IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

# Exploring the Public Value of Electronic Government in Sri Lanka: A Critical Analysis of Emerging Research

**[1]Nuwan Hettiarachchi, [2]Prof. Jayendrika Wanigasekara**

[1]Girne American University, Cyprus
[2]Department of Accountancy, Faculty of Business Studies & Finance, Wayamba University, Sri Lanka

***Abstract:*** The study aims to explore the public implications of e-government in Sri Lanka, filling the existing literature gap and offering a rigorous understanding. Two research questions formulated to guide the research: (1) What is the public value of electronic government? (2) What are the key determinants of public value? Notably, the outcomes suggest that the common good for the public, referred to as "the public value," is largely unknown to the public. More significantly, there is a notable gap in the rigorous assessment of the public implications of e-government initiatives. This implies the necessity of undertaking up-to-date, rigorous assessments at the project, institutional, regional, and national levels. Furthermore, study outcomes suggest the urgent and vital need for a framework that measures the progress of less mature e-government, taking into account the unique socio-technical dimensions of a developing economy like Sri Lanka. This paper presents a rigorous review of public value in current e-government. It proposes a conceptual framework, along with an e-government implementation model tailored to the country's context, based on a systematic review of the literature.

***Index Terms*** **- e-government, public value, value co-creation, conceptual framework, ICT, Sri Lanka**

## I. INTRODUCTION

Advancements in digital government to support effective public service delivery are a modern priority in public management. The concept of digital government, or e-government, has evolved in terms of conceptualization, implementation, and evaluation since the 1980s. With the emergence of new technology, e-government has become progressively more complex. The concept is not new anymore. The digitalization of public services to meet rising public expectations has become more complex due to conflicting priorities and a digitally sophisticated public in the global population. Therefore, e-government is recognized as a means of achieving sustainable economic growth and enhancing the quality of life (United Nations Department for Economic and Social Affairs, 2024).

E-government, more commonly described as the adaptation of information technology (ICT) to deliver effective, efficient services to citizens and businesses by a government (Simonofski et al., 2020; Mensah et al., 2022). The public value is an emerging trend in assessing e-government, conceptualized as the collective expectation of citizens regarding public services offered by a government (H. Moore, 1995; Moore, 2021). Where the public or citizens are stakeholders in a society, representing various roles, such as taxpayers, customers of public services, or policymakers (Andersen et al., 2021).

The development of e-government is indicative of an upward trend. Globally, there is a noticeable increase in investments in digital infrastructure to promote an efficient public service delivery ethos, thereby enhancing public inclusiveness in decision-making (Andersen et al., 2021; Maragno et al., 2021; Song et al., 2024; United Nations Department for Economic and Social Affairs, 2024). However, the United Nations' latest e-government survey reveals sharp disparities in capacity and accessibility, as well as a widening digital divide in developing countries. Although these governments have taken distinct approaches to develop digital platforms that address public expectations, the conflicting priorities in these countries' facets prove that there is no single way to address issues related to emerging economies. Digital exclusion, limitations in online freedom of expression, data protection and privacy violations, and inadequate regulatory frameworks are some of the key impediments in these countries (United Nations Department for Economic and Social Affairs, 2024). Notably, the UN report's outcome suggests that these countries may struggle to bridge the digital transformation gap, even with the most optimistic forecast from the UN E-Government Development Index (EDGI). This highlights the need for a more comprehensive and nuanced approach to understanding the public value delivery of e-government initiatives from the public perspective (United Nations Department for Economic and Social Affairs, 2024).

Although the UN survey (United Nations Department for Economic and Social Affairs, 2024) reflects upward global trends in e-government, showing positive signs of transformation from lower to higher EDGI, the proportion of the world population lagging in digital government development has decreased from 45% in 2022 to 22.4% in 2024. Europe has the highest average EGDI value (0.8493), followed by Asia (0.6990), the Americas (0.6701), Oceania (0.5289), and Africa (0.4247). Asia has seen the sharpest increase in its average EGDI value (7.7 percent), followed by Africa (4.8 percent), the Americas and Oceania (4.1 percent), and Europe (2.3 percent). The progress has been uneven. Regional disparities in digital development remain. Asia has made impressive

strides since 2022. Singapore, the Republic of Korea, Saudi Arabia, the United Arab Emirates, Japan, and Bahrain are leading in digital government development. Strong upward trends have also been driven by the significant digital advancements made in China, which focus on integrating cutting-edge technologies into public services. Despite these advancements, 1.9 billion people remain at the crosshairs of the digital divide (United Nations Department for Economic and Social Affairs, 2024).

Sri Lanka recognized the global trends in e-government. The national computer policy was introduced in 1983 (Ministry of Technology, 2021). The ambitious e-Sri Lanka project was launched in 2002 (Rainford, 2014). To address the digital divide, the e-library initiative Nenasala was launched in 2005. Subsequently, the five-pillar e-government strategy was launched under the e-government 2020 vision. ICTA, the apex government body for information technology, launched various digital transformation initiatives, including 18 digital government-related initiatives, an initiative to enhance the digital revenue economy, five initiatives focusing on the digital industry, and fourteen impactful initiatives aimed at building digital capacity (Ministry of Technology, 2021; Wattegama, 2021).

Despite all these ambitious efforts, Sri Lanka's public sector apparatus remains inefficient (Elapatha & Jehan, 2020; Tennakoon, 2020). E-government ranked 98. It is a 32.4% decline compared to 2014, which recorded the highest index rank. The e-government development index trails behind regional leader Singapore, ranked at 0.9691, and sub-regional leader Maldives, with an index of 0.6745. More significantly, the e-participation index of 0.4110 is very low compared to regional leader Japan (0.9863) and sub-regional leader India (0.6575). Notably, e-government literacy, as measured by the human capital index, remains significantly lower at 0.2778 compared to the regional average of 0.5579. All these indicate a more muted nature of citizen-government interactions (United Nations Department for Economic and Social Affairs, 2024).

The success of e-government is closely correlated with the value it creates for the public (Deng et al., 2018). The success or failure of such digital initiatives predominantly depends on citizens' take-up. The perceived value realized from public utilization of these digital initiatives. Likewise, perceived value realization needs to be identified with a greater focus on public motivation, intergovernmental strategic connectivity, and trust (Nielsen, 2017).

In this context, it has become clear that a rigorous evaluation of e-government performance in Sri Lanka is necessary. Though there were several attempts made to understand the public implications of e-Sri Lanka(Sufna & Fernando, 2015; Pushpakumara & Jothirathne, 2017; Alahakoon & Jehan, 2020; Liyanage et al., 2020; Fernando & Madhuwanthi 2022, 2022; Weerasinghe et al., 2023; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024) initiative after launching decades ago, the literature gap suggests the absence of a rigorous UpToDate empirical assessment on this critical area, critical to the digital economy. The last known comprehensive assessment was performed by Karunasena and Deng in 2011(Karunasena & Deng, 2011), which lacks validity and reliability. Currently, the implications of e-government initiatives for the public are not well understood or measured. There is no real mechanism or method in place. Therefore, the common good for the public, the public value of e-government in Sri Lanka, is unclear.

This research aims to understand the public implications of e-government in Sri Lanka based on a critical analysis of emerging research.

Accordingly, research questions are formulated as follows:

1. What is the present state of e-government's value to the public?
2. What are the key determinants to consider when evaluating the public value in e-government in Sri Lanka?

The research questions were answered by critical analysis of existing literature, focusing on (a) the conceptualization of e-government, (b) the suitability and adoptability of existing frameworks to assess the public value of e-government initiatives, and (c) developing a conceptual framework that can guide research and practice.

The following sections describe the theoretical background, public value measurement frameworks, public implications, and the value of e-government in Sri Lanka, as well as the results analysis, discussion, a proposed conceptual framework, and conclusion.

## II. THEORETICAL BACKGROUND

### 2.1 Public value of e-government

Information and communication technology is the primary enabler and driver of public value (United Nations Department for Economic and Social Affairs, 2024). It is impractical to consider value creation in systems related to digital transformation without focusing on activities and actions related (European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024; MacLean & Titah, 2022). The values are defined in different perspectives. Both public and private sectors exist to serve citizens. Still, with a very contrasting focus (Andersen et al., 2021; Maragno et al., 2021; MacLean & Titah, 2022). The public sector serves citizens with a service mindset, viewing people as constituents. However, the private sector is profit-oriented, viewing citizens as customers (Maragno et al., 2021; Scupola & Mergel, 2022). However, these contrasting views serve a simple core idea: create public value. Therefore, modern-day public managers are more concerned with public value. Public managers should create public value from the assets entrusted to them by the public (Moore, 2021).

The strategic triangle concept is taught and applied to guide this value-creating discipline in management within a government. Moore's strategic triangle is a strategy model for the public sector, similar to those used by private sector executives. The core idea behind the concept is to exploit value-creating opportunities in the public sector based on their point in a triangle form. Specifically, these include public value, organizational capacity, legitimacy, and support (Moore, 2021). Subsequently, various scholars have contributed to the advancement of the public value concept (MacLean & Titah, 2022; Song et al., 2024). Kearns (Kearns, 2004) contribution to the advancement of theoretical development was significant.

This study adopts public value theory, based on Moore's (Moore, 2021) strategic triangle concept. Implications for citizens focus on theorizing public value from a public perspective. Although actions from government institutions have no direct impact on citizens, in a broader sense, citizens and their interests are still impacted as stakeholders (Castelnovo & Simonetta, 2007; Andersen et al., 2021). Therefore, assessing public value from "citizens as stakeholders" perspective, such as taxpayers, business entities, or policy

makers, etc., is a necessity for any successful e-government (Castelnovo & Simonetta, 2007). This is to deliver public value in response to public expectations.

E-government is recognized as the modern-day cornerstone for sustainable economic development, which will have a socio-political impact on society (Department of Economics and Social Affairs, 2022). Therefore, adopting the public value concept, public value measuring frameworks are used to evaluate socially desirable outcomes, such as trust, fairness, transparency, and legitimacy, and are a globally recognized trend. This suggests that the capacity to deliver socially desirable outcomes of any e-government initiative requires addressing the public value delivery outcome of such initiatives, which will have a profound impact (Andersen et al., 2021).

The sources of public value creation are the second theoretical concept. The delivery of quality public services, the effectiveness of public organizations, and the achievement of socially desirable outcomes are recognized as sources of public value creation (MacLean & Titah, 2022; Nnaji et al., 2023; Taufiqurokhman et al., 2024). Quality e-government services create public value. Kerns and Kelly et al. argued the impactful nature of quality e-government on public value delivery. The effectiveness of public service organizations is necessary to deliver public expectations and desires (Barker et al., 2022; E-Government in Local Public Sector Management and Accounting, 2022).

The third theoretical concept is the inventory of public value, which refers to the identification and classification of the various dimensions generated from public value sources (Othman & Hussin, 2024). Some of the key representatives are user orientation, quality, efficiency, openness, responsiveness, equity, confidentiality, democracy, self-development, and environmental sustainability. Notably, Bozeman (Bozeman, 2023) broadly identified and classified 72 public values into seven constellations, addressing their importance and relationship to public administration. For example, user orientation could be appreciated through the public service delivery aspect. Equity, trust, democracy, self-development, and environmental sustainability can be achieved through socially desirable outcomes (Bozeman, 2023; Wellstead et al., 2022; Othman & Hussin, 2024; Thabit et al., 2025).

The dimensions of e-government are the fourth theoretical concept. The evolving literature suggests that there can be multiple approaches to e-government. These are interpreted as different stages, such as (1) e-citizens, (2) e-services, (3) e-administration, and (4) e-society. The key focus of all these approaches is to facilitate maintaining a strong public-to-public service institution relationship (MacLean & Titah, 2022; Nnaji et al., 2023; Othman & Hussin, 2024). E-administration aims to eliminate labor-intensive public services and minimize operational costs. Delivering effective, high-quality services to the public through pioneering means encompasses e-services. The e-citizen's perspective promotes public inclusiveness by advancing accountability, transparency, and participatory democracy. The e-society approach emphasizes building public relationships with public organizations, nonprofit organizations, and community development initiatives (Maragno et al., 2021; Othman & Hussin, 2024; Thabit et al., 2025).

