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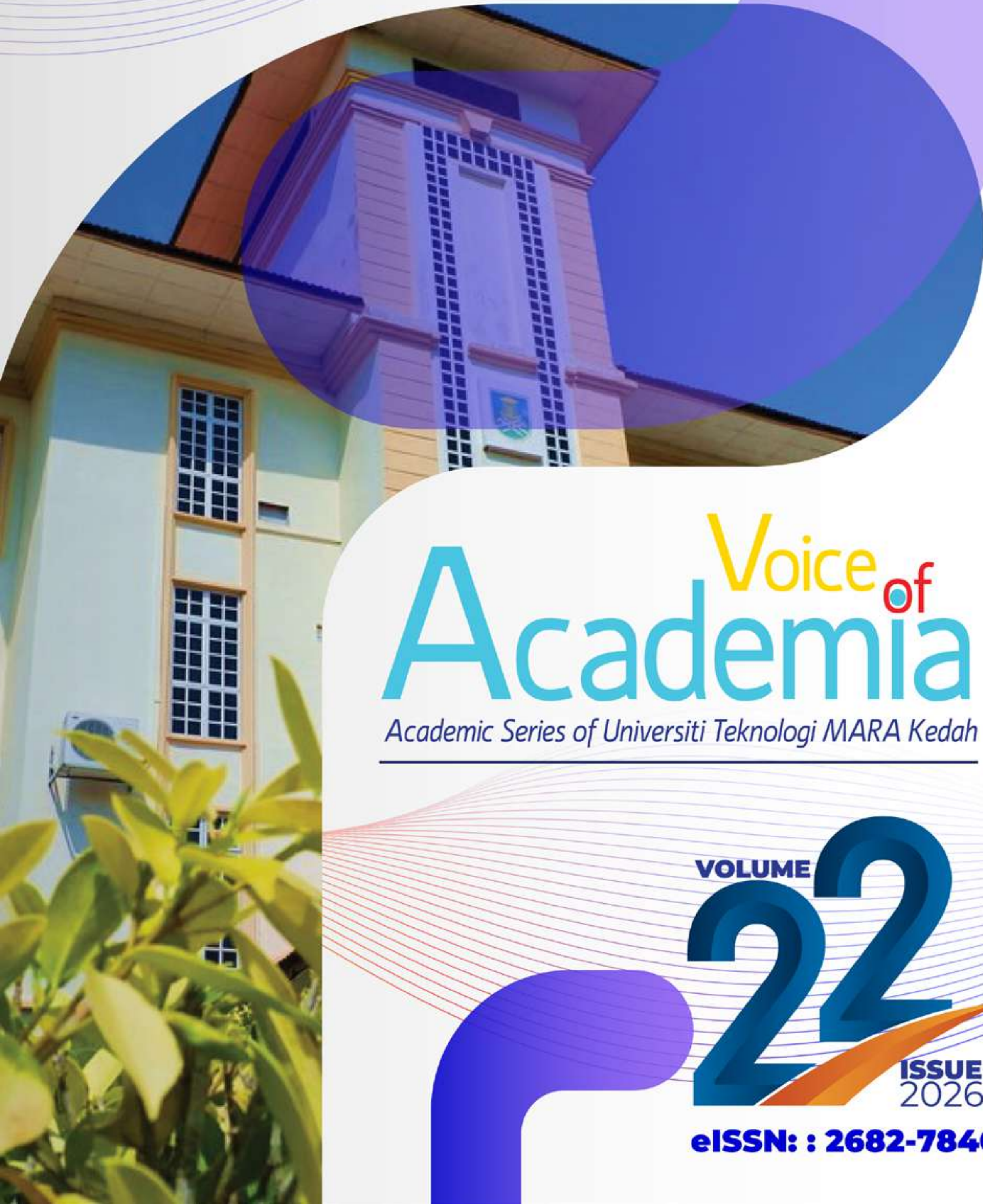

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Assessing The Relationship Between Coercive Factors And E-Service Content on Malaysian Local Government Websites

Sabariah Abd Samad[1], Corina Joseph[2*] & Leong Siow Hoo[3]

[1]*Faculty of Information Science, Universiti Teknologi MARA Cawangan Sarawak, Kampus Samarahan*
[2]*Faculty of Accountancy, Universiti Teknologi MARA Cawangan Sarawak, Kampus Samarahan*
[3]*Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA Cawangan Sarawak, Kampus Samarahan*

