

Lean Governance for Administrative Service Delivery in Malaysian Public Higher Education: A Review of Socio-Technical and Process Improvement Perspectives

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ABSTRACT – Efficient, transparent, accountable, and responsive administrative services are essential to public higher education institutions. Although lean management originated in manufacturing, its principles can be adapted to administrative services to reduce waiting, rework, duplication, unnecessary approvals, and unclear handovers. This review examines lean governance for administrative service delivery in Malaysian public higher education, with contextual reference to Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA). The review integrates literature on lean management, socio-technical systems, higher education administration, and Malaysian policy initiatives, including the Malaysia Education Blueprint 2015–2025 (Higher Education), public-sector modernisation, and the Public Sector Conducive Ecosystem (EKSA). The synthesis indicates that administrative inefficiency is associated not only with procedural complexity but also with weak alignment among institutional strategy, key performance indicators, workload distribution, digital systems, and organisational culture. Accordingly, the paper proposes an integrated lean governance framework that links policy and institutional drivers with lean practices and socio-technical enablers to support administrative service improvement. The framework is conceptual and requires future empirical validation.

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1.0 INTRODUCTION

Malaysian public higher education institutions are expected to maintain accountability, financial sustainability, stakeholder responsiveness, and service quality [1]. Administrative service delivery is therefore important because it influences student experience, staff productivity, research administration, and public trust [2]. Lean management offers a useful process-improvement perspective by identifying value, mapping value streams, improving flow, responding to demand, and supporting continuous improvement [3]. Although lean originated in manufacturing, its principles can be adapted to administrative processes in which waste appears as waiting, rework, duplication, unnecessary approvals, repeated follow-ups, and unclear handovers [4]. In the Malaysian public sector, this direction is consistent with initiatives that emphasise improved governance, productivity, workplace quality, and service delivery, including EKSA [5]. The Malaysia Education Blueprint 2015–2025 (Higher Education) also highlighted governance, financial sustainability, innovation, and transformed delivery as important higher-education priorities [11]. Accordingly, this paper reviews how lean governance can be interpreted for administrative service delivery in Malaysian public higher education and develops a context-specific conceptual framework that integrates lean process improvement with socio-technical and governance considerations.

2.0 REVIEW METHODOLOGY

This paper adopts a structured narrative review and conceptual synthesis. The review focuses on four related evidence areas: (i) lean management and lean governance, (ii) higher education administration and service delivery, (iii) Malaysian public-sector and higher-education policy, and (iv) socio-technical systems. Academic literature was selected based on its direct relevance to administrative process improvement, governance, service quality, workload, digital workflow, and organisational factors. In addition, primary and institutional policy sources were considered to strengthen the Malaysian context, particularly the Malaysia Education Blueprint 2015–2025 (Higher Education), public-sector improvement initiatives, EKSA-related practices, and UMPSA strategic transformation [11–13].

The review is intended as an integrative conceptual review rather than a systematic review or statistical meta-analysis. Evidence was organised thematically and compared across the four review areas shown in Table 1. Recurring concepts

were grouped into policy and institutional drivers, lean governance mechanisms, socio-technical enablers, administrative process performance, and stakeholder-oriented outcomes. These themes were then synthesised to develop the proposed integrated framework. The framework is intended to guide subsequent empirical work using process mapping, workload data, service cycle and waiting times, stakeholder surveys, interviews, and process simulation. This approach improves transparency regarding how the conceptual observations and tables in this paper were generated while recognising the limitations of a narrative review.

Table 1. Review focus and synthesis logic.

Review focus	Main concern	Relevance to JMMST scope
Lean management and governance	How lean principles can be adapted to administration, governance, policy implementation, and performance management.	Connects manufacturing-based lean concepts with service systems and administrative process improvement.
Higher education administration	How public universities experience bureaucracy, workload pressures, service delays, and stakeholder expectations.	Extends human factors, systems design, and productivity analysis to administrative service environments.
Malaysian policy and EKSA	How Malaysian higher-education and public-sector policies shape accountability, productivity, workplace quality, and service delivery.	Provides the policy context for adapting lean governance to Malaysian public higher education.
Socio-technical integration	How digital tools, workflow design, staff capability, leadership, and organisational culture interact in service delivery.	Supports systems thinking, process modelling, simulation, and organisational reliability.

