

An Analysis of Open Data Policies in the Gulf Cooperation Council Countries

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المُستخلص:

في السنوات الأخيرة، أبدت العديد من الدول حول العالم اهتمامها بتطوير سياسات البيانات المفتوحة. ولا يُستثنى الوضع في الدول العربية من المشهد العالمي، حيث طبقت العديد من الحكومات، بما فيها دول مجلس التعاون الخليجي هذه السياسات. تبحث هذه الورقة موضوع سياسات البيانات المفتوحة في دول مجلس التعاون الخليجي، حيث بادرت هذه الدول بتبني مفاهيم وممارسات البيانات المفتوحة. اعتمدت الدراسة المنهج البحثي النوعي والقائم على تحليل الوثائق التي وردت فيها سياسات البيانات المفتوحة. وتُظهر نتائج الدراسة أن جميع دول مجلس التعاون الخليجي قد طورت سياسات للبيانات المفتوحة باستثناء دولة الكويت. بالإضافة إلى ذلك، تم اعتماد عدد من الممارسات الجيدة في تطوير هذه السياسات، وغطت العديد من المواضيع مثل مجال السياسة، وأنواع البيانات، وطرق معالجتها، وعرضها والمعايير والصيغ الفنية. ومع ذلك، فإن لهذه السياسات بعض العيوب التي يجب مراعاتها. وتُسلط الدراسة الضوء على بعض القضايا المتعلقة بسياسات البيانات المفتوحة، وتُقدم لصانعي السياسات اقتراحات لتحسين وتوجيه البحوث المستقبلية.



Abstract:

In recent years, several countries worldwide have shown an interest in the development of open data policies. The situation in the Arabic countries is not exempted from the global landscape and many governments including the Gulf Cooperation Council (GCC) countries have been implementing such policies. This paper investigates open data policies in the GCC countries. It adopts a qualitative research approach based on documentary analysis. The results show that all GCC countries have developed open data policies except for the state of Kuwait. In addition, a number of good practices have been adopted in the development of these open data policies. Nonetheless, these policies have some pitfalls that must be considered. The study highlights certain issues regarding open data policies and provides policymakers with suggestions for the improvement and direction of future research.

الكلمات المفتاحية: البيانات المفتوحة؛ سياسات البيانات المفتوحة؛ البيانات الضخمة؛ البيانات المفتوحة المرتبطة؛ العلوم المفتوحة؛ دول الخليج.

Keywords:

Open data; Open data policies; Big data; Linked open data; Open Science; Gulf States Countries.

Introduction

Recently, governments around the world have shown a significant interest in the development of open data initiatives. The global open data movement can be traced back to 2009 when it started in the USA, followed by the UK and then other countries that joined the Open Government Partnership (Huijboom et al., 2011; Haini et al., 2019; Huang et al., 2020). Open data is a part of a bigger umbrella that belongs to open science (Abdullahi and Noorhidawati 2020; Hodonu-Wusu et al., 2020). According to some scholars, open government data (OGD) can help governments promote transparency, enhance accountability, encourage participation, collaboration

and data sharing (Hodonu-Wusu et al., 2020; Huang et al., 2020; Tejedo-Romero et al 2025), and make government data more accessible and usable to the general public (Doyle 2015; Gascó-Hernández 2018). The situation in the Arabic countries is not exempt from the global landscape as many governments have adopted or are in the process of adopting open data initiatives, including the GCC countries .

According to Huijboom et al. (2011) and Zuiderwijk and Janssen (2014) open government data initiatives are usually delivered in the form of policies that help and guide government entities to publish their data. Although some research has been reported in this area, open data is a relatively new field and little research has been conducted to compare existing open data policies in different countries, as most of the research has been done in the West and less in developing countries (Zuiderwijk and Janssen 2014; Saxena 2018; Nugroho 2013; Sandoval-Almazan and Styrin 2018). In recent years, the governments of the GCC countries have paid substantial attention to the development of ICTs; further effort is being made towards digital transformation and greater openness and transparency between governments and their citizens. Part of that effort is the adoption of open data policies, and many government agencies in these countries have been opening their data. However, less progress has been made on the outcomes of open data initiatives and very little is known about open government data policies in these countries. The importance of this study will be in addressing open data policies in the GCC countries. According to Zuiderwijk and Janssen (2014) studying open data



policies in different countries and contexts provides opportunities for nations to learn from each other and to positively contribute to a greater understanding of the impacts and further development of open data policies. In addition, there is a need for more research that bridges the gap between open data policies and their practices (Hodonu-Wusu et al., 2020; Tseng and Nikiforova 2025; Tejedo-Romero et al 2025) .