Inspired by renewed and increased attention, Mazzucato (Mazzucato & Ryan-Collins, 2022) emphasizes the state's capabilities to be potentially as entrepreneurial as businesses and its ability to create new markets (Sancino, 2022). This assumes a passive role as a fixer in market failures to co-create public value. In this respect, Bryson et al. (2015) proposed a revised model based on the original theory of public value. Instead of placing the public manager at the center of the strategic triangle, as in the original concept, other elements are represented at the center in the revised model to reflect the dispersed and multi-actor nature of public value co-creation, which better suits current dynamics (Sancino, 2022). Public-private partnerships gained global attention as a promising solution to address the increasingly complex public service ecosystem. Such synergies are conceptualized as the co-creation of public service value, whereby multiple actors share and integrate their resources to deliver public services (Kurkela et al., 2025). Innovating public service provision through the construction of a sustainable ecosystem in which various categories of stakeholders are involved in the programming and planning of public policies, the design and delivery of public services, as well as in the processes of resource allocation, reporting, and evaluation of the use of public resources should aim at co-creation that led to public value co-creation (Sancino, 2022). Co-creation of public value is the fifth theoretical concept.

Summarizing, the public value theory, value co-creation in new public governance, digital transformation, extended organizations, and ICT-enabled public sector reforms form a desirable array for studying the public value of e-government. This builds upon earlier studies in this field that have developed frameworks for measuring public value.

Based on various findings, a summary of essential sources of public value could be illustrated as follows:


*Figure 1: Essential sources of public value*

**2.2 Public value of e-government measuring frameworks**

With the evolution of e-government through various phases, the concept of public value gained popularity across modern-day public administration. Introducing public value frameworks to assess public services as the yardstick of measuring servicing organizations' performances [34] further exemplified society's value-driven service delivery concept [34, 15, 35, 3, 2].

Kelly et al.'s [20] proposed framework consists of trust, quality service delivery, and achieving socially desirable outcomes focused on quality public service. The quality was measured based on (1) e-government usage, (2) user satisfaction, (3) cost-effectiveness, (4) information provision levels, (5) the extent of e-government focus on priorities, (6) the extent of e-government focus on citizens' needs and (7) availability of public choice later adopted by Kern [21].

Globally, the concept of public value is gaining increasing popularity. Public value is widely recognized as the driver for e-government. Popularity is further exemplified by various efforts to develop and assess frameworks for measuring performance.

Kearns (Kearns, 2004) notably adopted the study outcomes of Kelly et al. and proposed delivering quality public services based on public trust, quality service delivery, and socially desirable outcomes. In this framework, quality delivery of public service is measured based on (1) information provision level, (2) e-government usage, (3) availability of choice, (4) user satisfaction level, (5) extent of e-government focus on need, (6) extent of e-government focus on priorities and (6) cost-effectiveness. This framework was used to assess the public value of e-health initiatives in the United Kingdom.

Golubeva further extended Kearn's (Kearns, 2004) framework. Accordingly, a new framework was presented to evaluate the public value of Russian Federation e-government portals based on (1) public trust, (2) public policy outcomes, and (3) public service quality dimensions. Usability, citizen-centricity, and openness indicators are used to measure the quality of public services. Public trust is measured based on transparency and interactivity (Twizeyimana & Andersson, 2019).

Karunasena et al. (Karunasena et al., 2011) further extended Kern's framework and included public organizations' effectiveness as a dimension for evaluating the public value of e-government. The effectiveness is measured based on accountability, citizens' perception, and efficiency indicators. Also, public trust in public organizations measured based on (1) citizens trust in e-government services (2) information security and privacy (3) transparency of e-government initiatives this framework, the public service delivery was evaluated based on (1) information availability (2) information significance from the citizens perspective (3) service accessibly through multiple channels (4) service delivery fairness (5) cost effectiveness (6) public satisfaction and (7) citizens take-up of e-government services.

Based on the survey data collected on United Kingdom e-government projects, Grimsley and Meehan (Grimsley & Meehan, 2007) proposed a framework based on (1) services, (2) user satisfaction, and (3) trust and outcomes dimensions.

The EU's eGep (European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024) framework assess public value based on financial, political, and constituency values. These public value drivers are focused on efficiency, effectiveness, and democracy. Efficiency is measured by examining (1) cashable gains for public organizations, (2) to the extent public organizations empower employees, and (3) public organizations' infrastructure improvements. Moreover, democracy is gauged based on (1) the extent public organizations demonstrate openness, transparency and citizen participation and further, based on (1) administrative burden reduction on citizens (2) public service inclusiveness and (3) improved public satisfaction with e-government services (European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024).

Notably, ADEA (The Agency for the Development of Electronic Administration) in France also presented a framework focusing on financial benefits to the public sector and citizens. This framework primarily refers to monetary gains and losses in terms of net present value (NPV) and internal rate of return (IRR) by examining e-government projects. Furthermore, the social and operational values are measured based on improved service delivery dimensions and employee satisfaction with the projects. Assessing the benefits to citizens, service quality, social impacts, cost and time savings are considered as direct benefits that generate customer value (European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024).

Liu et al.'s (Liu et al., 2024) proposed framework focuses on the multidimensional nature of projects across European Union member states. This framework was developed with a focus on financial, social, and operational values, primarily to assess public value from the G2B (Government to Business) perspective, with a particular emphasis on information technology-related investments in the public sector.

Omar et al. (Omar et al., 2011) presented a conceptual framework focusing on quality e-government services. The quality is measured by factoring (1) system, (2) service, and (3) information quality based on citizens' perceived value.

Bai (Bai, 2013) adopted Deng's (Deng et al., 2018) framework to measure Chinese e-government practices and proposed a framework based on (1) public service delivery, (2) public organizations' effectiveness, and (3) development of trust. In this framework, public service delivery is measured based on choice, fairness, service availability, citizen satisfaction, and cost-effectiveness. The effectiveness of public organizations is measured based on interactive communication, the citizens' perspective, and efficiency. Also, the development of trust is gauged based on the security and privacy of systems, transparency, and public participation.

Rawahi et al. (Rawahi et al., 2016) critiqued the biased nature of efficiency and service effectiveness in earlier frameworks. Instead, it is proposed to assess public value with a greater focus on service delivery, citing the lack of public value generation in emerging economies. Accordingly, a framework presented arguing key determinants of public value as (1) e-technology, (2) operational capability, and (3) authorizing environment, aligning with Moore's strategic triangle and Orlikowski's structuration model.

Zavattaro (Zavattaro & Brainard, 2019) argued that millennials' social media usage can change the public managers' delivery ethos. Therefore, they emphasized the importance of utilizing social media to deliver public services, aiming to foster meaningful micro-interactions that promote transparency, dialogue, and collaboration. Accordingly, the framework proposed encourages governments to conceptualize a social media strategy based on millennials' preferences and expectations that lead towards a content delivery approach based on 1) trust, (2) openness, (3) public engagement, (4) user preference, (5) democratic exchange, and (6) accountability.

Chu et al. (Chu & Tseng, 2018) put forth a framework advising that (1) operational, (2) social, and (3) political values are necessary to consider in measuring value to the public based on open government data in Taiwan. The Operational value is estimated

based on user orientation and effectiveness. Moreover, the social value is measured by examining public trust, quality of life, self-development, and environmental sustainability. Additionally, based on the transparency and accountability of public services, citizen participation, and equity in accessibility, the social value is determined.

Papi et al.'s (Papi et al., 2018) PV measurement model emphasized the criticality of practical applicability. It highlights the significance of public administrators' (PAs) ability to achieve long-term public satisfaction and functional needs. Accordingly, the model consists of a value pyramid with intangible, economic, social, and public value at the top layer, based on the assumption that the benefits of individual layers should outweigh the sacrifices required to create value in separate value-creation layers. Intangible value is measured through five domains: structural, human, relational, empathetic, and evolutionary. The economic value is calculated by comparing financial equilibrium and financial efficiency. Lastly, temporal, quantitative, qualitative, and monitory subdomains are measured to obtain social value.

Talbot's (Talbot, 2011) framework presents an alternative approach, the scorecard, arguing that public value is realized as (1) self (2) public and (3) procedural interests. Providing good-quality, cost-effective, and affordable public services is described as a form of self-interest. Public interest in this is considered a social outcome aspect of public services, such as improved welfare for taxpayers. Moreover, the procedural interest encompasses equity and fairness in public decision-making.

Suri and Sushil (Suri & Sushil, 2022) conceptualized a framework focusing on Indian e-government initiatives similar to Bhattacharya (Bhattacharya et al., 2012). However, Suri and Sushil focused on (1) transparency, (2) efficiency, (3) interactivity, and (4) decision support as main dimensions in their framework. Efficiency is measured based on improvements in service delivery, reduced paperwork, simplified procedures, and effective communication. Information delivery reliability, fairness, ease of access, and completeness of information focus on measuring transparency. Decision support is valued for its enhanced planning and decision-making capabilities, as well as improved monitoring and control. However, Bhattacharya's framework is e-service quality-focused from a public perspective. In this framework, quality is assessed based on citizen-centricity, technical adequacy, information usefulness, comprehensiveness, transaction transparency, usability, interactions, privacy, and security dimensions.

Papadomichelaki and Gregoris (Papadomichelaki & Mentzas, 2012) also proposed assessing the pubic value of e-government based on quality of e-government (1) trust, (2) reliability, (3) ease of use, (4) content and appearance of information, and (5) interaction functionality dimensions.

Lindgren and Jansson (Lindgren & Jansson, 2013) made efforts in conceptualizing a framework through hermeneutic analysis, discussing various combinations of three (1) service, (2) electronic, and (3) public dimensions for theory building, arguing the multidimensional nature and complexity of e-government.

Twizeyimana and Andersson's (Twizeyimana & Andersson, 2019) framework conceptualizes public value under (1) improved public services, (2) improved administration, and (3) improved social value. Improved public administration is assessed using administrative efficiency, open government, ethical behavior, and professionalism. Additionally, improved social value and well-being, as well as increased trust and confidence in the government, were factored into the valuation of improved social value.

All these frameworks focus on evaluating public value based on various facets, contrasting methodologies, and different perspectives. These frameworks and models have various shortcomings, underscoring the need for a framework that suits less mature e-government in a less developed and emerging economy country setting, such as Sri Lanka.

Adding to the ongoing debate on the suitability and adoptability of these frameworks for developing countries, for example, Kearns's framework (Kearns, 2004) evaluates public value based on the delivery of services, overlooking service quality dimensions such as information quality and usability. Although Moore (Moore, 2021) considered operational efficiency and effectiveness of a public organization to be essential factors in measuring public value, Kearns's (Kearns, 2004) framework should also have focused on those critical dimensions. Notably, the same framework lacks measuring dimensions such as trust and socially desirable outcomes of e-government, which were recognized as two primary sources of public value creation. Another shortcoming critiqued related to this framework is the absence of references to values such as efficiency, responsiveness, openness, user orientation, self-development, and democracy. Golubeva's framework (Twizeyimana & Andersson, 2019) is limited to Russian Government portals, hence not accurately representing the public value of e-government. Both frameworks of Golubeva (Twizeyimana & Andersson, 2019) and Karunasena et al. (Karunasena et al., 2011) inherit the limitations of Kerns'(Kearns, 2004). Arguably, these frameworks also addressed socially desirable outcomes and service quality. Another concern is that both of these frameworks are conceptualized based on secondary data. This prevents the collection of essential feedback from citizens, thereby limiting validity. Moreover, the framework of Heek (Twizeyimana & Andersson, 2019) is often criticized for not fully addressing the service dimension, outcomes, and the focus on trust. The eGep and framework of AEDA of France (European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024) are also assessed as too e-administrative being more suited for more mature e-governments with advanced economies such as European countries.

