

A Systematic Review of the Impact of E-Governance on Competitive Advantage in the Government Sector in the Sultanate of Oman

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Abstract: - The present research aims to explore the role of e-governance in enhancing competitive advantage in the government sector in Oman. The paper examines the impact of variables such as digital transformation, service quality, transparency, innovation, and technological capabilities on government performance and strategic positioning in line with Oman Vision 2040. This study uses a systematic literature review methodology. It scans recent research on e-governance, digital transformation, innovation in the public sector, and competitive advantage. The literature reviewed includes both empirical and conceptual studies published during (2018 – 2025). The results also show that e-governance has a positive impact on competitive advantage in the public sector through its links to service quality, operational efficiency, transparency, digital services, and citizen satisfaction. Furthermore, this relationship is mediated by IT governance and dynamic capabilities to enable the sustainability of competitive advantage. Moreover, this relationship is mediated by dynamic capabilities and IT governance, facilitating the sustainability of competitive advantage. The research offers insights to policymakers and government leaders in Oman on the need to strengthen digital governance efforts and competitive positioning in government. This study contributes to the literature by integrating e-governance and competitive advantage perspectives in the Omani government sector.

Key-Words: - E-Governance, Competitive Advantage, Digital Transformation, Public Sector Innovation, Oman Vision 2040, Government Sector.

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1 Introduction

The rapid growth of information and communication technologies (ICT) has fundamentally transformed public administration models around the world. E-governance systems are being implemented by governments, whereby they are being utilized to improve efficiencies, transparency, accountability, and quality of service [1]. E-governance is a strategic approach toward the utilisation of digital technologies to enhance the process of government, interaction with citizens, and the creation of value among people [2]. Digital transformation has become one of the key pillars of the national development strategies in the Gulf region, especially in terms of conforming to the long-term visions of sustainability and economic diversification [3].

There are considerable attempts in the Sultanate of Oman to modernise the governmental sector with digital initiatives, smart services, and integrated ICT

infrastructure [4], [5]. They are in line with Oman Vision 2040, which focuses on innovation, institutional efficiency, and global competitiveness [6]. Nevertheless, even though earlier researchers investigated the adoption of e-governance and service delivery results [7], [8]; however, few studies have delved into its contribution to the attainment of competitive advantage by the government.

The governmental competitive advantage is broader than profitability and is oriented toward excellent service provision, operational efficiency, transparency, ability to innovate, as well as sustainable performance [9]. Based on the Resource-Based View and dynamic capabilities approaches [10], the digital governance systems may be visualized as strategic resources that add to the positioning and the long-term sustainability of the institution. The originality of this study lies in its integration of e-governance and competitive advantage in the Omani government sector. The

review investigates how e-governance has been conceptualized in the past by exploring the three perspectives of service delivery, transparency, and digital transformation, and brings them together under the umbrella of strategic management approaches, including those from the Resource-Based View and dynamic capabilities theory. It thus places e-governance in a position as not only a reform tool for administration but also as a tool that can be used to achieve sustainable competitive advantage in public institutions. Accordingly, this paper tries to answer the following research questions:

RQ1: What are the main features of e-governance that impact competitive advantage in the Omani public sector?

RQ2: How does digital transformation enhance efficiency and service quality in Omani public institutions?

RQ3: Which theoretical perspectives clarify how e-governance influences competitive advantage?

RQ4: How can e-governance initiatives help achieve a sustainable competitive advantage in alignment with Oman Vision 2040?

2 Literature Review

E-governance is the systematic application of information and communication technologies (ICT) to improve the performance of the government, service delivery, accountability, and the performance of institutions. The increased use of digital technologies has transformed the traditional models of the work of public administration, replacing the traditional bureaucratic system with the system of digital governance [11]. The growing sophistication of citizen needs and competitiveness pressures at the global level have further enhanced the pace of digital transformation efforts in various sectors of government around the world.

Recent empirical literature indicates that e-governance promotes transparency in administration, efficiency in administration, and trust among citizens. To give an example, a study that analyses the international impact of digital governance suggests that the implementation of e-governance systems leads to a high quality of governance and a decrease in the level of corruption [12]. Likewise, electronic governance systems are assessed, and the results show improvements in the management of the public service and efficiency in the municipalities [13]. These results increase the strategic interest in digital systems for enhancing public-sector performance.

The initiatives of E-governance in developing and emerging economies rely heavily on three main factors: institutional readiness, digital literacy, and

technology integration. Research on the topic of digital transformation in the public sector highlights that organized governance frameworks and IT management practises are prerequisites to the continuous enhancement of performance [14]. Moreover, knowledge mapping in the Arab world reveals that artificial intelligence, blockchain, and data-driven platforms are viewed as new facilitators of the modernization of governance [15].

Although the main strategic implication of e-governance is the enhancement of public value and efficiency of service, the wider implications of the strategy are on competitive positioning. Also studied in the context of the private sector, competitive advantage is becoming a subject of investigation in the context of the public sector as the capacity to provide better value, innovation, efficiency, and sustainability [16]. Making public organizations agile and technology-driven allows them to improve the differentiation of their services and institutional image.