This study aims to examine and compare current open data policies developed by the GCC countries. It seeks to answer the following research questions:

- (1) What open data issues are being addressed in these policies (policy elements)?
- (2) What are the similarities and differences among the GCC countries in their open data policies?

The rest of the paper is structured as follows. In Section 2, a review of the literature on open data policies is provided. Subsequently, Section 3 outlines the research methodology for data collection and analysis. Then, Section 4 presents the findings and discusses them in relation to the literature other works.

Finally, the paper concludes with a summary of the study and provides recommendations for future research.

Literature Review

Open data in general and open data policies, in particular, have been the focus of much attention in recent years, and many researchers have investigated this issue from different backgrounds and perspectives. One of the earlier studies comparing open data policies and strategies was conducted by



Huijboom et al. (2011) that compared five countries: Australia, Denmark, Spain, the United Kingdom, and the United States. The study showed that the focus of the policy plans varied; however, in all five countries, the policies were aimed at supporting service provision and product innovation and enhancing the democratic process and political engagement. In addition, funds for open data initiatives have come from several government bodies that provided support for government agencies that publish data online. All governments had a centralized open data portal that provided access to government data. Furthermore, the number of data sets published online varied, with many data sets originating from the USA and the UK. Moreover, there was no evidence among the five countries that established the impact of the open data policy .

The work of Zuiderwijk and Janssen (2014) conducted a comparative study of open data policies in seven Dutch governmental organizations. Their study found that the key motivations for open data policies varied. In addition, the environment and context in which the organizations operate impacted the development of open data policies. For example, differences were apparent in terms of policy aims, policy instruments, basis for making data available, total and kinds of data that can be opened and those that cannot be opened, metadata given on data sets, support for utilizing data, and perceptions about the positive and negative effects of the data. Furthermore, the results showed that these policies were hardly driven by user demands or needs, and insufficient effort has been made to encourage users to benefit from open data. The study concluded



that organizations have great opportunities to learn from each other, including collaboration in the sharing of experiences, facilities, and resources, which will reduce costs and efforts associated with the development of open data policies. The research of Saxena (2018) compared open data initiatives in three countries: Japan, the Netherlands, and Saudi Arabia. The results show that the open data initiatives in these countries are at an early stage. In addition, the publication of data sets is more complete in Japan and the Netherlands than in Saudi Arabia. Furthermore, open data is a major component of the open government partnership in the Netherlands, but this is not the case for Japan and Saudi Arabia. Moreover, in some cases, the three countries did not perform excellently in achieving the aims of transparency and accountability in relation to open data. The study concluded that to create an economic value from open data, there should be some incentives for users and the wider community to engage and contribute to the data sets and their reuse .

Nugroho (2013) compared open data policies in five countries: the United States, the United Kingdom, the Netherlands, Kenya, and Indonesia. It was found that all countries had similar motivations for opening their data including enhancing innovation, improving accountability, and increasing transparency. However, they differ in their focus on these motivations. Access to open data is provided via an online data platform under existing legal frameworks such as freedom of information (FOI). The study revealed that the open data policy in the UK, the USA, and the Netherlands focused on openness. In addition, the policy content



comparison indicates that all countries compared, except Indonesia, have given specific guidelines for the open data process, but not as formalized policies. Regarding the policy impact, the study showed that these countries focused on the process of opening rather than the reuse of the data. Four countries (i.e., US, UK, Netherlands, and Kenya) have included in their policies guidelines on how to open data (e.g., such as the need for the data to be machine-readable), raw data, data formats, free access, ways to communicate with users, and accessibility via the portal. However, there was no regulation concerning the provision of metadata. There was also a different approach between the countries regarding policies. For example, in Indonesia and Kenya, the demand for government data came from users, which pushed the need to develop a law or a policy on the release of the data (a bottom-up approach). Contrarily, the UK and the US tend to have a more centralized approach (top-down approach), where the central government demands the release of the data. In terms of policy impact, all the countries studied were still improving how they provide the data and ensure that the benefits are gained. However, there is less evidence that can be used to measure the impact of releasing the data. For example, in the UK, the effect is observed via online forums and other social media platforms, such as blogs. In addition, the UK and the Netherlands had contacts with data users to know what was being done with the available data .

