

New Public Management and Smart Local Governance in the Era of the Fourth Industrial Revolution: Lessons From Namibia

Eric Yankson

 <https://orcid.org/0000-0002-9652-1577>

Namibia University of Science and Technology, Namibia

INTRODUCTION

Public management entails the systematic or scientific running of public organisations with the aim of attaining certain desired outcomes (Colon & Guérin-Schneider, 2015). This concept ties in well with local governance which seeks to manage local authorities or institutions to ensure effective transfer of powers from the national to the sub-national level (Oviasuyi et al., 2010). Due to the inherent relationships between public management and local governance, much research regarding their inter-linkages has occurred over the years.

With specific reference to Africa, the terms public management and local governance have attracted appreciable scholarly attention. However, the application of new public management (in particular) to local governance in the region could benefit from more focus. This is important given the need to enhance governance efficiency and improve service delivery to residents. Thus, this chapter assesses the implications of new public management for smart local governance in the era of the fourth industrial revolution based on a case study of Namibia (in Southern Africa). Specifically, it seeks to address the following questions: What are the conceptual relationships between new public management and smart local governance in the era of the fourth industrial revolution? How has smart local governance been defined by the principles of new public management? What are the implications of new public management for smart local governance based on lessons from the Namibia case study? The choice of Namibia emanates from its appreciable progress with respect to governance, science, technology and innovation since independence. The study is qualitative in nature and relies on document and discourse analyses, as well as interviews to make its observations. Before delving further, the chapter dissects definitional or conceptual discourses regarding new public management, smart local governance and the fourth industrial revolution. It then provides a brief contextual overview of Namibia to undergird the discussion.

The concept of new public management entails a break from the extant administrative ethos of bureaucracy, centralisation and elitism. This traditional paradigm which was mostly prominent in the early and middle parts of the 19th century sought to address the limitations of urbanisation and industrialisation. During this period, politicians were the primary actors in setting organisational goals with technocrats only playing a secondary role. Moreover, citizens were passive beneficiaries in the decision-making process which was dominated by public actors. Government agencies were the main institutional vehicles for providing public services (Bryson et al., 2014). From the 1980s and 1990s, new public management emerged as an alternative conception to traditional public management. This new approach, unlike the

DOI: 10.4018/978-1-6684-7366-5.ch016

This article, published as an Open Access article in the gold Open Access encyclopedia, Encyclopedia of Information Science and Technology, Sixth Edition, is distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

previous ethos, simultaneously emphasised efficiency and effectiveness in service delivery. The goal was to overcome inherent failures in the existing paradigm of government (Bryson et al., 2014).

New public management entails the application of private sector principles to enhance the quality of public service delivery. The goal is to create a more citizen-oriented approach which seeks to minimise waste (Iacovino et al., 2017). The concept is also associated with the devolution of power, a more prudent use of scarce resources, better governance transparency, as well as a monitoring and evaluation system (Colon & Guérin-Schneider, 2015). It involves the provision of performance-based incentives to increase levels of productivity. Moreover, it promotes competition either through internal markets in the public sector or contracting out to the private sector. It also separates the provision of public services to promote agency and assignment of roles to other organisations with the goal of ensuring better quality (Lapuente & Van de Walle, 2020).

BACKGROUND

New public management is inherently linked with smart local governance and the fourth industrial revolution. The concept of smart local governance entails the adoption of technology tools by local authorities to enhance the decision-making process as a way of ensuring better social inclusion and quality of life. This can occur through more active engagement with various stakeholders such as public officials, the private sector, citizens and local communities. It may also entail digitisation when it comes to the provision of urban services such as transportation (Masik & Stepień, 2021). With specific reference to smart cities, urban futures imply that technology has an important role to play in the evolution of contemporary and future urbanism. Moreover, knowledge and innovation economy refer to how technological progress contributes to urban management and enhanced capacity in the new economy. Technology push factors mean that improvements in technology create smart city products and the solutions associated with them. Demand pull factors refer to the need by cities for efficiency improvements in service delivery which increase the reliance on technology tools (Angelidou, 2015).