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corina@uitm.edu.my

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ABSTRACT

With the ongoing influence of digital technologies on contemporary governance, local governments are increasingly adopting e-government initiatives to improve the quality, accessibility, and efficiency of public service delivery. This conceptual paper applies Institutional Theory to examine the relationship between coercive factors and the e-service content disclosed on Malaysian local government websites. The assessment focusses on coercive isomorphism, proposing that jurisdictional influence, innovation initiatives, and integrity infrastructure constitute organizational responses to formal and informal pressures from higher governing authorities. The Internal Audit Function is introduced as a governance-based moderating mechanism that may enhance the translation of institutional pressures into comprehensive, consistent, and reliable e-service content. To support future empirical research, the study proposes a quantitative content analysis of 151 Malaysian local government websites using the E-Service Assessment Index (ESAI), adapted from the Local Online Service Index (LOSI). The paper details procedures for operationalization, coding, reliability assessment, and moderation testing. The study contributes by extending Institutional Theory to digitalization and internal assurance of local government, enhancing a content-based assessment of e-service maturity, and providing a framework to support and improve local digital governance, not only at the local level, but also at the global stage.

1. Introduction

As technology becomes more central to modern governance, local governments around the world are using e-government services to improve the quality and efficiency of public services. This shift is part

1* Corresponding author: corina@uitm.edu.my

of a broader digital transformation, which involves changing structures, workflows, and workforce skills. Digital transformation is not just about new technology; it is also about using technology in smart ways to deliver better services to citizens and businesses. The success of e-services depends on both technical design and the organisational practices and environment that guide how local authorities set priorities, carry out changes, and maintain high standards. These changes are most visible at the local level through e-government platforms, where digital transformation is seen in daily interactions between local agencies and the public. These platforms give citizens important digital tools, such as online bill payments, complaint forms, chatbots, and real-time updates.

This development is particularly relevant in Malaysia, where digital government has long been positioned as a long-term modernisation pathway, by making local services portals as a key drive in translating national blueprints into people-centric outcomes. The e-government initiatives have been a national priority since the establishment of the Multimedia Super Corridor (MSC) in 1996, which aimed to modernise the nation through digital transformation (Yasin & Abdul Hamid, 2025). This agenda has been continued through the introduction of MyDIGITAL initiative, which aspires to transform Malaysia into a digitally enabled and technology-driven while positioning the country as a regional leader in the digital economy.

To achieve this aspiration, the Malaysia Digital Economy Blueprint sets the national direction, strategic initiatives, and targets to strengthen the foundations of digitalisation and digital economic growth. The focus is to bridge the digital gap and transform digital opportunities into meaningful public benefits (Economic Plannig Unit, 2021). In addition, the Public Sector Digitalisation Strategic Plan (PSPSA) 2021-2025 establishes an integrated whole-of-government digitalisation framework, that aligned with MyDIGITAL's priority thrusts, while explicitly positioning public-sector digital reform as a key enabler for achieving Malaysia's Sustainable Development Goals (SDG) 2030 commitments, Wawasan Kemakmuran Bersama 2030, and the Twelfth Malaysia Plan (RMKe-12) (Unit Permodenan Tadbiran dan Perancangan Pengurusan Malaysia [MAMPU], 2021). In unison, these national initiatives show that Malaysia is improving how it manages and coordinates its digital agenda. Through the agenda, it helps the government to build better and more reliable digital infrastructure, support stronger cooperation between agencies, and improve institutions so public services can be more efficient and focused on citizens (World Bank, 2025).

Malaysia has made good progress in digitalizing its public services; however, some important gaps remain. For example, about 90% of federal public services are digital and accessible, yet the coverage in Sabah and Sarawak is substantially lower at about 59% (World Bank, 2025). This difference shows that there are still geographical gaps in access to online public services and in providing consistent e-service experiences (RHNews, 2025). On top of that, urban-rural differences create challenges, which include limited digital literacy and poor on-the-ground infrastructure. Additionally, Malaysia's global ranking in the E-Government Development Index (EGDI) slipped from 53rd in 2022 to 57th in 2024, raising concerns about the responsiveness and accessibility of its digital services for the public (Department of Economic and Social Affairs, 2024).

This paper aims to explain how coercive factors relate to the amount of e-service content found on Malaysian local government websites. The discussion is based on Institutional Theory, focusing on coercive isomorphism. It discusses how jurisdictional influence, innovation efforts and integrity infrastructure are organisational responses to these demands. In a way, it will influence the quality of e-service content provided by local authorities. The study also identifies the Internal Audit Function (IAF) as a factor that can help transform external influences into more consistent, higher-quality e-service outcomes. To keep the discussion clear, the paper does not include completed empirical findings. Instead, it presents a conceptual framework and suggests an empirical strategy for future research, which will involve analyzing the content of local government websites.

1* Corresponding author: corina@uitm.edu.my

Institutional Theory is utilized in the study as suitable theoretical structure. It determines how public organizations react to mandates, expectations, and norms to maintain organizational legitimacy. The analysis emphasizes on coercive isomorphism, in which laws, regulations, and policy requirements drive organizations toward similar structures and outputs. This perspective is particularly relevant for the Malaysian local governments' context. The country is operated under national reforms and public expectations and coping with variances in resources, competencies, and governance maturity. Past studies have mainly examined user perception and adoption, with limited empirical attention given to the actual content and scope of e-services on local government websites. Therefore, a content-based measurement approach, underpinned by Institutional Theory and moderated by institutional factors, is necessary to explain the variation in local e-service outcomes under a unified national agenda.

