent feedback on the level of attainment of students and make recommendations for improvement of the programme curriculum, infrastructure, facilities, and related support systems. Their reports are discussed at the faculty level for appropriate action to be taken before being submitted to the Vice Chancellor and presented to the Senate. **(Appendix 4.1.3 a)** Faculties at UPM utilise the outcomes of student performance analysis to provide feedback on student selection, curriculum planning, and student counselling. Analysis of student performance indicates whether students with certain qualifications at entry level are able to cope with the academic demands of a specific programme and whether adjustments to the admission criteria and student selection are necessary. Based on tracer studies conducted by CEM, UPM initiates relevant initiatives to enhance graduate employability. These studies include examining the students' progress after graduation, especially based on their final academic performance. Among the specific initiatives that have been	**Appendix 4.1.3 a** Example of Minute Meeting on Programme External Assessor Report

		Supporting Document
	provided to students based on the results of these studies are the Starting and Finishing Schools (Putra Success and Putra Excellence since 2018) and co-curricular courses that cater to personality and soft skills development conducted by Co-Curriculum and Student Development Centre. Data on employability of graduates (average percentage of Top 5 faculties) also influence curriculum review and restructuring of programmes. **(Appendices of 4.1.3 b and 4.1.3 c)**	**Appendix 4.1.3 b** Minute of Senate Meeting on Programme Assessment/ Evaluation **Appendix 4.1.3 c** CEM Report on Graduate Employability 2017-2019
4.1.4	**The results of the programme review and evaluation as well as the recommendations and areas of improvement must be brought to the attention of the highest relevant authorities in the HEP.** The results and recommendations of the programme review and evaluation, and related actions, are discussed at the departmental, faculty and the highest academic body of the University, i.e. the Senate. **(Appendix 4.1.4)**	**Appendix 4.1.4** **Refer to 4.1.2 f** Sample of Curriculum Programme Review Document
4.2	**INVOLVEMENT OF STAKEHOLDERS**	
	The programme review and evaluation exercises involve relevant stakeholders, including alumni, employers, external experts as well as students and the feedback is systematically documented, analysed and considered in the curriculum and the changes are disseminated. **(4.2.1)**	
4.2.1	**The programme review and evaluation exercises must involve relevant stakeholders, including alumni, employers, and external experts and the feedback must be systematically documented, analysed, and considered in the curriculum, and the changes be disseminated.** Various stakeholders are involved in the review and evaluation of the programmes in UPM. All feedbacks are formally documented, analysed, and considered in the curriculum review and the changes are disseminated. The essential input provided by the stakeholders includes the following: **(Appendix 4.2.1 a)** • External assessors - UPM appoints internationally recognised professors who are experts in specific fields of study. They are appointed for a period of three (3) years and are invited for scheduled visits to UPM. Among their responsibilities is the assessment of programmes which includes evaluation of curriculum, academic staff, students, examination questions and	**Appendix 4.2.1 a** **Refer to 4.1.2 f** Sample of Curriculum Programme Review Document

	Supporting Document
answers, infrastructure, facilities, and related support systems. Their reports are discussed at the faculty level for appropriate action to be taken before being submitted to the Vice Chancellor and presented to the Senate. **(Appendix 4.2.1 b)**	<u>**Appendix 4.2.1 b**</u> **Refer to Appendix 4.1.2 b** Example of Report from External Assessor
• Board of Studies - Each programme is required to have its own Programme Educational Committee comprising industry captains and key personnel in private and public organisations who are able to provide input for the improvement of the programmes. The members of the committees consist of external stakeholders including academic experts and representatives from governmental and private organisations **(Appendix 4.2.1 c).**	<u>**Appendix 4.2.1 c**</u> Example of Board of Studies Committee (Senate Paper 648/13)
• Professional bodies - To fulfil professional requirements, programmes are reviewed and continuously monitored by accreditation bodies. Accreditation is based on fulfilment of criteria such as quality and quantity of academic staff; adequacy of infrastructure, financial resources and equipment, students' entry requirements and the relevancy of the curricula. Examples of relevant professional bodies to the University are the Board of Engineer Malaysia, Board of Architecture Malaysia, The Malaysian Institute of Certified Public Accountants, and Conjoint Board.	
• UPM alumni - Involved in programme review and evaluation by providing feedback on the quality of the programmes, curriculum development, and the accreditation of specific programmes to ensure that these remain relevant to the country's human resource and societal needs. The participation of alumni in the design and development of programmes is also encouraged by seeking their feedback through social media such as Facebook, Twitter, and Instagram.	
The feedback from the various stakeholders will be analysed within the departments and faculty meetings and systematically documented. The outcome of the analysis is incorporated as part of the content in programme review documents. The documents go through several committees in a process of revision and improvement prior to submission to the Senate for consideration and approval. The committees involved are JKKU/JKPSU and the Senate. The final programme document is then approved by the Senate and will be notified to LPU.	
Stakeholder input is also regularly obtained through industrial placement, external examiner, alumni, and students' course assessments among others.	