The study of Sandoval-Almazan and Stylin (2018) analyzed open data policies in Mexico and Russia based on three categories: legal framework,



organizational obstacles, and technological challenges. The findings show that both countries have created a new agency to manage and coordinate the open data initiative. In addition, the value of open data is seen to support transparency rather than economic growth. Furthermore, both countries have a dedicated data portal that serves as a single point of access to government open data. The legal framework in each country encourages free access and usage of government data. With respect to differences, the Mexican policies concentrated on transparency and information access, whereas the Russian ones were mostly focused on information access. In terms of principles, Russia did not factor in openness, accountability, and involvement of modern society, while Mexico centered on transparency and accountability. Another notable difference was that the Russian case had a centralized approach in managing open data, whereas the Mexican one delegated their efforts for the initiative to local government agencies. Another study by Saxena (2017) reviewed the open government data practice in the Gulf Cooperation Council. The author evaluated the countries' efforts regarding OGD provision against four models, developed by (Sieber and Johnson 2015): data over the wall, code exchange, civic issue tracker, and participatory open data. The study found that all GCC countries can be placed in the first level of the model: data over the wall. In addition, the adoption of open data is still in its early stage, with no user involvement.

Furthermore, the study revealed that there were several challenging concerns regarding the data sets, such as being updated infrequently and published in



unprocessed types and having non-sequential dates and issues on confidentiality and privacy. The study concluded that the governments of GCC countries need to commit to open data; much work remains to be done to further advance the implementation of OGD .

Styrin et al. (2017) compared open data ecosystems in Mexico, Russia, and the USA. The study revealed that Russia and Mexico have implemented open data policies at the federal government level, with the intervention of the president's office in the Mexican case, whereas the US government agencies are, to some extent, quite independent in their efforts to implement open data policies and strategies. Russia and Mexico tend to have a bureaucratic and formal approach in the implementation process style, guiding the agencies when working with open data, whereas in the US, government agencies have taken a more business-oriented style, in which they include open data practices into key business process and procedures in every single agency. In all three cases, official information resources related to open government data sets have been successfully established. There were variations among the countries compared in terms of their motivation for developing open data policies. For example, the US was economically motivated in response to the financial crisis of 2008. On the contrary, the Russian case focused on increasing trust in the government and enhancing relationships with society, while the Mexican initiative responded to the demands for an accountable and transparent government.



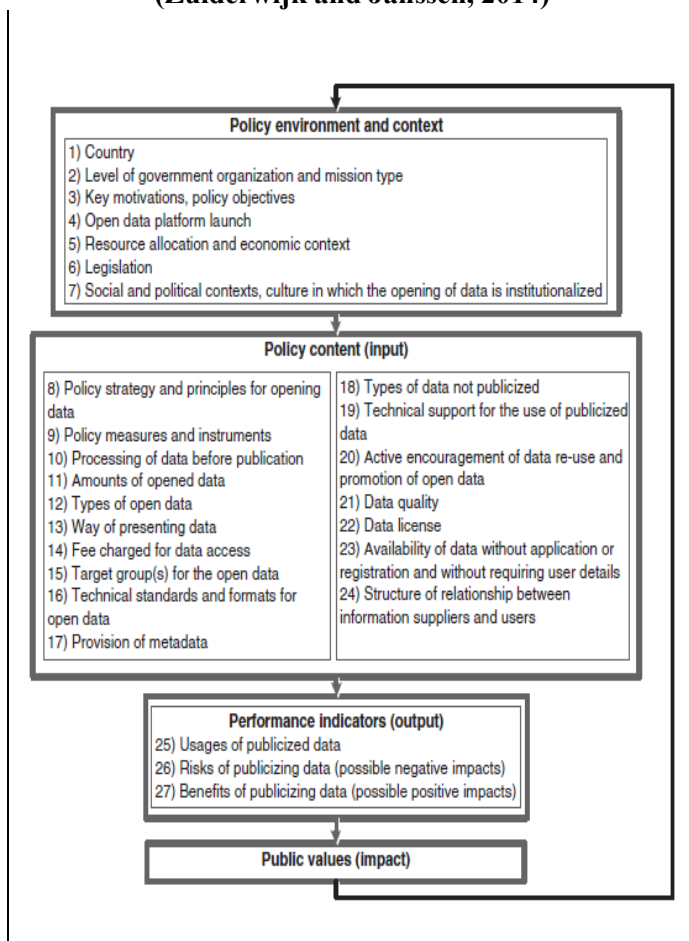
Finally, Mustapa et al., (2019) examined the issues concerning open government data implementation in the Malaysian public sector. The study found that open data policy was one of the main factors that affected open government data implementation. For example, the policy was imposed by a certain government agency before the emergence of OGD initiative. Furthermore, several government agencies were unclear about what kind of data that can be shared with the public due to the restrictions of the Official Secrecy Act. Moreover, although most of the open government data is free, some data requires fees to be released .