The theoretical description of competitive advantage is based on the Resource-Based View (RBV) that suggests that competitive advantage is attained by organizations based on valuable, rare, inimitable, and non-substitutable resources [17]. In the context of the public sector, digital infrastructure, intellectual capital, and innovation capabilities, as well as data-driven decision systems, are examples of strategic resources that can make institutions more effective [18]. Also, the dynamic capabilities perspective indicates that institutions should constantly change and redesign their technological and organizational resources to maintain a competitive advantage in a fast-changing environment [19].

Institutional agility and strategic positioning are also enhanced by technological capability development. Empirical data show that data-driven innovation and marketing agility have a strong impact on competitive performance in turbulent environments [20]. Equally, proactive management practises using technology can increase the performance and the resilience of an organization in the long term [21]. These results indicate that e-government transformation within government institutions can serve as a driver of long-term competitive advantage.

Along with efficiency and innovation, transparency and accountability are essential dimensions that connect e-governance with competitive strength. It is proven that digital governance systems lead to better corporate transparency and performance outcomes in the context of the Gulf [22]. The open innovation

strategies within the public sector also facilitate collaborative governance and institutional flexibility [23]. Innovation performance and organizational development also interact through knowledge-sharing mechanisms [24].

Although literature regarding digital governance and competitive advantage, separately, is growing, there is a scarcity of research that delivers these two constructs in a single analytical model, especially in the Sultanate of Oman. The current literature has concentrated mostly on the outcomes of service quality, use of technology, or alleviation of corruption without necessarily considering the role of e-governance in long-term competitive advantage in government institutions.

Accordingly, based on RBV and dynamic capabilities, the proposed study attempts to theorize the integration of e-governance aspects, including digital infrastructure, transparency, ability to innovate, and institutional efficiency, with the outcome of competitive advantages in the Omani government sector. This review provides a base through which the relationship between digital governance and sustainable competitive positioning can be explored and studied through the synthesis of previous research and the establishment of theoretical connections.

2.1 Conceptual Framework of the Study

Figure 1 presents the conceptual framework linking the principal dimensions of e-governance to competitive advantage in the government sector.

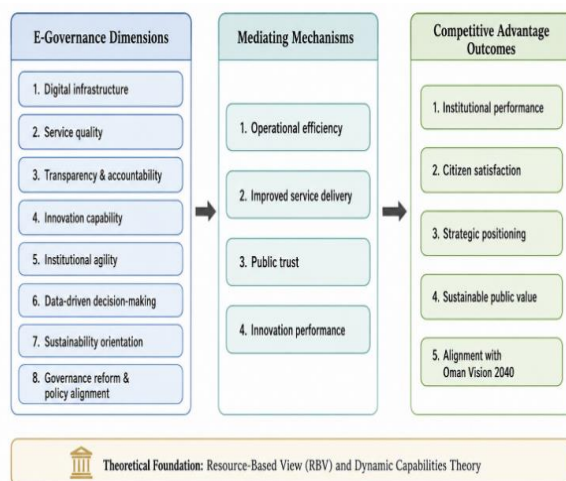


Fig. 1: 1Conceptual Framework Linking e-Governance to Competitive Advantage in the Government Sector

Source: Authors' own elaboration.

The conceptual framework in this study illustrates how the dimensions of e-governance contribute to

competitive advantage in the government sector, as presented in the synthesis of the literature reviewed. It is based on the Resource-Based View and the dynamic capabilities theory. The digital infrastructure, the use of data for decision-making, transparency mechanisms, and innovation capability are all strategic resources that can enhance the performance of institutions from the Resource-Based View. The dynamic capabilities approach suggests that government institutions may obtain a competitive advantage as long as they have the ability to continuously adapt, integrate, and reconfigure these resources in order to meet evolving citizens' expectations, technological advancements, and priority changes in preserving the nation's transformation.

In this regard, the framework suggests that e-governance dimensions (i.e., digital infrastructure, service quality, transparency and accountability, innovation capability, institutional agility, data-driven decision-making, sustainability orientation, and governance reform) can affect competitive advantage by means of improvement of the operational efficiency, service responsiveness, institutional transparency, public trust, and innovation performance.

3 Method

The systematic literature review is an important phase of building theoretical knowledge and finding gaps in research in a developing research field. The systematic reviews help researchers to unify the existing knowledge and assess the methodological tendencies as well as present organised information to proceed with an empirical study in the future [25]. Based on the standard systematic review methodology, this research had a multi-stage approach, which included: (1) inclusion and exclusion criteria definition, (2) data sources and search strategies, (3) quality assessment, and (4) structured data analysis.

Methodologically, A review protocol has been developed to ensure transparency and reproducibility. The search stages consisted of identification of relevant records, screening of titles and abstracts, assessment of eligibility of full-text articles, and inclusion of studies for synthesis. The selected article was evaluated according to the inclusion and exclusion criteria, and the following information was extracted: author(s), year, country or context, research focus, theory, methodology, key findings, and relevance to e-governance and competitive advantage.