		Supporting Document
4.3	**QUALITY IMPROVEMENT AND ENHANCEMENT**	

UPM regularly reviews and updates its internal quality assurance activities **(4.3.1)** through participatory and cooperative process across all levels to ensure continual quality improvement for all its core processes and to take continuous efforts in keeping abreast with the changes and best practices in quality assurance (**4.3.2 and 4.3.3).** Significantly, UPM's mechanisms to implement recommendations for quality improvement and quality enhancement plans are dynamically linked to the achievement of the institutional goals and to the accomplishment of the strategic plans **(4.3.4).**
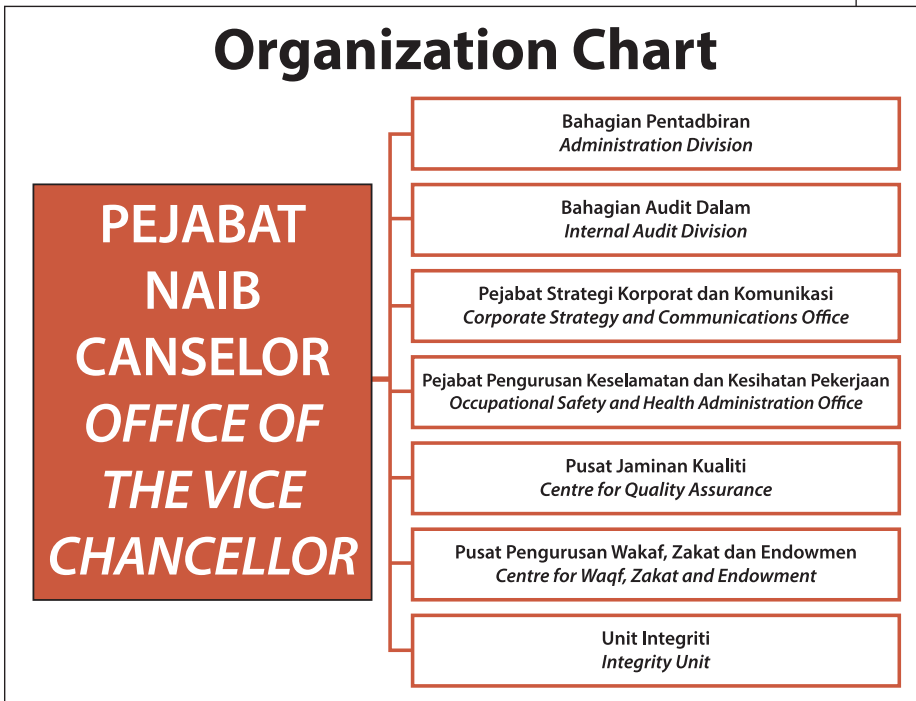
4.3.1	**The HEP must establish policies and procedures for regular reviewing and updating of its internal quality assurance system and processes to ensure continual quality improvement.**	

One of the elements of an autonomous institution is the existence of a sound quality management system dedicated to continual quality improvement (CQI) of the institution, its components, and its processes. Since 2000, UPM has in place a Quality Management System (QMS) Through its Internal Quality Assurance (IQA) activities, QMS serves to ensure that the University continually monitors and improves itself, particularly in terms of the alignment of its educational goals with its vision and mission, and in terms of its achievement of those goals.

UPM applies the MS ISO 9001:2015 which stipulates that a management review of the QMS is to be carried out at least once within a period of twelve (12) months to ensure the suitability, adequacy, and effectiveness of the QMS through Management Review Meeting (MKSP) and Quality Committee Meeting *(JK Kualiti)* quarterly. The MKSP's plans and execution considers:

a) the status of actions from previous management reviews;
b) changes in external and internal issues that are relevant to the quality management system;
c) information on the performance and effectiveness of the quality management system, including trends in:
   1) customer satisfaction and feedback from relevant interested parties;
   2) the extent to which quality objectives have been met;
   3) process performance and conformity of products and services;
   4) nonconformities and corrective actions;
   5) monitoring and measurement results;
   6) audit results;
   7) the performance of external providers;

		Supporting Document
	d) the adequacy of resources; e) the effectiveness of actions taken to address risks and opportunities (see 6.1); f) opportunities for improvement. **(Appendix of 4.3.1 a)** The output of the MKSP will include decisions and actions related to: a. improvement of the effectiveness of the policies and procedures, b. improvements to services related to customer needs, and c. resource requirements. The University's IQA activities are thus designed to ensure that the core activities of the University meet the needs of its various stakeholders or clients. The QMS reviews and updates these monitoring activities in response to the changing needs of the clients. **(Appendix 4.3.1 b)** As for the requirement in reviewing and revising all documents as stated in *Prosedur Pengurusan Dokumen ISO*, all documents need to be revised at least once every five (5) years in order to assure the relevancy and needs of the documents to the current policies and practices. This procedure also explains the process of production, approval, maintenance, and disposal of all documents to ensure the use of documents is up-to-date. UPM has established CQA to support the management of the University in proposing an appropriate quality management system for implementation, providing assistance for internal auditing, monitoring the progress of action plans, identifying corrective actions, proposing preventive actions, and providing the JPU with input on the above for further actions.	**Appendix 4.3.1 a** Prosedur Mesyuarat Kajian Semula Pengurusan UPM/PGR/P008 **Appendix 4.3.1 b** **Refer to Appendix 1.5.2 a** *Prosedur Pengurusan Dokumen ISO* UPM/PGR/P001
4.3.2	**The HEP must have an independent department or unit dedicated to and responsible for the internal quality assurance system that gives a prominent status with the direct line of reporting to the head of the institution or the governing board.** UPM established the CQA on 1st November 2015 which is responsible for the IQA system in UPM. CQA was set up as an independent centre directly under the Vice Chancellor's Office reporting directly to him on all quality matters. **(Figure 4.3.2)** CQA encompasses the ISO certification, self-accreditation activities, and related quality programmes and activities.	**Refer to the link :** Organisational Structure of CQA

		Supporting Document
	CQA is responsible for strengthening the quality culture among UPM staff, for instance, the 5S/EKSA, annual quality appreciation programme i.e *Hari Kualiti Inovasi dan Inovasi Perkhidmatan* (HKIP). CQA has two (2) divisions in CQA which are the Quality Service Management Division and Academic Quality Management Division which ensure and maintain the quality culture. **(Appendix 4.3.2)** **Figure 4.3.2 :** Structure of CQA under VC's office	**Appendix 4.3.2** Functions of CQA

Organization Chart

- PEJABAT NAIB CANSELOR *OFFICE OF THE VICE CHANCELLOR*
  - Bahagian Pentadbiran *Administration Division*
  - Bahagian Audit Dalam *Internal Audit Division*
  - Pejabat Strategi Korporat dan Komunikasi *Corporate Strategy and Communications Office*
  - Pejabat Pengurusan Keselamatan dan Kesihatan Pekerjaan *Occupational Safety and Health Administration Office*
  - Pusat Jaminan Kualiti *Centre for Quality Assurance*
  - Pusat Pengurusan Wakaf, Zakat dan Endowmen *Centre for Waqf, Zakat and Endowment*
  - Unit Integriti *Integrity Unit*

| 4.3.3 | **The HEP must promote quality culture through participatory and cooperative processes across all levels in order to assure quality in education, research, service, and management of the institution.**

UPM cultivates and strengthens quality culture through periodic activities for all officers at UPM. For new officers, the Quality Management slot a slot in *Program Transformasi Minda*. For existing officers, awareness and refresher sessions on quality activities are implemented at the PTJ level.

