E-Government Innovation, Financial Disclosure, and Public Sector Accounts:
A Global Study of 30 Small Island Countries

Suwastika Naidu, University of the South Pacific, Fiji*

Fang Zhao, Staffordshire Business School, Fiji

Anand Chand, University of the South Pacific, Fiji

Arvind Patel, University of the South Pacific, Fiji

iD https://orcid.org/0000-0002-3223-7585

Atishwar Pandaram, University of the South Pacific, Fiji

iD https://orcid.org/0000-0002-9242-6169

ABSTRACT

This study seeks to test and examine the relationships and impacts of e-government development and e-participation on the financial disclosure of public sector accounts in the context of small island countries. To study the relationships and impacts, the authors drew on (1) e-government development index and (2) e-participation index as measures of e-government development and e-participation. They developed a public accounts internet financial disclosure index (PAIFDI) to measure the online financial disclosure of public sector accounts. A total of 30 small island countries were selected for this study. Data were generated from the 2018 United Nations e-government survey and through assessment of the national websites of 30 small island developing countries. The findings from this study also showed that e-government development has a positive and statistically significant impact on PAIFDI, at a 5% level of significance, holding all other variables constant.

KEYWORDS

E-Government Innovation, Financial Disclosure, Public Sector Accounts

1. INTRODUCTION

In the modern decade of technological innovation, the public sector of developed and developing countries aggressively emphasizes using information computer technology to enhance the transparency and accountability of public sector management (Obeidat, 2022; Cuadrado-Ballesteros *et al*., 2021; Zhao *et al.,* 2019; Styles & Tennyson, 2007). The main aim of the global reform efforts of the late

*Corresponding Author

1980s and early 1990s has focused on reducing the size of the public sector and improving the productivity of resource utilization in the public service (Shearer, 2022; Styles & Tennyson, 2007). With the application of the right technological innovations, public service managers can easily address several chronic problems associated with public sector management (Obeidat, 2022; De Prieëlle *et al*., 2020; Pina, Torres & Royo, 2009; Styles & Tennyson, 2007). One of the common problems public sector managers faces is the lack of efficiency of processes used to disclose public sector accounts to the public (Aladwan *et al.*, 2022; Torres, 2004). Recently, the application of internet-based technologies to disclose public sector accounts has not only improved the transparency and accountability of public sector financial management, but it has contributed to greater inclusiveness of public in the policymaking process (Sitnikov *et al.,* 2022; De Prieëlle *et al*., 2020; Pina, Torres & Royo, 2009; Styles & Tennyson, 2007). For example, the public sector financial accounts disclosed over the internet is not only readily accessible to the local public, but international stakeholders can easily access this financial information from anywhere around the world (Cuadrado-Ballesteros *et al*., 2021; Naidu & Chand, 2018).

There are several advantages of disclosing the public sector accounts over the internet or e-government website. First, it improves the transparency and accountability of public sector management by ensuring that public sector managers take responsibility for the use of public funds (Schmidthuber *et al*., 2022; Addo, 2020; Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010). For instance, the disclosure of government budget on e-government websites provides information to users on the government's operational and capital expenditures. Suppose the government's operational expenditure is consistently higher than capital expenditure over a long period. In that case, this may raise public discontent on the actions of the public sector managers on the use of public funds (Schmidthuber *et al*., 2022; Addo, 2020). The government policymakers and the relevant authorities can easily address these concerns by using e-government tools and capabilities, as the e-government website allows public members to interact with the relevant government authorities on pressing public issues (Naidu, 2021; Zhao *et al.,* 2018; Zhao *et al.,* 2018). Second, integrating social media capabilities with the e-government website allows the public sector managers to collect public opinion on financial investments and to borrow from the national government to finance the budget deficit (Dalla *et al.,* 2022; Aversano *et al.,* 2019; Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010). For instance, the e-government website of national government feeds information for many discussions on social media concerning budget deficits, inflation, and unemployment. The Public Accounts Internet Financial Disclosure Index (PAIFDI) measures online financial disclosure of public sector accounts and it is computed based on (1) Disclosure of public financial information provided online, (2) Completeness of the financial information provided online, (3) Timeliness of the financial information provided online, (4) Convenience of financial information provided online, (5) Comparability of financial information provided online, (6) Understandability of the financial information provided online, (7) Relevance of the financial information, (8) Reliability of the financial information, and (9) Flexibility and robustness of the e-government website.

Most of the existing studies on the disclosure of public accounts on the internet or e-government website has focused on the large developed (Velsberg *et al.,* 2020; Pina, Torres & Royo, 2009; Styles & Tennyson, 2007; Torres, 2004) and developing countries (Ardillah & Carolin, 2022; Juniantika & Hapsari, 2020; Miranda, Sanguino & Bañegil, 2009; Addo, 2020). Due to issues associated with differences in population size, governance structures, financial reporting standards, legislative reforms, and stakeholder activism, it is critical to give special attention to the processes and procedures involved in the small island countries to disclose public sector accounts on the internet (Obeidat, 2022; Cuadrado-Ballesteros *et al.,* 2021; Torres, 2004).

There are two reasons for conducting this study. First, a close examination of the existing literature confirms that there are hardly any studies conducted on disclosing public sector accounts on the e-government website and the impact of this disclosure on e-government development and e-participation (Ardillah & Carolin, 2022; Velsberg *et al.,* 2020; Pina, Torres & Royo, 2009; Styles &

Tennyson, 2007; Torres, 2004). This study extends the existing literature by exploring the empirical relationship between PAIFDI, e-government development index, and e-participation index in 30 small island countries. Second, this study integrates the (1) Principal-Agent theory (Styles & Tennyson, 2007), (2) Institutional Theory (DiMaggio and Powell, 1983) and (3) Legitimacy Theory (Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010) to explain the empirical relationship between PAIFDI, e-government development index, and e-participation index.

This paper is structured into seven major sections. Section two summarizes the theoretical perspectives used in this study. Section three provides the research model and hypotheses. Section four summarizes the research methodology used in this study. Section five provides research findings, and section six discusses these research findings, theoretical and policy implications. Section seven provides the conclusion and limitations for future research.

2. THEOTRETICAL PERSPECTIVES

2.1 Principal-Agent Theory, Institutional Theory, Legitimacy Theory, and Public Sector Accounts Disclosure

Studies on public sector accounting and the need to disclose public sector accounts on the e-government website have been attracting the attention of global financial institutions, donor agencies, financial working groups, and the national governments (Ardillah & Carolin, 2022; Velsberg *et al.,* 2020). Evidently, with the rise in taxpayer activism, several countries worldwide have passed the 'Freedom of Information Act', which promulgates the need for the government authorities to disclose public sector accounting information to the public (Ardillah & Carolin, 2022; Velsberg *et al.,* 2020.

A critical review of the existing studies indicates that different theories have been used to explore the objectives and goals for disclosing financial information on the internet or e-government websites (Allmann & Blank, 2021; Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010; Styles & Tennyson, 2007). According to Pina, Torres & Royo (2009), Caba Pérez *et al*. (2008) and Styles & Tennyson (2007), the disclosure of financial information on the internet should be complete, timely, convenient, comparable, understandable, relevant, reliable, and robust.

Some of the common theories that have been used in the existing literature to explore the need for the government policymakers to disclose financial information to the different stakeholders are (1) Principal-Agent theory (Styles & Tennyson, 2007), (2) Institutional Theory (DiMaggio and Powell, 1983) and (3) Legitimacy Theory (Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010). This study integrates the Principal-Agent Theory, Institutional Theory, and Legitimacy Theory to explain the need for disclosing public sector accounts on the e-government website. Integrating these three theories to explain the importance of disclosing public sector accounts on the e-government website is a unique approach as it helps us to obtain a comprehensive picture of the roles and obligations of different stakeholders in society towards achieving transparency and accountability. This study has identified three reasons for integrating the Principal-Agent Theory, Institutional Theory, and Legitimacy Theory in this paper.