Meanwhile, these frameworks encourage researchers to use secondary data, official statistics, third-party web assessments, and standard cost model estimations, ignoring citizens' direct involvement. Although Twizeyimana and Andersson's (Twizeyimana & Andersson, 2019) framework broadly focuses on public value, it lacks metrics for measurement. Perhaps most notably, this framework lacks essential feedback from the public, as it is conceptualized based on existing literature. Looking further, Liu et al. (Liu et al., 2024) argue that their framework is biased towards the G2B e-government perspective. In any public value measuring framework, it is essential to factor in the G2C perspective of e-government. Omar et al.'s (Omar et al., 2011) presented framework also lacks the achievement of socially desirable outcomes, trust, and operating effectiveness dimensions, which are essential in measuring public value.

Both private and public sectors must create value for citizens. Therefore, considering only economic benefits in a public value measuring framework in today's complex public service delivery environment is not desirable (Deng et al., 2018). The public plays a critical role as different stakeholders. In this context, the social and democratic values of a society must also be considered to examine the actual public value of e-government (Andersen et al., 2021). Nowadays, public-private partnerships have garnered global attention for addressing the increasingly complex dynamics of public service delivery (Naveed et al., 2025). Such partnerships, which largely fail to reflect the co-creation of public service values, are another shortcoming.

Drawing all these concerns further underscores the necessity of a new conceptual framework that is empirically tested and validated, taking into account the unique socio-technical aspects of Sri Lanka. To adequately address this, it is necessary to rigorously assess the current status of the public value of e-government in Sri Lanka.

## III. PUBLIC VALUE AND IMPLICATIONS OF E-GOVERNMENT IN SRI LANKA

Back in 1967, Sri Lanka first introduced computers to the public sector by introducing an IBM (International Business Machines) accounting machine to the Insurance corporation (Ministry of Technology, 2021). Followed by a computer to the Department of Statistics and Engineering Corporation. Subsequently, many computational programs were introduced to the public sector. All these initiatives marginally yielded anticipated outcomes. In 1983, the national computer policy was introduced (Ministry of Technology, 2021). In 2002, the e-Sri Lanka initiative (Rainford, 2014) was launched, with the expectation of a significant outcome in e-government development in the country. This initiative was originated by the NCC (National Chamber of Commerce) and local software industry leaders, with funding from the US Agency for International Development (USAID) (Rainford, 2014). Although the initial focus was on the software industry, subsequent funding by the World Bank and other donor organizations, social actors, and consultative groups led to a broader focus, recognizing information technology as a way to achieve equity, economic growth, and peace. The broader intention was to improve public services, bridge the digital divide, improve the quality of life, and achieve economic growth. In this context, the GoSL introduced unique e-government initiatives (R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024).

Collaboratively, the GoSL adopted a five-strategic thrust-based approach (ICTA, 2020) by introducing e-government vision 2020 through ICTA, the government's apex body responsible for Implementing Information technology initiatives. Under these, Nenasala (e-library) rolled out across the country in 2005 to address the digital divide. ICTA(ICTA, 2020) launched impressive digital initiatives such as NSDI (National Spatial Data Infrastructure), e-Parliament, e-Motoring, e-Divisional Secretariat (e-DS), BDM (digitalization of Birth, Death, Marriage certificates), e-Pension, e-SLIMS (State Land Information Management System), Online Revenue License Issuance, e-Samurdi, e-populations register, e-Local Government, National Fuel Pass, and, more recently, GOVPay platforms(R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024).

Despite all these efforts, the latest reports published by the Department of Statistics (Department of Statistics, 2023) indicate that Sri Lanka's computer and digital literacy has yet to show significant improvements. The take-up rate of e-government initiatives is 22.3% (Department of Statistics, 2023). Notably, the public value remains largely unknown to the general public. Still, the public services apparatus remains ineffective, trailing behind regional countries such as Japan, South Korea, Singapore, and Malaysia, which are noticeably credited with significant achievements. These realities suggest that Sri Lanka's e-government has yet to materialize fully, and the expected outcomes remain largely unaccounted for, unassessed, and unclear to date (Samansiri & Wanigasundera, 2015; Sufna & Fernando, 2015; Deng et al., 2018; Galpaya et al., 2019; Withanage et al., 2022; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024).

The information provided through e-government services is not significant. The majority of public service government institutions' websites provide static information such as functional and organizational specifics. These organizations often hold information that citizens require. Still, most public service institutions' online platforms do not promote two-way communication and rarely solicit citizens' feedback (Karunasena et al., 2011; Deng et al., 2018).

Information security of public information is also a significant concern. Although the government created a necessary regulatory framework, the reality at the institutional level is different. The last known study suggests that nearly 10% of statutory boards and 32% of ministries reported unauthorized access or loss of data-related incidents. These security loopholes tarnish the public image of e-government (Deng et al., 2018). Although the GoSL has taken steps in the government cloud to host public data with a certification authority, there is a lack of transparency regarding the use of public funds (Fernando & Madhuwanthi, 2022). A notable example is that only a few government institutions disclose their budgets and expenditures related to public procurements. Of these consequences, public trust remains moderate regarding these digitalization efforts (R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024).

Sri Lanka's e-government is at an early stage; its e-information Government websites focus more on providing static information. A limited number of websites encourage two-way communications and transactions. The Local Government Network (LGN) initiative is not functioning efficiently due to various constraints (Deng et al., 2018; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024). The absence of a one-stop-shop platform that allows citizens to interact with the public to access public services limits their participation in public discussions (Withanage et al., 2022). The web tools necessary for e-consultation and e-decision services have yet to materialize on government websites (Deng et al., 2018; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024). Due to these reasons, Sri Lanka's e-participation index ranked very low, 108th out of 193 countries, and fell behind the benchmarks.

Countries with more mature e-government systems have higher citizen adoption rates (Deng et al., 2018). A recent study on Sri Lanka's citizens' take-up of e-government services found that the tendency to utilize e-government services is also lower. However, the Sri Lankan public indicates a strong desire for effective e-government services, as evidenced by a strong public preference for online services over visiting government offices. These outcomes indicate that the government's efforts to create public awareness of e-government services through its public institutions are inadequate (Sufna & Fernando, 2015; Fernando & Madhuwanthi, 2022; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024).

Encouraging citizens' participation in public discussions is also a significant milestone in any e-government. A study related to e-government services stipulates that the Sri Lankan public is not encouraged to participate in public decision-making due to the stagnating stage of e-government services. These websites often lack direct interaction with citizens in day-to-day activities. Critical web tools, such as e-consultation and e-decision-making, are missing. As a result, the public is actively prevented from participating in the public decision-making process. Achieving participatory democracy in e-government has yet to be fully materialized (Deng et al., 2018).

Achieving a socially desirable outcome has always been a key objective of any e-government. Notably, 85% of public service institutions do not provide e-government services (Deng et al., 2018). A delay in implementing e-services implies a failure to deliver citizens' expectations, driving negative sentiment towards government initiatives (Galpaya et al., 2019). Although Nenasala centers were launched under the e-Sri Lanka initiative to improve digital literacy, the Department of Census Statistics (Department of Statistics, 2023) reported computer literacy at 39.5% and digital literacy at 63.8%. Apart from the Western Province, the rest of the provinces showed little progress. The lower participation in public surveys related to the field suggests that the public value is not well understood (Deng et al., 2018). The lack of a precise mechanism or framework to measure the public value of these dimensions also suggests that the objective of delivering socially desirable outcomes remains unclear and has yet to be fully realized (Vidanagama & Karunathilake, 2021; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024).

The e-administration approach of e-government focuses on delivering cost-effective services to the public (Deng et al., 2018). Cost-effectiveness is a significant concern (Wattegama, 2021). Sri Lanka is struggling with an economic crisis that has led to a heavy reliance on taxpayer funds, the World Bank, and other donor organizations for digitalization projects. To date, there have been no rigorous efforts to assess the direct cost savings of e-government initiatives (R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024). As a result, the funds received from donor organizations and taxpayers, channeled to e-government projects, are largely unaccounted for due to the lack of an assessment framework.

Several attempts have been made to assess the performance of e-government in Sri Lanka. Samaratunga and Waddell investigated potential problems related to e-government-based reforms, while Davidraju attempted to examine e-government implementation strategies. Focusing on a telecenter development project, Gamage and Halpin examined the impact of e-government initiatives on addressing the digital divide. Weerakkody et al. further discussed the challenges faced in developing and implementing e-government initiatives. Weerakkody et al. also attempted to examine the influence of national culture on e-government implementations, comparing them to those in the United Kingdom. However, the rigorous assessment gap has remained significant for nearly two decades now (Karunasena et al., 2011; Karunasena & Deng, 2011; Deng et al., 2018; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024). The last known attempt was made by Karunasena and Deng in 2011 (Karunasena & Deng, 2011), which was critiqued for validity and reliability issues due to the study outcomes being based on secondary data.

Sri Lanka's public value of e-government from the citizens' perspective remains unclear (Deng et al., 2018; R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024). Not measured. The government service apparatus continues to underperform in achieving the desired outcomes for the public (Elapatha & Jehan, 2020). Notably, there have been no rigorous attempts made to assess the public value of e-government initiatives in the present day, compared to regional peers over the last two decades

Summarizing all, it is clear that there is an urgent and essential priority for performing a rigorous, up-to-date assessment of the public value of e-government in Sri Lanka due to the following reasons: Firstly, although two decades have passed since the launch of the e-Sri Lanka initiative, public awareness and uptake remain low. Secondly, these digital transformation projects heavily rely on various donor organizations. The government is obligated to account for the value of the funds' utilization. Thirdly, to address the research gap in assessing value for citizens from a public perspective. Fourthly, to align e-government to achieve the GoSL's strategic vision and mission of achieving a USD 30 billion digital economy by 2030

### 3.1 Key determinants of the public value of e-government

The readiness of ICT infrastructure is a critical enabler for delivering public services. Sri Lanka's telecommunication infrastructure index (TII) is 0.7936 points behind regional leader Iran (0.8987) and world leader the UAE (1.000). TII is a composite measure that assesses the development of a country's telecommunications infrastructure, which has a direct impact on the UN's E-Government Development Index (EGDI) (United Nations Department for Economic and Social Affairs, 2024). Furthermore, the ICT in e-government indicator suggests that, although a national e-government strategy or equivalent exists, digital identity or similar authentication required to enable access to online services is also present in Sri Lanka. However, Sri Lanka still lacks an online public procurement portal (Institutions Global Department, World Bank, 2025). As a result, the E-participation index is 0.4110, the Online Service Index is 0.5494, and the E-government literacy index is 0.2278, which is very low (United Nations Department for Economic and Social Affairs, 2024). These indicators suggest that the substantial impact of less developed telecommunication infrastructure and the digital divide is evident in e-government development. Moreover, uneven internet access, regulatory constraints, rigid administrative procedures, a lack of inter-organizational connectivity, low computer literacy (39.5%), marginally improved digital literacy (63.8%) (Department of Statistics, 2023), security vulnerabilities, and budgetary constraints remain key impediments to e-government development in Sri Lanka (Tennakoon, 2020). The same study (Tennakoon, 2020) further indicates a lack of ICT infrastructure, limitations in mobile data network bandwidth coverage, inadequate awareness, and the high cost of devices, which also act as barriers.

A similar study (Withanage et al., 2022) suggests that a lack of users' trust in internet service providers, as well as the level of security standards and quality of e-government systems, also act as impediments to e-government development. Notably, public reluctance to share, exchange, and store their personal information, especially financial information, on online platforms is a unique barrier to these developments. Lack of public awareness, public distrust of online payment systems, mistrust of e-government services, and technical difficulties are socio-technical concerns that uniquely impact the progress of e-government. The study outcome on Nenasala tele centers further suggests a public lack of awareness about this initiative in local areas (Withanage et al., 2022).