3.1 Inclusion and Exclusion Criteria

The study is based on peer-reviewed literature that is specifically related to e-governance, digital transformation, public sector performance, and competitive advantage. There were no human subjects in this study; secondary data were acquired from published academic sources.

In order to be consistent and relevant, some predefined criteria were created to choose the right studies to analyze. The criteria were developed in a way that they included studies that explore e-governance, digital transformation in the government sector, and results based on competitive advantage.

The timeframe from 2018 to 2025 includes progress in digital governance and the quick digital transformation of government institutions. Choosing peer-reviewed journal articles helps ensure methods and reliable academic quality. Studies published after 2025 or those used for context and theory were not included in the 80 studies that made up the systematic review..

3.2 Data sources and search strategies

The sources of data and search strategies will be measured in advance, i.e., referring to previous information sources and data availability.

The articles incorporated in this systematic review were located in the context of an organized search of the popular academic databases, i.e., Scopus, ScienceDirect, Emerald Insight, SpringerLink, and Google Scholar. The search was performed between March and May 2025, and it was necessary to include the latest publications on e-governance, digital transformation, and competitive advantage in the field of the public sector. The search was systematic and conformed to the customary actions of a systematic review undertaken by digital governance and transformation studies [26], [27].

Boolean operators were employed to combine keywords like e-governance, competitive advantage, digital government, public sector performance, e-government, and sustainability. The initial search yielded 200 records from Emerald Insight, Google Scholar, Scopus, and ScienceDirect. Out of all 143 full-text articles, 143 articles were evaluated based on eligibility criteria after eliminating duplicates and selecting titles and abstracts based on predefined criteria. Eventually, 80 studies were included in the study criteria and were retained to be evaluated and synthesized in terms of quality. This formal search plan provided transparency, reproducibility, and methodological rigor in finding the relevant literature [28], [29].

Table 1 summarises the inclusion and exclusion criteria applied during the study-selection process

Table 1. The Criteria of Inclusion and Exclusion

Inclusion Criteria	Exclusion Criteria
The study focuses on e-governance or digital government	Studies focusing solely on private sector digital transformation
The study discusses competitive advantage, performance, and sustainability	Studies unrelated to governance or public administration
Published between 2018 and 2025	Publications prior to 2018
Peer-reviewed journal articles	Conference abstracts, editorials, and non-reviewed reports
Written in English	Articles in languages other than English

Source: Authors' own elaboration.

Figure 2 depicts the stages of identification, screening, eligibility assessment, and final inclusion in the systematic review.

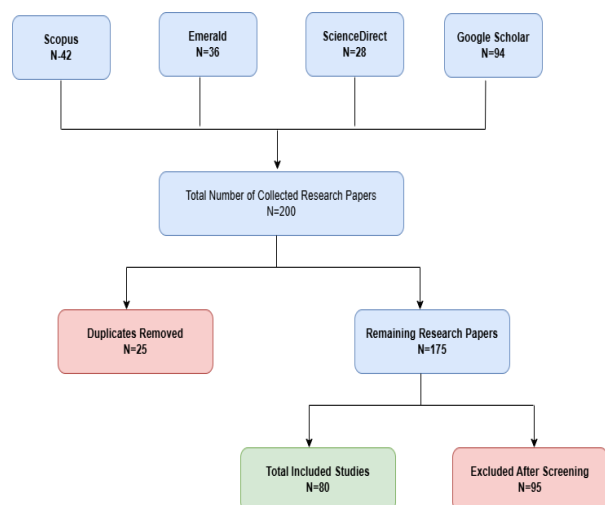


Fig. 2: Systematic Review Process

Source: Authors' own elaboration.

3.3 Quality Assessment

Besides the inclusion and exclusion criteria, a systematic quality review was carried out to maintain methodological rigor, theoretical consistency, and scholarly reliability of the chosen studies (N = 80). Qualitative assessment is a critical part of systematic literature reviews because it improves the transparency and credibility of synthesized results [30], [31]. In accordance with accepted systematic review practice, nine criteria of assessment have been designed to assess the clarity of the research

objectives, theoretical foundation, operationalization of the important constructs, contextual specifications, methodological adequacy, analytical transparency, and the contribution to knowledge.

Table 3. presents a checklist of the quality assessment; it was modified in order to conform to the studies of e-governance, digital transformation, and competitive advantage. All criteria were rated on a three-point scale: yes (1 point), partially (0.5 point), or no (0 point). Consequently, each study could score up to 9, with a higher score indicating greater methodological strength and theoretical value

The findings of the assessment show that the majority of the studies reviewed had strong research design and conceptual clarity. Since the complete table is too long to include in the body of the paper, the detailed scoring for each of the 80 studies is included in Appendix A, Table A1. In the majority of publications, their research goals and contextual background were precisely stated, especially in the articles that explored the performance of digital governance and institutional competitiveness [32], [33]. Moreover, the percentage of the research that properly described their analytical methods and made significant theoretical or practical contributions to the scholarship of digital governance was quite high [34], [35].