Firstly, the Principal-Agent Theory has its roots in economics, political science, and sociology. This theory argues that agents are chosen by the principals to make decisions on their behalf. Undoubtedly, problems arise in the principal and agent relationship when the agents work towards maximizing their self-interest and utility rather than the utility of the principals. The origins of the Principal-Agent Theory can be traced to the works of Stephen Ross and Barry Mitnick. Ross applied the Principal-Agent Theory to the economic context (Mitnick, 1974a; Mitnick, 1974b), while Mitnick applied it to the institutional context (Ross, 1973, 1974). Drawing from the Principal-Agent Theory, this study argues that by disclosing the public sector accounts on the e-government website, the government policymakers are addressing the asymmetry of information between the public service managers and government stakeholders. The internet has enabled the government policymakers to

improve the accessibility of financial information to the national users, but it has enhanced the reach and accessibility of the financial information to the global users.

Secondly, the study area on the Institutional Theory is based on the definition of institution proposed by William Richard Scott, a sociologist affiliated with Stanford University. He was a prominent researcher who had spent decades working in management science and organizational theories. One of the main arguments of his works was based on the premise that institutions are defined as organizational structures that are established to serve the actors in the society (Scott, 1995; Scott, 2008). Drawing from the Legitimacy Theory, this study argues that public managers should disclose public sector accounts on the e-government website because the public has the legal right to know how productively the government policymakers are using public funds (Suchman, 1995). The political philosophy of the government influences the importance that public managers give to disclosing financial information on the e-government website.

Thirdly, the area of study on the Legitimacy Theory can be traced to the field of study on organizational legitimacy that was developed by Dowling and Pfeffer (1975). Dowling and Pfeffer (1975) argued that an organization's values and practices should be consistent with the national values and practices. This is essential as organizations do not operate in isolation but a wider integrated framework within the society. Complementing the Legitimacy Theory, the Institutional Theory argues that institutions can adopt innovations to fulfil their legal obligation of disclosing the public sector accounts on the e-government website. In the modern decade, the legitimate role of the government is to disclose public sector accounts on the e-government website fully, and the Institutional Theory provides the means of fulfilling this role of the government.

Figure one illustrates how the Principal-Agent Theory, Institutional Theory and Legitimacy Theory complement each other. This figure illustrates that the relationship between the principals and the agents exists within the institutional context. It is the role of the principals and the agents to design organizational policies that are parallel to the wider societal context in which organizations operate.

3. RESEARCH MODEL AND HYPOTHESIS

In this information explosion era, users of the financial information displayed on the e-government website may have varied needs, and the providers can effectively meet those needs by setting up an e-government website that meets those needs (Schmidthuber *et al.*, 2022; Aversano *et al.,* 2019). Existing studies have argued that the use of social media and power distance influences e-participation. Citizen's active engagement in the e-government processes as co-creators enhances e-government

Figure 1. Relationship between the Principal-Agent theory, Institutional theory, and Legitimacy theory
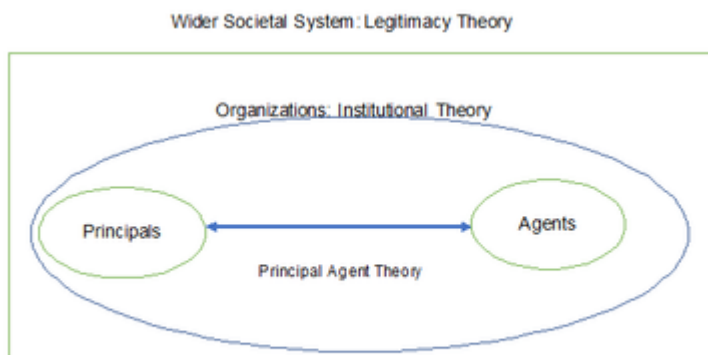
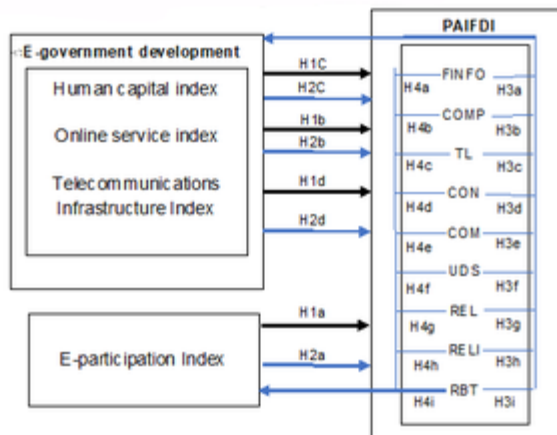Source: Developed by the authors of this paper, (2022).

development (Kopackova *et al*., 2022; Khan *et al*., 2021; Dawi *et al*., 2021). A major line of debate in the existing literature argues that citizen's participation in social media platforms leads to e-government development (Kopackova *et al*., 2022; Khan *et al*., 2021; Dawi *et al*., 2021).

Once the public service managers deliver the public services to meet the unique needs of each customer, they would be able to create value for the customers (Bhattarai & Gupta, 2022). Drawing from the concept of 'public service value,' this study models e-government development and e-government participation as the key drivers of PAIFDI and vice versa (see figure two). The main aim of this section is to discuss the core variables hypothesized in this study.

3.1 Relationship between E-participation, E-government Development, and PAIFDI

While several qualitative studies posited that there exists a relationship between e-participation, e-government development, and PAIFDI (Shaikh *et al*., 2021; Styles & Tennyson, 2007; Caba Pérez *et al*. 2008), but little is known about the empirical relationship that exists between e-participation, e-government development, and PAIFDI. According to the United Nations (2019) website, there are three important indices that contribute to the level of e-government in any nation, and these are human capital index, online service index, and telecommunications infrastructure index. Several studies have argued that the availability of the skilled workforce, infrastructure, and provision of online services will help the government to provide public services online (Abdulkareem *et al*., 2022; Caba Pérez *et al*., 2008). For instance, Khosrowjerdi (2022), and Caba Pérez *et al*. (2008) found that competition, population, fiscal pressure, cost of debt, education, and internet accessibility influenced online disclosure of financial information by the Spanish municipalities. This study also found that the cost of debt and internet access influenced the degree of financial information transparency on the internet. Similarly, Warner *et al*., (2021), Styles & Tennyson (2007) found that large cities with high per capita income are more likely to provide financial information online as compared to smaller cities.

Figure 2. Research model hypothesising the relationship between E-government development, E-government participation, and PAIFDI

FINFO: Financial information supplied on the e-government website
COMP: Completeness of the financial information that is supplied on the e-government website
TL: Timeliness of the information that is provided on the e-government website
CON: Convenience of the financial information that is provided on the e-government website
COM: Comparability of the financial information that is provided on the e-government website
UDS: Understandability of the financial information that is provided on the e-government website
REL: Relevance of the financial information that is provided on the e-government website
RELI: Reliability of the financial information that is provided on the e-government website
RBT: Robustness of the e-government information that is provided on the e-government website

Source: Developed by the authors, (2022).

One of the ways how users can increase e-participation is by setting up a fully functional e-government website. A well-established e-government website ensures that financial information is effectively and efficiently disclosed to varied users. For example, Pina, Torres & Royo (2009) study on 75 local government websites found that with the use of information computer technology, the European Union local governments are encouraging greater electronic participation in bringing citizens closer to the provision of public services. Users will be able to participate and provide their opinions on the financial information disclosed online if the e-government website allows them to do so (Velsberg *et al.,* 2020). Accordingly, there is a need to estimate the empirical relationship that exists between e-participation, e-government development, and PAIFDI. In the context of the Principal-Agent Theory, the provision of online services, telecommunications infrastructure, and human capital development enables government policymakers to use innovative means to disclose public accounts to the general public (Warner *et al*., 2021; Styles & Tennyson, 2007). Innovations not only helps to solve the problem of asymmetry of information that exists between the principals and agents in the public sector but also help the public to participate in the policymaking process (Dahl & Ross, 2004; Steccolini, 2019). Primarily in this study, we explore the relationship between e-participation, e-government development, and PAIFDI. The following hypotheses proposed below summarizes the rationale discussed in this subsection:

H1a: E-participation index is correlated with PAIFDI.
H1b: Online service index is correlated with PAIFDI.
H1c: Human capital index is correlated with PAIFDI.
H1d: Telecommunications infrastructure index is correlated with PAIFDI.