Evidently, smart local governance entails the adoption of information and communication technology tools to promote citizen engagement in the decision-making process. This may involve the use of online platforms for public interactions to ensure better quality of service delivery. It entails internal coordination mechanisms and external collaboration to engender collective action in order to attain desired goals. Ultimately, the concept ensures better outcomes such as a more inclusive planning process (Rodríguez Bolívar & Meijer, 2015). The term smart city thus connotes an urban area which is run more efficiently, addressing the problems that confront the traditional city. The goal is to improve the quality of life for residents, enhance administrative effectiveness and ensure better quality of service delivery (Rodríguez Bolívar, 2015). This may entail the adoption of innovative governance approaches, as well as the use of publicly available data to address major challenges such as waste management. Moreover, the use of technologically adept mechanisms is paramount for ensuring a more coordinated approach to management. Ultimately, the realities of the urban lived experience create the need for alternative approaches to addressing development challenges (Glasmeier & Christopherson, 2015). As a result of its reliance on technology, the smart city is associated with conceptions such as the digital, networked or virtual city. It thus seeks to utilise technologies to promote governance efficiency and participatory planning (Freudental-Pederson et al., 2019).

As already noted, the purpose of this research is to dissect the nature of smart local governance as configured by the principles of new public management. Specifically, the study seeks to address gaps

in existing literature. Notwithstanding the plethora of research on new public management, application of the concept to smart local governance is still emergent. This is a major issue given the obvious dialectical relationships between them. Moreover, evaluation of the two terms within the framing of the fourth industrial revolution could also benefit from more research. The problem statement may thus be summarised as follows: How have the technological and efficiency gaps in contemporary local governance been addressed by the principles of new public management in era of the era of the fourth industrial revolution?

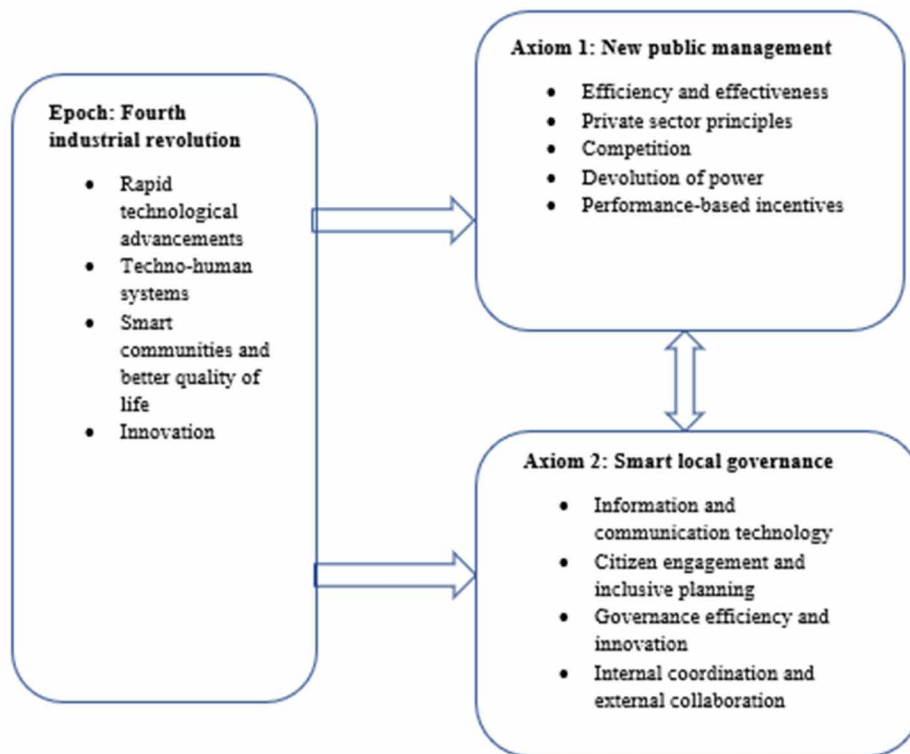
The era of the fourth industrial revolution may be regarded as contemporary trends where new technological advances such as big data, artificial intelligence, robotics and Internet of things have become defining attributes of political economies. While the concept is not necessarily understood as a historical progression, it nonetheless, in a sense, represents a temporal change from the previous three industrial revolutions (Sutherland, 2020). The first epoch from 1760 to 1850 was marked by a transformation from the rural-agrarian to urban industrial activity and based on the steam engine. The second industrial revolution from 1870 to 1970 was characterised by mass production and reliance on electricity. Moreover, the third epoch which started in the 1960s, was associated with advances in computing, telecommunications, the Internet and e-commerce (Sutherland, 2020).