Recent studies recommend the adoption of modern BPR (Business Process Reengineering) practices for the successful completion of digital transformation projects (Olawumi Dele Awolusi & Olusegun Sulaiman Atiku, 2019; Pasaribu et al., 2021). Adopting established BPR practices in process reengineering, including flexibility, team orientation, cost-effectiveness, and enhanced cross-functionality, led to a better delivery of public value (Kumar et al., 2019). Subject matter experts at ICTA indicate that a lack of sound BPR practices leads to e-government project failures in Sri Lanka. For example, the study related to the e-Pension project noted that the implementation was delayed by four years from the initial schedule due to a lack of human resources, skilled employees, inter-organizational conflicts, bureaucratic administrative procedures, funding shortages, and restrictive social conditions (Vyver &

Rajapakse, 2012). Out of these, the most notable was the complete disconnection between the pension department and the rest of the other related public service organizations (der Vyver & Rajapakse, 2012). Further, a study (Tennakoon, 2020) recommends Language barriers, resistance to change, lack of public trust, policy barriers, financial constraints, inadequate infrastructure, lack of integration across government systems and organizations, change management, security risks, trust issues, and low IT literacy determinants need to be focused in measuring the public value of e-government. Similar studies (Deng et al., 2018) suggest that the public in Sri Lanka is also concerned with service delivery, efficiency, user-friendliness, and quality content related to e-government.

## IV. Results Analysis and Discussion

The aim is to develop a descriptive conceptual framework that enhances the understanding of the public value of e-government, filling the research gap while contributing to the body of knowledge. Thereupon, the concept-centric approach of Webster and Watson (Watson & Webster, 2020) was adopted to examine the current status of the public value of e-government, its implications for citizens, and the suitability of existing frameworks in Sri Lanka's context. For this purpose, academic journal articles and conference proceedings from 2011 to the present are referred to. For the concept-centric review intent, these academic documents are categorized based on their orientation and emphasis. The concept-centric views are further referred to as concept-matrix, where existing studies are indexed based on emerging research on the public value of e-government. Careful attention was made to reading each article by analyzing the content of narratives to understand the status of public value. Eventually, the principal dimensions of public value in e-government and existing frameworks were generalized to account for the unique socio-economic nature related to Sri Lanka.

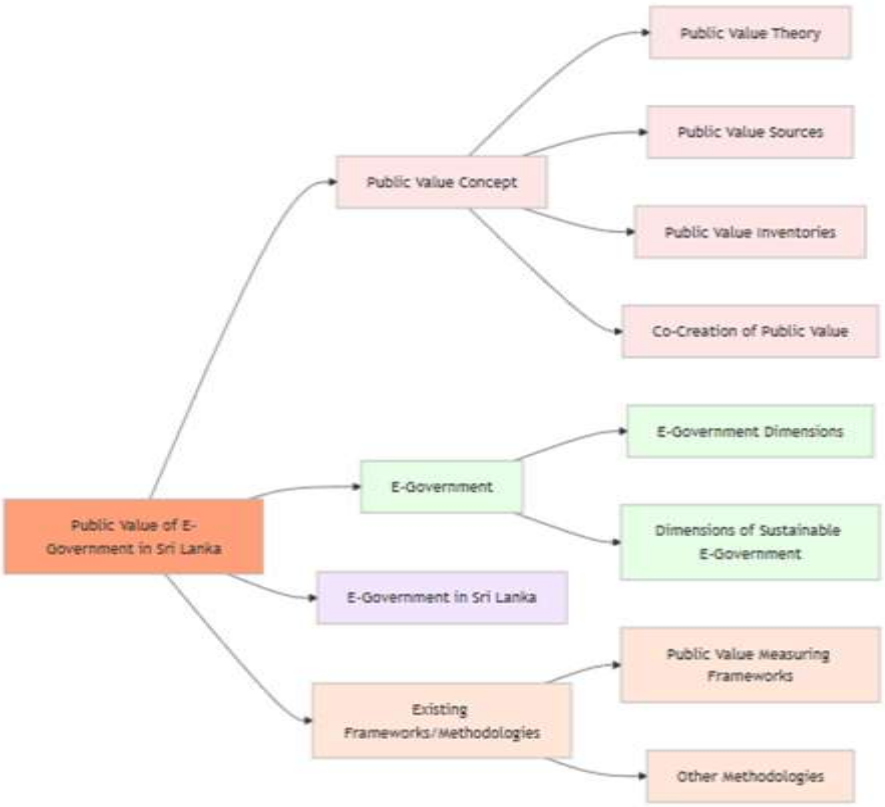


*Figure 2: Concept map | Generalization of main dimensions to assess the public value of e-government in Sri Lanka.*

The analysis identified four main overlapping dimensions for assessing the public value of e-government, as illustrated in Figure 2. Namely, (1) Public value concept, (2) E-government, (3) E-government in Sri Lanka, and (4) Existing frameworks/methodologies. The e-government dimension is further conceptualized under two key dimensions: e-government and sustainable e-government. The purpose of this study is to develop a conceptual framework for evaluating the public value of e-government in Sri Lanka. Therefore, it is necessary to consider the nature of e-government to understand the current status. It is also necessary to examine the suitability of existing frameworks and other methodologies to the Sri Lankan context in assessing the public value.

*Table 1 : Strengths and weaknesses of existing public value measuring frameworks*

| Framework | Strengths | Weaknesses | Validity | Reliability | Generalizability | Origin | Year |
|---|---|---|---|---|---|---|---|
| (Gupta & Suri, 2018) | -Focused on efficiency, transparency, interactivity and decision support in the framework | -Limited to Indian government portals<br>-Not considered important dimensions such as delivery of public services, important public values of a society<br>-Ignored important dimensions related to public organizations effectiveness | Medium | Medium | Medium | India | 1997 |
| (Kearns, 2004) | -Quality of public service delivery, outcomes, and trust considered<br>-The quality of public value service delivery evaluated focusing usage, availability of choice, user satisfaction, priorities, fairness, cost savings and level of information availability. | -Important public values in a society such as user orientation, efficiency, self-development, democracy, responsiveness and openness not considered.<br>-Quality of information, service and usability not considered. | High | High | Low | UK | 2004 |
| ADEA (European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024) | Social, operational and financial values considered | -Public value creation sources ignored<br>-Important public values of a society is ignored | High | Medium | Medium | France | 2004 |
| eGep (European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024) | -PV evaluated through efficiency, democracy, and effectiveness.<br>-Designed to assess in developed countries.<br>-D8Effectiveness assessed based on financial gains, employee empowerment and improved ICT infrastructure. | -Focused on government projects in developed countries. Not suitable for developing countries.<br>-Evaluated based on secondary data such as internal data from administrations, third party assessments, cost calculations models and end user satisfaction surveys.<br>-Indicators are e-administration biased and no indicators to measure values in a society<br>-Critical values such as trust, transparency, user orientation, environmental sustainability were not considered | High | High | High | European Commission | 2006 |
| Golubeva (OUBOUMLIK & OUAZZANI TOUHAMI, 2024) | Public service quality, trust and outcomes considered. The quality of public service is measured focusing usability, openness and citizen centricity. Trust is measured through transparency and interactivity. | Public value in a society is not considered. Limited to focus in Russian Federation e-portals. | Medium | Medium | Low | Russian Federation | 2007 |
| (Grimsley & Meehan, 2007) | 1. Based on Moore's theory of public value focusing services, user satisfaction, trust and outcomes.<br>2. Trust is evaluated based on availability of information | -Based on two case studies limited to narrow scope of work<br>-Service quality of e-government, important public values in a society not considered | Medium | Medium | Low | UK | 2007 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (Liu et al., 2024) | -Focused on G2B perspective<br>-Based on financial, social, operational values | -G2C, G2G and G2E perspectives of public value ignored<br>-Public value creation sources not considered and also important public values of a society was not factored | High | High | Medium | China | 2008 |
| Papadomichelaki and Gregoris ("A Multiple-Item Scale for Assessing E-Government Service Quality," 2009) | -Considered with exclusive focus on measuring service quality | -Not considered important dimensions of socially desirable outcomes and dimensions related to public organizations effectiveness.<br>-Also cost saving aspects related to public services not considered | Medium | Medium | Medium | Greece | 2009 |
| (Karunasena et al., 2011) | -Extended from Kern's framework. Delivery of public services, development of trust, achievement of socially desirable outcomes and delivery of public services considered.<br>-Trust is measured focusing security, privacy, transparency, citizens participation and trust in e-services<br>-Accountability, efficiency, citizens perception considered in measuring effectiveness | -Based on secondary data<br>-Service quality of e-government, important public values in a society not considered<br>-No indicators proposed to measure outcomes. | High | Medium | Low | Sri Lanka | 2011 |
| (Omar et al., 2011) | -Public value of quality public services considered.<br>'-Service quality, systems quality and system quality dimensions focused | -The framework is conceptual.<br>-Important public values of a society is not considered | High | High | Medium | Australia | 2011 |
| (Talbot, 2011) | -Considered scorecard method in measuring public value in new public administration in UK.<br>-Self-interest, public interest and procedural interest dimensions focused | -Important public values in public services such as cost savings, systems functioning not considered<br>-Quality of information, service and usability not considered<br>-Approach to model development lacks clarity | High | Medium | Medium | UK | 2011 |
| (Bhattacharya et al., 2012) | -E services quality focused.<br>- Quality of information assessed focusing privacy and security, citizen centricity, technical adequacy, information usefulness, comprehensiveness, transaction transparency, interaction, usability | -Narrowly focused on Indian government portals<br>'-Not considered important dimensions of socially desirable outcomes and dimensions related to public organizations effectiveness.<br>'-Also cost saving aspects related to public services not considered | Medium | Medium | Low | India | 2012 |
| (Bai, 2013) | -Based on Karunasena et al. original framework<br>'-Delivery of public services, development of trust and delivery of public services focused in assessing public value | -Based on Chinese government portals<br>-Important value in a society is not considered<br>-Service quality is not considered | Medium | Medium | Low | China | 2013 |
| (Lindgren & Jansson, 2013) | -Study based on hermeneutic analysis discussing various combinations of service, electronic and public dimensions | -Not considered important dimensions related to service delivery quality such as information quality, systems functionality and cost savings.<br>-Also important dimensions related to a society also not considered in the framework | Medium | Medium | Medium | Sweden | 2013 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (Rawahi et al., 2016) | -Based on original theory of Moore's and Orlikwoski's [49] structuration model<br>-Focused on delivery aspects | -Conceptual framework<br>-Important public values in a society are ignored<br>-Service quality is not considered<br>- Lacks measuring indicators | High | High | Medium | Global | 2016 |
| Philippines LGU e-Gov Rating (Cruz, 2018) | -Focused on local e-government related dimensions | - Limited focus with local perspectives<br>-Uneven applicability | Medium | Medium | Low | Philippines | 2016 |
| (Zavattaro & Brainard, 2019) | -Framework based on millennial social media usage | -Conceptual framework only considered social media behavior of millennials<br>-Not considered important dimensions such as delivery of public services, important public values of a society.<br>-Ignored important dimensions related to public organizations effectiveness. | High | High | Low | US | 2018 |
| (Chu & Tseng, 2018) | -Based on open government data of Taiwan<br>-Public value examined considering social, operational and political values | -Important dimensions such as information quality, systems functionality not considered<br>-Focused on secondary data | High | Medium | Medium | Taiwan | 2018 |
| (Papi et al., 2018) | -This model considered ability of public administrations delivering long term public satisfaction<br>- Value pyramid concept to measure public value<br>-Consist of measuring grid to measure dimensions | -Model practical testing limited to single case study in Italy.<br>-Focused on secondary data | High | Medium | Medium | Italy | 2018 |
| (Deng et al., 2018) | -Multi-criteria and comparative characteristics | -Require expert data preparation | High | High | Medium | Global | 2018 |
| EgovTrust Model (Machado De Freitas & Silva Da Rosa, 2022) | -Focused on assessing the trust | -Needs cross-validation and empirical testing<br>-Important public value dimensions such as socially desirable outcomes, public organizations efficiency has not factored | Medium | Medium | Low | Nigeria | 2019 |
| Open Government Index (Neukom, 2021) | -Good trust indicator and trust focused | -Service aspects not focused | Medium | Medium | Low | Global | 2021 |
| (United nations department for economic and social affairs, 2024) | -Global standard for based of e-government<br>-Use cross-country | -Focused on readiness if the e-government not on value | Medium | High | High | UN | 2022 |
| Rodríguez et al. Taxonomy (Muñoz et al., 2022) | -Framework has classification approach | -Not facilitating value evaluation from public perspective | Medium | High | High | Global | 2022 |
| GTMI (Institutions Global Department, World Bank, 2025) | -Recognized as a global standard for assessing the government sector readiness for digitalization | -Not public value focused, instead only factor citizens engagement | High | High | Medium | World bank | 2025 |