Activities towards cultivating quality culture among UPM staff for instance *Ekosistem Kondusif Sektor Awam* (EKSA), *Kumpulan Inovatif dan Kreatif* (KIK), Lean Management programme, and innovation activities for products and services are also carried out at the PTJ level.

Quality culture is perceived as significant and has been one of the core areas in UPM training management. CQA is responsible for organising this core area of training. Training on auditing skills for the University's internal auditors concerning ISO and academic programme audits organised annually are intended to strengthen audit skills | |

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	and continuously heighten the culture activity among staff. Awareness of quality management is also carried out at the PTJ and University level specifically related to the latest standards. Deputy Management Representatives (TWP) are appointed from each PTJ and provide input on issues and recommendations for improving processes and services. UPM also gives due recognition on the aspect of quality in education, research, service and management through annual quality programs at the University level for instance *Hari Kualiti dan Inovasi Perkhidmatan* (HKIP), *Majlis Gemilang Akademia Putra* (MGAP), *Majlis Gemilang Putra* (MGP) and *Majlis Apresiasi Penyelidikan.*	
4.3.4	**The HEP must have mechanisms to implement recommendations for quality improvement and quality enhancement plans, which must be linked with the institutional goals.** UPM has developed mechanisms to implement recommendations for quality improvement and quality enhancement plans, which are linked to the institutional goals. These recommendations are the outcomes of audits, suggestions, complaints or evaluations carried out on particular aspects of teaching, learning, research, services, management, and also feedback from UPM staff and also stakeholders. Under the Prosedur Pengurusan Maklum Balas Pelanggan all types of feedback including complaints (except disciplinary cases, maintenance/ damage of equipment such as ICT tools and occupational safety and health), awards, inquiries, and suggestions received through the online Customer Feedback System (the u-response system) and Customer Satisfaction Survey via Google form at PTJ level. Monitoring of customer feedback is carried out comprehensively by the *Penyelaras Khidmat Pelanggan University* (PKPU) at the University level and T*imbalan Penyelaras Khidmat Pelanggan Universiti* (TPKP) and is reported periodically at UPM Quality Committee Meetings and UPM Management Review Meetings **(Appendix 4.3.4 a, 4.3.4 b and 4.3.4 c)** Audit findings from the Internal Audits which are held annually, will continuously improve operational activities by highlighting recommendations of Nonconformity (NCR) and Opportunity for Improvement (OFI). Monitoring for the implementation of OFI actions is exhaustively carried out by the *Penyelaras Audit Dalaman Universiti* (PAD) at the University level along with *Timbalan Penyelaras Audit Dalaman* (TPAD) controlling at the PTJ level. The report on the implementation of all recommendations will be tabled in UPM Quality Committee Meetings and UPM Management Review Meetings. For the audit	**Appendix 4.3.4 a** UPM Quality Assurance Structure **Appendix 4.3.4 b** *Prosedur Pengurusan Maklum Balas Pelanggan* UPM/SOK/PEL/P001 **Appendix 4.3.4 c** *Laporan Kepuasan Pelanggan dan Maklum balas Pihak Berkepentingan UPM*

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findings on the academic programme accreditation, the fundamental recommendation will be then presented in Self-Accreditation Committee Meeting (JKSPP) prior to the Senate Meeting. UPM'S KPI performance which is related to UPM's strategic goals is also presented in its quarterly workshop and MKSP in order to gain recommendations and feedback. All recommendations as mentioned are related to UPM's strategic goals and have been standing agendas in MKSP and *JK Kualiti*.	

4.4	**INSTITUTIONAL SUSTAINABILITY**

	UPM has institutionalised the strategic and internal processes **(4.4.1),** which enable it to address the latest global development and future challenges in enhancing its global position and recognition **(4.4.2)**.

| 4.4.1 | **The HEP's strategic and internal processes, including governance, capacity building, and quality assurance activities, must be institutionalised and supported by the highest authority in the HEP to ensure effective implementation and sustainability.**

HEP's strategic and internal processes were institutionalised and supported by UPM's top management in ensuring the effectiveness of the implementation and sustainability of the education system in UPM.

Quality Management System (QMS), the Information Security Management Systems (ISMS) and the initiatives for continuous quality improvement (CQI) processes of the University further assist the top management and all the academic leaders to carry out their responsibilities by providing clear and specific guidelines. Such accountability to the top management has been outlined in Standard ISO 9001:2015, Clause 5: Leadership (5.2.1) which states that 'Top Management shall establish, implement and maintain the quality policy'.

Quality Assurance and Improvement Processes In UPM

Internal quality assurance was constantly monitored, evaluated, and reviewed to ensure institutional sustainability in UPM. UPM has institutionalised quality assurance and improvement of every academic programme and other related activities in outstanding research and extension outputs and impacts. Sound quality assurance initiatives | |

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have made UPM very competitive nationally and internationally.