The fourth industrial revolution thus refers to rapid advancements in technology which enhance the efficiency of various human endeavours to create a better society. Specifically, it entails techno-human configurations to create smart communities and enhance the quality of life for individuals. The goal is to find more effective ways of addressing contemporary political, economic, social and environmental challenges (Lee et al., 2018). The concept (i.e. fourth industrial revolution) also emphasises innovation to increase productivity and enhance economic activity. Moreover, it is premised on the Internet of Things which seeks to move beyond the mere use of the Internet. Thus, emphasis shifts to the utilisation of advanced technology platforms to integrate virtual and human activities in order to facilitate decision-making and solve problems (Morrar et al., 2017).

Public administration in the era of the fourth industrial revolution has been characterised by the creation of more digital platforms for interactions between government and citizens. This generates alternative avenues for public participation in the planning process. It also ensures efficiency in service delivery through new accountability mechanisms (Shava & Hofisi, 2017). This may occur because the transaction costs associated with local governance is reduced through better information availability. Also, the integration of new data sets and social media can ensure better transparency in decision-making. The increased engagement of citizens may lead to more decentralised approaches to governance and an increased role for local governments (Pellini et al., 2019). Moreover, the fourth industrial revolution leads to government creating the enabling environment for businesses to thrive in the knowledge economy while maximising potential benefits for citizens (Shava & Hofisi, 2017).

With specific reference to Namibia, the contextual origins of new public management and smart local governance may be explained by two main factors: the establishment of national, regional and local governmental structures after independence; and the enactment of various policies to promote science, technology and innovation. Following independence in 1990, the government created various ministries, departments and agencies at the national level to deliver on its mandate to the nation. Subsequently, as part of efforts to reduce the over-centralisation of power emanating from the colonial and apartheid eras, a decentralisation strategy was adopted to ensure the administrative devolution and delegation of functions to regional councils and local authorities (McGirr, 2021). These efforts were undertaken through legislation such as the Regional Councils Act (Number 22 of 1992), Local Authorities Act (Number 23 of 1992) and the Decentralisation Enabling Act (Number 33 of 2000). The Regional Councils Act led

Figure 1. The fourth industrial revolution, new public management and smart local governance



Source: Author's construct based on literature review

to the establishment of regional councils in order to give meaning to decentralisation at the regional level. Similarly, the Local Authorities Act led to the establishment of local authorities such as municipal, town and village councils. Moreover, the Decentralisation Enabling Act provided the legal or regulatory framework for the devolution or delegation of power from the central government to regional and local authorities (Mcgirr, 2021).

The promotion of science, technology and innovation also began following independence in 1990. In 1999 for instance, the central government launched the National Research, Science and Technology policy. This policy led to the establishment of important institutions such as the National Commission on Research, Science and Technology. In 2004, the Namibian parliament adopted the Vision 2030 strategy which seeks to transform the country into a knowledge-based economy in the long term (Jauhiainen & Hooli, 2017). This strategy has been implemented through five-year national development plans. Also in 2004, the Research, Science and Technology Act Number 23 was adopted to create a legal framework for the implementation of science, technology and innovation-based strategies. Another important development was the establishment of the Ministry of Information and Communication Technology in 2005 (Jauhiainen & Hooli, 2017).