*Table 2 : Abstracted dimensions to evaluate the public value*

| | ***Main dimension*** | **Delivery of quality public services** | | | | **Public organizations effectiveness** | | | **Achievement of socially desirable outcomes** | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Study | Sub dimension | Information quality | Systems functioning | User orientation | Cost savings | Efficeiciency | Openness | Responsiveness | Trust | Self-development | Equity | Citizen's participation | Environment concerns | Quality of Life | Financial Gains |
| (Kearns, 2004) | | ● | X | ● | ● | X | X | X | ● | X | X | X | X | X | X |
| Golubeva<br><br>(OUBOUMLIK & OUAZZANI TOUHAMI, 2024) | | ● | X | ● | X | ● | ● | X | X | X | X | X | X | X | X |
| Karunasena et al. [30]<br><br>(Karunasena et al., 2011) | | ● | ● | ● | X | ● | ● | ● | ● | ● | ● | X | X | X | X |
| (Grimsley & Meehan, 2007) | | X | X | ● | X | X | X | X | ● | X | X | X | X | X | X |
| eGep<br><br>(European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024) | | X | X | ● | X | ● | X | X | X | X | ● | ● | X | X | ● |
| (Liu et al., 2024) | | ● | ● | ● | X | X | X | ● | ● | X | X | X | X | X | X |
| (Omar et al., 2011) | | ● | ● | ● | X | X | X | X | X | X | X | X | X | X | X |
| ADEA<br><br>(European Commission. Directorate General for Communications Networks, Content and Technology. et al., 2024) | | X | X | ● | ● | ● | X | X | X | X | X | X | X | X | ● |
| (Bai, 2013) | | X | ● | X | ● | X | X | X | X | X | X | X | X | X | X |
| (Rawahi et al., 2016) | | ● | ● | X | X | ● | X | X | X | X | X | X | X | X | X |
| (Zavattaro & Brainard, 2019) | | X | X | X | X | X | ● | X | ● | X | ● | ● | X | X | X |
| (Chu & Tseng, 2018) | | X | X | ● | ● | ● | ● | X | ● | ● | ● | ● | ● | ● | X |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Papi et al., 2018) | | X | X | X | ● | ● | X | X | X | X | X | X | ● | X | X | | | | | | | |
| (Talbot, 2011) | | X | X | X | X | X | ● | ● | ● | X | ● | X | X | X | X | | | | | | | |
| (Gupta & Suri, 2018) | | X | X | X | X | ● | X | X | X | X | X | X | ● | X | X | | | | | | | |
| (Bhattacharya et al., 2012) | | ● | ● | ● | X | X | X | X | ● | X | X | X | X | X | X | | | | | | | |
| (Papadomichelaki & Mentzas, 2012) | | ● | ● | ● | X | ● | ● | ● | ● | X | X | X | X | X | X | | | | | | | |
| (Lindgren & Jansson, 2013) | | X | X | ● | X | X | ● | X | X | X | ● | X | X | X | X | | | | | | | |
| (Deng et al., 2018) | | X | X | ● | X | X | ● | X | ● | X | ● | X | X | X | X | | | | | | | |

*Table 3 : Unique socio-technical dimensions to consider in evaluating the public value of e-government in Sri Lanka*

| Study | ICT Infrastructure Availability | End User Satisfaction | Cost Effectiveness | Information Quality | Take-up | Organization Efficiency | Strategic Connectivity | Performance Management | Security/Privacy | Transparency | BPR | Internet Accessibility | Computer/Digital Literacy | Legal/Regulatory Constrains | Political Influence/Bureaucracy | Public Awareness | Finance/Budgets | Language Barriers | Change Management | National Implementation Capacity | Trust | Fairness | Equity | Environmental Sustainability |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Karunasena et al., 2011) | X | ● | ● | ● | ● | X | X | X | ● | ● | X | X | X | X | X | X | X | X | X | X | ● | ● | X | X |
| (Karunasena & Deng, 2011) | X | ● | ● | ● | ● | X | X | X | ● | ● | X | X | X | X | X | X | X | X | X | X | ● | ● | X | X |
| (der Vyver & Rajapakse, 2012) | X | X | X | X | X | X | ● | X | X | X | ● | X | X | X | X | ● | X | X | X | ● | X | X | X | X |
| (Rainford, 2014) | ● | X | X | X | X | X | ● | X | X | X | ● | X | X | X | ● | X | X | X | X | ● | X | X | X | X |
| (Samansiri & Wanigasundera, 2015) | ● | ● | X | ● | X | X | X | X | ● | X | X | ● | ● | X | X | X | X | X | X | X | X | X | X | ● |
| (Sufna & Fernando, 2015) | X | ● | X | ● | X | ● | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| (Pushpakumara & Jothirathne, 2017) | ● | X | ● | X | ● | X | X | X | ● | X | X | ● | ● | X | X | ● | ● | X | X | X | X | X | X | X |
| (Deng et al., 2018) | X | ● | ● | ● | ● | X | X | X | ● | ● | X | X | X | X | X | X | X | X | X | X | ● | ● | ● | X |
| (Galpaya et al., 2019) | ● | X | ● | X | X | X | X | X | X | X | X | ● | ● | X | X | X | X | X | X | X | X | X | X | X |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Elapatha & Jehan, 2020) | X | X | X | X | X | X | X | X | X | X | ● | X | X | X | X | X | X | X | X | X | X | X | X | X |
| (Alahakoon & Jehan, 2020) | ● | X | X | X | X | X | X | X | X | X | ● | X | X | X | X | ● | ● | X | X | X | X | X | X | X |
| (Tennakoon, 2020) | ● | X | X | X | X | X | ● | X | ● | X | X | ● | ● | ● | ● | ● | ● | X | X | X | X | X | X | X |
| (The Commonwealth, 2020) | ● | X | X | ● | X | X | X | X | X | X | X | ● | X | ● | X | X | X | X | X | ● | X | X | X | X |
| (ICTA, 2020) | ● | X | X | X | ● | X | ● | X | ● | X | X | X | ● | X | X | X | ● | X | X | X | X | X | X | X |
| (Liyanage et al., 2020) | ● | X | X | X | ● | X | ● | X | ● | X | X | X | X | X | X | ● | ● | ● | ● | X | X | X | X | X |
| (Vidanagama & Karunathilake, 2021) | ● | X | X | X | X | X | X | X | X | X | X | ● | ● | X | ● | ● | X | X | X | X | X | X | X | X |
| (Wattegama, 2021) | ● | ● | X | X | ● | X | X | X | ● | ● | | ● | ● | X | X | X | ● | X | X | X | X | X | X | X |
| (Ministry of Technology, 2021) | ● | X | X | X | ● | X | ● | X | ● | X | X | X | ● | X | X | X | ● | X | X | ● | X | X | X | X |
| (Department of Economics and Social Affairs, 2022) | ● | X | X | ● | ● | X | ● | X | ● | ● | X | X | X | X | X | ● | X | X | X | X | X | X | X | X |
| (Withanage et al., 2022) | X | ● | X | ● | ● | X | X | X | ● | X | X | X | X | X | X | X | ● | X | X | X | ● | X | X | X |
| (Fernando & Madhuwanthi, 2022) | X | X | X | X | X | X | X | X | X | X | X | X | X | ● | X | X | X | X | X | ● | X | X | X | X |
| (Weerasinghe et al., 2023) | ● | X | X | X | X | X | X | X | X | X | X | ● | ● | X | X | ● | X | X | X | ● | X | X | X | X |
| (Sapraz, 2023) | X | ● | X | ● | X | X | X | X | X | X | X | ● | X | X | X | ● | X | X | X | X | X | X | X | X |
| (Department of Statistics, 2023) | ● | X | ● | X | ● | X | X | X | ● | X | X | X | ● | X | X | X | X | ● | X | X | X | X | X | X |
| (R. Lalitha S. Fernando & H. O. C. Gunasekara, 2024) | X | ● | X | ● | X | X | X | X | X | X | X | X | X | X | X | ● | X | X | X | X | ● | X | X | X |

*Table 4 : Abstracted dimensions to evaluate the value co-creation for public value*

| Study | Public-Private Partnerships | Citizens experience | Inter organizational partnerships | Citizens active involvement in co-production | Public-NGO Partnerships | Collaborative Platforms | Social Inclusion | Data ownership and usability | Public organizations leadership | Sustainability | Coping strategies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (Capolupo et al., 2019) | X | ● | X | ● | X | ● | X | X | X | X | X |
| (Bentzen et al., 2020) | ● | ● | ● | ● | ● | ● | X | X | ● | X | X |
| (Tommasetti et al., 2020) | X | X | X | X | X | X | X | X | X | ● | X |
| (Andersen et al., 2021) | X | ● | X | X | X | X | X | X | X | X | X |
| (Rodriguez Müller et al., 2021) | ● | ● | ● | ● | ● | X | X | X | X | X | X |
| (Osborne et al., 2021) | X | ● | ● | ● | X | X | X | X | X | X | X |
| (Ansell & Torfing, 2021) | ● | X | X | ● | X | ● | X | X | X | X | X |
| (Sørensen et al., 2021) | X | X | ● | X | X | X | X | X | ● | X | X |
| (Muller et al., 2021) | X | X | X | ● | X | X | X | X | X | X | X |
| (Cluley & Radnor, 2021) | X | ● | ● | ● | X | ● | ● | X | X | X | X |
| (Jaspers & Steen, 2021) | X | X | ● | ● | X | ● | X | X | X | X | ● |
| (Sancino, 2022) | ● | ● | ● | ● | X | X | X | ● | X | X | X |
| (Wellstead et al., 2022) | ● | ● | X | ● | X | X | X | X | X | X | X |
| (Scupola & Mergel, 2022) | ● | ● | X | X | X | ● | X | X | X | X | X |
| (Cluley et al., 2023) | ● | ● | ● | ● | X | X | X | X | X | X | X |
| (Von Heimburg et al., 2023) | ● | X | ● | ● | X | ● | ● | X | X | X | X |
| (McMullin, 2023) | ● | ● | X | ● | X | X | X | X | X | X | X |
| (Conteh & Harding, 2023) | X | X | ● | X | X | X | X | X | X | X | X |
| (Ofoma, 2024) | ● | ● | ● | ● | X | X | X | X | X | X | X |
| (Skålén & Trischler, 2024) | ● | ● | ● | X | X | X | X | X | X | X | X |
| (Ojasalo & Kauppinen, 2024) | ● | ● | X | X | X | X | X | X | X | X | X |
| (Kurkela et al., 2025) | ● | ● | ● | ● | X | X | X | X | X | X | X |
| (Ongaro et al., 2025) | X | ● | X | ● | X | X | X | X | X | X | X |
| (Naveed et al., 2025) | ● | ● | X | X | X | X | X | X | X | X | X |

The comparative synthesis of strengths and limitations of existing frameworks, presented in Table 1, indicates concerns related to validity, reliability, and generalizability. Due to the context-specific nature, the public value interpretations of e-governments varied to reflect the social needs of the relevant societies and settings. As a result, these frameworks require further testing and validation before they can be adopted to measure public value. More importantly, the suitability of adopting in leased development countries remains questionable, which highlights the need to develop a new conceptual framework. Effectively addressing these shortfalls is crucial for navigating the unique socio-technical settings associated with less mature e-governments. Therefore, additional efforts have been made in identifying dimensions that need to be focused on in the Sri Lankan context, as the aim of the study is to develop a conceptual framework that addresses this necessity.

One noticeable absence from all existing frameworks is that the value co-creation or destruction dimensions, which are currently widely recognized as significant in public management literature. Therefore, as shown in Table 4, efforts have been made to identify co-value creation dimensions that ultimately lead to the creation of public value.

All abstracted dimensions are further segmented as (a) main and (b) sub-dimensions of the construct to conceptualize the framework as illustrated in Figure 3.