UPM has succeeded in maintaining QMS 9001:2015 since 2011 **(Figure 4.4.1 a)**, ISMS since 2013 **(Figure 4.4.1 b)** and standing as a self-accredited University since 2010 **(Figure 4.4.1 c)** which have proven UPM's solid and robust internal quality assurance system

The comprehensive scope of ISO quality system standards embraces all of UPM's activities in teaching and learning, research and innovation, and support services which contributes to the achievement of the strategic goals. This was achieved through the active involvement of dedicated and qualified staff, students, and stakeholders in ensuring the CQI processes are well implemented. To effectively implement CQI, CQA is responsible to monitor, implement and ensure the internal quality assurance system in UPM is formally and systematically executed.
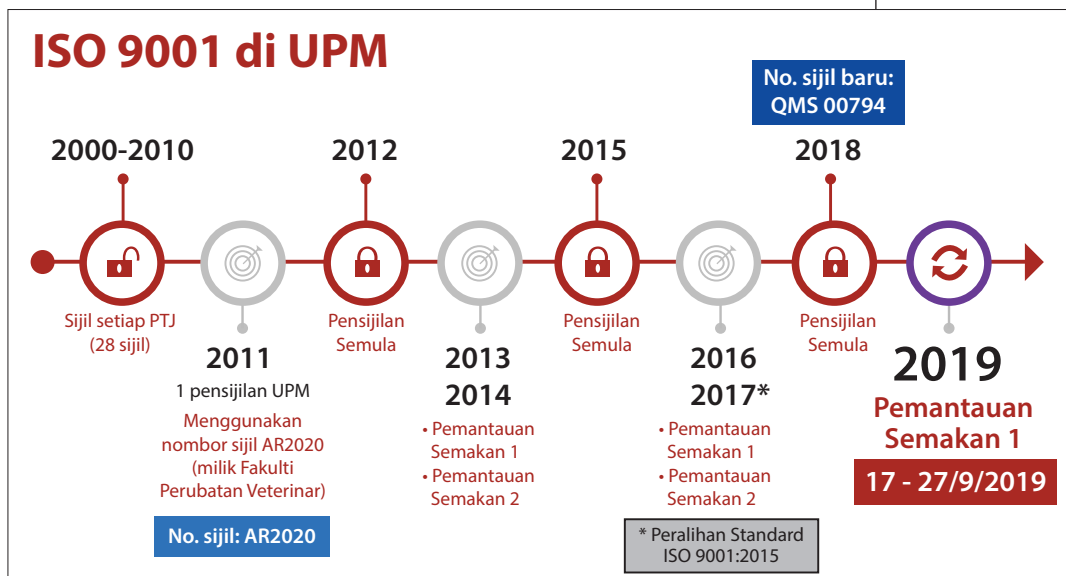
Figure 4.4.1 a: Maintenance Phase for QMS UPM

Figure 4.4.1 b: Maintenance Phase for ISMS UPM

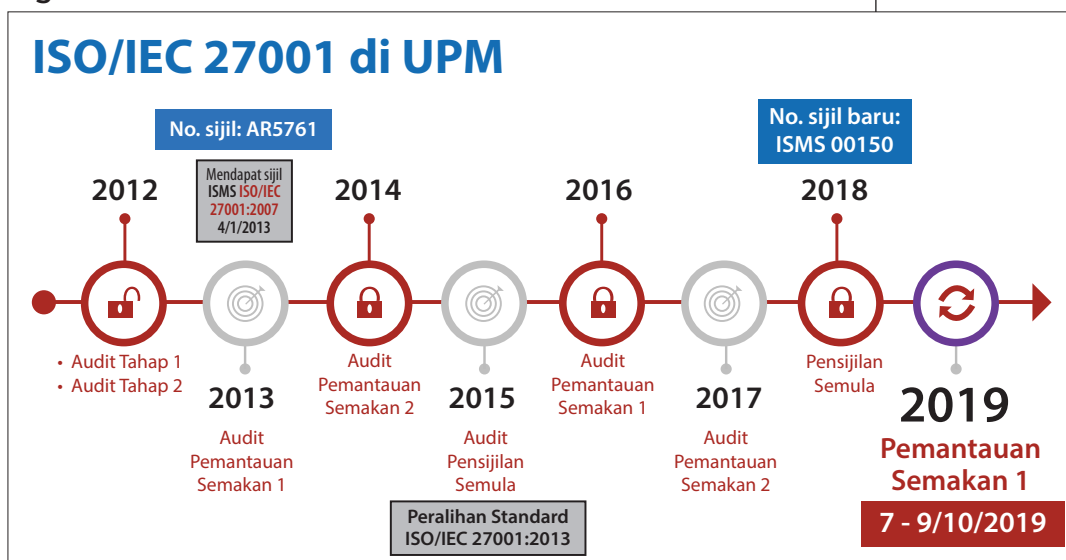|	Supporting Document

Figure 4.4.1 c: Self-Accreditation Status of UPM

In implementing CQI at the institutional level, UPM management focuses on the effectiveness of the strategic improvement plan, and continuously strengthens the internal quality assurance system in terms of administrative structure, leadership and governance, planning and monitoring, and review mechanisms. **Figure 4.4.1 d** shows the integrated and continual process of CQI in UPM with the commonly used model PDCA (Plan, Do, Check, and Act) cycle. With the new standard of ISO 9001:2015, the requirement of having risk-based thinking has enabled UPM to determine factors that could affect and deviate its planned results, put in place preventive controls, and make maximum use of opportunities.

**Figure 4.4.1 d:** UPM's Quality Management Systems Framework

		Supporting Document
	As seen in **Figure 4.4.1 d**, under the QMS new standard, UPM analyses external issues including the government policies, global and national development in higher education requirements, global and market trends, internal issues, and customer and stakeholder's needs which further defines a process that takes into account risk-based thinking. This vital input of planning contributes to the achievement of the University's strategic plan goals, and services that meet customer satisfaction and statutory requirements and regulations. The information for the planning stage is gathered by analysing internal and external issues and expectations. The input from the interested parties and their expectation is significant and relevant to UPM as these parties are recognised as the internal and external stakeholders involving the graduates and potential students anticipating quality accredited academic programmes. At the implementation level, the strategic goals and key performance indicators (KPIs) are reviewed and monitored through regular MKSP and performance evaluation quarterly workshops to achieve the mission and vision of UPM as desired outcomes. UPM is also responsible for formulating policies, quality objectives, planning and conducting management reviews. UPM identifies the necessary resource allocation to implement and improve the SPK process. The allocation of these resources includes a qualified workforce, suppliers, information and infrastructure, work environment, and financial resources. In producing quality services, UPM has identified key processes involving teaching and learning activities for pre-University, undergraduate, and graduate level, research management, and support services. For outsourcing services such as external examiners, part-time lecturers, scheduled waste disposal, and others, UPM ensures appropriate controls to meet customer requirements, legislation and regulations. The type and level of control have been stated in the relevant QMS document. **Entities Responsible for CQI** To ensure effective implementation of CQI, proper governance and committee structure have been established to support the implementation for decision-making purposes. Entities and committees responsible for CQI in UPM involve almost entire PTJs as shown in **Appendix 4.4.1 a.** The ISO standard clause 5.1.1 Leadership and Commitment, as shown in **Appendix 4.3.1**, stipulates that the Vice Chancellor of UPM leads the quality assurance organisational structure encompassing QMS and ISMS,	**Appendix 4.4.1 a** **Refer to 4.3.4 a** UPM Quality Assurance Structure