Open Data Policies Comparative Framework:

Zuiderwijk and Janssen (2014) have developed a framework for comparing open data policies. They derived different policy content elements from the literature on open data policy. The comparison framework consists of four broad elements: (1) policy environment and context, (2) policy content, (3) policy evaluation—performance indicators, and (4) policy evaluation—realizing public values. More details on each element are provided in Figure I. This framework has been used for two reasons. First, it helps to compare and evaluate open data policies on a range of issues [6] and has been used by other researchers, e.g., (Nugroho 2013). Second, this framework could help government institutions develop and improve their existing open data policies.



**Fig. 1. Open Data Policies Comparative Framework
(Zuiderwijk and Janssen, 2014)**



Research Methodology:

This study aims to analyze open data policies in the GCC countries; thus, the research method has been selected accordingly. This study adopts a qualitative research approach based on documentary analysis. It has been defined as a systematic process that aims to review and evaluate either printed or digital documents in order to obtain meaning and develop an

understanding of the particular issue (Corbin and Strauss 2008; Bowen 2009). Documents can provide valuable data and information that cannot be found in different sources (Yin 2017). This approach has been useful for researching and comparing open data policies in different countries (Nugroho 2013; Saxena 2018a) .

Data sources for this study were collected from the official open data policies (written documents), government official reports and information, and open data portals of GCC countries (Saudi Data & AI Authority 2025; Government of Qatar 2025; Information and eGovernment Authority 2025; Ministry of Technology and communications 2025; The Federal Competitiveness and Statistics Authority 2025) as presented in Table 1. These are useful data sources for analyzing open data policy and programs (Zuiderwijk and Janssen 2014; Nugroho 2013; Sandoval-Almazan and Stylin 2018; Saxena 2018a).

Table 1. Data Sources

Country	Documentation	Web sources
Saudi Arabia	2	1
Qatar	3	1
Bahrain	2	1
Oman	2	1
United Arab Emirates	3	1
Kuwait	No open data policy found	

The document analysis process includes skimming, reading (deep examination), and interpretation of the document content (Bowen, 2009). For this study, the researcher examined all official open data policies. Each policy was assessed and analyzed individually to identify policy element

content related to open data and to match with what has been reported by Zuiderwijk and Janssen (2014) in their comparative framework of open data policies. Then, each open data portal has been evaluated to identify issues related to what has been found in the policies .

Results and Discussion:

This section aims to report the results of the study and discusses them in relation to the literature and other research work .

Out of the six GCC countries, five have existing written open data policies, except for the State of Kuwait. As shown in Table 2, the country policy titles differ: (a) Bahrain, Qatar, and the UAE referred to it as open data policy, (b) Saudi Arabia named it open data interim regulations, and (c) Oman labeled it open government data policy. Regardless of the policy's title, it can be said that GCC countries have responded to the global movement of open data that started in the USA in 2009, followed by the UK and other countries who joined the Open Government Partnership (Huijboom et al., 2011; Haini et al., 2019).

Table 2. Country Policy Title.

Country	Policy Title
Saudi Arabia	Open data interim regulations
Qatar	Open data policy
Bahrain	Open data policy
Oman	Open government data policy
United Arab Emirates	Open data policy
Kuwait	No existing policy



With respect to the issuing authority and key players in the development of open data policies, the results show that GCC countries differ in this regard, as presented in Table 3. For example, the policy in Saudi Arabia, the UAE, and Bahrain has been assigned at an authority level, whereas in Qatar and Oman at the ministerial level. This finding indicated that different countries have different arrangements in terms of how open data policy is placed and how it is implemented, which can be affected by the specific context in each country and its ecosystem (Zuiderwijk and Janssen 2014; Stylin et al., 2017).

