

Open Innovation in Government Services: An Empirical View of Citizens' Participation

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Abstract: The purpose of this paper was to investigate the perception of citizens on their participation in open innovation in government services. This is a quantitative study that applied descriptive statistics in analysing the findings. Participants were selected from the general public and several governmental organisations. The findings suggest that the participants believed that citizens' participation in open innovation could lead to innovative solutions, simple access to government information, effective service delivery, speedy and responsive public service delivery. Participants also believed that involving citizens in governance could reduce the potential failure of government policies. However, the majority of the participants did not believe that citizens' participation in open innovation would lower costs in terms of service delivery. It was recommended that further studies should be conducted to create awareness of the benefits of citizens' participation in open innovation in government services in terms of reducing costs of public services. The findings of this study will inform government policy makers on citizens' participation in open innovation in government services.

Keywords: Open innovation, open government innovation, government and citizens' participation.

1. Introduction

The foundation of open government implementation is predominantly associated with President Obama's Open Government Directive of 2009, instructing government agencies to transform themselves to become more "transparent, collaborative and participatory" [1]. President Obama was in favour of openness in government by encouraging the publishing of information online that "will increase accountability and promote informed participation by the public" [1]. As such, government should encourage the public to participate throughout the decision making process.

The concept of open government assures a broader concept beyond e-government and is linked to the essential transformation of governments to become more available to the public domain [2]. The ideal concept of open government foresees the participation of the public in the co-creation and design of open government initiatives, visible in open government classification such as collaborative democracy, citizen sourcing (e.g.

www.fixmystreet.com) and citizen ideation and innovation (e.g. www.challenge.org). The success of open government rests on broadening the view of open government to innovate.

Thus, to realize open, participative and collaborative governance, many governments need to engage in various innovative open government initiatives to change administrative and political establishments and processes [3]. The nature and degree of innovation by various government establishments depend to a large extent, on the degree of innovation [4]. Two phases of government innovation are acknowledged in literature: the first relates to how vigorously the government (and its organisations) integrates external knowledge into the political-administrative process, which, in its noticeable forms can be perceived in initiatives that seek to include external actors (such as citizens) in government policy creation [4].

The second opinion of government innovation is where the government progresses more openly, actively seeks for collaboration and co-establishing with its citizens, shares its resources and tries to increase transparency as much as possible to become a more participatory government [5]. While the supply-side concept of open government supports “transparency, participation and collaboration” in governance, in practice, the motivation of implementation is mainly geared towards transparency and information exchange in changing degrees [3]. Thus, from a design perspective, there is pressure in the open government practice in that transparency and information delivery incline to dominate the need for participatory governance.

This tension is made worse from a demand-side perspective that involves the assessment of the reasons why citizens decide to get involved in open government initiatives [6]. Previous research provides different reasons why citizens and other stakeholders participate in open government initiatives. Key among them includes citizens who are not willing to participate in open government projects; while open government projects of limited scope has more potential for enlarged citizen engagement [6].

The narrow supply side, which is quite common in a majority of Open Data Initiatives, has demonstrated the usage gap, with government pushing information, while the response from prospective users (citizens, civil society, businesses) has been almost nothing but lukewarm [7]. This paper is part of a larger study that entails three phases with the overall goal to identify and develop an open government innovation framework for Namibia. This paper, specifically, investigates the perception of citizens on their participation in open innovation in government services within the Namibian context. The findings of this paper will inform key stakeholders in government on the perceptions of citizens’ regarding participation in open innovation and provide information about areas where citizens are willing to participate in open innovation in government services. To our knowledge, this is the first study investigating citizens’ perception on open innovation in government services within the Namibian context. This paper is structured as follows: Literature review is presented in Section 2, Methodology is presented in Section 3, the findings are presented and discussed in Section 4 and Section 5 respectively. Conclusions and recommendations for future work are discussed in Section 6.