2. Literature Review

Digital Transformation and E-Government Service Delivery at Local Level

Digital transformation has been a key focus for public sector organisations to promote efficiency, transparency, citizen engagement and more citizen-centric service delivery. Moving from conventional or manual services to digital platforms may allow governments to cut administrative expenses, increase service accessibility, and improve the speed and convenience of service delivery, which can impact the entire citizen experience with public agencies (Engkus, 2025). However, digital transformation is not limited to the idea of adopting new technologies only. To make it successful, it also requires organisational readiness, such as supportive structures, work routines, and appropriate staff capability to ensure the digital tools implemented are used meaningfully (Roekel et al., 2025). Having said so, readiness becomes more crucial at the local government level. It is due to citizens' awareness of evaluating digital governance through regular municipal interactions. Bad services such as delays in service provision, outdated and obselete information, or even limited online functionality can negatively influence public perceptions of responsiveness and service quality. For that reason, well-designed digital services can improve convenience, strengthen public trust, and enhance citizens' overall experience with local government.

This agenda is visible through local government website and online service portals that normally facilitate regular transactions and communication between councils and citizens. Through these portals activities such as online bill payments, service applications, complaint forms submission, and access to updated public information are available. It's proven that these portals can reduce service burden when citizen do not need to physically visit the government offices. Not only that, but the platforms also provide complete service pathways, clear instructions, and updated information to them. This digitalisation of service-oriented is consistent with the objectives of Sustainable Development Goal 16, which focuses on the effectiveness, accountable, inclusive institutions, and responsive decision-making (The United Nations, 2015). In this context, United Nations e-government assessments have indicated that higher levels of digital maturity are generally associated with improved service accessibility, greater transparency, and stronger perceptions of government responsiveness (Ahmad Azri et al., 2025; United Nations - Department of Economic and Social Affairs, 2022).

Despite these potential benefits, local governments often encounter challenges that complicate digital transformation efforts such as financial constraints, legacy systems, and fragmented governance arrangements. These challenges may limit the ability of local authorities to develop and maintain comprehensive digital services. This is aligned with global evidence on local e-government development, which reports that challenges to creating and maintaining municipal digital services comprise budget constraints, limited technical expertise, and infrastructure limitations, which increase the risk of fragmented local implementation under the same national digital agenda (United Nations - Department of Economic and Social Affairs, 2024). Abdurahman and Kabanda (2024) similarly highlighted inadequate funding and

1* Corresponding author: corina@uitm.edu.my

fragmentation as persistent challenges that contribute to inconsistent implementation outcomes and disparities in digital service quality. Due to this situation, such constraints may slow digital service expansion and reduce consistency across jurisdictions, even under the same national digital direction. Therefore, it is essential to assess local e-service content that requires attention not only to technological adoption, but also to the institutional and organisational conditions that shape how local authorities prioritise, implement, and sustain digital service delivery.

Institutional Theory and Coercive Isomorphism in Local Government Digitalisation

Institutional Theory proposes an explanation about how any organisation is influenced by a complex interaction between regulative, normative, and cultural-cognitive components which foster stability and homogeneity (Scott, 2014). The theory also explains organisations seek not only operational effectiveness but also legitimacy, which is often achieved by aligning their practices with the expectations of influential stakeholders and the broader institutional environment. In this view, organisational change is not driven only by internal efficiency goals, but also by pressures to align with rules, policy priorities, and widely accepted "good practice" norms in the organisational field (DiMaggio & Powell, 1983).

There are three primary mechanisms through which institutional pressures commonly operate such as coercive, normative and mimetic mechanism. Coercive pressure refers to formal and informal demands including laws, regulations, policy mandates, and resource-related conditions. These pressures may be originated from different stakeholders, such as government organisations, suppliers, customers, and non-governmental organisations. Societal systems by the local governments are usually influenced by institutional factors that require ethical conduct based on societal norms and expectations. Thus, these systems may shape organisation's practices and strategies (DiMaggio & Powell , 1983). In line with this, the perspective is useful because councils operate in a highly visible and regulated environment where compliance, public accountability, and reputational credibility can influence funding, performance assessment, and stakeholder trust.

