Open Innovation and Governance in Public Sector: Synthesis

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ABSTRACT

The evolution of the public sector has been shaped by various waves of administrative reforms, which have been influenced by technology, innovation, private-sector involvement and Open Innovation (OI). This commentary delves into the intricate relationship between innovation in the public sector and waves of administrative reforms, exploring technological changes, organizational restructuring and the advent of Open Innovation (OI). Open innovation, characterized by new knowledge flows fostering internal innovation and external market expansion, emerges as a catalyst for transformative change. The Gulf Cooperation Council countries (GCC) exemplify a forward-thinking approach, framing their public sector vision around innovation and competitiveness. This research contributes to the existing body of knowledge by examining the factors and outcomes of innovation in the public sector across diverse regions.

This review presents a brief from a systematic analysis that explores the key themes, sub-themes, models, factors and research methods of OI and innovation outcomes in the public sector. The study analyzed 122 articles from Google Scholar, Scopus and Science Direct published between 1990 and 2022. Existing research in the Middle East and GCC is limited and this paper aims to highlight the enablers for fostering public sector innovation through OI. The findings of this review contribute to framing PSI and OI in the digital era.

Keywords: Innovation models; Innovation management; Innovation outcomes; Public sector; Open innovation

INTRODUCTION

The evolution of the public sector has been shaped by various waves of administrative reforms, which have been influenced by technology, innovation and private sector involvement [1]. Experts such as Karo recommend that the public sector adopt institutional paradigms from the private sector to create a networked and adaptable system [2]. Saxena has examined how Open Government Data (OGD) can contribute to the GCC region's economic reform agenda [3]. Durugbo et al. [4], have presented innovation management models for the GCC region. Tomor et al. [5], have explored the correlation between intelligent governance and sustainable development. Furthermore, policy labs have emerged as an ideal space for public sector organizations to design innovative policies, as they provide a learning environment for policy formulation [6].

OI literature may also benefit from comparing community limitations and mitigation strategies across OI models. This, in turn, helps researchers, managers and policymakers invest in critical dimensions in the public domain and measure the outcome of innovation in the public sector in the digital transformation era [7].
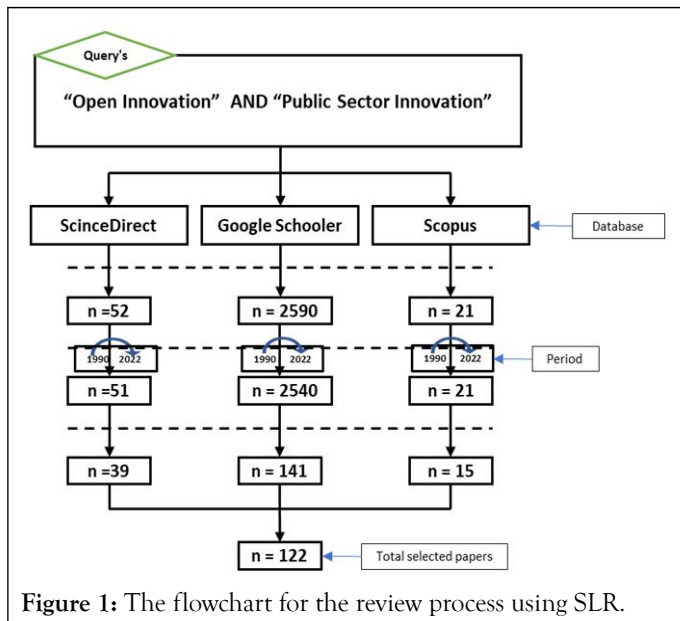
MATERIALS AND METHODS

This research was based on a Systematic Literature Review (SLR) of open innovation literature from 1990 to 2022, as depicted in Figure 1.

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Figure 1: The flowchart for the review process using SLR.

RESULTS AND DISCUSSION

The data presented on the frequency and quantity of publications in the domain of Open Innovation (IO) in the public sector across various academic journals, as well as the number of publication articles per year illustrated in Figures 2 and 3, provides new insight into the current state of research in the field. The findings are of particular significance to scholars and practitioners alike, as they shed light on the current trends and areas of focus within the academic community [8].

Figure 2: The number of articles published per year.

Figure 3: Number of articles distributed per publication journal.
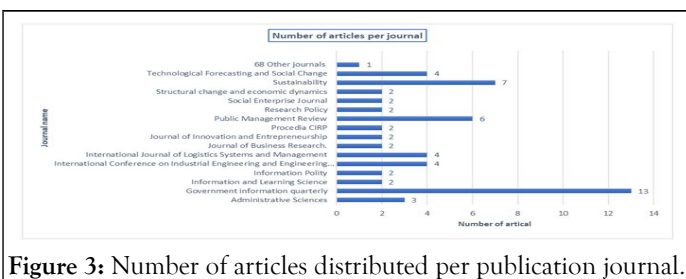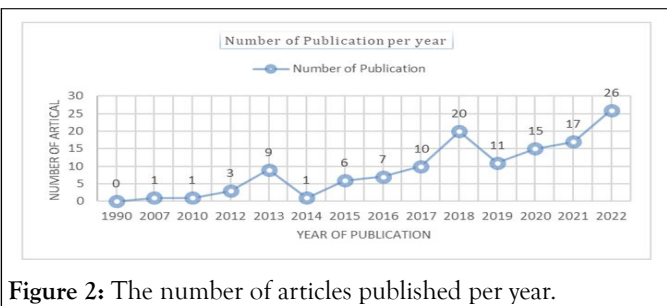
This systematic review has uncovered some interesting findings. Many of the papers reviewed relied on literature reviews and adapted qualitative methods. It was noted that conceptual research received the least attention among all the reviewed articles, as shown in Figure 4. These findings suggest that more attention should be given to conceptual research, mixed methods and quantitative studies in future research [9].