		Supporting Document
	and risk management with the director of CQA as the Management Representative. The involvement of top management in the CQI system implies the commitment of the highest authority in assuring quality. To ensure the quality assurance at various levels for ISMS, core processes *(peneraju proses)*, and respective PTJs, Deputy Management Representative (TWP) is appointed. As for the academic quality assurance management system, it involves five (5) entities : CQA, Academic Admission Division and Academic Governance Division (BK & BAKD), Graduate School of Studies (SGS), Center for Academic Development (CADe) and faculties. Clear and specific accountability helps these five (5) entities perform their responsibilities in ensuring compliance and adherence to the MQA standards and policy set up by the Senate **(Appendix 4.4.1 b)** **Management Review for CQI** Regular review of the quality system is required to discuss the functioning of the quality system. UPM MKSP meeting that is held once a year requires top management to periodically review its internal activities involving the University's vision, mission, and strategic goals, quality policies, procedures for all operational activities, and risk management report to ensure continuing suitability, adequacy, effectiveness, and alignment with the strategic direction of UPM. Input of the review will be formally discussed and approved at the JK Kualiti twice a year and for the performance of UPM strategic goals through the quarterly workshops. The working committee of QMS and ISMS are responsible to report its CQI activities in the Quality Committee Meetings. The management structure in monitoring and reviewing in UPM is shown in **Appendix 4.4.1 a.** **Risk Management and Governance in UPM** UPM has developed Risk Management System that consists of risk profiling, risk evaluation, risk management plan, risk monitoring result, risk communication, and systematic process of risk management and governance. The working Risk Management system is designed with five (5) main categories of risks known as strategic risk, operational risk, financial risk, knowledge management risk, and legal risk. The highest level of the Risk Management System at UPM is governed by the University Risk Management Committee chaired by the representative of UPM's Board of Directors (LPU), the University Risk Management Coordinating Committee chaired by the Director of PSPK, Operational Risk Committee coordinated by CQA, and the PTJ Risk Management Committee chaired by officers appointed by	**Appendix 4.4.1 b** UPM Academic Quality Assurance Structure

	Supporting Document

the respective Heads of PTJs. The framework of UPM risks encompasses Risk Management Policy, guidelines on risk management, University risk register, and University Risk Management Committee in monitoring and reviewing risk profiles and official reports on risk as depicted in **Figure 4.4.1 e.**

Figure 4.4.1 e: UPM's Committee for Risk Management
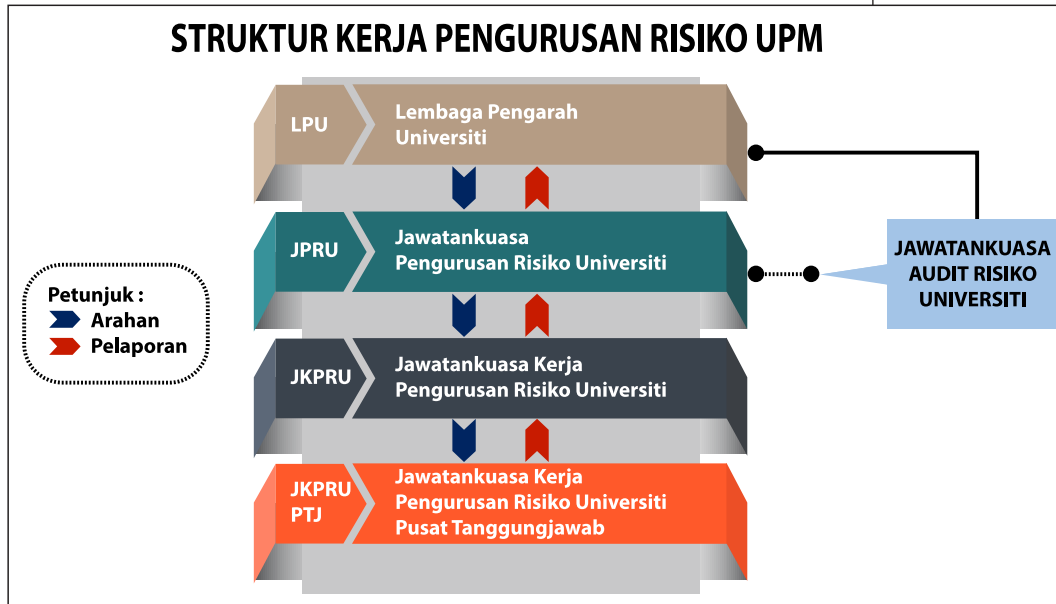
The objectives of UPM Risk Management are to:
a) ensure that UPM has a comprehensive risk management framework to identify, understand, and manage risk diversification
b) increase accountability, decision-making and transparency process
c) support effective and efficient resource management
d) support the implementation of the *Pelan Strategik UPM*
e) ensure that strategic measures and effective actions that can be taken to reduce the risk effects and reduce the risks that can hinder and affect the achievement of UPM goals.

UPM Risk Management Policy and Guideline

The Risk Management policy affirms the University's strategic commitment to build a risk management culture that effectively manages the identified risks and opportunities. UPM acknowledges that to achieve strategic objectives, risk measurement must be acceptable and appropriate.