Coercive, normative and mimetic pressures influence the organizational behaviour in various way (Latif et al., 2020). Coercive pressure originates from influential and strong stakeholders such as government organisations, non-governmental organisations, customers, and suppliers. Recent studies showed that the coercive pressure generate digital imperative, in which organisations are mandated to apply digitisation rather than a voluntary innovation choice (Bennich, 2024). This claim is supported by Patalon and Wyczisk (2024) where they emphasised that coercive isomorphism requires local governments or municipalities to adopt digital standards and emphasise the need for compliance and legitimacy due to regulatory mandates. The institutional isomorphism may include coercive pressure to be part of the digital transformation, but the impacts are varied depending on other factors. According to Nurdin et al. (2014), the adoption of e-government is influenced mainly by four factors, which are central government, regulations, local citizens, and limitation in financial resources.

As for the local government digitalisation implementation, the coercive pressures are frequently derived from national digital initiatives, public sector reform program, regulatory standards, as well as the intergovernmental reporting requirement. These pressures could lead to the introduction of similar portal features and online services to demonstrate the uniformity or align with the national direction or national policy. While local governments may adopt similar digital initiatives in response to external mandates, the quality, scope, and maturity of resulting e-services often vary considerable across jurisdiction. The adoption of a digital platform does not automatically guarantee that services will be comprehensive, accessible, regularly updated, or responsive to citizens' needs. Ain and Zulkarnain (2025) highlighted that coercive pressures may encourage organisations to implement digital solutions to accommodate external

1* Corresponding author: corina@uitm.edu.my

expectations. Although those initiatives are not fully aligned with organisational capabilities. As a result, it creates a potential gap between the mandate system and operational realities.

When coercive isomorphism is applied to e-service content, local governments' websites can be seen as evidence of compliance and legitimacy. Contents published such as service information, integrity-related content, and digital features not only to support users, but also to meet expectations from higher authorities and the society at large. As Joseph et al. (2019) argued, disclosure practices in public-sector organisations have been motivated by institutional forces, especially the demand for legitimacy, public visibility, public-sector reform, and supporting institutional structures.

Therefore, the extent in local e-service content is theoretically meaningful. It reflects differences in how local government transforms coercive pressures into practical, usable, and sustained service content. Accordingly, this paper focuses on coercive isomorphism as the main explanatory mechanism to explain differences in e-service content among Malaysian local government. The study proposes that jurisdiction, innovation initiatives, and integrity infrastructure are vital organisational responses to coercive institutional pressures.

Internal Audit Function as a Moderating Role

The Institute of Internal Auditors defines internal auditing as an independent, objective assurance and consulting activity designed to add value and improve organizational operations. Through a systematic approach to evaluating risk management, internal controls, and governance processes, internal auditing helps organizations achieve their objectives while promoting accountability and continuous improvement (The Institute of Internal Auditors Malaysia, 2022). The quality and consistency of e-service content often depend on the internal governance capacity, although coercive pressure might be the main reason behind their existence. In local government settings, coercive pressure may lead to surface adoption of digital platforms, but service quality requires internal monitoring, follow-through, and accountability (M.Y. et al., 2018). In this regard, Internal Audit Function serves as a governance instrument that determines whether coercive digital initiatives give impacts either significant change or remain at the surface level of compliance.

The Internal Audit Function is typically viewed as an assurance function that assesses internal controls, compliance, risk management, and governance processes. Recent studies showed that the IAF is increasingly expected to assist digital transformation (Lois et al., 2021; Radwan et al., 2021). In the context of digital service delivery, the IAF is relevant to whether website content is accurate, up to date, complete, and aligned with required procedures. A proactive IAF can identify gaps in workflow implementation, highlight control weaknesses that compromise service reliability, and encourage corrective measures (Sunaryo et al., 2023). Furthermore, digitalisation raises operational risks such as data integrity issues, continuity concerns, and inconsistent implementation across departments. The IAF capability may be stronger in sustaining improvements and maintaining consistency across service areas especially where audit work is more systematic, risk-based, and data-driven (Shaili et al., 2024). In contrast, limited IAF capacity may result in symbolic compliance as in the existence of the websites, but the content may remain incomplete or poorly maintained. In other words, local government may "appear" to comply with digital standards, but the actual e-service material is incomplete, inconsistent, or poorly maintained. Therefore, this study positions the Internal Audit Function as a moderating mechanism that influences the relationship between coercive institutional factors and e-service content on local government websites. This moderating mechanism also directly supports the moderation hypotheses (H4-H6) proposed in the following section.

1* Corresponding author: corina@uitm.edu.my

The Research Framework and Hypotheses

This study is grounded based on positive epistemology where the e-service content is treated as the dependent variable (DV) that can be quantified and measured. On the other hand, the independent variables (IVs) categorized into jurisdiction, innovation initiatives, and integrity infrastructure. These IVs are conceptualized as organizational responses shaped by coercive institutional pressure. Not only that, but the Internal Audit Function also (IAF) is positioned as a moderating mechanism that influences how effectively institutional pressure is translated into measurable e-service content.