Figure 4: The methodology accumulated from the review articles.
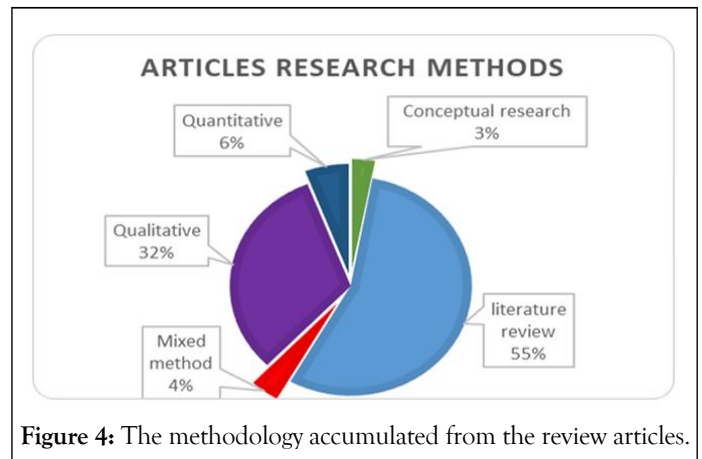
In addition, Figure 5 below illustrates the various sectors covered in the OI articles reviewed. The study analyzed the various sectors that were addressed. The main sectors included government, health, education and technology. In particular, the public sector captured the most attention, as it was the primary focus of the research study [10].

Figure 5: The sectors that are covered in the OI articles reviewed.
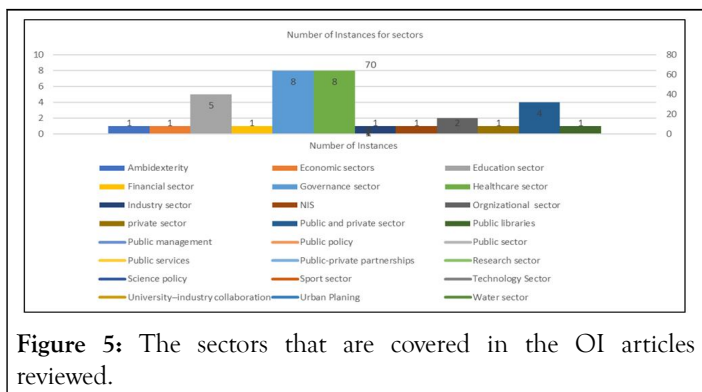
The incorporation of digital technologies, such as artificial intelligence, machine learning and big data analytics, has played a pivotal role in redefining public sector operations. These technologies enable governments to analyze vast amounts of data to make evidence-based decisions, improve service delivery and ensure accountability. For instance, predictive analytics can help allocate resources more efficiently, while real-time data monitoring enhances disaster management and urban planning efforts. Additionally, e-governance platforms have made it possible to improve citizen engagement, offering convenient access to public services and fostering trust through transparent processes.

However, the shift toward digitization also comes with challenges, including data security concerns, digital literacy gaps and resistance to change among employees. Addressing these challenges requires a balanced approach that combines robust cybersecurity measures, extensive training programs and strategies to manage organizational change. The successful adoption of digital transformation in the public sector hinges on the creation of a culture that embraces innovation and prioritizes inclusivity.

Further, collaborative partnerships between the public and private sectors have emerged as a cornerstone of modern governance. Public-Private Partnerships (PPPs) have proven

instrumental in infrastructure development, health care and education, bringing together the strengths of both sectors to achieve shared goals. These collaborations help mobilize resources, share risks and ensure better project outcomes. Moreover, the involvement of private sector expertise introduces a performance-driven culture, encouraging efficiency and innovation in traditionally resource-constrained public institutions.

CONCLUSION

A synthesis of the 122 articles extracts the key enablers, including digital, social, data innovation, tools, networks, knowledge and governance. The study drew its themes from a meticulous selection of analysis papers, thoughtfully organized into 16 categories. These encompassed a range of topics, such as innovation policies, outcomes, enablers, barriers, sectors, private sector involvement, activities, co-creation and co-production, collaboration, crowdsourcing, technology, governance, process, practices, leadership and innovation models. The study shows that OI research has studied various fields and countries. For instance, Europe, the United States, Germany, the Netherlands and Spain were the countries with the highest frequency of research articles. Torab-Miandoab et al., findings are in line with the Alsafran et al., study, where his findings show Germany had the highest rate of health open innovation articles at 14%, the United States and Sweden at 13%. Based on the researcher's knowledge, there is a gap in research among GCC within innovation policy. Drivers, enablers and outcomes of innovation were identified. The key driver is the transition to an agile government with more accountability. The key enablers include ICT infrastructure, legal framework and human capital. Political commitment and the service of mediators are universal proposition strategies for OI. The study concluded that harnessing OI significantly enhances public sector performance. The OI method represents a fresh approach to fostering innovation within the public sector by investing in ICT to boost new business models. This study delves into the various factors

and consequences of innovation in the public sector across diverse regions.

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