3.0 LEAN GOVERNANCE AS AN EXTENSION OF MANUFACTURING-BASED LEAN THINKING

Lean thinking developed from the Toyota Production System, with a central emphasis on reducing waste and improving value flow [6]. In manufacturing, waste is commonly observed through defects, overproduction, waiting, unnecessary movement, excess processing, and other non-value-adding activities. In university administration, comparable waste may appear as delayed approvals, repeated email follow-ups, duplicated data entry, long queues, unclear decision routing, and unnecessary handovers. Lean governance extends beyond isolated tools such as 5S, Kaizen events, or visual boards. In this review, it refers to the coordinated use of lean principles within governance arrangements, including strategic objectives, staff capability, workload, performance indicators, digital workflows, and continuous-improvement routines. This broader perspective is important because improving a single administrative unit may have limited effect when delays originate upstream or downstream in an interdependent service process.

4.0 MALAYSIAN PUBLIC HIGHER EDUCATION AND ADMINISTRATIVE MODERNIZATION

Malaysian public higher education has progressively moved towards stronger institutional autonomy, accountability, sustainability, and performance-oriented governance [7]. The Malaysia Education Blueprint 2015–2025 (Higher Education) identified priorities including financial sustainability, empowered governance, innovation, global prominence, online learning, and transformed higher-education delivery [11]. These priorities provide an important policy basis for examining administrative processes as part of institutional performance rather than as isolated support activities. Public-sector modernisation has similarly emphasised productivity, responsiveness, and reduced unnecessary bureaucracy. EKSA complements this direction by extending workplace improvement beyond basic 5S practices towards a more conducive, innovative, green, and customer-oriented public-sector environment [8]. More recently, UMPSA's Strategic Plan 2026–2030 has emphasised internationalisation, sustainability, advanced TVET, entrepreneurship, and institutional resilience, supported by internal performance and support systems [12]. Together, these policy and institutional drivers support the need to align administrative workflows, resources, and performance indicators with broader institutional objectives.

Table 2. Policy and institutional drivers for lean governance in Malaysian public universities.

Driver	Governance implication	Lean governance response
Malaysia Education Blueprint 2015-2025 (Higher Education)	Universities are expected to strengthen autonomy, sustainability, innovation, governance, and delivery performance.	Align administrative KPIs, resources, and workflows with national and institutional priorities.
Public sector productivity reform	Public agencies are expected to reduce unnecessary bureaucracy and improve service responsiveness.	Map value streams, remove non-value-adding approvals, and reduce waiting time.

EKSA implementation	Public agencies are encouraged to create productive, green, innovative, and customer-oriented workplaces.	Extend EKSA from physical workplace organisation towards administrative process excellence.
UMPSA strategic transformation	Institutional strategy requires effective support systems for internationalisation, sustainability, advanced TVET, entrepreneurship, and institutional resilience.	Connect daily administrative work with strategic priorities through KPI alignment, workload planning, and process improvement.

5.0 ADMINISTRATIVE SERVICE DELIVERY AS A SOCIO-TECHNICAL SYSTEM

Administrative service delivery can be understood as a socio-technical system because service performance depends on the interaction between technical and social components [9]. Technical components include digital platforms, forms, workflow rules, dashboards, process maps, databases, simulation models, and standard operating procedures. Social components include staff capability, workload, motivation, leadership, communication, trust, resistance to change, and cross-unit collaboration. Technology-centred improvement may therefore be insufficient when staff roles, skills, workload, and behaviour are not aligned with redesigned processes. This is particularly relevant in universities, where administrative services frequently cross multiple responsibility centres. For example, research-student visas, research claims, examination records, and commercialisation approvals may require several sequential handovers. A delay at one stage can increase the overall service cycle time. Process mapping and simulation can consequently be used to examine queues, arrival rates, service times, resource allocation, and potential bottlenecks before changes are implemented.

Table 3. Lean governance for administrative service delivery based on socio-technical dimensions.

Dimension	Technical element	Social element	Expected outcome
Strategic alignment	KPI deployment, dashboards, and policy tracking.	Staff understanding of strategic priorities and service expectations.	Daily administrative activities support institutional goals.
Process flow	Value-stream maps, standard procedures, and digital workflows.	Cross-unit cooperation and shared process ownership.	Reduced delay, rework, and unclear handovers.
Capacity planning	FTE workload indicators and service-demand data.	Fair task allocation and attention to staff well-being.	Balanced workload and fewer service bottlenecks.
Continuous improvement	Kaizen records, performance metrics, and audit evidence.	Lean culture, leadership support, and staff participation.	Sustained improvement over time.
Sustainability and integrity	Green practices, digital records, and governance controls.	Ethical behaviour and responsible resource use.	Transparent, sustainable, and trusted administration.