Overall, the quality assessment proves that the chosen literature offers a solid and scholarly sound basis to analyze the role of e-governance in enhancing the competitive advantage in the government sector. Table 2 presents the distribution of the 80 included studies across the databases searched.

Table 1. Total Number of Reviewed Studies

Database	Initial Records	Included Studies	Percentage (%)
Scopus	42	18	22.50%
Emerald	36	15	18.80%
ScienceDirect	28	12	15.00%
Google Scholar	94	35	43.70%
Total	200	80	100%

Source: Authors' own elaboration.

Table 2. Checklist of Quality Assessment

No.	Item
Q1	Are the research objectives clearly stated?
Q2	Is the theoretical framework adequately defined?
Q3	Are governance variables clearly operationalized?
Q4	Is the research context clearly described?
Q5	Are the research methods appropriately justified?
Q6	Is data analysis clearly explained?
Q7	Do the findings contribute to governance theory or practice?
Q8	Are limitations discussed?
Q9	Does the study add value to digital governance knowledge?

Source: Authors' own elaboration.

Each question was evaluated using a three-point scoring system:

Yes = 1

Partially = 0.5

No = 0

To standardize the quality assessment process, the total quality score of every study was computed as follows:

$$QS_i = \sum_{j=1}^9 qi_j$$

Where QS_i is the total quality score for study i , and q_{ij} represents the score assigned to criterion j . The response to each criterion was scored as 1 if the answer was "Yes", 0.5 if "Partially", and 0 if "No". The maximum possible score for each study was 9, since nine criteria were applied.

The normalized quality score was computed as:

$$NQS_i = \frac{QS_i}{9}$$

The range of NQS_i is 0 to 1. The higher the normalized score, the higher the methodological quality and the more relevant the theory is.

4 Data Analysis

Having completed the quality assessment, the study applied structured content analysis to the 80 selected studies. The extracted information covered publication year, research context, theoretical

framework, methodology, and principal findings concerning e-governance and competitive advantage [5], [24]. Data were coded and organised in Microsoft Excel to support systematic categorisation. The coding scheme also recorded information-systems success perspectives where relevant [36]. Recent Omani evidence, cited only for contextual interpretation and not counted within the 80-study review sample, extends the technology-organisation-environment framework by showing that knowledge transfer strengthens sustainable supplier performance in the maritime logistics sector [37]. This evidence supports the treatment of technological readiness, organisational capability, and knowledge diffusion as complementary enabling conditions. The studies were then classified according to theoretical lenses, including the Resource-Based View and dynamic capabilities [38], [39], and according to governance dimensions related to digital transformation and sustainability [40], [41].

4.1 Weighted Frequency Analysis of E-Governance Dimensions

Besides descriptive synthesis, a weighted frequency analysis was done to determine the relative importance of the major e-governance dimensions that were identified from the studies that were reviewed. Each dimension was weighed based on the following formula:

$$W_d = \frac{f_d}{n}$$

where W_d is the weight of dimension d , f_d is the frequency of occurrence of the dimension in the reviewed studies, and N is the number of reviewed studies. $N=80$ in this review.

It is through this calculation that the study can determine which e-governance dimensions were most prevalent throughout the literature and thus were more in-depth when analyzed in the synthesis. For instance, the dimensions that were most mentioned were: digital infrastructure, service quality, transparency and accountability, and innovation capability.

In this study, since it is secondary literature, inferential tests like the t-test were not suitable. Categorical distributions of the studies reviewed, however, were analyzed descriptively, such as the methodological approach and the theoretical perspective. In future updates of this review, if there are sufficient numbers, chi-square goodness of fit tests can be conducted to determine whether the distribution of methodological approaches or theoretical perspectives is significantly different from an equal distribution if an equal distribution is expected.

5 Discussion

This review reviewed 80 research publications related to the topics of e-governance, digital transformation, and competitive advantage in the public sector between 2018 and 2025. In this section, a summary and a discussion of the review findings are provided in terms of the proposed research questions. The discussion interprets critically the level of contribution of e-governance to the competitive advantage in public institutions beyond summarising the reviewed studies critically. The studies have shown that by adopting e-governance technologies alone, a competitive advantage is not achieved. Instead, its strategic importance lies in the capacity of government institutions to integrate digital infrastructure and to be organisationally agile, able to innovate and have transparent governance and citizen-oriented service delivery. This means that it is not only a technological intervention, but also the socio-technical and strategic capacity of e-governance.

RQ1: What key elements of e-governance influence the competitive edge of the Omani government sector?

A critical analysis of the selected studies was conducted to identify the dimensions that connect e-governance with competitive advantage. Cross-sector evidence from supply-chain logistics shows that organisational resilience depends on coordinated disruption mitigation, information flows, collaboration, and adaptive capability [42]. Although this evidence comes from logistics, it supports the inclusion of institutional agility and resilience within the broader strategic logic of digital governance. As Figure 3 demonstrates, the reviewed e-governance literature most frequently associated digital infrastructure, service quality, transparency and accountability, innovation capability, and institutional agility with stronger institutional performance [14], [29], [43], [44].