Table 3. Issuing Authority

Country	Issuing Authority
Saudi Arabia	Saudi Data & AI Authority
Qatar	Ministry of Information and Communications Technology
Bahrain	Information & e-Government Authority (iGA)
Oman	Ministry of Technology and Communications
United Arab Emirates	The Federal Competitiveness and Statistics Authority
Kuwait	Not Applicable

Regarding the policy's content, the analysis shows that open data policies of the GCC countries have addressed most of what has been reported by Zuiderwijk and Janssen (2014) in their framework (Figure 1), and as presented in Table 4, the policy element comparison. With the motivations and objectives for having an open data policy, it can be said that all GCC countries have similar motivations. These are related to increasing transparency and openness, moving towards a knowledge economy, and inspiring innovation. These findings are consistent



with other research (Huijboom et al., 2011; Nugroho 2013; Sandoval-Almazan and Styrin 2018), showing that such motivations are the most common driving factors for open data policy. However, each country has its own focus on these motivations.

Each country has launched an open data platform to support the policy, starting in 2013 with Bahrain, followed by Saudi Arabia, Qatar, and Oman in 2014, and then the UAE in 2015. All of them have developed a dedicated portal that provides access to government data. A data portal is an integral part of any open data policy and serves as a medium between the government and the citizens for accessing government data; many countries worldwide have developed such portals to support an open data initiative, for example, (Huijboom et al., 2011; Saxena 2018; Nugroho 2013; Sandoval-Almazan and Styrin 2018). In terms of resource allocation, all open data policies are funded by the government, which is not surprising considering that these initiatives are developed and managed by central governments at the national level. Concerning legislation, all GCC countries have linked their open data policy with existing laws, and this is consistent with other findings, emphasizing the importance of incorporating open data policies in existing legal frameworks (Nugroho 2013; Sandoval-Almazan and Styrin 2018).



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Table 4. Policy element comparison, based on Zuiderwijk and Janssen, 2014

country	saudi arabia	Qatar	united arab emirates
1. level of organization	National	National	national
2. key motivations, policy objectives	reinforce transparency and accountability, promote e-participation and inspire innovation, bridge the gap between government and citizens	increase government openness, informed decisions, expand public access to government data, generate economic and political value, collaborate with customers on co-design	promote digital knowledge economy, enhance sustainable communities based on participation and transparency
3. open data platform launch	2014 https://data.gov.sa	2014 https://www.data.gov.qa	2015 https://bayanat.ae/en/entities
4. resource allocation and economic context	funded by the government	funded by the government	funded by the government
5. legislation	e-government law 2006	copyright and neighboring rights 2002	the uae's smart data framework standard information security policy published in 2013
6. social, political, and cultural contexts	not mentioned	not mentioned	not mentioned
7. policy strategy and principles for opening	open data interim regulations	open data policy	open government data policy
8. policy measures and instruments	not mentioned	not mentioned	not mentioned
9. processing of data before publication	priority should be given to data whose utility is time sensitive	prioritizing of data sets for publication data should be anonymized or pseudonymized before being published.	prioritizing the publication of data sets that are of public interest; should be sets of data over years; maintaining the privacy, confidentiality, the legal rights of intellectual property
10. amount of opened data	6263	125	2610
11. types of open data	data from various government agencies	very diverse	mainly economy, education, society, technology, transportation, environment, government, health, and infrastructure
12. ways of presenting data	machine-readable format, raw data	raw and as granular as possible, machine-readable	raw data, machine-readable, complete, editable, reusable, downloadable
13. fee charged for data access	Free	free of charge (in some cases there might be a reasonable fee)	Free
14. target group(s) for the open data	Anyone	anyone, businesses, researchers, and civil society	anyone
15. technical standards and formats	xml, json, csv, xlsx	open format, non-proprietary, non-exclusive formats, xls, pdf, csv, json	csv, xls, xml
16. provision of metadata	metadata should be included.	information about one or more aspects of the data sets should be provided.	not mentioned
17. types of data not publicized	top secret, secret, confidential	private or confidential data must be anonymized to protect the rights of individuals. data that has implications on public safety or national security.	restricted, confidential, very confidential
18. technical support for the use of publicized data	collect, analyze, and timely respond to user's requests. perform awareness campaigns to ensure that users are aware of the existence, nature, and quality of the open data.	agencies shall respond to all suggestions and information requests within a period not exceeding 15 days.	users should be able to express opinions about the published data. users should be able to know the type and size of the data file, as well as the time required to download it. inform users if data sets require certain software to run them and make the program available where possible.
19. active encouragement of data re-use	provide the necessary supporting resources and expertise. work with users to unlock the value of open data.	yes, by adopting sir tim berners-lee's five-star ranking system for increasing the level of open data.	yes, by adopting sir tim berners-lee's five-star ranking system for increasing the level of open data.
20. data quality	not mentioned	not mentioned	government entities should manage and improve data quality over time.
21. data license	open data should be subject to the kingdom's open data license that provides the legal basis for open data usage while defining the conditions, obligations, and restrictions applicable to the user.	the source of the data must be attributed.	users are granted a worldwide, royalty-free, perpetual, non-exclusive license to use and re-use the data. users can copy, reproduce, and communicate data to the public in any format, adapt or modify the data, and exploit it for both commercial and non-commercial purposes. users are not allowed to use the data unlawfully or misleading to the public, should mention source and url.
22. data available without registration	Yes	Yes	Yes
23. relationship between information suppliers and users	not mentioned	not mentioned	not mentioned
24. usage of publicized data	information is not provided	information is not provided	information is not provided
25. risks of publicizing data (possible negative impacts)	not mentioned	not mentioned	not mentioned
26. benefits of publicizing data (possible positive impacts)	not mentioned	not mentioned	not mentioned