6.0 BARRIERS TO LEAN GOVERNANCE IN PUBLIC HIGHER EDUCATION

Applying lean governance in public higher education is challenging because university administration operates within regulatory, professional, and institutional constraints that differ from manufacturing environments [10]. Five barriers are particularly relevant. First, bureaucratic complexity may arise from audit, financial, regulatory, and approval requirements. Although these controls support accountability, poorly designed processes may also create duplicated records, excessive signatures, and unnecessary waiting. Second, weak strategy deployment can occur when unit-level KPIs are not clearly connected to institutional service priorities. Third, cultural resistance may emerge when standardisation is perceived as reducing professional or academic autonomy. Fourth, silo behaviour can occur when administrative services are distributed across units with different procedures, records, and priorities. Fifth, digital transformation may be implemented without corresponding process redesign, resulting in the digitalisation of inefficient workflows rather than genuine process improvement. These barriers indicate that lean governance requires simultaneous attention to process design, governance requirements, people, and technology.

7.0 PROPOSED INTEGRATED LEAN GOVERNANCE FRAMEWORK

Based on the reviewed literature and policy context, this paper proposes an integrated lean governance framework for administrative service delivery in Malaysian public higher education. The framework differentiates five connected layers. First, national and institutional drivers establish expectations for accountability, sustainability, autonomy, digitalisation, and stakeholder-oriented delivery. Second, lean governance mechanisms translate these expectations into operational practices through value-stream mapping, process standardisation, removal of non-value-adding steps, workload balancing, visual performance management, and continuous improvement. Third, socio-technical enablers—people, technology, leadership, culture, capability, and cross-unit coordination—determine whether redesigned processes can function effectively. Fourth, administrative process performance can be assessed through measurable indicators such as

cycle time, waiting time, rework, number of approval steps, workload distribution, and service-level achievement. Fifth, stakeholder and governance outcomes include responsiveness, transparency, sustainability, integrity, and user satisfaction. A feedback loop from performance outcomes to continuous-improvement activities enables recurring review and adjustment. The conceptual contribution of the framework is therefore not simply the combination of lean management and socio-technical theory; rather, it explains how Malaysian policy and institutional requirements can be translated through lean mechanisms and socio-technical enablers into measurable administrative service outcomes.

8.0 FUTURE RESEARCH PLAN

Future research should empirically evaluate the proposed framework using both quantitative and qualitative evidence. Quantitative indicators may include service cycle time, waiting time, number of approval steps, rework frequency, service-level achievement, workload distribution, and stakeholder satisfaction. Qualitative evidence may be obtained through interviews or focus groups with administrative staff, academic staff, students, and university leaders to examine perceived barriers, cross-unit coordination, leadership support, and user experience. Comparative studies across responsibility centres or public universities would also help determine whether the framework is applicable beyond a single institutional context. Process simulation may further be used to test alternative workflow and resource-allocation scenarios before implementation. Finally, future studies should examine whether improved administrative process capability is associated with institutional autonomy, governance performance, and stakeholder trust. These empirical steps are necessary because the present review proposes a conceptual framework rather than validating its effectiveness.

9.0 CONCLUSIONS

This review suggests that administrative service challenges in public higher education are not attributable to bureaucracy alone. They may also reflect weak alignment among policy objectives, institutional strategy, workload capacity, process flow, digital systems, and organisational culture. The reviewed literature indicates that lean principles can provide a useful process-improvement lens when they are integrated with socio-technical and public-governance considerations. Accordingly, the proposed framework connects policy and institutional drivers with lean governance mechanisms, socio-technical enablers, measurable process performance, and stakeholder-oriented outcomes. For manufacturing-systems readers, the framework illustrates how concepts such as value-stream mapping, workload balancing, process standardisation, simulation, and continuous improvement may be extended to service-oriented university administration. However, the framework remains conceptual, and its effectiveness should be tested through future empirical studies before definitive conclusions are drawn.

Conflict of Interest

The author(s) declare that there is no conflict of interest related to this manuscript.

10.0 AUTHORS CONTRIBUTION

Z. M. Zain (Writing - original draft; Methodology)

N. Sazali (Writing - review; Methodology; Conceptualization; Supervision)

Ramli Junid (Writing – editing; supervision)

Afdhal Junaidi Junid (Writing – editing)

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