Organisational capability also depends on the quality and stability of the workforce that implements digital change. Evidence from private colleges in Baghdad indicates that quality of work life and job enrichment contribute to employee retention [45]. Although the setting differs from government administration, the finding underscores the need for supportive work systems that retain the human capital required for digital transformation. Other studies emphasised digital capability development, data-driven innovation, and open innovation as strategic resources that enhance institutional performance [9], [20], [46]. IT governance arrangements that reinforce transparency and accountability have likewise been identified as drivers of institutional competitiveness

[47], [48]. In Oman, these dimensions are further supported by governance reform and digital initiatives aligned with Vision 2040 [49], [50].

But there are also indications that the dimensions mentioned in the reviewed studies are not independent of each other. Digital infrastructure is a technical base, but without institutional agility, leadership, data-driven decision-making, and transparency mechanisms, digital infrastructure is not yet strategically valuable. So the competitive advantage of e-governance is not so much in the presence of e-platforms as in their integration into the routines of governance and public value creation.

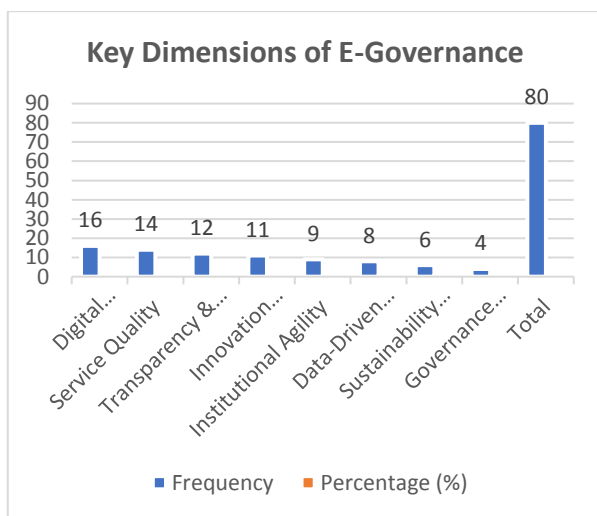


Fig. 3: 3Key Dimensions of E-Governance

Source: Authors' own elaboration.

RQ2: In what ways does digital transformation improve operational efficiency and service quality within public institutions?

The majority of empirical studies, as revealed in Figure 4, used quantitative approaches to measure operational performance and service delivery outcomes. Digitization helps to make the administration process more efficient, minimize delays in the process, and increase the involvement of citizens [51], [52].

Also, the use of technology like AI, blockchain, and data analytics reinforces decision accuracy and institutional responsiveness [53], [54]. Digital governance systems were always linked with better service quality and user satisfaction [44], [55]. These results suggest that operational efficiency is an intermediate process between e-governance and competitive advantage.

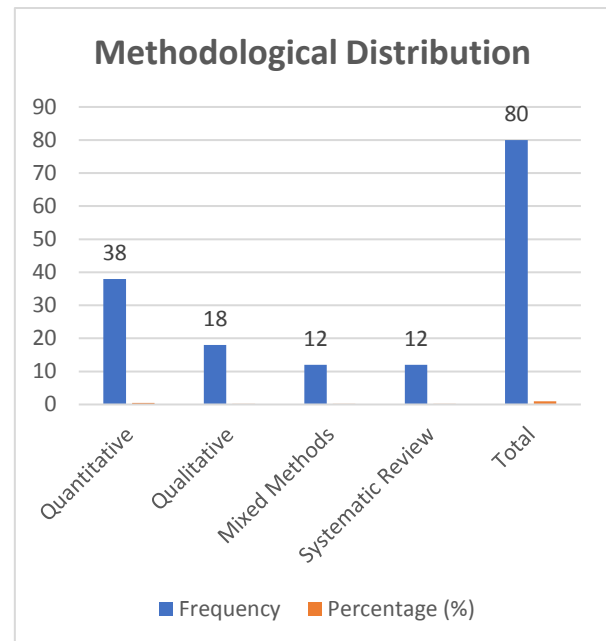


Fig. 4: 4Methodological Distribution

Source: Authors' own elaboration.

RQ3: Which theoretical perspectives elucidate the link between e-governance and gaining a competitive advantage?

The review indicates that the Resource-Based View (RBV) and the dynamic capabilities theory are the most commonly used explanations for this relationship. The RBV conceptualizes digital infrastructure, knowledge assets, and innovation capability as competitive advantage-generating resources that are worth purchasing and inimitable, as shown in Figure 5 [56], [57].

The dynamic capabilities theory also describes the ability of institutions to restructure technology and organizational assets to meet environmental changes [58], [59]. The notion of open innovation and knowledge-covered perspectives also became supplemental theoretical prisms [60], [61]. All these structures help in convincing one that e-governance is a strategic capability and not a technological reform.