Namibia's information and communication technology (ICT) Policy 2009 sets out the strategic direction for the integration of telecommunications, broadcasting, information technology and postal services in the country. Moreover, the Communications Act Number 8 of 2009 provides regulatory frameworks for the operation of telecommunications, broadcasting and postal services towards the creation of the

autonomous Communications Regulatory Authority of Namibia (Republic of Namibia: Ministry of Information and Communication Technology, 2018). The Universal Service and Access Policy 2013 creates a conducive environment for operators and regulators to interact for enhanced communication service delivery as well as better access in terms of the Internet and broadband. Additionally, Namibia's broadband policy has the goal of ensuring universal, affordable and accessible broadband services for all citizens. This entails improvement in infrastructure and utilisation in strategic sectors of the economy such as health, education and government. The ultimate vision is to create a smart society premised on the use of ICT tools (Republic of Namibia: Ministry of Information and Communication Technology, 2018).

FOCUS OF THE ARTICLE

While the concept of smart local governance may largely be understood in terms of the adoption of technology-based tools to enhance the political and decision-making processes at the sub-national level, this chapter observes that it also refers to related concepts which attain similar goals. These include innovation, public accountability, performance management, policy learning and partnership building. The various concepts help to ensure efficiency and effectiveness of the governance process so it is more responsive to the needs of residents. This chapter thus argues that the conceptual relationships between new public management and smart local governance in the era of the fourth industrial revolution may be distilled in terms of eight broad themes namely: e-government; knowledge management; participatory geographic information systems and decentralised governance; agency and innovation; performance management and administrative efficiency; policy and organisational learning; public accountability; and public-private partnerships.

The concept of e-government entails the adoption of information and communication technology (ICT) tools to enhance the performance of government institutions (Twizeyimana & Andersson, 2019). This is important for understanding the relationships between new public management and smart local governance because it embodies the interface between technology and service delivery in the era of the fourth industrial revolution. Besides e-government, knowledge management refers to the generation, sharing and application of knowledge to achieve desired objectives. This can help to improve organisational effectiveness and efficiency. Alternatively, it could form the basis for change through innovation to enhance its competitive edge (North & Kumta, 2018).

Also, participatory geographic information systems (GIS) entails the incorporation of participatory planning approaches in the use of GIS tools to attain certain goals or objectives (Corbett et al., 2016). Besides participatory GIS, decentralisation involves the transfer of powers from higher levels of government to lower echelons of authority (Goel et al., 2017; Cuadrado-Ballesteros et al., 2013). Participatory GIS and decentralised governance are important for understanding the power relations associated with the use of technology tools in citizen engagement.

Agency implies how human choices define processes, particularly in relation to policy and decision-making. It embodies the notion of fluidity due to the fact that preferences and ideological orientations can shape human actions (Savitch & Kantor, 2002). Besides agency, innovation entails new solutions to existing or emerging problems which mark a departure from how things have been done in the past. This may be evident in the governance process or service delivery. The term was initially conceptualised with respect to invention and entrepreneurship. In contemporary times, it mostly refers to the sharing of ideas, knowledge and expertise by organisations to address societal problems (Bekkers & Tummers, 2018). Agency and innovation are important for understanding the transformational paradigm associ-

ated with decision-making under new public management and smart local governance in the era of the fourth industrial revolution.

Also, performance management assesses the extent to which an organisation or entity is achieving its mandate. This may entail evaluating its aims and objectives to ensure the realisation of its overarching goal. It dissects its processes, as well as performance effectiveness and efficiency. Moreover, it comprises a reward and punishment system in consonance with the ability or inability to attain desired targets. There is also information sharing to facilitate learning from current and past experiences (Jurnali & Siti-Nabiha, 2015). Performance management is inherently linked up with administrative efficiency which aims to maximise organisational outputs with given inputs. The two concepts thus embody the outcome-oriented ethos of new public management and smart local governance.