The UPM Risk Management Guidelines were developed to guide all UPM Responsibility Centers (PTJ) in managing the risk of each activity at PTJs by ensuring that threats or risk opportunities can be managed effectively towards the

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achievement of University goals. These Risk Management Guidelines contain three (3) approaches: i. Identify the risks that UPM may reasonably face by using appropriate techniques which are relevant to the nature of the risk. ii. Analyse the risks that have been identified to determine the contributing factors and the impact of those risks. iii. Control the level of risk to ensure that the risk is well-managed. The Risk Management report include strategic risk, operational risk, and compliance risk (OSH) that will be tabled to the UPM Risk Management Working Committee Meeting (JKPRU) chaired by the PSPK Director and subsequently brought to the UPM Risk Management Committee (JPRU) chaired by the Representative of The University Board of Directors (LPU). The JKPRU holds meetings twice a year, monitoring reports for the first half of the year (Q2) and risk reporting for the second half (Q4), while the JPRU convenes at least once a year. Comprehensive and structured risk management is vital and significant as it has a direct impact on the achievement of UPM's KPIs and *Pelan Strategik UPM 2014 – 2020*.	**Refer to the link :** *Garis Panduan Pengurusan Risiko*

4.4.2	**Sufficient resources for establishing and maintaining an effective and sustainable quality culture within the institution must be provided.** **Human Resource** CQI and quality culture can be sustained by having adequate and sufficient resources specifically on human resource and financial capability. UPM's success and achievements in recent years were contributed by 5,650 staff comprising faculty and administrative support staff at all levels. The CQI initiatives' reliance on quality human resource management involves strengthening the employment and development policy by focusing on proficiency in the respective field for academic expertise and the ability to execute multitasking jobs of the administrative activities. **1. Academic Staff** In line with the vision to become a University of international repute, UPM requires that the academic staff member possesses a Ph.D. qualification or its equivalent, except for staff in the fields of architecture and medicine. To overcome difficulties in recruiting suitable PhD holders in certain specialisations, the University introduced the *Tenaga Akademik Muda* (TAM) scheme in 2013 to ensure	

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continuous successions and recruitments of academic staff. Notably, UPM achieved 92.7% academic staff with Ph.D. qualifications which is currently the highest among other Malaysian higher education institutions.

Succession plans and sustainable ecosystems of the faculties are part of the *Pelan Strategik UPM 2014-2020* which specifies the lecturer-student ratios as 1:10 for undergraduate and 1:4 postgraduate programmes (Masters without thesis) respectively. To meet this requirement, the University employs contract, part-time, adjunct, and visiting staff where necessary.

Since 2011, , the University has practised flexibility in setting the *Sasaran Kerja Tahunan* (SKT) for academic staff to effectively utilise the strengths of individual lecturers. Every lecturer must fulfil three (3) basic functions: teaching, research, and professional services. UPM also emphasises contributions to society and the nation. The weightage for each function can vary within the range provided, and this is indicated in their SKT which must be agreed upon by the faculty management.

2. Administration and Support Staff

UPM is committed to strengthening its human resource capabilities and development particularly with the administrative and support staff to an optimum level to ensure the best quality services are given to the internal and external stakeholders. This principle is vital to materialise the UPM strategic goals in enhancing the good governance of human resource performance.

Training and Development Programme for Administrative and Support Staff

The implementation of staff training and development programmes by the Registrar Office emphasises the enhancement of knowledge, competency, work skills, and attitude (KSA - Knowledge, Skills, and Attitude) through a structured Training Road Map (TRM) based on Training Needs Analysis (TNA) and Training Profile.

UPM administrative and support staff also have the opportunity to pursue long-term high-impact training such as Study Leave, Sub-Specialty Training, Research Training, Transport Training, Professional Training, and Basics Training. UPM also conducts high-impact training such as the CEO Faculty Program (CFP) and the Executive Overseas Program (EXOP). Their main objective

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is to enhance the quality of administrative services as the backbone to the other strategic goals of UPM. **Human Resource Sustainability Strategy** Starting from 2019, the human resource management strategy has designed more challenging programmes with the goal of transforming the teaching and learning, research and consultancy services. Such a programme is in tandem with the UPM Transformation Plan beyond 2025. For this, UPM has developed a strategic plan in coping and managing competitiveness in human resource development. Strategies that are included are: (a) The deployment of academic and administrative staff based on the University Transformation Plan (Merging of College/Faculty/Institute). The job placement is carefully planned by focusing on the critical positions required by the PTJs. Job placements will be guided by the results of the job audit that look into staff workload. The Registrar office is reviewing the UPM Human Resource Strategic Plan document 2019-2025 to align with the UPM Transformation Plan 2019-2025. (b) The University will continue to strengthen its organisation by realizing the Human Resource Application System Transformation Project (HRT) 2018-2021 that involves all recruitment processes. The system will improve the human resource management process and produce efficient and precise reporting. One of the systems being developed is the succession planning of academic staff based on expertise. (c) The University's training focus has shifted towards talent development programs and succession planning using the dynamic and innovative systems called Competency-Based Talent Management (CBTM). UPM's engagement with AKEPT on strategic leadership program named AKEPT-UPM Strategic Leadership Coaching for University Leaders Program aims at developing talent in institutional leadership. Such a plan is significant for the synergy between learning and development (L&D) and succession plan. It encompasses the whole vital process in human resources such as workforce planning, selection, placement, onboarding, probation and confirmation, career advancement, performance management, and rewards and recognition. With the introduction of CBTM, UPM will be able to ensure that talent is appointed, developed, and retained to achieve the University's strategic goals.	