2. Literature Review

McDermott [1] describes open government as a system of “transparency, public participation, and collaboration.” In the Open Government directive, President Obama said, “openness will strengthen our democracy and promote efficiency and effectiveness in Government.” [1]

According to Hansson [2], there are a number of tools that can support open government innovation, and these tools together with available data can inform efficient decision-making. Ruijter and Meijer [8] further stated that the concept of open government has been increasingly important for accommodating these ambitions, while enabling a more

innovative and collaborative public sector, and hence, facilitating participation in government innovations.

Ubaldi [9] states that the term "Open Government Data" (OGD) was initiated after the release of the regulations guiding OGD in the United States in 2008. Ubaldi [9] further states two components of OGD, government data and open data, which can be used by the public based on specific conditions. Furthermore, OGD can improve transparency in government services which can be used to monitor progress and failures of government projects [9] [10].

Chesborough [26] defines open innovation as "use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively." Adopting this definition and McDermott's [1] definition of open government, and for this the purpose of this study, open innovation in government can be defined as the use of citizens' knowledge to accelerate innovative solutions to address challenges within a country leading to the participation of citizens in governance, as well making data related to government services open to the public.

Government agencies worldwide have embarked on initiatives of open government for making their data and related information available to the public [11]. Research has identified factors that influence citizens' adoption of open government, for example, the combination of e-government, social media, web-enabled technologies, mobile technologies, to support user-centred ICT-enabled services [11] [12] [13] [14].

Lee [15], based on the evidence from previous researchers, point out that, as at 2010, nearly all United States federal agencies had developed their strategic plan for open government initiatives. The majority of these initiatives have been implemented as pilots and recently began major implementations [15]. Following this, it is important for them to understand the challenges in open government innovation and identify what works for successful open government innovation projects [15].

One of the challenges in building trust between the public and government is privacy and information security [16]. Prior research shows that important factors enabling the public to adopt interactive online government services include perceptions on security, uncertainty and trust [17]. A recent study in Tanzania highlights the following as barriers to OGD includes technologies, methods of user operation and resources [18]. Challenges regarding data quality are especially salient. Parung, Hidayanto, Sandhyaduhita and Ulo [19] argue that aligning the governance process and OGD initiative is not easy and it comes with barriers.

The benefits of open government can be categorised into political, social, economic, operational and technical benefits [20]. Government data became available online as soon as the Internet opened to individual users in the early 1990s [21]. A number of national and international web portals (e.g., Data.gov and Data.gov.uk) have been deployed to provide OGD datasets online [22]. However, Hendler et al. [23] state that, for users of the data, this can cause "interoperability, scalability and usability problems." Technical, legal and financial restrictions, among others, may limit data accessibility and reusability [9]. Gupta [24] noted that despite technical and social differences in developed and developing countries, most developing countries strive to emulate best e-Government practices in developed countries.

3. Methodology

The methodology adopted in this study is the quantitative method. Descriptive statistics was used to analyse the findings of the study. This study targeted employees who are above the middle management which includes the Directors, Deputy Directors and Chiefs, within ten high priority Government Offices, Ministries and Agencies (OMAs): 1) Office of the Prime Minister; 2) Ministry of Home Affairs and Immigration; 3) Ministry of Trade and Industry;

4) Ministry of Lands and Resettlement; 5) Ministry of Education; 6) Ministry of Finance; 7) Ministry of Agriculture, Water and Forestry; 8) Ministry of Health and Social Services; 9) Ministry of Mines and Energy; and 10) Ministry of Environment and Tourism. Participants were also selected from the general public.

The sample group of this study comprised of 40 participants from selected OMAs which includes 15 participants and 20 participants from the general public as well as 5 focus group members who worked on various projects within the selected ministries. The participants from OMAs included, Directors, Deputy Directors, and Chief Systems Analysts, Chief Systems Administrators, Analyst Programmers and Systems users. Office of the Prime Minister (OPM) was included because they oversee quality assurance of all government projects and implementation process. The consultants were included to get their insight into projects implementation at the ministries. The public was included as they are the customers who will benefit from this open government innovation. The selection of the participants for the research was made based on the participant’s roles, expertise and positions, in order to achieve the research purpose and objectives, as such, the participants were purposefully selected to take part in the study. Questionnaires were distributed and sent to the participants after they agreed to take part in the study. The questionnaires were structured based on three principles of open government innovation suggested by McDermott [1] and Schmidhuber et al. [25] and hence, categorised under four areas: open government, citizens’ ideas and innovation, collaborative administration and collaborative democracy. The questionnaires were presented on a five Likert scale from strongly disagree to strongly agree. The findings of the study were analysed and the results presented in form of graphs.