Besides performance management and administrative efficiency, the concept of policy learning entails the ability of policies to evolve or change based on lessons gained from previous policies. This perspective challenges the notion that political battles or group dynamics are the primary or sole determinants of policy change. It thus recognises the propensity for a policy to emerge through change based purely on what has already occurred (Borrás, 2011). Similarly, organisational learning refers to the ability of an organisation to learn from past experiences in order to become more effective, efficient, transparent and accountable. Thus, it embodies an organisation's capacity to reinvent itself by continuously embracing new ideas and concepts gained through previous experiences (Visser & Van der Togt, 2016; Gao, 2015). Due to their potential for improved outcomes, policy and organisational learning may be regarded as important defining elements of new public management and smart local governance in the era of the fourth industrial revolution.

Besides policy and organisational learning, public accountability refers to a relationship between citizen principals and agents such as public officials in which these officials have to meet certain obligations or expectations. These may be shaped by either formally defined rules of conduct or informal norms (Wood et al., 2022). Because public organisations and local governments normally act on behalf of citizen principals, public accountability is important for understanding these relationships. Also, public private partnerships (PPPs) are collaborative endeavours between the public and private sectors which aim at sharing risks towards the provision of services (Warsen et al., 2018). The goal is to leverage synergies to improve quality. Thus, these partnerships strongly embody the attributes of new public management and smart local governance.

Based on the noted conceptual relationships, this chapter identifies eight broad themes which configure new public management when it comes to smart local governance in the era of the fourth industrial revolution in Namibia. As already noted, the themes include the following: e-government; knowledge management; participatory geographic information systems and decentralised governance; agency and innovation; performance management and administrative efficiency; policy and organisational learning; public accountability; and public-private partnerships (Table 1). These are elaborated in the remainder of the discussion.

E-government

The concept of e-government ties in well with Namibia's Vision 2030 strategy which seeks to create a knowledge-based and technologically driven economy with the goal of ensuring a prosperous society. Part of the approach involves making ICT a lynchpin of the nation's economic advancement. Similarly, the national development plans (NDPs) aim to improve the living conditions of every Namibian by ensuring better information access, affordable communication and the provision of technology-based

Table 1. Conceptual relationships between new public management and smart local governance

Themes/Axioms	New Public Management	Smart Local Governance
E-government	ICT tools in public management; technology and broadband infrastructure	Online government presence; smart ICT services; enhanced service delivery
Knowledge management	Research and development; public sector innovation	Spatial data infrastructure; indigenous knowledge
Participatory GIS and decentralised governance	Local knowledge; mapping with technology tools	Devolution of power; avenues for citizen participation
Agency and innovation	Responsive and innovative governance	Mayoral agency; local governance reforms; alternative and technological adept modes of communication
Performance management and administrative efficiency	Enhanced output levels; administrative restructuring	Improved efficiency; reinvention of governance
Policy and organisational learning	Change within organisations	Economic development strategies and land use plans; transformation of jurisdictional boundaries
Public accountability	Minimisation of leakages; optimal utilisation of resources	Electronic record keeping; anti-corruption measures
Public-private partnerships	Enhanced project delivery capacity	Improved quality of service delivery; technologically oriented service delivery

Source: Author's construct based on literature review, document and discourse analyses

infrastructure. Also, the Harambee Prosperity Plan, which is a targeted and accelerated development plan, provides reliable broadband infrastructure which is simultaneously affordable and accessible (Republic of Namibia: Ministry of Information and Communication Technology, 2018). The e-government policy for the public service 2005 underscored the importance of ICT tools in public administration, as well as organisational change and skills development. The goal is to enhance public engagement as part of the democratic process and policy formulation (Republic of Namibia: Ministry of Information and Communication Technology, 2018).