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Financial Viability

Generally, UPM's source of income consists of government grants and internal sources to support operating expenditure. The trend of incomes received or gained from both sources for the year 2016-2018 are as follows:

Figure 4.4.2 a: Sources of Fund for Operating Income

Sources Of Fund for Operating Income

(RM Million)

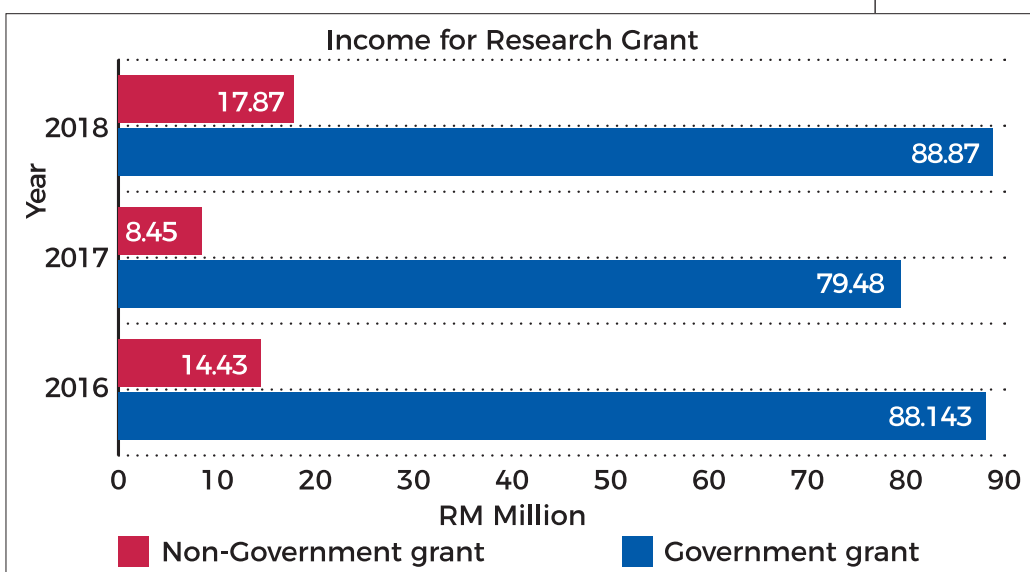| Year	Internal Sources	Government grant
2016	440	138
2017	438.5	175
2018	456	162
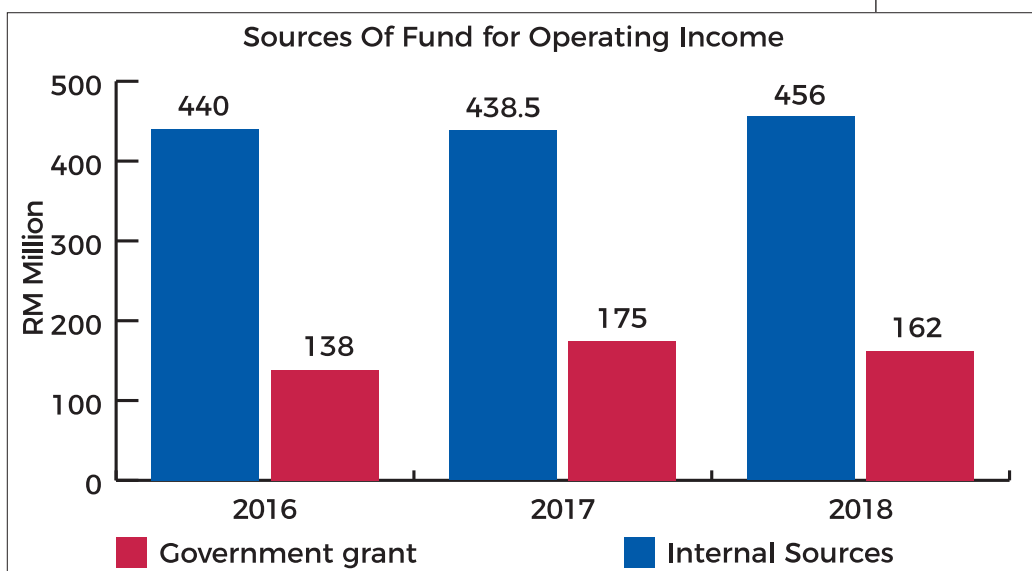
In 2018, UPM gave priority to the allocation on the University's commitment and contracted services based on 'must have' requirements. In addition to that, the allocation for teaching and learning was also channelled to each PTJ to be managed by them following the prepared Proforma Agreement.

PTJ was also encouraged to implement cost-saving activities to help the University optimise available funds. Among cost-saving initiatives projects that have been implemented in UPM are Energy Performance Contract (EPC) for phase 1 at the Faculty of Engineering, Institutes of Bioscience, and Faculty of Medical and Science Health. The internal scheme for contract staff has also been revised to cater cost-saving initiatives. Besides that, PTJ was also required to ensure that there are no outstanding payments in their respective PTJs, and payments need to be completed in the same year following stipulated rules and procedures.

As a Research University (RU), UPM also received research grants from the government and non-government sectors to carry out research projects as well as research associated activities such as maintenance (including calibration) and other research needs. The Research Grants Income Statement for 2016-2018 is shown in the table below:
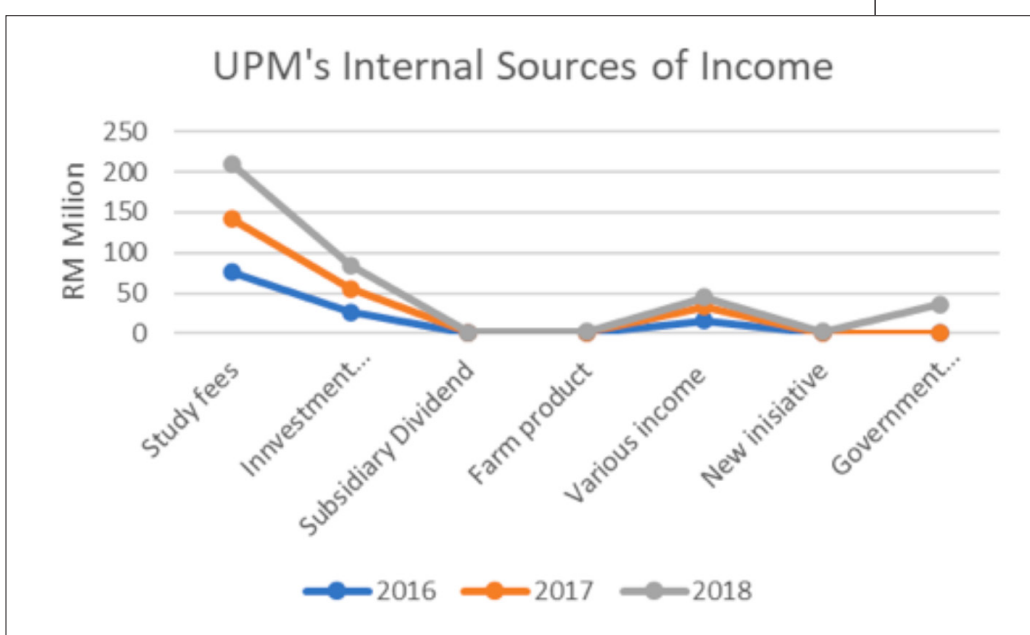
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Figure 4.4.2 b: Income for Research Grant