4. Results

Participants were asked to rank what they felt about open government. The first question was related to how they felt about open government enabling public institutions: *Open government enables public sector institutions to be more effective*. Figure 1 shows that the majority of the participants (31/40, 77.5%) agreed that open government will facilitate effectiveness in public sector institutions. However, (1/40, 2.5%) strongly disagreed and felt indifferent about open government facilitating effectiveness in public sector institutions.

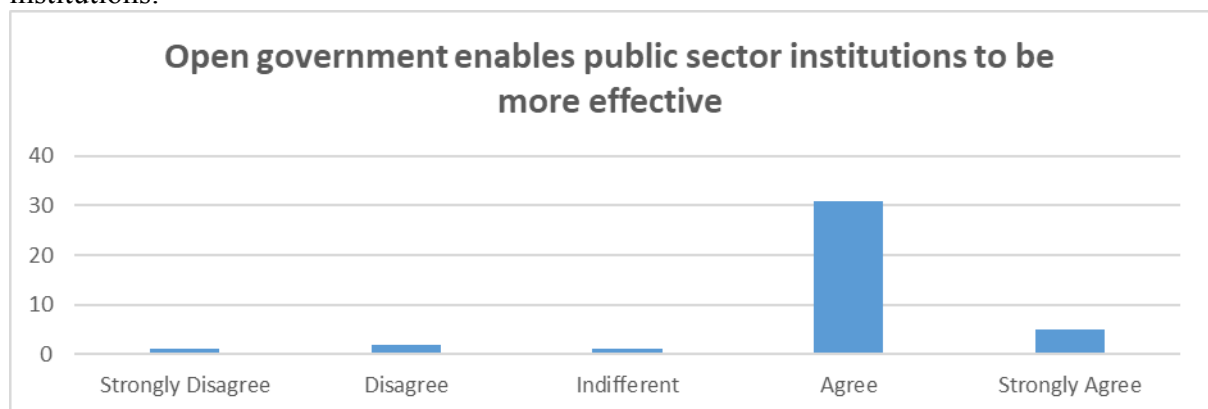


Figure 1: *Open government enables public sector institutions to be more effective*

The second question was related to how participants felt about open innovation and access to government innovation: *Open government enables simple access to government information*. Figure 2 shows that the majority of the participants (36/40, 90%) strongly agreed that open government will enable simple access to government information. However, (1/40, 2.5%) strongly disagreed, disagreed, agreed or felt indifferent about open government enabling simple access to government information.