The combined application of RBV and dynamic capabilities is especially important in the public sector, as even digital resources alone might not be enough to gain a sustainable advantage. These resources must constantly be flexible to accommodate new government priorities, expectations, and technology. Hence, e-governance needs to be considered not just as a resource but also as an adaptive institutional ability.

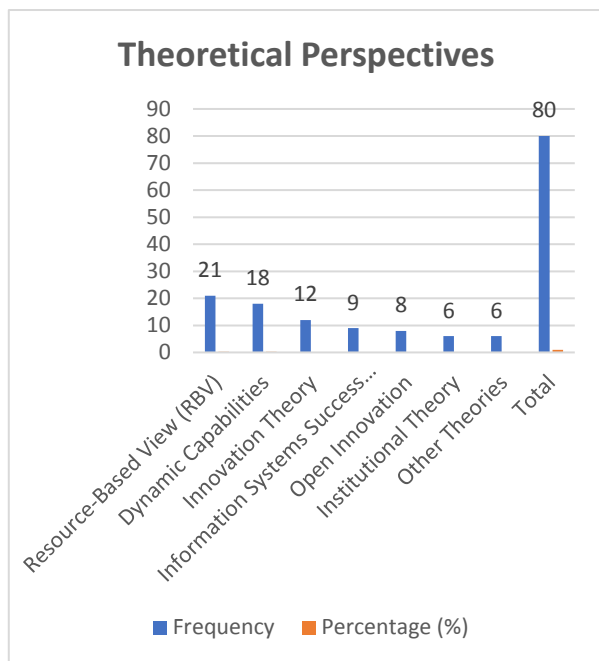


Fig. 5: 5Theoretical Perspectives

Source: Authors' own elaboration.

RQ4: How can e-governance initiatives support sustainable competitive advantage in alignment with Oman Vision 2040?

As shown in Figure 6, the publication rate significantly increased after 2020, aligning with the heightened focus on sustainable digital transformation. Long-term digital development of capabilities, institutional innovation, and transparency of governance are all ways of guaranteeing sustainable competitive advantage in the public sector [62], [63].

Digital governance, innovation ecosystems, and institutional efficiency are some of the pillars of national competitiveness of Vision 2040 in Oman [64], [65]. E-governance programs in relation to these strategic objectives include the differentiation of services, an increase in the level of public confidence, and the reinforcement of sustainable performance of the institutions.

Overall, the results indicate that e-governance sources of competitive advantage include digital capability integration, efficient operation, more transparency, and sustainable innovation-driven performance. Empirical studies that research this relationship specifically in the Omani government sector are, however, limited. Subsequent research must embrace integrative strategic approaches that will further confirm the processes by which digital governance creates sustained competitive advantage.

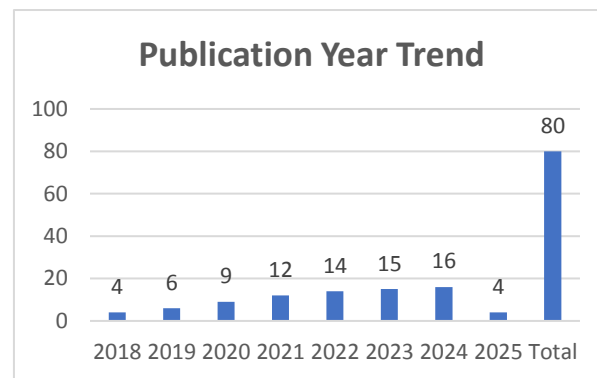


Fig. 6: 6Publication Year Trend

Source: Authors' own elaboration.

6 Implications

6.1 Theoretical Implications

This study adds to the dynamic debate on digital governance by conceptually incorporating e-governance with competitive advantage in the context of the public sector. Whereas research has been done before that highlights the concept of digital transformation with the service delivery or the administration reform approach, this study goes further to frame e-governance as a strategic capability that determines competitiveness in institutions. Through a synthesis of views on the Resource-Based View and dynamic capabilities theory, the study shows that digital infrastructure, innovation capability, transparency mechanisms, and institutional agility are strategic resources that lead to sustainable performance in government institutions.

The results also contribute to theoretical knowledge by explaining the mechanisms by which digital transformation is converted to a competitive advantage. The mediating pathways between governance systems and long-term institutional positioning are operational efficiency and service quality. Also, this review underscores the need to incorporate governance theory and strategic management frameworks so as to inspire scholars to do away with technology adoption models in favor of broad views of institutional competitiveness.

Besides, the work includes a systematic systematization of prevailing dimensions, methods, and theoretical stances in the area. This mapping will add value to theory development because it will determine conceptual fragmentation and gaps, especially in the context of the Gulf and Oman. Altogether, the study contributes to a change in the perception of e-governance from a technological reform project to perceiving it as a sustainable strategic asset with the ability to create sustainable public value and institutional differentiation.

6.2 Practical Implications

From a practical perspective, the findings provide valuable insights to policymakers and government leaders who would want to consider the improvement of institutional competitiveness by digital transformation. Firstly, the findings indicate that investments in digital infrastructure are inadequate, and the strategic alignment between technology, the process of governance, and innovation capacity is needed. Integrated digital planning should therefore be a priority for public institutions, which correlates with the efficiency of services, transparency, and agility of organizations.