## V. A CONCEPTUAL FRAMEWORK TO EVALUATE THE PUBLIC VALUE OF E-GOVERNMENT IN SRI LANKA

The majority of e-government studies are based on technological determinants based on the Technology Acceptance Model (TAM), Diffusion of Innovation (DOI), and Unified Acceptance of Theory and Use of Technology (UTAUT) theories (Mutaqin & Sutoyo, 2020; Amali et al., 2022; Aswar et al., 2022; García De Blanes Sebastián et al., 2022). Notably, there is no detailed guidance on how to facilitate the perception of contradiction related to developing countries, which is commonly focused on perceived usefulness and trust. Literature also suggests that frameworks by Karunasena, Deng, and Bai partially address this gap.

Synthesizing all these arguments, a conceptual framework is represented below.

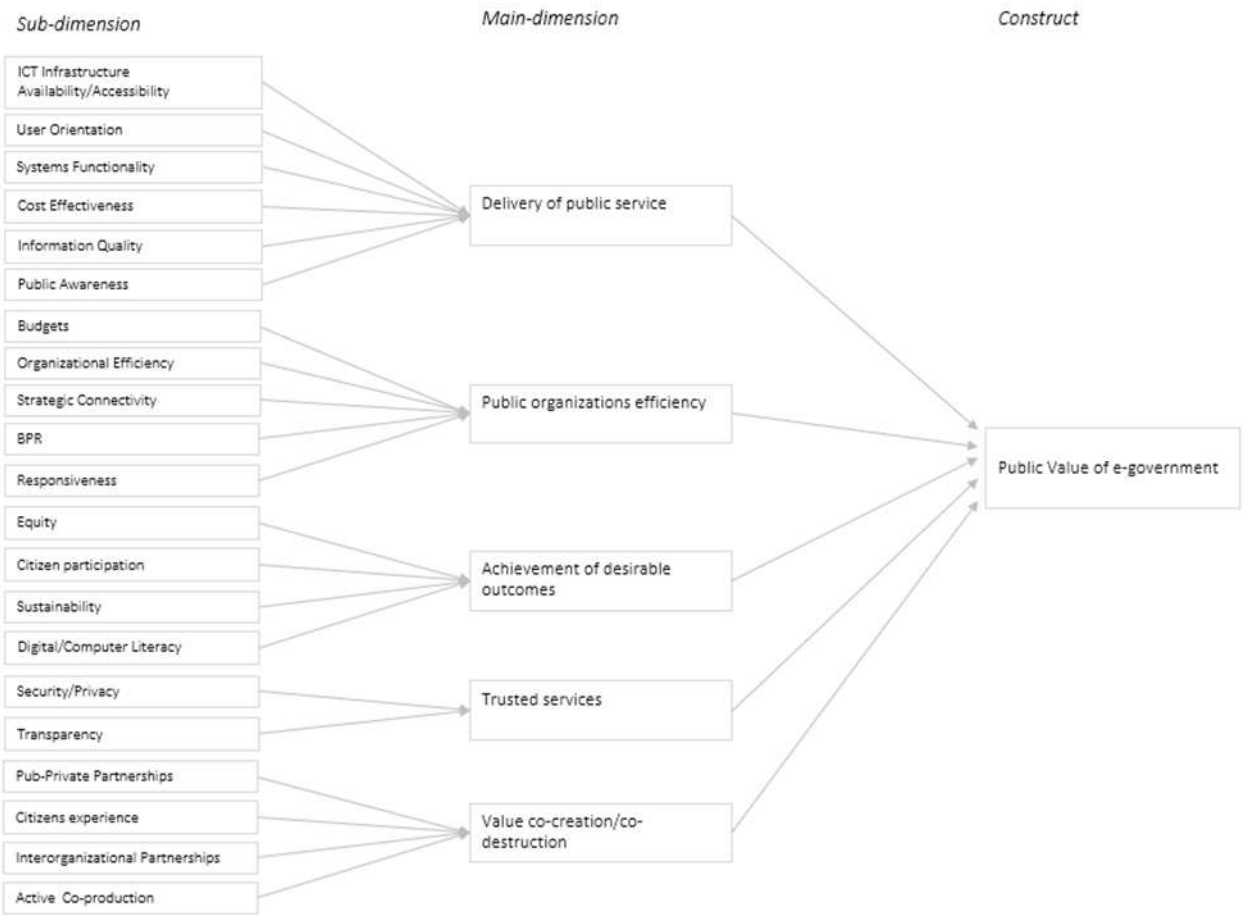


*Figure 3: Conceptualized framework to measure the public value of e-government in Sri Lanka*

Conceptualized framework hypothesizes public value can be created by focusing on six primary dimensions, such as: (a) the delivery of public service, (b) public organizations' efficiency, (c) achievement of socially desirable outcomes, (d) trusted services, and (e) value co-creation or destruction. It also proposes that these main dimensions are best described as six subdimensions related to the delivery of public service, five subdimensions related to the efficiency of public organizations, four subdimensions related to the achievement of desirable outcomes, two dimensions refer to trusted services, and four subdimensions related to value co-creation or destruction.

Delivery of public service (Grimsley & Meehan, 2007; Bai, 2013; Karunasena & Deng, 2011; Karunasena et al., 2011; Bhattacharya et al., 2012; Papadomichelaki & Mentzas, 2012; Rawahi et al., 2016; Moore, 2021) depend on availability of ICT Infrastructure. Sri Lanka's telecommunications infrastructure index and internet accessibility reflect the digital divide. User orientation refers to the user-friendliness of end-user interfaces on digital platforms. System functionality, cost-effectiveness, the quality of information disseminated on public service platforms, and public awareness are other sub-dimensions more suited to assessing the value of public service delivery.

It is evident in the literature that the availability of funds for public organizations plays a crucial role in these initiatives, especially in the current competitive economic environment. Informal interviews with subject matter experts involved in these projects revealed increased concern related to a lack of sound business process engineering practices, which led to project failures in the local context, a familiar issue. The majority of government servicing apparatus remains static, and information lacks responsiveness to public queries, which is another important aspect. Public service institutions governed by a hierarchical procedure-driven approach led to less organizational efficiency and a lack of interconnectivity among government service institutions. In this context, it is appropriate to factor these subdimensions in assessing the value created by the pubic organization efficiency (Kearns, 2004; Karunasena et al., 2011; Papadomichelaki & Mentzas, 2012; Rawahi et al., 2016; Chu & Tseng, 2018; Papi et al., 2018; Deng et al., 2018; Moore, 2021).

Achieving socially desirable outcomes is a key focus in public value assessment (Karunasena et al., 2011; Lindgren & Jansson, 2013; Chu & Tseng, 2018; Deng et al., 2018; Zavattaro & Brainard, 2019; Moore, 2021). Equity, active citizens' participation, sustainable e-government initiatives, and digital and computer literacy are identified as value indicators. Sri Lanka's digital and computer literacy is a concern despite impressive efforts to address the digital divide. As previously discussed, most e-government initiatives, such as Nenasala telecenters, are unknown to the public in those areas. Literature suggests that citizens' participation is essential for achieving socially desirable outcomes. Equity and sustainability also impact the creation of socially desirable values.

Trust is the single most critical factor that critically impacts delivering public value regardless of the maturity level of an e-government (Kearns, 2004; Talbot, 2011; Karunasena et al., 2011; Chu & Tseng, 2018; Deng et al., 2018; Zavattaro & Brainard, 2019; Moore, 2021; Liu et al., 2024). Therefore, the trusted services dimension assesses security and privacy concerns related to public service platforms, as well as the transparency of public information management. Notably, it is necessary to rigorously explore these dimensions in line with Sri Lanka's data protection act and similar regulatory initiatives worldwide.

Modern-day new public management (NPM) recognizes that the value co-creation or co-destruction dimension is crucial in delivering societal value. More recent literature suggests that this dimension is best described by a rigorous focus on public–private and inter-organizational partnerships, as these are now common in the public service delivery ethos. It is further described the citizens experience and active participation in co-production also plays a vital role in co-value creation or destruction(Andersen et al., 2021; Young et al., 2021; Scupola & Mergel, 2022; Sancino, 2022; Wellstead et al., 2022; Von Heimburg et al., 2023; Cluley et al., 2023; McMullin, 2023; Conteh & Harding, 2023; Hancu-Budui & Zorio-Grima, 2024; Ofoma, 2024; Skålén & Trischler, 2024; Ojasalo & Kauppinen, 2024; Kurkela et al., 2025; Ongaro et al., 2025). Thus, the value co-creation or co-destruction is best conceptualized based on these subdimensions.

The researcher strives to assess this conceptualized framework quantitatively. A self-administered questionnaire comprising 40 structured questions to use to validate the framework. Each question is to be answered using a 5-point Likert scale, where value 5 represents "highly valuable" and value 1 represents "not valuable at all". The questionnaire will be piloted with 20 e-government users to assess its relevance and validity. Sample size 500 is intended to be collected from a target population in urban and sub-urban areas, limited to major population centers, assuming a 20% response rate (re%) for the survey as credible (Ranganathan & Caduff, 2023; Dalitso Kuphanga, 2024; Khan, 2024) after careful review of narrations. The simple random sample technique is a suitable sampling method to adopt.

Subsequently, the quantitative data collected through the survey will be analyzed using IBM SPSS Statistics V 25 software. Widely recognized as a comprehensive suite of statistical tools, the ability to handle large datasets, and user-friendly interfaces make this tool most suitable for statistical analysis and interpretation (Rajuroy & Emmanuel, 2025; Ramdani et al., 2025). The research aims to develop a conceptual framework. Unlike covariance-based SEM (Structural Equation Modeling), PLS-SEM (Partial Least Squares SEM) offers more flexibility in prediction and situations with smaller sample sizes or non-normal data. It offers flexibility in violating initial assumptions. At this stage of the research, the researcher's focus is on prediction, rather than being limited to theory testing.

Additionally, it is important to consider the handling of the formative measurement model, which is not easily addressed by the CB-SEM method. Moreover, more focus would be on higher-order construct suites using PL-SEM compared to CB-SEM statistical methods (Geremew et al., 2024; Kurtaliqi et al., 2024). Therefore, the researcher intends to use PL-SEM, a structured equation modeling statistical technique, in constructing the model. To perform PL-SEM statistical analysis, JASP 0.19.3 open-source software is utilized due to its feature-rich nature and widespread use by the research community.

It is noteworthy that the limitations of existing frameworks raise questions about their suitability for the focused country settings. To address this concern regarding validity, reliability, and generalizability, the researcher intends to test the quantitatively assessed conceptual framework in a selected local government institution.

## VI. CONCLUSION

This study focused on exploring the current state of the public value of e-government in Sri Lanka, organizing emerging literature. The literature suggests the public value of e-government in Sri Lanka is unclear. Not measured. Yet to fully materialize. Attempts were made to address the research gap and identify the main dimensions and subdimensions related to value creation that led to the construct of public value. Finally, five main dimensions, including value co-creation, were conceptualized to develop a new conceptual framework that suits a unique socio-technical country setting.

## VII. Acknowledgment

The author wishes to express his deep appreciation to Prof. Jayendrika Wanigasekara for her enthusiastic encouragement, assistance, and constructive critiques in constructing this study.