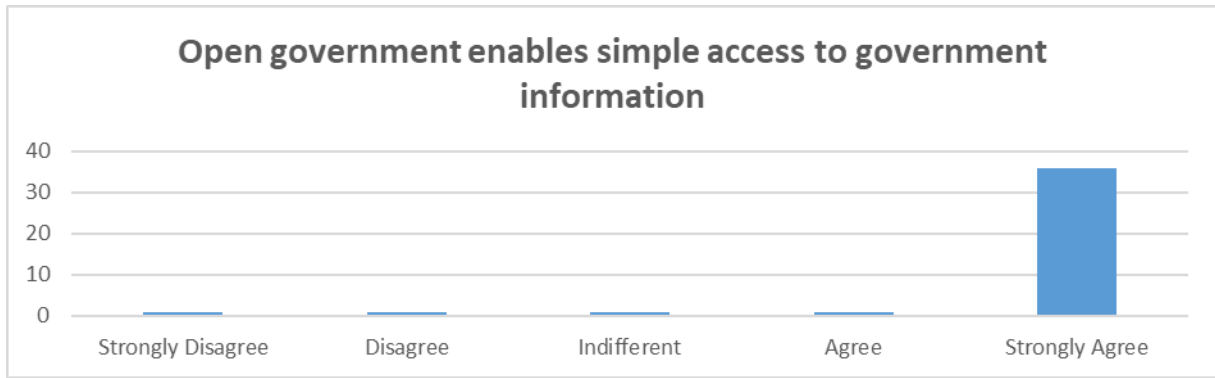


Figure 2: Open government enables simple access to government information

The third question was related to how participants felt about using citizens' ideas to innovate: *Using citizens' ideas to innovate leads to effective open government*. Figure 3 shows that the majority of the participants (31/40, 77.5%) agreed and (5/40, 12.5%) strongly agreed that using citizens' ideas to innovate leads to effective open government. However, a small percentage (1/40, 2.5%) strongly disagreed, that using citizens; ideas to innovate leads to effective open government.

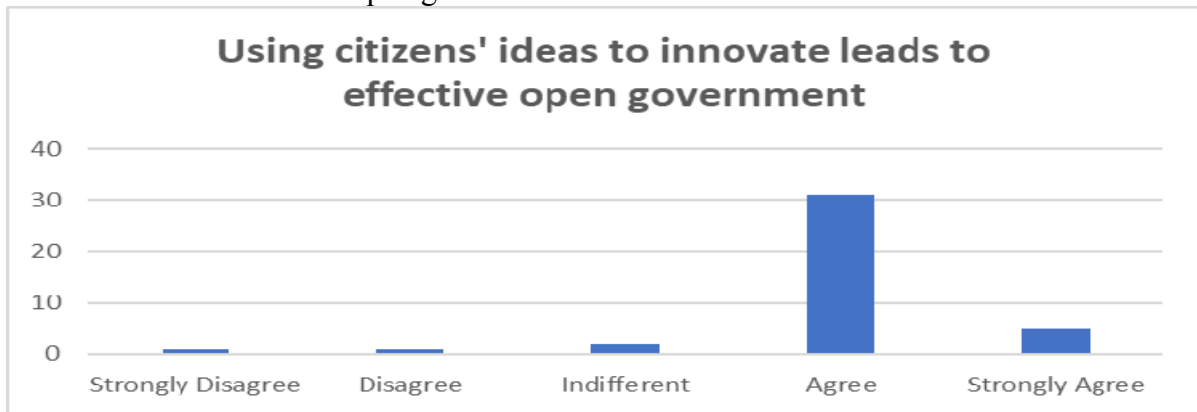


Figure 3: Using citizens' ideas to innovate leads to effective government

The fourth question was related to how participants felt about using public competitions to source citizens' ideas: *Using public competitions to source citizens' ideas leads to innovative open government*. Figure 4 shows that the majority of the participants (32/40, 80%) agreed that using public competitions to source citizens' ideas leads to innovative open government. However, a small percentage (1/40, 2.5%) strongly disagreed and are indifferent towards the idea that using public competition to source citizens' ideas leads to innovative open government.

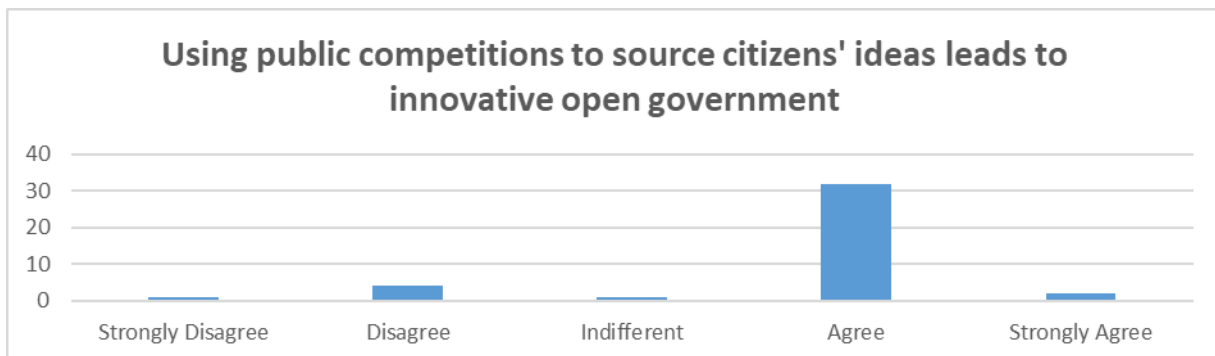


Figure 4: Using public competitions to source citizens' ideas leads to innovative open government

The fifth question was related to how participants felt about engaging citizens in collaborative administration: *Engaging citizens in collaborative administration leads to speedy and responsive public service delivery*. Figure 5 shows that the majority of the participants (35/40, 87.5%) strongly agreed that engaging citizens in collaborative administration leads to speedy and responsive public service delivery.