Second, the research highlights the necessity to develop an internal digital workforce, such as the ability to make decisions with data and innovation-driven cultures. To attain sustainable competitive advantage, governments should encourage the ongoing learning process, interdepartmental coordination, and responsive leadership styles. The digital transformation is supposed to be a process of change that takes place in an organization instead of a simple upgrade of IT.

Third, it is essential to align with long-term national strategies, such as Oman Vision 2040. E-governance projects cannot be left in isolation; they need to be integrated into broader economic and institutional change agendas. Lastly, the results demonstrate the necessity of performance measurement systems that not only evaluate service quality but also strategic achievements, such as an institution's reputation, citizens' trust, and long-term sustainability.

7 Conclusion

This study critically reviewed 80 articles to identify the connection between e-governance and competitive advantage within the public sector, specifically in the context of the Sultanate of Oman. The results suggest that key dimensions that affect competitive positioning are digital infrastructure, innovation capability, transparency, and institutional agility.

The review also shows that digital transformation increases operational efficiency and service quality, which eventually leads to sustainable institutional performance. Most prevailing theoretical models focus on strategic resource creation and the development of adaptive capability as an important source of long-term advantage. All in all, the study establishes that e-governance can only be theorized as administrative reform, rather than as a strategic facilitator of sustainable competitive advantage within government agencies.

8 Limitations and Future Research

Irrespective of the contributions made, this study has a number of limitations. First, the review was limited to peer-reviewed articles in English since 2018, and this could have omitted suitable grey literature or non-English studies. Secondly, being a systematic review, the results rely on the quality and extent of the studies that are selected instead of original data. Third, although the analysis has implications for Oman, there is a lack of empirical evidence that specifically looks at Omani government institutions, which limits the contextual nature of the analysis. Empirical studies in Omani ministries and state agencies should be done in the future in order to justify the suggested associations. Data on the sustainability effects of digital governance initiatives would be better understood through longitudinal studies on the outcomes of the measures. Along with this, mixed methods might venture into contextual elements affecting the development of digital capabilities. It is also advisable that further theoretical assimilation of the governance, innovation, and strategic management frameworks be developed, and conceptual coherence enhanced in future works.

Declaration of Generative AI and AI-assisted Technologies in the Writing Process

During the preparation of this work, the author(s) utilized artificial intelligence (AI) technologies solely for the purpose of linguistic refinement and grammatical correction. Following the application of these tools, the author(s) comprehensively reviewed, verified, and edited the resulting text. The author(s) maintain full accountability and responsibility for the accuracy, integrity, and final content of the publication.

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Conflict of Interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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APPENDIX A:

Table A1: Quality Assessment Results of Reviewed Studies (N = 80) Source: Created by the authors.

Study ID	Study Focus	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Total
S1	E-Governance & Service Quality	1	1	1	1	1	1	1	0.5	1	8.5
S2	Digital Government Transformation	1	1	0.5	1	1	1	1	0.5	1	8
S3	Transparency & Accountability	1	1	1	1	0.5	1	1	1	1	8.5
S4	IT Governance & Performance	1	1	1	1	1	1	1	1	1	9
S5	Innovation in Public Institutions	1	0.5	1	1	1	1	1	0.5	1	8
S6	Digital Capability Development	1	1	1	1	1	1	1	0.5	1	8.5
S7	E-Service Efficiency	1	1	1	0.5	1	1	1	0.5	1	8
S8	Public Sector Agility	1	1	1	1	1	0.5	1	0.5	1	8
S9	Open Innovation Governance	1	1	1	1	1	1	1	1	1	9
S10	Digital Infrastructure Impact	1	1	1	1	1	1	1	0.5	1	8.5
S11	Sustainable Governance Models	1	1	1	1	1	1	1	0.5	1	8.5
S12	Public Sector Performance	1	1	1	1	1	1	1	1	1	9
S13	Knowledge Sharing Systems	1	1	1	1	0.5	1	1	0.5	1	8
S14	Digital Policy Implementation	1	1	1	1	1	1	1	0.5	1	8.5
S15	Strategic Government Reform	1	1	1	1	1	1	1	1	1	9
S16	E-Government Adoption Models	1	1	1	1	1	1	1	0.5	1	8.5
S17	Smart Governance Systems	1	1	1	1	1	1	1	1	1	9
S18	Public Value Creation	1	1	1	1	0.5	1	1	0.5	1	8
S19	Digital Risk Management	1	1	1	1	1	1	1	1	1	9
S20	ICT Integration in Ministries	1	1	1	1	1	1	1	0.5	1	8.5
S21	E-Governance & Sustainability	1	1	1	1	1	1	1	0.5	1	8.5
S22	Institutional Efficiency	1	1	1	1	1	1	1	1	1	9
S23	Governance Innovation	1	1	1	1	1	0.5	1	0.5	1	8
S24	Digital Competency Framework	1	1	1	1	1	1	1	1	1	9
S25	Public Sector Agility Models	1	1	1	1	0.5	1	1	0.5	1	8
S26	E-Service Effectiveness	1	1	1	1	1	1	1	1	1	9
S27	Governance Transparency Systems	1	1	1	1	1	1	1	0.5	1	8.5
S28	Public Sector Digital Reform	1	1	1	1	1	1	1	1	1	9
S29	Strategic Digital Capability	1	1	1	1	1	1	1	0.5	1	8.5
S30	IT Governance Models	1	1	1	1	1	1	1	1	1	9
S31	Institutional Innovation	1	1	1	1	1	0.5	1	0.5	1	8
S32	Digital Performance Metrics	1	1	1	1	1	1	1	1	1	9
S33	E-Government Strategy	1	1	1	1	1	1	1	0.5	1	8.5
S34	Sustainable Public Innovation	1	1	1	1	0.5	1	1	0.5	1	8
S35	Governance Capability Building	1	1	1	1	1	1	1	1	1	9
S36	Digital Leadership	1	1	1	1	1	1	1	0.5	1	8.5
S37	ICT-Driven Institutional Reform	1	1	1	1	1	1	1	1	1	9
S38	Data Governance Framework	1	1	1	1	1	1	1	1	1	9
S39	Innovation Performance	1	1	1	1	1	0.5	1	0.5	1	8
S40	Competitive Public Services	1	1	1	1	1	1	1	1	1	9
S41	Smart Public Administration	1	1	1	1	1	1	1	0.5	1	8.5
S42	E-Government Effectiveness	1	1	1	1	1	1	1	1	1	9
S43	Institutional Digital Readiness	1	1	1	1	0.5	1	1	0.5	1	8
S44	Governance Modernisation	1	1	1	1	1	1	1	1	1	9