3.2 Effect of E-participation, Online Service Index, Human Capital Index, Telecommunication Infrastructure Index, and E-government Development on PAIFDI

Drawing from the above discussions, it is clear that there is a theoretical relationship between e-participation, online service index, human capital index, telecommunications infrastructure index, e-government development index, and PAIFDI (Shaikh *et al*., 2021; Styles & Tennyson, 2007; Caba Pérez *et al*. 2008), but the magnitude of this relationship is still unclear. Existing studies have argued that a well-established e-government website would attract the attention of the users and encourage them to participate in online activities (Shaikh *et al*., 2021; Aversano *et al.,* 2019; Joseph *et al.,* 2019). Taking a step forward, Shaikh *et al*. (2021) and Aversano *et al.* (2019) examined the impact of online financial disclosure on the behavior of public service managers. This study found that the mandatory requirements for disclosing the financial information on the e-government website have pressured the policymakers and public service managers to prepare transparent and accountable financial statements.

There are a handful of studies that have explored how the government's commitment to electronic disclosure of government information can have an impact on the development of the e-government website. For instance, Juniantika & Hapsari (2020) and Joseph *et al.* (2019) found that Indonesian local government authorities have been promoting sustainable development goals of disclosing financial information on the internet. This has led to greater disclosure and public involvement in the way financial information is disclosed to the public. In the context of the Legitimacy Theory, this study argues that it is the fundamental right of the public to know how public funds are used by the public managers and provide feedback and comments on the actions of the public managers (Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010). Innovations help the public to exercise their fundamental rights in ways that ensure that the interaction between the public managers and the public takes place on a healthy and manageable platform (Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010). Based on this discussion, the second group of hypotheses is framed as follows:

H2a: E-participation index has a statistically significant effect on PAIFDI.
H2b: Online service index has a statistically significant effect on PAIFDI.
H2c: Human capital index has a statistically significant effect on PAIFDI.
H2d: Telecommunications infrastructure index has a statistically significant effect on PAIFDI.
H2e: E-government development index has a statistically significant effect on PAIFDI.

3.3 Effect of PAIFDI on E-government Development Index

Drawing from the existing studies, the PAIFDI was developed in this study to capture the degree to which the public sector accounts were disclosed online. The nine core components of the PAIFDI were (1) financial information supplied on the e-government website, (2) completeness of the financial information, (3) timeliness of the financial information, (4) convenience of the financial information, (5) comparability of the financial information, (6) understandability of the financial information, (7) relevance of the financial information, (8) reliability of the financial information, and (9) robustness of the e-government website (Pina, Torres & Royo, 2009). There are only a handful of studies that have been conducted on deriving a measure that effectively captures the degree to which public sector accounts are disclosed online (Abdulkareem *et al*., 2022; Warner *et al*., 2021; Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007).

There is a need to empirically examine the relationship between the nine core components of the PAIFDI and e-government development. Importantly, the availability of financial information on the e-government website would attract users from all around the globe who are seeking financial information on how productively the government is using public funds. Some of the common users are donor agencies, the public, international financial institutions, and policymakers (Chohan & Hu, 2022). A number of studies have argued that completeness of the financial information, timeliness of the financial information, convenience of the financial information, comparability of the financial information, understandability of the financial information, the relevance of the financial information, reliability of the financial information, and robustness of the e-government website would determine the frequency of visits to the e-government website and the user satisfaction levels (Gkikas et al., 2022; Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007). Drawing from the Institutional Theory, this study argues that by disclosing the public financial information on the e-government website, the government policymakers are encouraging e-participation, which helps them to collect feedback from the public and further develop the e-government website (DiMaggio and Powell, 1983). This study seeks to extend the existing literature by exploring the relationship between PAIFDI and e-government development as none of the existing studies have explored the empirical relationship between these two variables. Based on these discussions, the following hypotheses are framed as follows:

H3a: Financial information (FINFO) supplied on the e-government website has a statistically significant effect on e-government development.
H3b: Completeness of the financial information (COMP) that is supplied on the e-government website has a statistically significant effect on e-government development.
H3c: Timeliness of the financial information (TL) that is provided on the e-government website has a statistically significant effect on e-government development.
H3d: Convenience of the financial information (CON) that is provided on the e-government website has a statistically significant effect on e-government development.
H3e: Comparability of the financial information (COM) that is provided on the e-government website has a statistically significant effect on e-government development.
H3f: Understandability of the financial information (UDS) that is provided on the e-government website has a statistically significant effect on e-government development.

H3g: Relevance of the financial information (REL) that is provided on the e-government website has a statistically significant effect on e-government development.

H3h: Reliability of the financial information (RELI) that is provided on the e-government website has a statistically significant effect on e-government development.

H3i: Robustness of the e-government information (RBT) that is provided on the e-government website has a statistically significant effect on e-government development.

3.4 Effect of PAIFDI on E-participation Index

Drawing from the above discussions, it is argued that the nine core components of the PAIFDI play a critical role in attracting users to the e-government website. An ideal website is one that can satisfy the differing needs of all the users, grow the base of loyal users, and attracts new users in the future. Several studies have confirmed that the quality and quantity of the financial information provided on the e-government website has an impact on user satisfaction from the e-government website. For instance, Caba Pérez *et al.* (2008) confirmed that the government could provide timely information to the public by using innovative e-government technologies. These technologies have not only enabled the governments to be responsive to public concerns, but it empowers individuals in society. Interestingly, the supply of financial information on the e-government website is influenced by the public service manager's perceptions on the need to supply financial information on the e-government website. For instance, Tejedo-Romero *et al.* (2022), and Groff & Pitman (2004) found that smaller cities are less likely to disclose financial information on the e-government website because the public service managers perceive that there is less need for the small cities to establish transparency as compared to large cities. The empirical relationship between the nine core components of the PAIFID on e-participation is unclear. To the best of our understanding, none of the existing studies has explored the relationship between PAIFDI and e-participation. Therefore, we hypothesize the following:

H4a: Financial information (FINFO) supplied on the e-government website has a statistically significant effect on e-participation.

H4b: Completeness of the financial information (COMP) that is supplied on the e-government website has a statistically significant effect on e-participation.

H4c: Timeliness of the financial information (TL) that is provided on the e-government website has a statistically significant effect on e-participation.

H4d: Convenience of the financial information (CON) that is provided on the e-government website has a statistically significant effect on e-participation.

H4e: Comparability of the financial information (COM) that is provided on the e-government website has a statistically significant effect on e-participation.

H4f: Understandability of the financial information (UDS) that is provided on the e-government website has a statistically significant effect on e-participation.

H4g: Relevance of the financial information (REL) that is provided on the e-government website has a statistically significant effect on e-participation.

H4h: Reliability of the financial information (RELI) that is provided on the e-government website has a statistically significant effect on e-participation.

H4i: Robustness of the e-government information (RBT) that is provided on the e-government website has a statistically significant effect on e-participation.

4. RESEARCH METHODOLOGY

4.1 Development of the PAIFDI

The main aim of this study was to examine the bidirectional relationship between the PAIFDI, e-government development index, and e-government participation index. The sum of the nine core

components of the PAIFDI was calculated and converted to a ratio of one to provide an overall measure of the PAIFDI (Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007). The formula for PAIFDI is captured by equation one:

$$PAIFDI = \frac{\sum_i^n [[FINFO_n]/I10] + [COMP_n]/I10] + [[TL_n]/I10] + [[CON_n]/I10] + [[COM_n]/I10]] + [[UDS_n]/I10] + [[REL_n]/I10] + [[RELI_n]/I10] + [[RBT_n]/I10]]}{130} \tag{1}$$

In equation one, PAIFDI represents the Public Accounts Internet Financial Disclosure Index, and I represent the number of indicators. The specific details of the nine core components of the PAIFDI is presented in figure one.