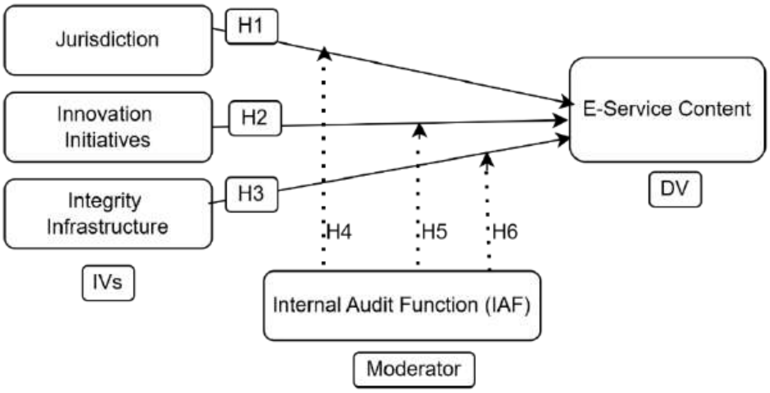

Figure 1: The Conceptual Framework

The Conceptual Framework

Based on Institutional Theory, the study links coercive isomorphism with jurisdiction, innovation initiatives, and integrity infrastructure as independent variables which influence the e-service content on Malaysian local government websites. Coercive isomorphism refers to official and informal pressures gained from laws, policies, regulations, and expectations from higher authorities that local organisations must meet to achieve legitimacy (DiMaggio and Powell, 1983). Coercive pressures in local government often emerge from legal requirements, performance assessments, bureaucratic norms, and administrative expectations. These pressures may impact how local government plan, implement, and sustain online service delivery on their websites.

This approach indicates that local government websites are both technical platforms and public outputs, reflecting the reaction towards the external mandates and governance expectations. As a result, imbalance or variance in the e-service content on Malaysian local government websites is viewed as relevant organisational results. This can be explained by institutional pressures and internal governance capability, rather than technology adoption alone. The local governments may have varying levels of service completeness and website maturity. Although websites developed are following the same national digital agenda, but they differ in authority arrangements, local priorities, resources, and governance procedures.

Hypotheses Development

i. Jurisdiction

In local government agencies, coercive isomorphism is often shaped by jurisdictional location, where each authority from different states will impose distinct policies, regulations, laws, and administrative expectations. Government attention is influenced by assessment pressures, bureaucratic

1* Corresponding author: corina@uitm.edu.my

rules and regulations, as well as other factors due to the current administrative structure (Zhang et al., 2024). As a result, councils that operate in different jurisdictions may experience different levels of coercive pressure, which then influences how strongly they respond to mandated digitalization and how far they develop their online service content. As for local government in Malaysia, jurisdictional authority is viewed as a critical source of formal coercive pressure to obtain legitimacy and stability within their broader regulatory and social environment. Accordingly, jurisdiction can influence mandates, resource allocation, and establish stronger incentives for local governments to enhance public services, especially online e-service content. Previous empirical study provides support for the direct relationship between jurisdictional authority and online service content. Based on prior findings, significant differences existed in Malaysian state-level e-government portals. An increased jurisdictional autonomy and a robust regulatory framework may help improve website service content (Eskandar & Raman, 2013). This relationship is consistent with Institutional Theory where an organization responds to external pressures by aligning practices with authority expectations to secure legitimacy. In a simple term, jurisdiction shapes "what is expected" and "how strongly it is enforced." This can lead the councils to provide broader and more consistent website services than others. Jurisdiction therefore can be treated as a key institutional condition that influences the scope and maturity of e-service content on local government websites. Given the theoretical and empirical rationale, a positive relationship between jurisdictional authority and e-service content is expected. Therefore, the relationship is hypothesized as follows:

H1: Jurisdiction positively influences e-service content on Malaysian local government websites.

ii. Innovation Initiatives

Past studies on e-government initiatives demonstrated that innovative initiatives such as online service portals have improved service quality and increased citizens' happiness and satisfaction. This positive feedback may enhance the public sector's delivery efficiency. A study by Ren et al. (2025) showed that innovation in e-government leads to better adoption and improved website content quality. Besides that, government innovation subsidies boost digital transformation and digital economy (Han et al., 2026). In Malaysia, innovation initiatives for the e-government began with the MSC seven flagships, with the aim of introducing innovations in service delivery and enhancing the quality and performance of public services (Siddique, 2008). Initiative such as e-*Piha Berkuasa Tempatan* (e-PBT) was implemented to improve the efficiency and effectiveness of municipal services. From here, services are delivered through online platforms and online transactions such as bill payments which can be completed through digital channels. A positive relationship is expected because engagement in innovation initiatives should lead to a higher e-service content provided by the local governments. Innovation initiatives in this framework are treated as visible organisational actions that signal the council's readiness to modernise services and expand their online delivery. When innovation initiatives are stronger, councils are expected to introduce more service categories, clearer procedures, and more functional digital features, which collectively raise the level of e-service content on the website. Therefore, the relationship is hypothesised as follows:

H2: Innovation initiatives positively influence e-service content on Malaysian local government websites.

iii. Integrity Infrastructure

It has become increasingly common for responsibilities and decision-making authority to be transferred from central government to subnational levels of administration. Such situation can strengthen accountability by bringing government institutions closer to citizens and service users. However, it may also create decentralised corruption, which is a social problem occurring in many contexts (Cruz & Gary, 2015). Integrity infrastructure refers to the formal structures that has been established to support ethical governance. From an institutional perspective, these systems impose coercive pressure on the government, because the local authorities must comply with the integrity standards and reporting requirements. Thus,

1* Corresponding author: corina@uitm.edu.my

official mechanisms or tools such as whistleblower regulations, codes of conduct, clear legal frameworks, and transparent operational procedures play an important role in shaping behaviour and disclosure.

E-government can be recognised as a method in enhancing transparency and accountability for the government. Improving access to information and facilitating feedback helps contribute to the reduction of corruption (Alam et al., 2023). By providing more open data on government websites, it can improve service integrity and user trust towards local government's accountability and anti-corruption efforts. Therefore, the study proposes that stronger integrity infrastructure within local governments is associated with comprehensive and extensive e-service content. Within the institutional logic, integrity infrastructure also serves as a reason for councils to disclose clearer procedures, publish more service information, and maintain updated content. It became a means for the government to demonstrate accountability and legitimacy. When integrity infrastructure is stronger, councils are expected to provide comprehensive, reliable, and transparent e-service content. As a result, compliance and public accountability may become more visible and significant in public service. Therefore, the following hypothesis is proposed:

H3: Integrity infrastructure is positively related to e-service content on local government websites.

Moderating Relationship Hypotheses: Internal Audit Function (IAF) (H4–H6)

Internal Audit Function (IAF) serves as an important moderating variable that may strengthen or weaken the relationship between jurisdiction, innovation initiatives, and integrity infrastructure (independent variables) with e-service content (dependent variable). Acting as an internal supervision mechanism, the IAF provides independent validation, advice, and assistance to local governments in improving risk management, compliance, and operational effectiveness. An effective and functioning IAF can contribute to stronger governance practices and enhanced public trust, where corrective actions against inefficiency or fraud can be recommended to improve public sector performance (Kiff lee & Jusoh, 2022).

The IAF changes how institutional forces are translated into actual e-service delivery outcomes by examining digital service operations and ensuring compliance with institutional policies. When the IAF is under-resourced, it may lead to inadequate audit coverage and weaker follow-through on regulations. Consequently, formal mandates imposed by the organisation or institution may have a smaller impact on actual service content improvements. On the contrary, under strong coercive pressures, the IAF may gain influence, and stricter monitoring and follow-up actions can be conducted and tracked. Joshi and Karya Wati (2021) agreed that Institutional Theory provides a useful explanation for internal audit effectiveness and encourages internal auditors to enhance core capabilities to perform effectively. Similarly, Middin et al. (2024) emphasised that internal audit acts as a supervisory tool that can prevent fraud and maximise budget efficiency organisation (Middin et al., 2024).

The internal audit function improves institutional aspects that influence e-service content. By ensuring institutional forces are implemented with adequate control and monitoring, a strong IAF can identify weaknesses and propose improvements. In return, the quality, completeness, and reliability of e-service content on local government websites can be improved. In this framework, the IAF is not assumed to directly create or generate e-service content. Rather, it strengthens councils' ability to execute and maintain what external mandates require. In this sense, the IAF acts as a boundary condition that helps explain why similar external pressure can produce different outcomes across councils.

Based on existing observations, the IAF does not work on its own; rather, it moderates how external pressures are implemented. When the IAF is strong and proactive, the e-service content is expected to improve, with better services provided to users. Effective internal audit in local government can support stronger innovation practices through improved compliance monitoring systems. The audit committee's

1* Corresponding author: corina@uitm.edu.my

role in board governance and the internal audit function has been found to have a significant influence, emphasising the relevance of internal governance systems (Sulu et al., 2025). Furthermore, digital technological advancement also strengthens the role of IAF and enhances compliance monitoring processes (Ilori, 2024). Accordingly, this study proposes that the IAF strengthens the positive influence of jurisdiction, innovation initiatives, and integrity infrastructure on e-service content by improving follow-through, monitoring, and corrective action mechanisms. Thus, the study proposes the following moderation hypotheses:

H4: Internal Audit Function (IAF) moderates the relationship between jurisdiction and e-service content.
H5: Internal Audit Function (IAF) moderates the relationship between innovation initiatives and e-service content.
H6: Internal Audit Function (IAF) moderates the relationship between integrity infrastructure and e-service content.