Namibia's e-government strategic action plan 2014-2018 seeks to ensure the introduction of ICT tools in all government ministries, departments and agencies within the public service. The overarching vision is to create a networked government premised on client-centeredness, transparency, efficiency and affordability. It thus aims to ensure that ICT becomes the bedrock for a customer-centric governance approach which better attends to the needs of citizens (Republic of Namibia: Office of the Prime Minister, 2014). Moreover, it seeks to improve efficiency and effectiveness of service delivery within all layers of government. In specific terms, the e-government strategic action plan aims to reduce redundancies in the public service and promote economies of scale to ensure cost-effectiveness. It also creates a participatory approach to decision-making which involves citizens, communities, the private sector and government. This occurs in part through using technology-based tools in political engagement and information shar-

ing. For instance, the use of online-based services and sharing of government resources such as data and infrastructure is one way of ensuring this (Republic of Namibia: Office of the Prime Minister, 2014).

According to the Mcgirr (2022), online presence in terms of well-developed websites, social media platforms and existence of virtual interfaces for citizen participation play important roles in assessing the performance of local authorities and regional councils in Namibia. As a result, these may be categorised into best performing, higher-average performing, lower-average performing and low performing local authorities and regional councils. Generally, local authorities and regional councils which have strong online presence appear to perform better than those which do not (Mcgirr, 2022).

With specific reference to Namibia's capital of Windhoek, the transformational strategic action plan (2017-2022) seeks to create a smart and caring city by the year 2022. This plan is premised on two main pillars: governance and financial sustainability; social progression, economic advancement and infrastructure development. Part of the approach for attaining the targets under governance and financial sustainability comprises the creation of smart ICT services through enhanced wifi access and the creation of a paperless business environment. Moreover, one of the strategic objectives under the pillar of social progression, economic advancement and infrastructure development aims to enhance public service delivery to residents in low-income areas such as informal settlements. There is also an objective of improving the delivery of serviced land for residential, business and institutional purposes (City of Windhoek, 2017).

Knowledge Management

Besides e-government, knowledge management entails the generation, storage and utilisation of information for enhanced decision-making. In a developing country context such as Namibia, the approach partly implies learning best practices from elsewhere, especially in terms of local governance and smart urbanism, and then adapting the concepts to suit the situation in the society (Mchombu, 2007). Over the long term however, the best strategy for knowledge management may be through increased investments in research and development. The goal is to generate new tools in science, technology and innovation which enhance quality of life for citizens. For instance, new techniques such as mechanised agricultural production, renewable energy, climate change mitigation and adaptation, water conservation, as well as sustainable ecosystem management can be envisaged (Mchombu, 2007).

Knowledge management in Namibian local governance is inherently linked up with innovation in the public sector. This is because the knowledge economy strengthens public sector governance through alternative approaches. Namibia's public sector innovation policy thus aims to enhance the processes and strategies associated with service delivery by public organisations. This occurs through capacity building to enable public officials become abreast with the tenets of innovation (Republic of Namibia: Office of the Prime Minister, 2020). It also spearheads an ethos of creativity while simultaneously incubating novel concepts in the public sector. The policy argues that research and knowledge management must form the basis of policy innovation in public organisations. Through reward systems and participatory approaches such as online surveys and stakeholder engagement, the policy contributes to smart governance in the public sector (Republic of Namibia: Office of the Prime Minister, 2020).

Knowledge management in Namibian local governance is also evident through the establishment of the National Spatial Data Infrastructure (NSDI). According to the Namibia Statistics Act Number 9 of 2011, the creation of the NSDI is meant to facilitate the collection, storage, analysis and dissemination of geospatial data. The specific objectives of the NSDI include enhancing geospatial data efficiency and avoiding duplication of existing data. Moreover, it seeks to improve the integration and sharing of

data. It ensures the availability of public data while simultaneously promoting data security and ensuring confidentiality (Namibia Statistics Agency, 2015). This data must be compatible and compliant with international standards. It should also be future-focused and responsive to changes in technology. The acquisition and maintenance of geospatial data primarily rests with government agencies or bodies. The rights associated with the information includes determining how it will be managed, as well as accompanying responsibilities regarding access and quality of data (Namibia Statistics Agency, 2015).