After an extensive review of the existing literature, the nine categories that were used to determine the PAIFDI were as follows:

1. ***Disclosure of public financial information provided online***: An assessment of the financial information supplied on the e-government website was measured by the following indicators: (1) availability of budget estimates, (2) government revenues, (3) government expenditures, (4) debt repayments, (5) nominal Gross Domestic Product (GDP), (6) net deficit as a percentage of GDP, (7) extract of expenditure by standard expenditure groups, (8) modifications done to the budget, (9) cash flow statement, (10) local government borrowing, (11) international government borrowing, (12) detailed operating statement, and (13) non-financial information (Lee *et al.,* 2011; Gallego-Álvarez et al., 2010; Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007; Teicher *et al.*, 2002).
2. ***Completeness of the financial information provided online:*** An assessment of the completeness of the financial information provided on the e-government website was measured by the following indicators: (1) general accounts of the government, (2) details on how the data was collected for the preparation of the financial statements, and (3) details of the financial management officers in public service (Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007).
3. ***Timeliness of the financial information provided online***: An assessment of the timeliness of the financial information provided on the e-government website was measured by the following indicators: (1) availability of information on a monthly, quarterly, bi-annual, and annual basis, and (2) frequency of the updates done on the e-government website (Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007).
4. ***Convenience of financial information provided online***: An assessment of the convenience of the financial information provided on the e-government website was measured by the following indicators: (1) accessibility of the financial information, (2) basic computer capabilities required to open the e-government website, and (3) time taken to open the e-government website (Mohammad *et al.,* 2009; Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007; Bhatnagar, 2003).
5. ***Comparability of financial information provided online:*** An assessment of the convenience of the financial information provided on the e-government website was measured by the following indicators: (1) comparative financial figures for two or three consecutive years, (2) use of effective data analytics tools to display the comparison of the financial figures, and (3) accounting information that can be compared across different government entities (Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007; Ebrahim and Irani, 2005).
6. ***Understandability of the financial information provided online***: An assessment of the convenience of the financial information provided on the e-government website was measured by the following indicators: (1) provision of correct graphs and tables to display financial information, (2) use of colors to capture and display crucial financial information, and (3) clear and specific comments provided on the financial information (Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007).

7. ***Relevance of the financial information***: An assessment of the relevance of the financial information provided on the e-government website was measured by the following indicators: (1) provision of the technical reports related to the financial information, (2) provision of the financial information that is extensive to meet the needs of the government policy makers, (3) provision of the financial information that is extensive to meet the needs of the donor agencies, (4) provision of the financial information that is extensive to meet the needs of the business stakeholders, and (5) provision of the financial information that is extensive to meet the needs of the individuals (Pina, Torres & Royo, 2009; Al-Fakhri *et al.,* 2008; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007).

8. ***Reliability of the financial information***: An assessment of the reliability of the financial information provided on the e-government website was measured by the following indicators: (1) provision of the details of the internally audited financial information, (2) provision of the details of the externally audited financial information, and (3) provision of the details that help the users to differentiate between audited and non-audited financial information (Sharma, 2015; Miranda *et al.,* 2009; Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007).

9. ***Flexibility and robustness of the e-government website***: An assessment of the flexibility and robustness of the financial information provided on the e-government website was measured by the following indicators: (1) website hosts financial information that is easy to follow, (2) website has a site map that provides details of online navigation, (3) website provides links that helps to move through the financial information, (4) website provides financial information that can be down loaded in different formats, (5) website provides financial information in different languages, (6) website provides financial information that enables making payments online, (7) website provides full details of the ownership of the website, (8) website provides full contact details of the website technical support staff, (9) website provides full details of the ministries, (10) website provides a chat facility that could be used to get further information on the financial statements, (11) website provides details of security policy, (12) website provides details of privacy policy, and (13) website provides audio access for visually impaired (Pina, Torres & Royo, 2009; Caba Pérez *et al.*, 2008; Styles & Tennyson, 2007).

4.2 Data Collection and Data Analysis

The data for developing the PAIFDI was collected by assessing the national e-government websites of the 30 small island countries. Two evaluators performed the task of evaluating the e-government websites of the 30 small island countries. There are two reasons for selecting the small island countries for this study. First, there are hardly any studies conducted on public accounts disclosure on the internet in the small island countries. This study undertakes a pioneering effort to extend the existing literature on public accounts internet disclosure in the context of the small island countries. Second, the unique socio-economic context in which the public services are delivered in the small island countries has been extensively ignored in the existing literature. This study explores the four hypotheses in the unique socio-economic context present in the small island countries.

This study adopted the 10-point scale used by the World Bank to measure the business extent of the disclosure index to assess each of the indicators highlighted above (World Bank, 2019). There are three reasons for adopting this scale. First, this scale can coherently capture the degree to which the public sector organisations can disclose information to the stakeholders. Second, since this index is applied to the private sector, it is easier to use this scale and apply it to the context of the public sector. After reviewing 33 international refereed journal articles, this study used 43 indicators to develop the PAIFDI. The data for the e-government development index, e-participation index, online service index, telecommunications infrastructure index, and human capital index was collected from the United Nations (2019) database. The data for this study were analysed by using Microsoft Excel software.

4.3 Socio-economic Background of the Sample

The socio-economic background of the sample shows that all the small islands in our sample have recorded positive growth rates except for Dominica (-9.53%) and Palau (-3.57%). The Maldives recorded the highest growth rate of 6.91%. The highest percentage of female in the population was for Barbados (52.12%), and the lowest was for Bahrain (37.27%). The highest percentage of male in the population was for Bahrain (62.73%), and the lowest was for Barbados (47.88%).

5. RESEARCH FINDINGS

The United Nations (2021) definition of small island developing countries was used to select the 30 small island developing countries for this study. Three regions were selected for this study, and these three regions are the Caribbean, Atlantic and the Indian Ocean and South China Sea (AIS). Table one presents the PAIFDI for 30 small island developing countries. Out of the 30 small island countries assessed in this study, six small island countries had PAIFDI more than 0.6. These six countries are Bahrain (0.797), Singapore (0.788), Bahamas (0.777), Antigua and Barbuda (0.729), Mauritius (0.627), and Dominica (0.603). Following these six countries, seven countries have PAIFDI between 0.5 and 0.6. These seven countries are as follows: Seychelles (0.5698), Fiji (0.567), Grenada (0.565), Samoa (0.552), Guyana (0.536), Solomon Islands (0.534) and Tonga (0.504). The small island countries whose PAIFDI falls between 0.4 and 0.5 are as follows: Barbados (0.499), Suriname (0.496), Palau (0.494), Belize (0.467), and Vanuatu (0.409). The final cohort of small island countries whose PAIFDI falls between 0 and 0.2 are Haiti (0.166), Tuvalu (0.148), Cuba (0.077), Papua New Guinea (0.0729), Maldives (0.052), Nauru (0.044), Marshall Islands (0.035), Guinea-Bissau (0.0167), Comoros (0.010), Kiribati (0.006), Sao Tome and Principe (0.004), and Dominican Republic (0.00).

The mean value for the e-government index was 0.48, the e-participation index was 0.40, the online service index was 0.43, the human capital index was 0.67, the telecommunications infrastructure index was 0.34, and PAIFDI was 0.37. In comparison to the mean value of the e-government index (0.48), the mean value of the PAIFDI was much lower (0.37). All the distributions are less than 3; therefore, the distributions are said to be platykurtic. The e-government index, e-participation index, online service index, telecommunications infrastructure index is positively skewed, and human capital index and PAIFDI is negatively skewed (see table 2).

The correlation for the e-participation index, online service index, human capital index, telecommunications infrastructure index, and PAIFDI is close to one (see table 3). None of the correlations is less than 0.5. There is a positive correlation between the participation index, online service index, human capital index, telecommunications infrastructure index, and PAIFDI. This implies that an increase in e-participation, provision of online service, growth of human capital and telecommunications infrastructure will increase the likelihood of the financial information that is disclosed on the e-government website. This research finding confirms hypotheses H1a, H1b, H1c, and H1d.