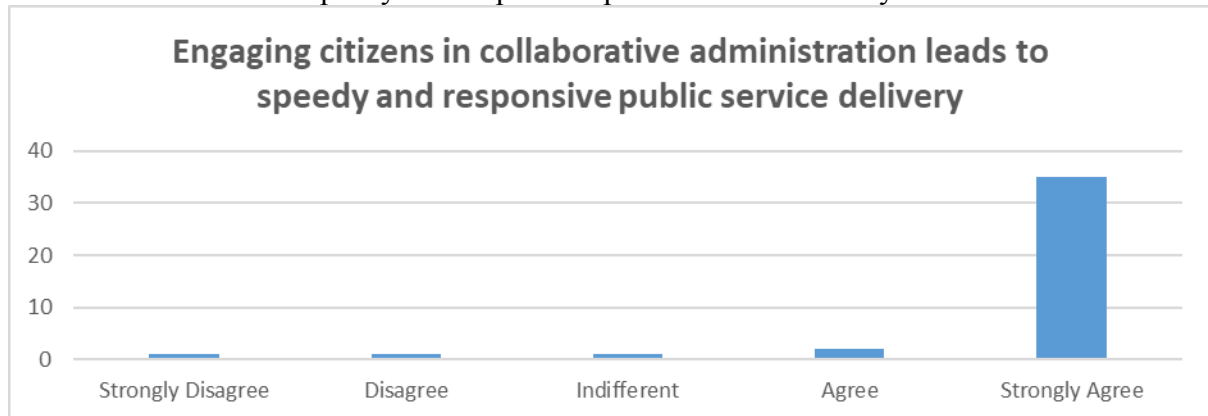


Figure 5: *Engaging citizens in collaborative administration leads to speedy and responsive public service delivery*

The sixth question was related to how participants felt about collaborative administration with citizens: *Collaborative administration with citizens leads to lower costs of service delivery*. Figure 6 shows that the majority of the participants (35/40, 87.5%) were indifferent about collaborative administration with citizens as a facilitator to lower costs of service delivery.

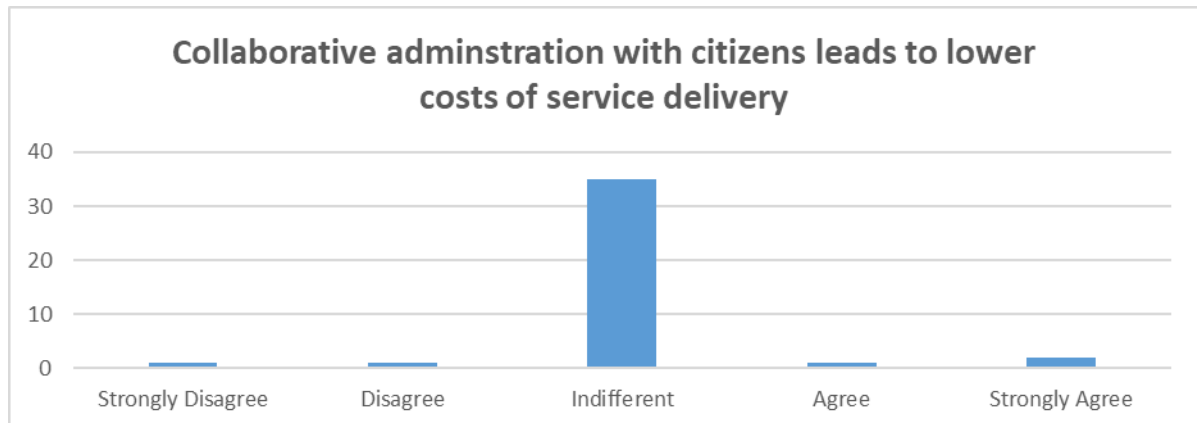


Figure 6: *Collaborative administration with citizens leads to lower costs of service delivery*