Another aspect of knowledge management which has become increasingly important in Namibian local governance is indigenous knowledge. The generation of indigenous knowledge to address local community development challenges can be achieved with the use of participatory and technologically driven approaches. Such knowledge helps to better address context-specific development issues and also creates a more responsive approach to local governance (Mchombu, 2007). Ultimately, the constellation of these knowledge data bases can serve as a source of spatial intelligence for ensuring a more balanced or equitable approach to urban and regional development. Besides the generation of local knowledge, the sharing of this expertise serves as a way of learning from best practices and maximising the benefits from them (Mchombu, 2007).

Following independence in 1990, Namibia has actively promoted indigenous knowledge as part of its development agenda. This is evident in the incorporation of the concept in various policies such as Vision 2030 and the Research, Science and Technology Act 2004. Indigenous knowledge is recognised for its potential to generate economic livelihoods for poor rural residents (Jauhiainen & Hooli, 2017). Most importantly, it serves as a source of innovation which incorporates the efforts of local communities. In recognition of these, the National Commission on Research, Science and Technology established the National Council for Indigenous Knowledge Systems in 2014. The purpose was to promote indigenous knowledge systems in all sectors and recognise its value in the development process (Jauhiainen & Hooli, 2017).

Participatory Geographic Information Systems and Decentralised Governance

Besides knowledge management, participatory GIS and decentralised governance are also critical for analysing the relationships between new public management and smart local governance. Historically, manual techniques such as the use of paper maps were a dominant approach in the production of spatial data in Namibia. In the recent past however, emphasis has shifted to the use of computers and GIS techniques in the creation of digital maps. The goal of generating these maps is to make them more accessible and enhance their durability (Mundia, 2016). The adoption of participatory GIS is a strategy for integrating local knowledge and utilising basic or advanced technology tools in the mapping process. In Namibia, this occurs through sketch-mapping and photo-mapping approaches which incorporate the inputs of local communities in the process of integrated land use planning (Mundia, 2013 & 2016a, b). While planners appear to have strong expertise in the use of GIS tools in the mapping process, the knowledge of ordinary citizens is relatively limited. This notwithstanding, the results of these participatory platforms demonstrate the capacity of local communities to utilise technology towards documenting indigenous knowledge and the creation of spatial information systems (Mundia, 2013 & 2016a, b).

Because it involves a transfer of governmental powers, decentralisation is closely associated with participatory governance. Participatory governance entails a role for ordinary citizens in the planning and decision-making processes (Gustafson & Hertting, 2017). The ethos of decentralisation and participatory governance have become important aspects of new public management in the recent past. In case of Namibia, decentralisation has occurred through the devolution of certain governmental functions

to regional councils and local authorities. Moreover, public participation in local governance is partly evident in the ability of citizens to partake in local elections.

Namibia's strong democratic credentials imply that in principle, ordinary citizens possess the power to partake in the planning and decision-making processes. This appears to be evident mostly in terms of participation in local and regional authority elections. Thus, local and regional councilors elected by ordinary citizens advance the interests of citizen principals. The noted situation notwithstanding, ordinary citizens do not have much influence in the day-to-day planning and decision-making processes in local authorities. This is evident both in terms of limited avenues for direct participation, as well as citizen apathy when it comes to the utilisation of prevailing avenues for participatory governance. Moreover, the digital divide implies that even where alternative avenues for participation such as online platforms exist, low-income residents are relatively less likely to be able to take advantage of these.