## References

1. A Multiple-Item Scale for Assessing E-Government Service Quality. (2009). In X. Papadomichelaki & G. Mentzas, Lecture Notes in Computer Science (pp. 163–175). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-03516-6_14
2. Alahakoon, M. U. I., & Jehan, S. N. (2020). Efficiency of Public Service Delivery—A Post-ICT Deployment Analysis. Economies, 8(4), 97. https://doi.org/10.3390/economies8040097
3. Amali, L. N., Katili, M. R., Suhada, S., Hadjaratie, L., & Mardlatillah, H. (2022). Technology Acceptance Model in Government Context: A Systematic Review on the Implementation of IT Governance in a Government Institution. Jurnal Online Informatika, 7(1), 80–88. https://doi.org/10.15575/join.v7i1.853
4. Andersen, L. B., Brewer, G. A., & Leisink, P. (2021). Stakeholders, Public Value(s), and Public Service Performance. In P. Leisink, L. B. Andersen, G. A. Brewer, C. B. Jacobsen, E. Knies, & W. Vandenabeele (Eds.), Managing for Public Service Performance (1st ed., pp. 25–44). Oxford University PressOxford. https://doi.org/10.1093/oso/9780192893420.003.0002
5. Ansell, C., & Torfing, J. (2021). Co-creation: The new kid on the block in public governance. Policy & Politics, 49(2), 211–230. https://doi.org/10.1332/030557321x16115951196045
6. Aswar, K., Ermawati, Juliyanto, W., Andreas, & Wiguna, M. (2022). Adoption of e-government by Indonesian state universities: An application of Technology Acceptance Model. Problems and Perspectives in Management, 20(1), 396–406. https://doi.org/10.21511/ppm.20(1).2022.32
7. Bai, W. (2013). A Public Value Based Framework for Evaluating the Performance of e-Government in China. iBusiness, 05(03), 26–29. https://doi.org/10.4236/ib.2013.53B006
8. Barker, L., Casiano Flores, C., Chantillon, M., Claps, M., Crompvoets, J., Franczak, D., Stevens, R., Vancauwenberghe, G., & Vandenbroucke, D. (with Buongiorno Sottoriva, C., & Nasi, G.). (2022). Leveraging the power of location information and technologies to improve public services at local level: Case study analysis. Publications Office of the European Union.
9. Bentzen, T. Ø., Sørensen, E., & Torfing, J. (2020). Strengthening public service production, administrative problem solving, and political leadership through co-creation of innovative public value outcomes? 25.
10. Bhattacharya, D., Gulla, U., & Gupta, M. P. (2012). E-service quality model for Indian government portals: Citizens' perspective. Journal of Enterprise Information Management, 25(3), 246–271. https://doi.org/10.1108/17410391211224408
11. Bozeman, B. (2023). What is public about public research? The case of COVID-19 RD. In B. Lepori, B. Jongbloed, & D. Hicks (Eds.), Handbook of Public Funding of Research (pp. 21–37). Edward Elgar Publishing. https://doi.org/10.4337/9781800883086.00007
12. Bryson, J. M., Crosby, B. C., & Bloomberg, L. (Eds.). (2015). Public value and public administration. Georgetown University Press.
13. Capolupo, N., Piscopo, G., & Annarumma, C. (2019). Value co-creation andco-production in the interaction between citizens and public administration: A systematic literature review. Kybernetes, 49(2), 313–331. https://doi.org/10.1108/k-07-2018-0383
14. Castelnovo, W., & Simonetta, M. (2007). The Evaluation of e-Government projects for Small Local Government Organisations. 5(1).

15. Chu, P.-Y., & Tseng, H.-L. (2018). Open Data in Support of E-governance Evaluation: A Public Value Framework. Proceedings of the 11th International Conference on Theory and Practice of Electronic Governance, 338–343. https://doi.org/10.1145/3209415.3209433
16. Cluley, V., Parker, S., & Radnor, Z. (2023). Editorial: Public value for all? Considering the parameters of public value co-creation. Public Money & Management, 43(1), 1–3. https://doi.org/10.1080/09540962.2022.2140900
17. Cluley, V., & Radnor, Z. (2021). Rethinking co-creation: The fluid and relational process of value co-creation in public service organizations. Public Money & Management, 41(7), 563–572. https://doi.org/10.1080/09540962.2020.1719672
18. Conteh, C., & Harding, B. (2023). Boundary-spanning in public value co-creation through the lens of multilevel governance. Public Management Review, 25(1), 104–128. https://doi.org/10.1080/14719037.2021.1942529
19. Cruz, M. J. F. S. (2018). An Assessment of the Current Status of e – LGU in Pangasinan Municipalities. https://doi.org/10.13140/2.1.3737.2807
20. Dalitso Kuphanga. (2024). Questionnaires in Research: Their Role, Advantages, and Main Aspects. https://doi.org/10.13140/RG.2.2.15334.64325
21. Deng, H., Karunasena, K., & Xu, W. (2018). Evaluating the performance of e-government in developing countries: A public value perspective. Internet Research, 28(1), 169–190. https://doi.org/10.1108/IntR-10-2016-0296
22. Department of Economics and Social Affairs. (2022). United Nations e-Government Survey 2022: The Future of Digital Government (1st ed). United Nations Publications.
23. Department of Statistics. (2023). Computer Literacy Statistics 2023. Department of Statistics.
24. der Vyver, A. van, & Rajapakse, J. (2012). E-Government Adoption and Business Process Re-Engineering in Developing Countries Sri Lankan and South African Case Studies.
25. E-government in local public sector management and accounting: Information, transaction, participation (with Faber, B.). (2022). publisher not identified.
26. Elapatha, V. W., & Jehan, S. N. (2020). An Analysis of the Implementation of Business Process Re-engineering in Public Services. Journal of Open Innovation: Technology, Market, and Complexity, 6(4), 114. https://doi.org/10.3390/joitmc6040114
27. European Commission. Directorate General for Communications Networks, Content and Technology., Capgemini., Sogeti., IDC., & Politecnico di Milano. (2024). eGovernment benchmark 2024: Advancing pillars in digital public service delivery : background report. Publications Office. https://data.europa.eu/doi/10.2759/726556
28. Fernando, R. L. S., & Madhuwanthi, L. A. P. (2022). Emerging Role of Public Administration towards Nation Building in Sri Lanka.
29. Galpaya, H., Zainudeen, A., & Amarasinghe, T. (2019). ICT access and use in Sri Lanka and the Global South.
30. García De Blanes Sebastián, M., Sarmiento Guede, J. R., & Antonovica, A. (2022). Tam versus utaut models: A contrasting study of scholarly production and its bibliometric analysis. TECHNO REVIEW. International Technology, Science and Society Review /Revista Internacional De Tecnología, Ciencia Y Sociedad, 12(3), 1–27. https://doi.org/10.37467/revtechno.v11.4445
31. Geremew, Y. M., Huang, W.-J. (Sabrina), & Hung, K. (2024). Fuzzy-Set Qualitative Comparative Analysis as a Mixed-Method and Analysis Technique: A Comprehensive Systematic Review. Journal of Travel Research, 63(1), 3–26. https://doi.org/10.1177/00472875231168619
32. Grimsley, M., & Meehan, A. (2007). e-Government information systems: Evaluation-led design for public value and client trust. European Journal of Information Systems, 16(2), 134–148. https://doi.org/10.1057/palgrave.ejis.3000674
33. Gupta, P. J., & Suri, P. K. (2018). Analysing the Influence of Improved Situation, Capability Level of Actors and Flexible Process Workflow on Public Value of E-Governance Projects in India. Global Journal of Flexible Systems Management, 19(4), 349–372. https://doi.org/10.1007/s40171-018-0198-4
34. H. Moore, M. (1995). Creating public value: Strategic management in government.

35. Hancu-Budui, A., & Zorio-Grima, A. (2024). New Public Governance and Public Value Co-creation: The Case of the European Court of Auditors Environmental Audits. Revista de Contabilidad, 27(2), 275–287. https://doi.org/10.6018/rcsar.519241
36. ICTA. (2020). Digital Government-Strategy 2020-2024. ICTA.
37. Institutions Global Department, World Bank. (2025). 2025-gtmi-WorldBank. World bank.
38. Jaspers, S., & Steen, T. (2021). Does Co-Production Lead to the Creation of Public Value? Balancing the Dimensions of Public Value Creation in Urban Mobility Planning. Administration & Society, 53(4), 619–646. https://doi.org/10.1177/0095399720957613
39. Karunasena, K., & Deng, H. (2011). A Revised Framework For Evaluating The Public Value Of E-Government.
40. Karunasena, K., Deng, H., & Singh, M. (2011). Measuring the public value of e-government: A case study from Sri Lanka. Transforming Government: People, Process and Policy, 5(1), 81–99. https://doi.org/10.1108/17506161111114671
41. Kearns, I. (2004). Public Value and E-government. IPPR,UK.
42. Khan, A. (2024). Short Literature Review: Types of Questionnaires in Research. Research Review. https://doi.org/10.52845/JMRHS/2024-7-10-4
43. Kumar, Dr. M. S., Harshitha, D., & PG Scholar, department of Computer Science and Engineering, Sree Vidyanikethan Engineering college, Tirupati, India. (2019). Process Innovation Methods on Business Process Reengineering. International Journal of Innovative Technology and Exploring Engineering, 8(11), 2766–2768. https://doi.org/10.35940/ijitee.k2244.0981119
44. Kurkela, K., Maijala, S., Tuurnas, S., & Jalonen, H. (2025). Citizen agency in value co-creation processes – a literature review. International Journal of Public Sector Management. https://doi.org/10.1108/ijpsm-06-2024-0203
45. Kurtaliqi, F., Lancelot Miltgen, C., Viglia, G., & Pantin-Sohier, G. (2024). Using advanced mixed methods approaches: Combining PLS-SEM and qualitative studies. Journal of Business Research, 172, 114464. https://doi.org/10.1016/j.jbusres.2023.114464
46. Lindgren, I., & Jansson, G. (2013). Electronic services in the public sector: A conceptual framework. Government Information Quarterly, 30(2), 163–172. https://doi.org/10.1016/j.giq.2012.10.005
47. Liu, R., Benitez, J., Zhang, L., Shao, Z., & Mi, J. (2024). Exploring the influence of gamification-enabled customer experience on continuance intention towards digital platforms for e-government: An empirical investigation. Information & Management, 61(5), 103986. https://doi.org/10.1016/j.im.2024.103986
48. Liyanage, P. M. T. S. K., Gunatunga, G. P. P., & Wickramasinghe, P. D. D. M. (2020). E-Government Adoption in Sri Lanka-Barriers and Challenges from International Perception; A Literature-Review.
49. Machado De Freitas, M., & Silva Da Rosa, F. (2022). Literature review on the application of the Unified Theory of Acceptance and Use of Technologies in e-Government. Contabilidad y Negocios, 17(34), 233–262. https://doi.org/10.18800/contabilidad.202202.010
50. MacLean, D., & Titah, R. (2022). A Systematic Literature Review of Empirical Research on the Impacts of e-Government: A Public Value Perspective. Public Administration Review, 82(1), 23–38. https://doi.org/10.1111/puar.13413
51. Maragno, G., Gastaldi, L., & Corso, M. (2021). e-Government for Public Values creation: A systematic literature review. DG.O2021: The 22nd Annual International Conference on Digital Government Research, 386–397. https://doi.org/10.1145/3463677.3463692
52. Mazzucato, M., & Ryan-Collins, J. (2022). Putting value creation back into "public value": From market-fixing to market-shaping. Journal of Economic Policy Reform, 25(4), 345–360. https://doi.org/10.1080/17487870.2022.2053537
53. McMullin, C. (2023). Individual, Group, and Collective Co-production: The Role of Public Value Conceptions in Shaping Co-production Practices. Administration & Society, 55(2), 239–263. https://doi.org/10.1177/00953997221131790
54. Mensah, I. K., Zeng, G., & Mwakapesa, D. S. (2022). Understanding the drivers of the public value of e-government: Validation of a public value e-government adoption model. Frontiers in Psychology, 13, 962615. https://doi.org/10.3389/fpsyg.2022.962615