The seventh question was related to how participants felt about involving citizens in political agenda setting: *Involving citizens in political agenda setting enhances democracy, transparency and confidence*. Figure 7 shows that the majority of the participants (34/40, 85%) strongly agree that involving citizens in political agenda-setting results in effective open governance.

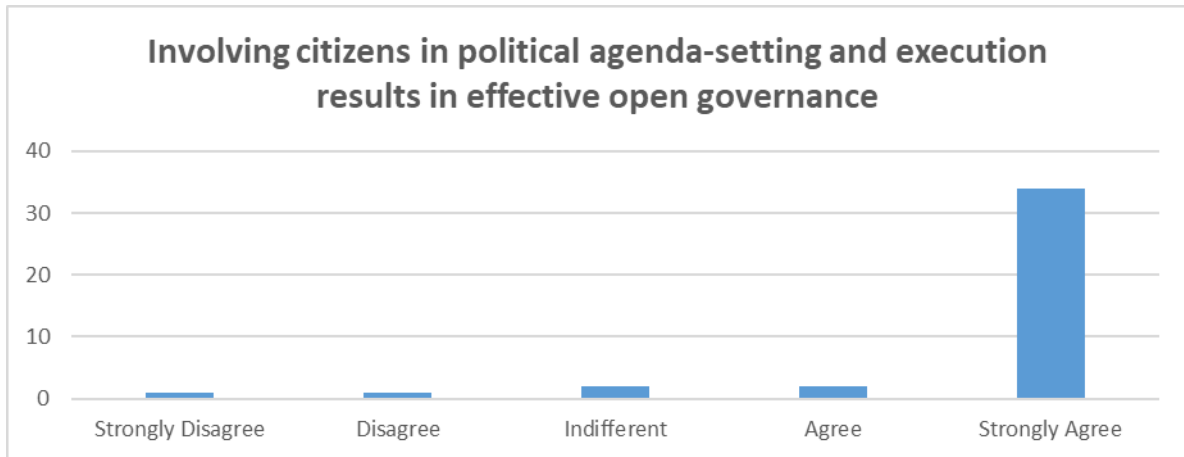


Figure 7: Involving citizens in political agenda-setting and execution results in effective open governance

The eighth question was related to how participants felt about engaging citizens in governance: *Engaging citizens in governance reduces the failure potential of government policies*. Figure 8 shows that the majority of the participants (28/40, 70%) strongly agreed and (9/40, 22.5%) strongly disagreed that engaging citizens in governance reduces the failure potential of government policies.

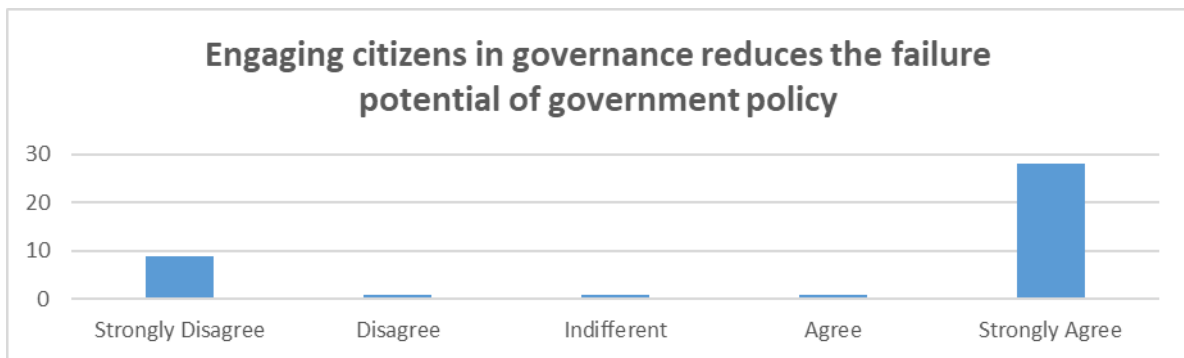


Figure 8: Engaging citizens in governance reduces the failure potential of government policy