Correlation is significant at the 0.01 level (2 tailed)

The regression outputs presented in table four shows that the e-government index has a positive and statistically significant impact on PAIFDI. One unit increase in the e-government index will increase PAIFDI by 1.311 units, at a 5% level of significance, holding all other variables constant. E-government participation index does not have a statistically significant impact on PAIFDI. Similarly, the e-participation index, human capital index, online service index, and telecommunications infrastructure index does not have a statistically significant impact on PAIFDI. This finding confirms hypothesis H2e but does not confirm hypotheses H2a, H2b, H2c, and H2d (see table 4).

Table 5 provides the regression outputs for the impact of FINFO, COMP, TL, CON, COM, UDS, REL, RELI, and RBT on the E-government Index and E-participation Index. Research findings confirm that FINFO and TL have a statistically significant impact on the e-government development index, at a 5% significance level. One unit increase in FINFO will increase the e-government development

Table 1. PAIFDI for 30 small island developing countries

Country Name	PAIFDI	Rank
Bahrain	0.796875	1
Singapore	0.7875	2
Bahamas	0.777083	3
Antigua and Barbuda	0.729167	4
Mauritius	0.627083	5
Dominica	0.603125	6
Seychelles	0.569792	7
Fiji	0.566667	8
Grenada	0.564583	9
Samoa	0.552083	10
Guyana	0.536458	11
Solomon Islands	0.534375	12
Tonga	0.504167	13
Barbados	0.498958	14
Suriname	0.495833	15
Palau	0.49375	16
Belize	0.466667	17
Vanuatu	0.409375	18
Haiti	0.165625	19
Tuvalu	0.147917	20
Cuba	0.077083	21
Papua New Guinea	0.072917	22
Maldives	0.052083	23
Nauru	0.04375	24
Marshall Islands	0.035417	25
Guinea-Bissau	0.016667	26
Comoros	0.010417	27
Kiribati	0.00625	28
Sao Tome and Principe	0.004167	29
Dominican Republic	0	30

Source: Developed by the authors of this study (2022).

index by 0.259 units. Similarly, one unit increase in TL will decrease the e-government development index by 0.77 units. Notably, COMP, CON, COM, UDS, REL, RELI, and RBT did not significantly impact the e-government development index. This research finding confirms H3a and H3c but does not confirm H3b, H3d, H3e, H3f, H3g, H3h, and H3i. On the other hand, FINFO, COMP, TL, CON, COM, UDS, REL, RELI, and RBT did not significantly affect the e-government participation index. This research finding does not confirm hypotheses H4a, H4b, H4c, H4d, H4e, H4f, H4g, H4h, and H4i.

Table 2. Descriptive statistics for the E-government Index, E-participation Index, Online Service Index, Human Capital Index, Telecommunications Infrastructure Index, and PAIFDI

E-Government Index		E-Participation Index		Online Service Index		Human Capital Index		Tele Infra Index		PAIFDI	
Mean	0.48	Mean	0.40	Mean	0.43	Mean	0.67	Mean	0.34	Mean	0.37
Standard Error	0.03	Standard Error	0.04	Standard Error	0.04	Standard Error	0.02	Standard Error	0.04	Standard Error	0.05
Median	0.45	Median	0.34	Median	0.43	Median	0.69	Median	0.30	Median	0.49
Standard Deviation	0.17	Standard Deviation	0.22	Standard Deviation	0.22	Standard Deviation	0.13	Standard Deviation	0.21	Standard Deviation	0.28
Sample Variance	0.03	Sample Variance	0.05	Sample Variance	0.05	Sample Variance	0.02	Sample Variance	0.05	Sample Variance	0.08
Kurtosis	-0.19	Kurtosis	-0.10	Kurtosis	-0.06	Kurtosis	-0.05	Kurtosis	-0.22	Kurtosis	-1.55
Skewness	0.46	Skewness	0.69	Skewness	0.53	Skewness	-0.75	Skewness	0.66	Skewness	-0.14
Range	0.69	Range	0.91	Range	0.91	Range	0.49	Range	0.77	Range	0.80
Minimum	0.19	Minimum	0.06	Minimum	0.08	Minimum	0.36	Minimum	0.08	Minimum	0.00
Maximum	0.88	Maximum	0.97	Maximum	0.99	Maximum	0.86	Maximum	0.85	Maximum	0.80
Sum	14.41	Sum	11.88	Sum	12.76	Sum	20.13	Sum	10.33	Sum	11.15
Count	30.00	Count	30.00	Count	30.00	Count	30.00	Count	30.00	Count	30.00
Confidence Level (95.0%)	0.06	Confidence Level (95.0%)	0.08	Confidence Level (95.0%)	0.08	Confidence Level (95.0%)	0.05	Confidence Level (95.0%)	0.08	Confidence Level (95.0%)	0.11

Source: Microsoft Excel Output, (2022)

Table 3. Correlation for the E-participation Index, Online Service Index, Human Capital Index, Telecommunications Infrastructure Index, and PAIFDI

	E-Participation Index	Online Service Index	Human Capital Index	Tele Infra Index	PAIFDI
E-Participation Index	1.000				
Online Service Index	0.983**	1.000			
Human Capital Index	0.505**	0.561**	1.000		
Tele Infra Index	0.802**	0.809**	0.632**	1.000	
PAIFDI	0.628**	0.674**	0.529**	0.674**	1.000

Source: SPSS Output, (2022)

Figure three shows a simple diagram reflecting the relationship between e-government development, e-participation, and PAIFDI.

6. DISCUSSIONS

The main objective of this study was to develop the PAIFDI and examine the relationship between PAIFDI, e-government development index, and e-participation index. To achieve this objective, four groups of research hypotheses were proposed, and the finding from this study confirmed the following hypotheses: H1a, H1b, H1c, H1d, H2e H3a, and H3c. Specifically, the research findings showed that PAIFDI is positively correlated with the e-participation index, online service index, human capital index, and telecommunications infrastructure index. According to Abdulkareem *et*

Table 4. Regression outputs for the impact of E-government Index, E-participation Index, Human Capital Index, Online Service Index and Telecommunications Infrastructure Index on PAIFDI

	Model 1: PAIDI	Model 2: PAIFDI
Constant	-0.217 [-1.65]	-0.087 [-0.401]
E-government index	1.311 [2.58]**	
E-participation index	-0.103 [-0.269]	-1.341 [-1.34]
Human Capital Index		0.106 [0.266]
Online Service Index		1.769 [1.723]
Telecommunication Infrastructure Index		0.483 [1.466]
R^2	51.43%	54.72%
Normal Probability Plots		

*** represents significance at 1%;
** represents significance at 5%;
* represents significance at 10%;
Source: Microsoft Excel Output, (2019)

al. (2022), Shaikh *et al*. (2021), Caba Pérez *et al*. (2019), an overall improvement in the disclosure of the financial information online is mainly driven by the following factors: (1) readiness of the citizens to participate in the e-government activities, (2) provision of online service, (3) skill level of the national workforce, and (4) provision of high-quality telecommunications infrastructure. The qualitative discussions noted in the existing studies support the empirical relationships established in this study.