S45	Digital Public Policy	1	1	1	1	1	1	1	0.5	1	8.5
S46	Sustainable Competitive Governance	1	1	1	1	1	1	1	1	1	9
S47	Government Innovation Systems	1	1	1	1	1	1	1	0.5	1	8.5
S48	E-Participation Models	1	1	1	1	1	0.5	1	0.5	1	8
S49	Strategic Resource Allocation	1	1	1	1	1	1	1	1	1	9
S50	Public Sector Digital Ecosystems	1	1	1	1	1	1	1	0.5	1	8.5
S51	Governance Transformation Strategy	1	1	1	1	1	1	1	1	1	9
S52	IT-Enabled Value Creation	1	1	1	1	0.5	1	1	0.5	1	8
S53	Institutional Sustainability	1	1	1	1	1	1	1	1	1	9
S54	Digital Governance Metrics	1	1	1	1	1	1	1	0.5	1	8.5
S55	Public Innovation Capability	1	1	1	1	1	0.5	1	0.5	1	8
S56	Smart Service Delivery	1	1	1	1	1	1	1	1	1	9
S57	Digital Organisational Change	1	1	1	1	1	1	1	0.5	1	8.5
S58	Institutional Competitive Position	1	1	1	1	1	1	1	1	1	9
S59	E-Government Policy Design	1	1	1	1	0.5	1	1	0.5	1	8
S60	Governance Digital Strategy	1	1	1	1	1	1	1	1	1	9
S61	Public Value Sustainability	1	1	1	1	1	1	1	0.5	1	8.5
S62	Institutional Data Strategy	1	1	1	1	1	1	1	1	1	9
S63	Smart Governance Policy	1	1	1	1	1	0.5	1	0.5	1	8
S64	Government Digital Ecosystem	1	1	1	1	1	1	1	1	1	9
S65	Digital Resource Optimisation	1	1	1	1	1	1	1	0.5	1	8.5
S66	E-Governance Strategic Alignment	1	1	1	1	1	1	1	1	1	9
S67	Institutional Knowledge Systems	1	1	1	1	1	0.5	1	0.5	1	8
S68	Digital Innovation Performance	1	1	1	1	1	1	1	1	1	9
S69	Public Sector Technology Adoption	1	1	1	1	1	1	1	0.5	1	8.5
S70	Governance Capability Development	1	1	1	1	1	1	1	1	1	9
S71	Digital Service Quality	1	1	1	1	1	0.5	1	0.5	1	8
S72	Sustainable Governance Reform	1	1	1	1	1	1	1	1	1	9
S73	ICT-Based Institutional Agility	1	1	1	1	1	1	1	0.5	1	8.5
S74	Strategic Digital Transformation	1	1	1	1	1	1	1	1	1	9
S75	Public Administration Innovation	1	1	1	1	0.5	1	1	0.5	1	8
S76	Governance Modernisation Framework	1	1	1	1	1	1	1	1	1	9
S77	Digital Public Leadership	1	1	1	1	1	1	1	0.5	1	8.5
S78	Institutional Digital Excellence	1	1	1	1	1	1	1	1	1	9
S79	Smart Governance Capability	1	1	1	1	1	0.5	1	0.5	1	8
S80	E-Governance & Sustainable Advantage	1	1	1	1	1	1	1	1	1	9