5. Discussion

This study aimed at investigating citizens' perception of their participation in open innovation in government services in Namibia. The questions were grouped around four major areas that include open government, citizens' ideas and innovation, collaborative administration and collaborative democracy. To our knowledge, this is the first study investigating citizen's perception of their participation in open innovation in government services within the Namibian context. This study also provided a definition of open innovation in government. The findings of the study contribute to the existing literature on open innovation in government, especially within developing countries' context.

The results show that the majority of the participants believe open government will facilitate public sector institutions to be more effective. This is in line with a previous study, which suggests that citizens strongly believe that open government will lead to positive outcomes in Uganda [27]. The findings also suggest that citizens perceive open government as a means to enable simple access to government innovation. This suggests participants are convinced that involving citizens in open innovation in government could improve accessibility to government services and, as such, facilitate transparency in government services in Namibia.

Participants also believed that using citizens' ideas could lead to innovation in government. In a similar study in Germany, Thapa et al. [28] found that citizens are willing to participate in addressing issues relevant to their knowledge. This supports the idea that the government can involve citizens and solicit their ideas towards making key decisions instead of working in isolation. For example, the government could develop methods like online surveys and platforms where citizens can bring ideas towards developing solutions to solve national challenges. This could also lead to solutions that are locally-driven.

The findings also suggest that participants had the impression that engaging citizens in collaborative administration might lead to speedy and responsive service delivery. This is supported by a similar study in Slovakia [29] that suggests that involving citizens in public projects can improve the success of such projects, as the government will better understand the needs of citizens.

However, the majority of the participants did not believe that involving citizens in open innovation could lower costs in terms of service delivery. This perception could be as a result of no clear linkage between citizens' participation and lower costs of service delivery. The current literature, however, suggests that involving citizens in open innovation could reduce costs in terms of service delivery [30]. This calls for a need to create awareness on how citizens' participation in open innovation can lower costs of service delivery. The findings also show that engaging citizens in governance reduces the potential for failure. The reason for this perception could be that participants opine that the needs of the citizens can be easily met when incorporated into national agendas, hence, reducing chances of potential failure. The results further revealed that this phenomenon could lead to innovation, leading to quality and high productivity in the public sector and government.

The findings of this study present useful information to key stakeholders in government within the Namibian context on the perception of citizens taking part in open innovation in government. The findings can further be used as a basis for planning activities related to establishing open innovation within the Namibian context. Participants also opined that using competitions to get citizens' ideas could lead to innovation. As such, it is recommended that competitions be held regularly to source citizens' ideas on key issues. Participants believed that using citizens' ideas does not only lead to innovation but can also lead to effective open government.

The findings of the study suggest that the participants are convinced that involving citizens in political agenda setting could enhance democracy, transparency and confidence. As such, it is recommended that the government should create more evidence through open government around successful implementations of national projects that are relevant to the general public. This could create awareness of the current successes of existing projects, highlighting transparency and confidence.

Governments in different parts of the world should direct more of their attention at providing evidence of the benefits of open innovation in government services. This could potentially improve citizens' participation in open government.

6. Conclusions

This study investigated citizens' perception of their participation in open innovation in government services in Namibia. While the majority of responses are positive towards citizens' participation in open innovation in government services, participants did not believe this would lower costs in service delivery. As a result, for future work, it is recommended that more studies should be conducted to test whether citizens' participation in open government will reduce service delivery costs.

The study establishes key findings regarding participants' perception of citizens' involvement in open innovation in government services. The findings of this study provide preliminary evidence of various avenues that could be used to source citizens' ideas that

could lead to innovation. The findings are of importance to researchers and key stakeholders in government.

Some limitations to this study might be related to collecting our data. 40 participants were included in this study and data was gathered from participants in Windhoek. This might not be enough to generalise the findings. As such, for future research, it is recommended that a larger number of participants be included in the study.

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