55. Ministry of Technology. (2021). National Digital Economy Strategy Sri Lanka 2030. Ministry of Digital Economy.
56. Moore, M. H. (2021). Creating Public Value: The Core Idea of Strategic Management in Government. International Journal of Professional Business Review, 6(1), e219. https://doi.org/10.26668/businessreview/2021.v6i1.219
57. Muller, S. H. A., Kalkman, S., Van Thiel, G. J. M. W., Mostert, M., & Van Delden, J. J. M. (2021). The social licence for data-intensive health research: Towards co-creation, public value and trust. BMC Medical Ethics, 22(1). https://doi.org/10.1186/s12910-021-00677-5
58. Muñoz, L. A., Bolívar, M. P. R., & Villamayor Arellano, C. L. (2022). Factors in the adoption of open government initiatives in Spanish local governments. Government Information Quarterly, 39(4), 101743. https://doi.org/10.1016/j.giq.2022.101743
59. Mutaqin, K. A., & Sutoyo, E. (2020). Analysis of Citizens Acceptance for e-Government Services in Bandung, Indonesia: The Use of the Unified Theory of Acceptance and Use of Technology (UTAUT) Model. Bulletin of Computer Science and Electrical Engineering, 1(1), 19–25. https://doi.org/10.25008/bcsee.v1i1.3
60. Naveed, S., Farooqi, M. R., & Rehman, M. A. (2025). UNLOCKING SYNERGIES THROUGH PUBLIC VALUECO-CREATION A HOLISTIC EXAMINATION OF PUBLIC-PRIVATE PARTNERSHIPS IN PUNJAB'S EDUCATIONAL LANDSCAPE.
61. Neukom, W. H. (2021). The World Justice Project. Leadership and Management in Engineering, 9(3), 129–130. https://doi.org/10.1061/(asce)1532-6748(2009)9:3(129)
62. Nielsen, M. M. (2017). eGovernance frameworks for successful citizen use of online services: A Danish-Japanese comparative analysis. JeDEM - eJournal of eDemocracy and Open Government, 9(2), 68–109. https://doi.org/10.29379/jedem.v9i2.462
63. Nnaji, C., Okpala, I., Awolusi, I., & Gambatese, J. (2023). A systematic review of technology acceptance models and theories in construction research. Journal of Information Technology in Construction, 28, 39–69. https://doi.org/10.36680/j.itcon.2023.003
64. Ofoma, C. (2024). Digitalization and Public Value Co-Creation in Public Sector Organizations: The Citizens as Co-Creators. Institutiones Administrationis, 4(2), 92–103. https://doi.org/10.54201/iajas.98
65. Ojasalo, J., & Kauppinen, S. (2024). Public Value in Public Service Ecosystems. Journal of Nonprofit & Public Sector Marketing, 36(2), 179–207. https://doi.org/10.1080/10495142.2022.2133063
66. Olawumi Dele Awolusi & Olusegun Sulaiman Atiku. (2019). Business Process Re-Engineering and Profitability in the Nigerian Oil and Gas Industry: The Mediating Influence of Operational Performance. Information Management and Business Review, 11(3(I)), 13–26. https://doi.org/10.22610/imbr.v11i3(i).2943
67. Omar, K., Scheepers, H., & Stockdale, R. (2011). eGovernment Service Quality Assessed through the Public Value Lens. In M. Janssen, H. J. Scholl, M. A. Wimmer, & Y. Tan (Eds.), Electronic Government (Vol. 6846, pp. 431–440). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-22878-0_36
68. Ongaro, E., Rubalcaba, L., & Solano, E. (2025). The ideational bases of public value co-creation and the philosophy of personalism: Why a relational conception of person matters for solving public problems. Public Policy and Administration, 40(3), 429–451. https://doi.org/10.1177/09520767251318127
69. Osborne, S. P., Nasi, G., & Powell, M. (2021). Beyond co-production: Value creation and public services. Public Administration, 99(4), 641–657. https://doi.org/10.1111/padm.12718
70. Othman, N. Z., & Hussin, A. R. C. (2024). Public Value Creation towards a Seamless End-To-End Services in E-Government: A Systematic Literature Review. International Journal of Academic Research in Business and Social Sciences, 14(12), Pages 2225-2241. https://doi.org/10.6007/IJARBSS/v14-i12/24185
71. OUBOUMLIK, A., & OUAZZANI TOUHAMI, N. (2024). The digital transformation of public administration: A systematic literature review. Journal of Information Systems Management and Innovation, 8(2), 3–18. https://doi.org/10.34874/IMIST.PRSM/ISMI/50845

72. Papadomichelaki, X., & Mentzas, G. (2012). e-GovQual: A multiple-item scale for assessing e-government service quality. Government Information Quarterly, 29(1), 98–109. https://doi.org/10.1016/j.giq.2011.08.011
73. Papi, L., Bigoni, M., Bracci, E., & Deidda Gagliardo, E. (2018). Measuring public value: A conceptual and applied contribution to the debate. Public Money & Management, 38(7), 503–510. https://doi.org/10.1080/09540962.2018.1439154
74. Pasaribu, R. D., Anggadwita, G., Hendayani, R., Kotjoprayudi, R. B., & Apiani, D. I. N. (2021). Implementation of business process reengineering (BPR): Case study of official trip procedures in higher education institutions. Journal of Industrial Engineering and Management, 14(3), 622. https://doi.org/10.3926/jiem.3403
75. Pushpakumara, C., & Jothirathne, P. A. A. U. (2017). Review the Sri Lankan Information and Communication Technology Industry. 4(2).
76. R. Lalitha S. Fernando & H. O. C. Gunasekara. (2024). Public Value and Level of e-Government in Sri Lanka: Problems and Prospects. International Journal of Governance and Public Policy Analysis, 5(02). https://doi.org/10.31357/ijgppa.v5i02.7256
77. Rainford, S. (2014). e-Sri Lanka: An Integrated Approach to e-Government. Sri Lanka.
78. Rajuroy, A., & Emmanuel, M. (2025). Advancing Quantitative Research in Business and Social Sciences: The Role of SPSS, SmartPLS, and AMOS in Banking and SME Studies.
79. Ramdani, F., Hilmiyah, F., & Indriyani, V. (2025). The Impact of SPSS on Research Completion. TOFEDU: The Future of Education Journal, 4(2), 419–429. https://doi.org/10.61445/tofedu.v4i2.338
80. Ranganathan, P., & Caduff, C. (2023). Designing and validating a research questionnaire—Part 1. Perspectives in Clinical Research, 14(3), 152–155. https://doi.org/10.4103/picr.picr_140_23
81. Rawahi, K. A., Coombs, C., & Doherty, N. (2016). The Realization of Public Value through E-government: A Structuration Perspective.
82. Rodriguez Müller, A. P., Casiano Flores, C., Albrecht, V., Steen, T., & Crompvoets, J. (2021). A Scoping Review of Empirical Evidence on (Digital) Public Services Co-Creation. Administrative Sciences, 11(4), 130. https://doi.org/10.3390/admsci11040130
83. Samansiri, B. A. D., & Wanigasundera, W. A. D. P. (2015). Use of information and communication technology (ICT) by extension officers of the tea small holdings development authority of Sri Lanka. Tropical Agricultural Research, 25(4), 460. https://doi.org/10.4038/tar.v25i4.8054
84. Sancino, A. (2022). Public Value Co-Creation: A Multi-Actor & Multi-Sector Perspective. Emerald Publishing Limited. https://doi.org/10.1108/9781803829616
85. Sapraz, M. (2023). An E-Government Design Science Research in Sri Lanka.
86. Scupola, A., & Mergel, I. (2022). Co-production in digital transformation of public administration and public value creation: The case of Denmark. Government Information Quarterly, 39(1), 101650. https://doi.org/10.1016/j.giq.2021.101650
87. Simonofski, A., Chantillon, M., & Crompvoets, J. (2020). The Influence of Public Values on User Participation in e-Government: An Exploratory Study.
88. Skålén, P., & Trischler, J. (2024). Public services as practices: Towards a framework for understanding co-creation and co-destruction of private and public value. Public Management Review, 1–20. https://doi.org/10.1080/14719037.2024.2418376
89. Song, Y., Natori, T., & Yu, X. (2024). Tracing the Evolution of E-Government: A Visual Bibliometric Analysis from 2000 to 2023. Administrative Sciences, 14(7), 133. https://doi.org/10.3390/admsci14070133
90. Sørensen, E., Bryson, J., & Crosby, B. (2021). How public leaders can promote public value through co-creation. Policy & Politics, 49(2), 267–286. https://doi.org/10.1332/030557321X16119271739728

91. Sufna, M. N. N., & Fernando, R. L. S. (2015). Factors Affecting Public Value of E-Government in Sri Lanka: An Empirical Study Based on the Ministry of Public Administration and Home Affairs. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2706974
92. Suri, P. K. & Sushil. (2022). E-Governance through Collaborations—A Case of NICNET based Agricultural Marketing Information Network (AGMARKNET). Management Dynamics, 7(1), 33–44. https://doi.org/10.57198/2583-4932.1198
93. Talbot, C. (2011). Paradoxes and prospects of 'public value.' Public Money & Management, 31(1), 27–34. https://doi.org/10.1080/09540962.2011.545544
94. Taufiqurokhman, T., Satispi, E., Andriansyah, A., Murod, M., & Sulastri, E. (2024). The impact of e-service quality on public trust and public satisfaction in e-government public services. International Journal of Data and Network Science, 8(2), 765–772. https://doi.org/10.5267/j.ijdns.2024.1.002
95. Tennakoon, W. (2020). E-GOVERNANCE WAY FORWARD: CHALLENGES AND OPPORTUNITIES FOR DEVELOPING COUNTRIES. EVIDENCES FROM SRI LANKA. 21(2).
96. Thabit, S., Sancino, A., & Mora, L. (2025). Strategic public value(s) governance: A systematic literature review and framework for analysis. Public Administration Review, 85(3), 885–906. https://doi.org/10.1111/puar.13877
97. The Commonwealth. (2020). E-commerce Readiness Assessment Report Sri Lanka, March 2020.
98. Tommasetti, A., Mussari, R., Maione, G., & Sorrentino, D. (2020). Sustainability Accounting and Reporting in the Public Sector: Towards Public Value Co-Creation? Sustainability, 12(5), 1909. https://doi.org/10.3390/su12051909
99. Twizeyimana, J. D., & Andersson, A. (2019). The public value of E-Government – A literature review. Government Information Quarterly, 36(2), 167–178. https://doi.org/10.1016/j.giq.2019.01.001
100. UNITED NATIONS DEPARTMENT FOR ECONOMIC AND SOCIAL AFFAIRS. (2024). UNITED NATIONS E-GOVERNMENT SURVEY 2024: Accelerating digital transformation for... sustainable development - with the addendum on art. UNITED NATIONS.
101. Vidanagama, T. N., & Karunathilake, S. L. (2021). Identification of a framework for implementing ICT in Sri Lankan secondary education system. Journal of Education and Learning (EduLearn), 15(2), 242–250. https://doi.org/10.11591/edulearn.v15i2.19601
102. Von Heimburg, D., Langås, S. V., & Røiseland, A. (2023). From co-creation to public value through collaborative platforms—The case of Norwegian kindergartens. Public Money & Management, 43(1), 26–35. https://doi.org/10.1080/09540962.2022.2120295
103. Watson, R. T., & Webster, J. (2020). Analysing the past to prepare for the future: Writing a literature review a roadmap for release 2.0. Journal of Decision Systems, 29(3), 129–147. https://doi.org/10.1080/12460125.2020.1798591
104. Wattegama, C. (2021). Digital Economy of Sri Lanka: National Goals and Lessons from the South.
105. Webster, J., & Watson, R. T. (2002). ANALYZING THE PAST TO PREPARE FOR THE FUTURE: WRITING A LITERATURE REVIEW.
106. Weerasinghe, W. L. G. D., KanaheraArachchi, B. J., Jayaweera, L. P. M. I., Aryaratne, I. A., Samarasinghe, U., & Karunarathna, W. A. S. N. (2023). Critical Success Factors in the Implementation of Electronic Government Procurement in Sri Lanka. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4454031
107. Wellstead, A., Howlett, M., & Chakrabarty, A. (2022). What is co-creation and how does it create public value? International Review of Public Administration, 27(4), 367–380. https://doi.org/10.1080/12294659.2022.2147751
108. Withanage, U. P. A., Gunawardene, L., & Endagamage, D. M. (2022). Why the Utilization of E-Government Services is Poor? – A study with the Citizens in Colombo Municipal Council Area in Sri Lanka. Integrated Journal for Research in Arts and Humanities, 2(4), 7–13. https://doi.org/10.55544/ijrah.2.4.35
109. Young, S., Nguyen, P., & Macinati, M. S. (2021). Dynamic interplay between contractual and relational governance: An empirical study in Australian healthcare outsourcing. Australian Journal of Public Administration, 80(2), 261–282. https://doi.org/10.1111/1467-8500.12427

110. Zavattaro, S. M., & Brainard, L. A. (2019). Social media as micro-encounters: Millennial preferences as moderators of digital public value creation. International Journal of Public Sector Management, 32(5), 562–580. https://doi.org/10.1108/IJPSM-02-2018-0059