Income for Research Grant

- 2018: Non-Government grant 17.87, Government grant 88.87
- 2017: Non-Government grant 8.45, Government grant 79.48
- 2016: Non-Government grant 14.43, Government grant 88.143

RM Million

■ Non-Government grant ■ Government grant

With the limited government grant received, UPM focuses on steps to increase funding by diversifying UPM's resources to boost UPM's revenue generation and strengthening UPM's financial resources. The University took initiatives to gain income from other available sources aside from study fees.

UPM's financial performance of internal resources was closely monitored and reported at the Key Performance Indicator workshop held every quarter of the year. Internal resources generated by UPM from 2016 - 2018 are shown in the table below:

Figure 4.4.2 c: UPM'S Internal Sources of Income

UPM's Internal Sources of Income

RM Milion

Study fees, Innvestment..., Subsidiary Dividend, Farm product, Various income, New inisiative, Government...

—●— 2016 —●— 2017 —●— 2018

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	In 2019, UPM developed the University Income Generation Guidelines (GPPPU) approved by the University's Board of Directors as a source of reference and guidance for implementing income generation activities focusing on seven (7) scopes identified as follows: 1. Management of academic programmes and special services related to research consultancy and commercialisation; 2. Income generation through asset monetisation activities; 3. University financial and investment management activities; 4. Business partnerships in partnership with Corporate Alliances for Business Ventures; 5. Endowment; 6. Wakaf; and 7. Donation PTJ generation kit *(Kit Penjanaan PTJ)* will be developed to enable PTJs to know and monitor the needs, income, expenditure, and amount to be generated. These identified scopes are in line with the University Transformation Program, Purple Book - Enhancing University Income Generation, Endowment and Wakaf. With these guidelines, UPM and PTJs are moving towards generating more income that can be used to cover PTJ operating expenses to ensure that activities are not affected due to limited funding. With regards to the business plan developed in 2015, UPM has identified strategies that need to be done. Policies, rules, and work processes are also reviewed and updated periodically to provide convenience to customers involving financial processes. If there is an application for amendments to a circular or policy issued by the government, the meeting platform of the Public University Treasurer, the Committee of the Vice Chancellor, and the Rector is used. Apart from that, direct communication with the Ministry is required from time to time.	

SELF REVIEW REPORT: AREA 4

STRENGTHS

1. The accountability of UPM top management and PTJs, as required and stated in the ISO standard, has been implemented effectively, and has given a significant impact on the implementation of ISO as a whole in all UPM PTJs.

2. UPM has trained a total of 603 internal auditors for QMS, 77 for ISMS, and 134 internal panels of assessors (POA) for the audit programme. The strength of the number of Internal Auditors enable UPM to perform decentralised audits at each respective PTJ. Although the implementation of internal audit is carried out by PTJs, comprehensive monitoring is still carried out centrally. About 50% of the POA are the MQA POA. This POA which was nominated by the respective PTJ has significantly assisted their respective PTJ on programme documentation, academic matters and accreditation processes.

3. The comprehensive scope of QMS certification covers all pre-University, undergraduate (except Diploma in Science Preparatory Program) and graduate teaching and learning activities, research management and implementation, and support services involving all PTJs. This comprehensive scope of QMS and the maintenance of ISO certification has proven that UPM has successfully cultivated a culture of quality work in all UPM staff.

4. Continuity of commitment and hard work to ensure continuous improvement was implemented in an orderly manner, and in 2017, UPM was awarded the SIRIM Quality Award–the highest award by SIRIM Berhad which aims to recognise an organization/agency that has achieved a high level of excellence in the Quality Management System.

AREAS OF CONCERN

1. Corrective actions on findings from the Internal Audit and Third-Party Audit (SIRIM) to examine the causes of possible non-achievement of quality objectives (QMS), such as UPM's KPIs and ISMS objectives, need to be implemented more effectively so that the intended outcomes of the implementation of ISO is achieved.

2. Resource challenges in ensuring the adequacy, orderliness, competence, and effectiveness of the implementation of quality activities must be handled wisely. Multitasking, multi-skilling, and teamwork are very important. Similarly, financial resources need to be managed prudently. The roles of the Head of PTJ and Deputy Management Representative (TWP) are very important to monitor the orderliness and continuity of the effectiveness of quality implementation in UPM in the efforts to lead to a culture of quality.

AREAS FOR IMPROVEMENT

1. UPM developed an Operational Risk Management System (e-OPRISK) in 2019 to improve management and reporting of University risks in line with the requirements of the new QMS ISO 9001: 2015 standard. With e-OPRISK, UPM is able to monitor and report its operational risk in a more systematic and quality manner.

2. UPM has taken the initiative to implement an integrated management system in which the QMS and the ISMS are combined in terms of documentation, implementation of QMS and ISMS internal and external audit at the same time/ period i.e. Quality Committee Meetings and Management Review Meeting in the same meeting.

3. For CQI, UPM has begun to take the initiative to develop user-based documents where documents are more focus-based on user categories. Under this initiative, a more focused and user-friendly document will be developed to reduce the amount/ number of documentation. Such a move was initiated by Research and Innovation. This initiative will be extended to the teaching and learning process.

4. Taking into account the need for international accreditation on study programs at UPM and the increasing number of international student and employee communities, UPM took steps to make quality management documents bilingual as referencing purposes for external program evaluators, students, and international employees at UPM.

5. The bilingual implementation of these quality management documents will enhance the image of the University to a higher level globally in line with the Vision and Mission of the University to become an internationally reputed University.