A common observation between the socio-economic characteristics of the 30 small island countries and the PAIFDI shows that high-income countries are more likely to record high PAIFDI as compared to the low-income countries. For instance, the two high income per capita countries, Bahrain and Singapore, have recorded the highest values for the PAIFDI, but low incomes countries, such as Dominican Republic, Sao Tome and Principe, Kiribati, Comoros, and Guinea-Bissau, have recorded the lowest values for the PAIFDI. There are two reasons attributed to this. First, to adequately disclose financial information on the internet, the government should have the resources to establish the online infrastructure. Current socio-economic problems, such as inflation, crime, poverty, political instability, and ethnic tension, are imposing resource constraints on the strategies that can be taken
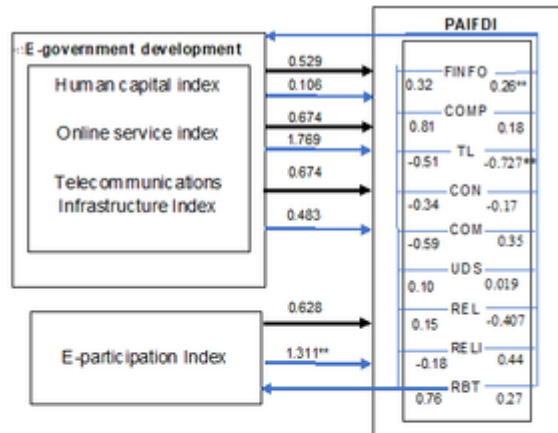
Table 5. Regression outputs for the impact of FINFO, CHA, TL, CON, COM, UDS, REL, RELI, and RBT on E-government Index and E-government Participation Index

	Model 1: E-government development index	Model 2: E-government participation index
Constant	0.397 [4.871]*	0.209 [1.638]
FINFO	0.259** [2.293]	0.3227 [1.829]
CHA	0.184 [0.423]	0.8109 [1.1898]
TL	-0.727** [-2.39]	-0.50691 [-1.0659]
CON	-0.169 [-0.638]	-0.3407 [-0.822]
COM	0.35475 [0.4995]	-0.5897 [-0.53082]
UDS	0.019 [0.230]	0.097551 [0.7465]
REL	-0.407 [-0.688]	0.1529 [0.1653]
RELI	0.44 [0.881]	-0.178 [-0.227]
RBT	0.277 [0.621]	0.757 [1.087]
R^2	66.16%	52.42%
Normal Probability Plots		

*** represents significance at 1%;
** represents significance at 5%;
* represents significance at 10%;
Source: Microsoft Excel Output, (2022)

by the central government to disclose the financial information on the e-government website (Dalla *et al.,* 2022; Schmidthuber *et al.*, 2022; Chau & Gray, 2002; Groff & Pitman, 2004). Second, low-income countries lack the competencies and capabilities to provide an online infrastructure that can securely disclose financial information on the e-government website (Velsberg *et al.,* 2020; Ardillah & Carolin, 2022; Bhatnagar, 2003; Ebrahim & Irani, 2005). Similarly, existing studies on small island developing countries, specifically focusing on American Samoa, Cook Islands, New Caledonia, Anguilla, Curacao, Niue, Aruba, French Polynesia, Puerto Rico, Bermuda, Guadeloupe,

Figure 3. Diagrammatic relationship between E-government development, E-participation, and PAIFDI

FINFO: Financial information supplied on the e-government website
COMP: Completeness of the financial information that is supplied on the e-government website
TL: Timeliness of the information that is provided on the e-government website
CON: Convenience of the financial information that is provided on the e-government website
COM: Comparability of the financial information that is provided on the e-government website
UDS: Understandability of the financial information that is provided on the e-government website
REL: Relevance of the financial information that is provided on the e-government website
RELI: Reliability of the financial information that is provided on the e-government website
RBT: Robustness of the e-government information that is provided on the e-government website

Values in the diagram are provided for beta coefficients and significance levels.

Source: Developed by the authors, (2022).

Sint Maarten, British Virgin Islands, Guam, Turks and Caicos Islands, Cayman Islands, Martinique, U.S. Virgin Islands, Commonwealth of Northern Marianas, and Montserrat has confirmed that these countries are least likely to invest in an e-government website as compared to high per capita income small island developing countries (Sari, 2007).

Based on the regression analysis results, this study confirmed that the e-government development index has a positive and statistically significant impact on PAIFDI, at 5% level of significance. One unit increase in the e-government development index will increase PAIFDI by 1.311 units, at a 5% level of significance. This study did not find a statistically significant relationship between the e-participation index and PAIFDI. Based on this result, it is argued that as countries develop their e-government website, they can gain a better understanding of the problems, issues, and challenges involved in disclosing financial information on the internet. The learning effect acquired from working with innovation to deliver public services improves over a long period. This learning effect helps the public service managers and the policymakers to securely disclose public sector accounts on the internet and gain the trust of the users of the e-government website (Sitnikov *et al.,* 2022; Cuadrado-Ballesteros *et al.,* 2021; Ebrahim & Irani, 2005; Groff & Pitman, 2004). This study could not establish a relationship between e-participation and PAIFDI in the context of the small island countries due to two reasons. First, users of the e-government website are provided with no or little opportunity to interact with the public service managers and other users of the financial information when they visit the e-government websites. For instance, the e-government website of Nauru, Palau, Samoa, Seychelles, Solomon Islands, Tonga, Tuvalu, and Vanuatu allows minimal or no interaction between the policymakers, public service managers and the users of the e-government website. As a result of this, the current levels of the e-participation did not significantly influence PAIFDI (Obeidat, 2022; Mohammad, Almarabeh & Ali, 2009). Second, most of the e-government website

for the small island countries that host financial information is in the early stages of development (Ardillah & Carolin, 2022; Sharma, 2015; United Nations, 2019). The providers of the financial information on the e-government website of the small island countries are more likely to use tools for e-participation as the e-government website develops, but currently, with the use of limited tools, little e-participation is achieved. As a result of this, this study could not establish the relationship between e-participation and PAIFDI.

This study contributes to the existing theories in several ways. First, this study confirms that e-government has a positive and statistically significant impact on PAIFDI. The research findings from this study confirm that the innovative means of delivering public services is the solution to the Principal-Agent problem that exists between the public service managers and the public (Dalla *et al.,* 2022; Dahl & Ross, 2004; Styles & Tennyson, 2007; Steccolini, 2019). As confirmed by existing qualitative studies, as the e-government develops, the government can achieve greater inclusiveness in the policymaking process (Dalla *et al.,* 2022; Teicher, Hughes & Dow, 2002). Similarly, previous experiences of managing the e-government website would help government policymakers and public service managers to disclose financial information more innovatively for varied users. As a result of this, there would be greater accountability and transparency in the management of public services (Obeidat, 2022; Suchman, 1995).

Second, this study also confirmed disclosing financial information on the e-government website has a statistically significant impact on e-government development. Applying this research finding to the context of the 'public service value', it can be argued that by providing readily available public sector accounts on the e-government website, the search cost associated with finding financial information is significantly reduced, thus creating higher public value (Dalla *et al.,* 2022; Steccolini, 2019; Dahl & Ross, 2004).

Third, this study found that the timeliness of the financial information provided on the e-government website has a statistically significant impact on e-government development. As argued by the Institutional Theory, it is essential that the public service managers and the policymakers disclose public sector accounts on the e-government website because the public sector stakeholders have the right to know how productively the public sector managers are using the public funds (Ardillah & Carolin, 2022; Suchman, 1995; Gallego-Álvarez, Rodríguez-Domínguez & García-Sánchez, 2010). Timely disclosure of the financial information ensures that the public service managers take responsibility for using public funds and respond to the general public on their concerns and queries (Dalla *et al.,* 2022; Lee, Kim & Ahn, 2011).

This study has implications for the policymakers from the practical perspective as it shows that e-government development has a positive and statistically significant impact on PAIFDI. Based on this research finding, it is recommended that the national governments of the small island countries, particularly, the low-income small island countries, should invest in human capital development, provision of online services and strengthening the quality of the telecommunications infrastructure (Obeidat, 2022; Schmidthuber *et al*., 2022; Ebrahim & Irani, 2005; Mohamed & Oyelere, 2008). As per the confirmation from the existing studies and the findings from this study, it is clear that these are the three fundamental drivers of e-government development. It is critical for all the small island countries to strive to improve the PAIFDI for a number of reasons. First, a high PAIFDI ensures that the public sector stakeholders are clearly informed on the financial management practices used by the public sector managers (Pina, Torres & Royo, 2009). This improves the transparency and accountability of public sector management and ensures that the public service managers take responsibility for using the public funds (Ardillah & Carolin, 2022; Velsberg *et al.,* 2020; Dahl & Soss, 2014; DiMaggio & Powell, 1983). Second, disclosing financial information on the e-government website helps the public sector managers to gain the trust of the public and improve the disclosure of the financial information. For instance, the e-government website of Bahrain that hosts the financial information of the government allows users to blog on concerning issues. One of the main advantages of the blogging tool is that it allows the public service to improve the e-government website.