Overall, the proposed framework suggests that coercive pressures influence local website outcomes through institutional conditions, namely jurisdiction, innovation initiatives, integrity infrastructure, while the IAF explains how strongly and consistently these pressures are converted into observable e-service content. Together, these hypotheses provide a clear foundation for future empirical testing using content analysis and the E-Service Assessment Index (ESAI) scoring approach outlined in the methodology section.

3. Proposed Methodology for Empirical Testing

Consistent with the conceptual positioning of the manuscript, this section outlines the proposed methodology for future empirical testing rather than reporting completed empirical findings. The quantitative content analysis approach is proposed due to the dependent variable, e-service content, can be directly observed from official local government websites and systematically coded using predetermined indicators.

3.1 Research design and sample

The unit of analysis in this study will be the official website of each Malaysian local government. The sampling frame will be developed based on the official list of local authorities, comprising 151 local government websites (Local Government Department, 2026b). Only the primary official portal of each council will be included in the analysis. Other media such as social media accounts, third-party portals, and unofficial webpages will be excluded. Unless they are explicitly linked from the official website as part of the council's formal service pathway. To ensure transparency and consistency in the data collection, the date and time access to the website will be recorded. Screenshots and PDF captures will be retained to create an audit trail. Websites that are temporarily inaccessible will be revisited on at least two separate dates before being coded as unavailable.

3.2 Operational Definitions and Measurement

E-service content refers to the extent, completeness, and functionality of service-related information and transactional features made available through the official local government website (Busco et al., 2025; Krippner, 2019). It will be measured using the proposed E-Service Assessment Index (ESAI), which is adapted from the Local Online Service Index (LOSI) (United Nations, 2024). The ESAI covers seven categories and 89 assessment items designed to evaluate the extent of e-service content available on the websites. The seven categories are grouped into institutional transparency and governance; local information and content quality; transactional and administrative e-services; citizen participation and responsiveness; usability, accessibility and inclusiveness; privacy, security and trust; and reliability, integration and digital innovation (De Leebeeck, 2022; Lim & Kamaruddin, 2023; Manoharan et al., 2023).

1* Corresponding author: corina@uitm.edu.my

Each of the 89 items will be accompanied by detailed coding rules and examples to distinguish mere information disclosure from interactive or transactional service functionality, and items will be scored using a dichotomous scoring approach as specified in the ESAI codebook. Each ESAI item is coded as 1 when the specified service feature or information is present on the website and 0 when it is absent. This binary approach is widely used in website content analysis studies because it supports systematic, replicable, and objective quantification of observable website features (Krippendorff, 2019). The scoring method is suitable for the study as it seeks to examine the extent of e-service content on local government websites rather than citizens' subjective perceptions or levels of satisfaction. The item scores will be aggregated into category-level scores and an overall ESAI score. Standardisation procedures will be applied where necessary to ensure comparability across councils (Krippner, 2019).

Jurisdiction will be operationalised based on the administrative classification of local authorities. In Malaysia, the local government system comprises three categories which are city councils, municipal councils, and district councils, as recorded in the official website of the Ministry of Housing and Local Government (KPKT) (Local Government Department, 2026a). Accordingly, jurisdiction will be measured by coding each local authority into these three categories. Innovation initiatives refer to observable evidence of formal digital, or service innovation initiatives undertaken or recognised by the local authority, such as smart city initiatives, digital service programs, or as simple as mobile applications (Lim & Kamaruddin, 2023; Lim & DigitalNet, 2022). This variable will be measured as a binary index based on the presence or absence of such documented innovation-related programs or tools for each local authority. Integrity infrastructure refers to observable, publicly disclosed integrity and anti-corruption governance mechanisms, including integrity or anti-corruption plans, integrity or anti-bribery policies, integrity units or committees, and dedicated integrity reporting channels. It will be measured as a composite index that captures the presence of these mechanisms, based on information disclosed on official websites and in related governance documents. The Internal Audit Function (IAF) will be operationalised as evidence of internal audit arrangements within the local authorities, including the presence of an internal audit unit, internal audit committee, internal audit report, or other references to internal control monitoring functions. Coding rules will differentiate Internal Audit Function (IAF)-related assurance structures from general integrity disclosures to reduce conceptual overlap.

3.3 Content Analysis Procedures

A detailed codebook will be developed before data collection (Krippendorff, 2019). The codebook will define each ESAI indicator, independent variable, and moderator. Coding categories will be described, together with examples of qualifying and non-qualifying evidence will be provided as well. A pilot coding exercise will be conducted on a subset of websites to refine unclear items and improve coder consistency. The main coding will be performed by trained coders using the same access protocol, browser settings, and coding sheet. Evidence for each score will be documented through website links, access dates, and screenshots. This procedure aims to improve transparency, replicability, and auditability of the proposed content analysis.