1. country	Oman	Bahrain
2. level of organization	National	National
3. key motivations, policy objectives	Transform the country into a knowledge economy, transparency, generate business opportunities, improve decision-making, empower researchers and academics	Support innovation, productivity improvement, growth of the economy, improve service delivery, the welfare of the society
4. open data platform launch	2014 https://omanportal.gov.om	2013 https://www.data.gov.bh
5. resource allocation and economic context	Funded by the government	Funded by the government
6. legislation	Copy and related rights law The Law on the Classification of State Records	e-Government Strategy
7. social, political, and cultural contexts	Not mentioned	Not mentioned
8. policy strategy and principles for opening	Open data policy	Open data policy
9. policy measures and instruments	Not mentioned	Not mentioned
11. processing of data before publication	Removing personal information of individuals, digitally signed, attestation of publication	Prioritizing of data sets for publication
12. amount of opened data	355	No amount of data sets available
13. types of open data	Different domains	Various topics
14. ways of presenting data	Machine-readable format, raw data, primary source data	Machine-readable, raw data, graphical representation, no analysis provided
15. fee charged for data access	Free	Free
16. target group(s) for the open data	Anyone, researchers, academics	Anyone
17. technical standards and formats	CSV, XLS, JSON, XML	CSV, tabulation, ODBC
18. provision of metadata	There should be sufficient metadata explaining the content of the data set	Provide accurate and updated metadata
19. types of data not publicized	Highly confidential, confidential, limited, or restricted	Sensitive, private, or confidential
20. technical support for the use of publicized data	Respond to public request regarding open data, responding within 15 days	Provide feedback and answer to comments or inquiries from the public during a specified timeframe, offer documentation
21. active encouragement of data re-use	Yes, API services	Yes. Examples include the development of applications, API services
22. data quality	Not mentioned	Not mentioned
23. data license	Data sets are available with no restrictions on dissemination and are not subject to any copyright, patent, trademark, or trade secret regulation.	Users are granted a royalty-free, non-exclusive use of data sets, according to obligations and applicable restrictions.
24. data available without registration	Yes	Yes
25. relationship between information suppliers and users	Not mentioned	Not mentioned
26. usage of publicized data	Information is not provided	Information is not provided
27. risks of publicizing data (possible negative impacts)	Not mentioned	Not mentioned
28. benefits of publicizing data (possible positive impacts)	Not mentioned	Not mentioned

However, there is some variation among the countries. For example, Saudi Arabia and Bahrain have linked data policies to e-Government law and Strategy, whereas Qatar and Oman linked theirs to Copyright and Neighboring Rights laws. The UAE has made its policy part of the Standard Information Security Policy.