Specifically, the policymakers need to develop policies on data privacy and protocols associated with the online release of financial information. There are numerous risks associated with releasing financial information on the e-government website, and these risks are well documented in the existing literature. Policies on data management and privacy issues need to be developed for the protection of users on the management and use of financial information.

7. CONCLUSION

In the modern decade, one of the primary roles of the government is to achieve global reach in the delivery of public services. E-government is being used as an innovative tool in numerous geographical settings to deliver public services online. Apparently, this innovation has not only helped to improve the accessibility of the e-government services, but it has improved the transparency and accountability of the public sector management. The findings from this study confirmed that e-government development has a positive and statistically significant impact on PAIFDI, at a 5% level of significance. Additionally, the findings from this study also confirmed that the provision of financial information on the e-government website and the timeliness of the financial information has a statistically significant impact on the e-government development index, at a 5% level of significance.

There are few limitations of this study that limits the external validity of the research findings. This study is based on only 30 small island countries due to the lack of data available on e-government indices for all the small island countries. Future studies should consider the case of small island countries that have not been considered in this study. Due to the lack of availability of the time series data, it was not possible to conduct the time series analysis and compare results between the low income and high-income cohorts. Future researchers can consider this as one of the options for improving the robustness of the research findings. Additionally, future researchers should also consider the bi-directional relationship between e-government development, e-participation and PAIFDI.

REFERENCES

Abdulkareem, A. K., Abdulkareem, Z. J., Ishola, A. A., & Akindele, I. T. (2022). Does e-government impact e-participation? The influence of trust in e-government. *International Review of Public Administration*, 1–20. doi:10.1080/12294659.2022.2136054

Addo, A. (2020). Controlling petty corruption in public administrations of developing countries through digitalisation: An opportunity theory informed study of Ghana customs. *The Information Society*, 1–23.

Al-Fakhri, M. O., Cropf, R. A., Kelly, P., & Higgs, G. (2008). E-government in Saudi Arabia: Between promise and reality. *International Journal of Electronic Government Research*, *4*(2), 59–85. doi:10.4018/jegr.2008040105

Aladwan, S. A., AL-Yakoub, T. A., & Adaileh, A. M. (2022). Challenges of knowledge management in the public sector: Evidence from the King Abdullah Award for Excellence in Jordan. *The TQM Journal*. Advance online publication. doi:10.1108/TQM-09-2021-0253

Alleyne, P., Weekes-Marshall, D., & Broome, T. (2014). Accountants' perceptions of corporate governance in public limited liability companies in an emerging economy: Evidence from Barbados. *Meditari Accountancy Research*, *22*(2), 186–210. doi:10.1108/MEDAR-09-2013-0039

Allmann, K., & Blank, G. (2021). Rethinking digital skills in the era of compulsory computing: Methods, measurement, policy and theory. *Information Communication and Society*, *24*(5), 1–16. doi:10.1080/1369118X.2021.1874475

Ardillah, K., & Carolin, F. (2022, January). The Impact of Corporate Governance Structure on Internet Financial Reporting (IFR). In *Universitas Lampung International Conference on Social Sciences (ULICoSS 2021)* (pp. 544-552). Atlantis Press. doi:10.2991/assehr.k.220102.073

Aversano, N., Polcini, P. T., Sannino, G., & Agliata, F. (2019). Integrated Popular Reporting as a Tool for Citizen Involvement in Financial Sustainability Decisions. In *Financial Sustainability of Public Sector Entities* (pp. 185–205). Palgrave Macmillan. doi:10.1007/978-3-030-06037-4_10

Bhatnagar, S. (2003). E-government and access to information. *Global Corruption Report, 2003*, 24-32.

Bhattarai, P. C., & Gupta, A. K. (2022). Bribing for Public Service: What Drives the Service Users? *International Journal of Public Administration*, 1–10. doi:10.1080/01900692.2021.2018709

Caba Pérez, C., Pedro Rodríguez Bolívar, M., & López Hernández, A. M. (2008). e-Government process and incentives for online public financial information. *Online Information Review*, *32*(3), 379–400. doi:10.1108/14684520810889682

Chau, G. K., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting*, *37*(2), 247–265. doi:10.1016/S0020-7063(02)00153-X

Chohan, S. R., & Hu, G. (2022). Strengthening digital inclusion through e-government: Cohesive ICT training programs to intensify digital competency. *Information Technology for Development*, *28*(1), 16–38. doi:10.1080/02681102.2020.1841713

Cuadrado-Ballesteros, B., Santis, S., & Bisogno, M. (2021). Public-sector Financial Management and E-government: The Role Played by Accounting Systems. *International Journal of Public Administration*, 1–15. https://www.tandfonline.com/doi/pdf/10.1080/01900692.2020.1868506

Dahl, A., & Soss, J. (2014). Neoliberalism for the common good? Public value governance and the downsizing of democracy. *Public Administration Review*, *74*(4), 496–504. doi:10.1111/puar.12191

Dalla, K., Lois, P., & Makrygiannakis, G. (2022). The role of leadership–member exchange relationships in the implementation of the International Public Sector Accounting Standards by Greek public hospitals. *EuroMed Journal of Business*. Advance online publication. doi:10.1108/EMJB-04-2021-0064

Dawi, M. N., Namazi, H., Hwang, H. J., Ismail, S., Maresova, P., & Krejcar, O. (2021). Attitude toward protective behavior engagement during COVID-19 pandemic in Malaysia: The role of e-government and social media. *Frontiers in Public Health*, *9*, 113. PMID:33732677

De Prieëlle, F., De Reuver, M., & Rezaei, J. (2020). The role of ecosystem data governance in adoption of data platforms by Internet-of-Things data providers: Case of Dutch horticulture industry. *IEEE Transactions on Engineering Management*. Retrieved from https://ieeexplore.ieee.org/abstract/document/8976433

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organisational fields. *American Sociological Review*, *48*(2), 147–160. doi:10.2307/2095101

Dowling, J., & Pfeffer, J. (1975). Organisational legitimacy: Social values and organisational behavior. *Pacific Sociological Review*, *18*(1), 122–136. doi:10.2307/1388226

Ebrahim, Z., & Irani, Z. (2005). E-government adoption: Architecture and barriers. *Business Process Management Journal*, *11*(5), 589–611. doi:10.1108/14637150510619902

Gallego-Álvarez, I., Rodríguez-Domínguez, L., & García-Sánchez, I. M. (2010). Are determining factors of municipal E-government common to a worldwide municipal view? An intra-country comparison. *Government Information Quarterly*, *27*(4), 423–430. doi:10.1016/j.giq.2009.12.011

Gkikas, D. C., Tzavella, G., Tzioli, M., Vlachopoulou, G., Kondili, I., & Magnisalis, I. (2022). Assessment of E-Government Portals. *International Journal of Information Systems in the Service Sector*, *14*(1), 1–16. doi:10.4018/IJISSS.287582

Juniantika, D. A., & Hapsari, D. W. (2020). What motivates internet financial reporting in the public sector? Case of a local government in Indonesia. Journal of Accounting Research. *Organization and Economics*, *3*(2), 102–116.

Khan, S., Umer, R., Umer, S., & Naqvi, S. (2021). Antecedents of trust in using social media for E-government services: An empirical study in Pakistan. *Technology in Society*, *64*(1), 101400. doi:10.1016/j.techsoc.2020.101400

Khosrowjerdi, M. (2022, February). Good Governance and National Information Transparency: A Comparative Study of 117 Countries. In *International Conference on Information* (pp. 143-160). Springer. doi:10.1007/978-3-030-96957-8_14

Kopackova, H., Komarkova, J., & Horak, O. (2022). Enhancing the diffusion of e-participation tools in smart cities. *Cities (London, England)*, *125*, 103640. doi:10.1016/j.cities.2022.103640

Lee, J., Kim, H. J., & Ahn, M. J. (2011). The willingness of e-Government service adoption by business users: The role of offline service quality and trust in technology. *Government Information Quarterly*, *28*(2), 222–230. doi:10.1016/j.giq.2010.07.007

Miranda, F. J., Sanguino, R., & Bañegil, T. M. (2009). Quantitative assessment of European municipal web sites: Development and use of an evaluation tool. *Internet Research*, *19*(4), 425–441. doi:10.1108/10662240910981380

Mitnick, B. M. (1974a). *The Theory of Agency: The Concept of Fudiary Rationality and Some Consequences* [Unpublished PhD Dissertation]. Department of Political Science, University of Pennsylvania, Univ. Microfilms No. 74-22,881.