3.4 Reliability and Validity Considerations

Reliability will be addressed through coder training, pilot testing, independent coding, and reconciliation of coding discrepancies. Inter-coder reliability will be assessed using appropriate agreement statistics, such as Cohen's Kappa for categorical items and Krippendorff's Alpha, where the coding structure requires broader reliability assessment (Krippendorff, 2019; Vieira et al., 2010). Items with weak agreement will be evaluated and adjusted prior to final coding. Scholars or practitioners with expertise in local

1* Corresponding author: corina@uitm.edu.my

government digitisation, public-sector governance, and internal audit will assess the ESAI indicators and operational definitions to ensure content validity.

3.5 Proposed Moderation Testing Approach

After coding and scoring, the hypotheses will be tested with hierarchical moderated regression or an analogous general linear modelling approach. The primary implications of jurisdiction, innovation efforts, and integrity infrastructure on e-service content will be evaluated first. The IAF will next be added as the moderator, followed by interaction terms between the IAF and each independent variable. Continuous variables will be mean-centred before forming interaction terms, while categorical jurisdiction variables will be dummy-coded. Variance inflation factors will be examined to assess multicollinearity, and robust standard errors may be used to address non-normality or heteroscedasticity. Significant interaction effects in the expected direction, supported by simple-slope or interaction-plot interpretation, will provide evidence of moderation. This approach directly aligns with the proposed empirical test with hypotheses of H4-H6.

4. Contribution of the Conceptual Framework

From a theoretical standpoint, this paper expands Institutional Theory by illustrating how coercive isomorphism may influence local government digitisation through jurisdiction, innovation initiatives, and integrity infrastructure. The framework views the Internal Audit Function (IAF) as a means that can explain why similar coercive pressures can result in various outcome of e-service content across local authorities. With IAF as a moderating factor, the framework provides an explanation for variation offered in e-service outcomes, that goes beyond technology adoption and policy compliance narrative.

The integration of Internal Audit Function (IAF) is a vital conceptual contribution. It is because it underscores that external pressure alone is not sufficient to support long-term service quality, unified e-service content, or to sustain digital progress. The internal assurance competency may shape the way local government translate the policy mandates into a reliable and citizen centric websites. From the perspective of e-services content, a proactive and capable IAF can boost the digital operation by implementing enhanced monitoring and corrective action, as well as improving the reliability of digital service operations. In contrast, where internal audit capability is weak or limited, councils may demonstrate only partial or symbolic compliance despite being subject to similar external expectations.

Methodologically, the paper contributes by suggesting an objective approach to examining the local government website. The proposed E-Service Assessment Index (ESAI) offers a clearer and more transparent foundation for assessing the observable extent of e-service content across Malaysian local government websites. Through systematic content analysis of 151 Malaysian local government websites, the paper provides a consistent framework for measuring actual website service content. The inclusion of coding procedures, operational definitions, reliability checks, and moderation testing further strengthens the empirical testability of the framework.

In practice, the framework is useful in helping policymakers, authorities, local councils, and internal auditors to see more clearly the gaps that exist between the policy expectation and actual presentation. Therefore, it can provide a basis to benchmark across councils and identify important areas for service improvement. Other than that, it shows how internal audit can support monitoring, provide a follow-up action, and continuous improvement for digital governance quality. Overall, the framework provides practical value for improving municipal digital transformation, strengthening accountability, and supporting more citizen-centred public service delivery in Malaysia.

1* Corresponding author: corina@uitm.edu.my

5. Conclusion

This conceptual paper recommends that differences in e-service content across Malaysian local government websites should also be recognized as an institutional and governance outcome, alongside the technological aspect. The local government e-services continue to differ in their offerings although they implemented the same digitisation agenda and strategic plan. Therefore, grounded in Institutional Theory, the paper proposed a framework that explain these variations through coercive pressures represented by jurisdiction, innovation initiatives, and integrity infrastructure.

The main contribution of this paper is underneath of its framework, by combining few elements of institutional pressures. The coercive isomorphism underlies the institutional pressure, the Internal Audit Function serves as a moderator, and the proposed E-Service Assessment Index acts as an objective measurement tool. Beyond a general discussion, this paper examines how institutional mandates are translated into observable e-service content on local government websites.

In summary the framework offers a useful theoretical, methodological, and practical contribution. Theoretically, it expands coercive isomorphism by demonstrating that internal governance ability can affect the impact of external pressure. Methodologically, it supports an objective content-analysis approach through the E-Service Assessment Index (ESAI). On top of that, in a practical way, the framework provides a useful basis for policymakers, local councils, and internal auditors to identify gaps, benchmark performance, and strengthen citizen-centred digital service delivery. These contributions help support a more structured assessment of e-government development, specifically local government's e-services and may assist future efforts to improve local digital governance and public service quality.

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1* Corresponding author: corina@uitm.edu.my

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