With respect to the social, political, and cultural contexts, the results showed that none of the policies



included elements related to these issues, which can be seen as pitfalls. According to Zuiderwijk and Janssen (2014) addressing the social, political, and cultural contexts in the development of open data policies is a highly important element and can contribute to the achievement of their goals. Saxena (2018) has reported on some cultural issues concerning Saudi Arabia that can be considered in the context of the GCC of countries, since they have similar and common characteristics in their culture.

Concerning the pre-publication processing of data, GCC countries apply different criteria for prioritizing data sets before publication. These include (a) data that should be anonymized (removing personal information) and pseudonymized, (b) data sets of public interest and whose utility is time-sensitive, and (c) the maintenance of legal rights of intellectual property. These results suggest that the policies comply with and adhere to the principles of open data (Khan 2017). In terms of the amount of open data published on the portal, it was truly disappointing to find that fewer data sets have been published. In particular, Saudi Arabia has published 6,263 data sets, the UAE with 2,610, Oman with 355, and Qatar with 125; Bahrain has no amount of data sets available in its portal. Data sets cover various topics and domains, including education, economy, health, energy, environment, and so forth.

Technical issues surrounding data sets have been included in the policy. For example, all countries agree on how data should be presented in a machine-readable format and as raw data. This is one of the most important elements in publishing open data that



makes it easier to reuse (Nugroho 2013). In addition, document analysis and open data portal examination show that data sets are available in a range of formats such as CSV, XLS, JSON, XML, etc. These are machine-readable and the most well-known formats, which facilitates the use and reuse of open data (Gerunov 2017). The data quality element did not appear in the policies except in the case of the UAE, which mentioned that government entities should manage and improve data quality over time. This is a critical issue that many open data policies did not consider despite its importance (Nugroho 2013).

The policies analyzed showed which data is not allowed to be opened. Although there are variations in the level and classification of restricted data, all countries agree that the data relating to public safety, national security, protection of individual rights, and other sensitive information must not be published (Arzberger et al., 2004). This is consistent with what has been reported in the literature, e.g., by Nugroho (2013) and Zuiderwijk and Janssen (2014). Finally, GCC countries have not addressed the possible positive and negative impacts of releasing open data in their policies. This can be due to a variety of reasons, including the fact that open data policies in these countries are relatively new phenomena and have not yet reached a mature level. While many researchers have discussed the possible positive impact of opening government data, such as Huijboom et al. (2011) Janssen et al. (2012), it is not easy to quantify its effect on businesses and the broader society (Government of Qatar 2022) because (a) open data policy is yet to reach a mature level (Huijboom et al., 2011); (b)



measuring the value of open data policies is complex and needs time; and (c) many policies are still new and have not generated any impact (Zuiderwijk and Janssen 2014).

Conclusions and Recommendations:

This study aimed to analyze and compare open data policies in the GCC countries. It has provided an overview of the policy content elements that exist in open data policies. This study contributes to the literature by extending the scope of research concerning the analysis and comparison of open data policies in different countries and contexts. By doing so, this research offers a number of recommendations. First, while the analysis shows that all of the open data policies in the GCC have adopted some global practice in designing their policies, it is important for policymakers and developers to regularly review, update, and evaluate their policies to keep abreast with best practices worldwide. Second, policymakers in the GCC countries should address some of the issues that have not been included in their policy. Examples of such concerns include social, political, and cultural contexts; data quality; usage of publicized data; and the possible positive and negative impact of open data policies. Third, the governments of these countries are encouraged to promote and increase the use of open data through competition and hackathons, as this will give them opportunities to evaluate the benefits of publicizing data and potential positive impacts on society and to achieve the aims and motivation of open data, such as increasing transparency and openness, moving towards a knowledge economy, and promoting innovation.



The current research has several limitations. First, it is restricted to the GCC countries; it would then be a good opportunity to investigate other Arab countries. Second, there is a methodological issue, as this study uses documentary analysis to examine open data policies. Future research should also focus on conducting interviews with policymakers involved in the development of open data policies to deeply understand different issues. Finally, further analysis should examine the perception of users about what should be included in open data policies.

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