Mitnick, B. M. (1974b). *Mitnick, B. M. 1974b. A typology of goals for positive theories: The theory of agency and the incentive systems approach to organisations*. Paper presented at Professor Oliver Williamson's Organizations Workshop, Fels Center of Government, University of Pennsylvania (October 24, 1974). College of Administrative Science Working Paper Series, WPS 75-45 (Ohio State University, October 1975).

Mohamed, E., & Oyelere, P. (2008). *A survey of Internet financial reporting in Bahrain*. Retrieved from https://quspace.qu.edu.qa/handle/10576/6850

Mohammad, H., Almarabeh, T., & Ali, A. A. (2009). E-government in Jordan. *European Journal of Scientific Research*, *35*(2), 188–197.

Naidu, S., & Chand, A. (2018). Exploring the Problems, Issues and Challenges of E-government in Kiribati. *e-Service Journal*, *10*(3), 1–23. doi:10.2979/eservicej.10.3.01

Naidu, S., Pandaram, A., Chand, A., & Patel, A. (2021). Sexual Harassment at Work and E-government: An Assessment of the Thirteen Pacific Island Countries. *Sexuality & Culture*, *25*(5), 1824–1851. doi:10.1007/s12119-021-09853-6

Obeidat, A. M. (2022). Facilitating the Creativity of Governmental Employees via High-Involvement Human Resource Management Practices: The Mediating Role of Felt-Trust. *International Journal of Electronic Government Research*, *18*(1), 1–20. doi:10.4018/IJEGR.298628

Pearson, J. M., Pearson, A., & Green, D. (2007). Determining the importance of key criteria in web usability. *Management Research News*, *30*(11), 816–828. doi:10.1108/01409170710832250

Pina, V., Torres, L., & Royo, S. (2009). E-government evolution in EU local governments: A comparative perspective. *Online Information Review*, *33*(6), 1137–1168. doi:10.1108/14684520911011052

Ross, S. A. (1973). The economic theory of agency: The principal's problem. *The American Economic Review*, *62*(2), 134–139.

Ross, S. A. (1974). On the economic theory of agency and the principle of similarity. In M. Balch, D. McFadden, & S. Wu (Eds.), *Essays on economic behavior under uncertainty*. NorthHolland.

Sari, A. (2017). E-government attempts in Small Island Developing States: The rate of corruption with virtualization. *Science and Engineering Ethics*, *23*(6), 1673–1688. doi:10.1007/s11948-016-9848-0 PMID:27995444

Schmidthuber, L., Hilgers, D., & Hofmann, S. (2022). International Public Sector Accounting Standards (IPSASs): A systematic literature review and future research agenda. *Financial Accountability & Management*, *38*(1), 119–142. doi:10.1111/faam.12265

Scott, W. R. (1995). *Institutions and Organisations*. Sage.

Scott, W. R. (2008). *Institutions and Organisations: Ideas and Interests*. Sage Publications.

Shaikh, A. K., Ahmad, N., Khan, I., & Ali, S. (2021). E-Participation Within E-Government: A Bibliometric-Based Systematic Literature Review. *International Journal of Electronic Government Research*, *17*(4), 15–39. doi:10.4018/IJEGR.2021100102

Sharma, S. K. (2015). Adoption of e-government services: The role of service quality dimensions and demographic variables. *Transforming Government: People*. *Process and Policy*, *9*(2), 207–222.

Shearer, C. (2022). Contemporary Management Ideas and Public Sector Reforms Across Westminster Polities. In *Constructing the Craft of Public Administration* (pp. 41–88). Palgrave Macmillan. doi:10.1007/978-3-030-81896-8_2

Sitnikov, P., Dodonova, E., Dokov, E., Ivaschenko, A., & Efanov, I. (2022). Digital Transformation of Public Service Delivery Processes Based of Content Management System. In *Proceedings of Third International Conference on Sustainable Computing* (pp. 289-296). Springer. doi:10.1007/978-981-16-4538-9_29

Steccolini, I. (2019). Accounting and the post-new public management: Re-considering publicness in accounting research. *Accounting, Auditing & Accountability Journal*, *32*(1), 255–279. doi:10.1108/AAAJ-03-2018-3423

Styles, A. K., & Tennyson, M. (2007). The accessibility of financial reporting of US municipalities on the internet. *Journal of Public Budgeting, Accounting & Financial Management*, *19*(1), 56–92. doi:10.1108/JPBAFM-19-01-2007-B003

Suchman, M. C. (1995). Managing Legitimacy: Strategic And Institutional Approaches. *Academy of Management Review*, *20*(3), 571–610. doi:10.2307/258788

Teicher, J., Hughes, O., & Dow, N. (2002). E-government: A new route to public sector quality. *Managing Service Quality*, *12*(6), 384–393. doi:10.1108/09604520210451867

Tejedo-Romero, F., Araujo, J. F. F. E., Tejada, Á., & Ramírez, Y. (2022). E-government mechanisms to enhance the participation of citizens and society: Exploratory analysis through the dimension of municipalities. *Technology in Society*, *70*, 101978. doi:10.1016/j.techsoc.2022.101978

Torres, L. (2004). Trajectories In Public Administration Reforms In European Continental Countries. *Australian Journal of Public Administration*, *63*(3), 99–112. doi:10.1111/j.1467-8500.2004.00394.x

United Nations. (2019). *E-government Development Index*. Retrieved fromhttps://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index

United Nations. (2021). *About Small Island Developing States*. Retrieved from https://sustainabledevelopment. un.org/topics/sids

Velsberg, O., Westergren, U. H., & Jonsson, K. (2020). Exploring smartness in public sector innovation-creating smart public services with the Internet of Things. *European Journal of Information Systems*, *29*(4), 350–368. doi:10.1080/0960085X.2020.1761272

Warner, M. E., Aldag, A. M., & Kim, Y. (2021). Pragmatic municipalism: US local government responses to fiscal stress. *Public Administration Review*, *81*(3), 389–398. doi:10.1111/puar.13196

Zhao, F., Naidu, S., Chand, A., Singh, G., Sewak, A., & Karan, M. (2018). Social networks, cultural orientations and e-government adoption behavior: A Fijian study. *Information Polity*, *23*(4), 411–427. doi:10.3233/IP-170068

Zhao, F., Naidu, S., Singh, G., Sewak, A., Chand, A., & Karan, M. (2018). An empirical study of e-government diffusion in Fiji: A holistic and integrative approach. *Public Management Review*, *20*(10), 1490–1512. doi:10. 1080/14719037.2017.1400585

Zhao, F., Naidu, S., & Wallis, J. (2019). An empirical study of e-government adoption in the United Arab Emirates: A social cognitive perspective. *Information Polity*, *24*(1), 91–109. doi:10.3233/IP-180087

Suwastika Naidu is working as a Senior Lecturer in School of Business and Management at the University of the South Pacific.

Fang Zhao is professor of innovation and strategy at the Staffordshire Business School, United Kingdom.

Anand Chand is Professor of Management based at the University of the South Pacific, School of Business and Management.

Arvind Patel is working as the Professor of Accounting in the School of Accounting, Finance and Economics.

Atishwar Pandaram joined the Department of Management and Public Administration of the University of the South Pacific at the beginning of semester two in 2003. Earlier, he had his secondary and tertiary education in Fiji and Australia. His undergraduate specialization includes mathematics, science, accounting and financial management, and economics. Furthermore, he possesses postgraduate qualifications in accountancy, management, and economics.