Agency and Innovation

As regards agency and innovation, mayors in Namibia enjoy some level of political agency due to the fact that they are elected by citizens (albeit indirectly through their elected councillors). This makes it likely that they can embark on innovative projects and initiatives to deal with pervasive local governance challenges such as poverty and unemployment. The election of mayors thus portends greater responsiveness to the concerns of interest groups and citizen principals. This enhances the prospects of their continued stay in office or re-election. In terms of new public management, the elective powers available to mayors demonstrate the ability of these political actors to spearhead reforms in local governance. This occurs because of the desire to transform these local authorities into effective vehicles for the actualisation of local development goals. Moreover, their powers of visioning and policy formulation imply that local authorities are agents of political innovation in the planning and decision-making processes.

Mayoral agency may also be evident in terms of the ability of these elected officials to employ alternative and technologically adept modes of communication with citizens. For instance, the use of social media platforms, while informal, nevertheless constitute an innovative vehicle for reaching out to those who would otherwise not have taken part in the governance process. Moreover, agency can occur when mayors mobilise resources and pool efforts to reduce the digital divide in local communities. Admittedly, much of the interventions in this respect emanate from the national level. However, elected officials can make a strong case for enhanced access to technology tools towards attaining development goals of better social inclusion.

Mayoral agency is also a function of the existing ethos of centralised planning in Namibia. The implication is that elected officials are constrained in their ability to make completely independent decisions. This occurs because they have to take cognisance of policy strategies at national and regional contexts in order to ensure the alignment of development pursuits at different spatial scales. Also, the fact that many local authorities still depend on the largesse of the central government for development financing seriously constrains the ability of mayors to serve as agents of political innovation. For instance, funding from the government usually comes with preconditions as they are primarily geared at advancing certain national and political interests. Moreover, central government funding is usually provided in designated amounts implying that mayors only have a limited budget to work with.

The nature of local organisations in Namibia also brings to the fore the matter of performance management. This occurs in part because local governments comprise organisational structures akin to what exists in the corporate sector. At the political level, the authorities (especially in large municipalities such as Windhoek) consist of mayors and elected councillors. Moreover, at the executive management level, there is the chief executive officer and the strategic executive team. Also, the middle management comprises divisions under the ambit of various line level managers (Katoma & Ungerer, 2011).

While performance and administrative efficiency in Namibia are primarily associated with the public sector at the national level, local authorities are increasingly embracing these principles in two main ways. To begin with, there is greater emphasis on enhanced output levels by employees, resulting in the adoption of a myriad of performance management tools. Moreover, various forms of internal administrative restructuring are taking place with the goal of cutting down red tape and speeding up the decision-making process.

In the recent past, the City of Windhoek for instance has outdoored its performance management report for 2017/18 in order to track its progress with respect to attaining the targets spelt out in the Windhoek Transformational Strategic Plan. While the report shows challenges in terms of financial sustainability, it also reveals a fair amount of progress regarding town planning and building plan applications. Moreover, there has been an increase in public meetings, as well as the reporting framework for organisational level performance. In consonance with the orientation towards performance management, two policy documents have been developed focusing on organisational performance management and change management respectively (City of Windhoek, 2017/18).

Performance management in Namibian local governance is also partly based on the utilisation of technology tools such as websites, the Internet and social media to ensure public engagement. These platforms elicit public inputs particularly when it comes to service delivery towards enhanced efficiency and effectiveness. The adoption of performance management in Namibian local government is a reflection of new public management because it minimises inefficiencies in the existing system. It thus seeks to correct pervasive gaps and enhance local governance outcomes. Moreover, Namibia's performance management system speaks to the reinvention of governance at the local level since its principles portend an institutional and cultural reorientation which seek to transform the nature of local administration.

Policy and Organisational Learning

Additionally, many local authorities in the country are increasingly coming up with various policy documents to streamline their development agenda. These include local economic development strategies, as well as land use plans. In doing so, they seek to learn from the experiences and best practices associated with the implementation of similar strategies by other municipalities. Policy learning also occurs in terms of the updating of local development strategies to align with the most recent versions of national development plans. The implication is that existing shortcomings observed at the national level in terms of previous policy implementation are taken into account in local policy making. Besides, the organisational models of some local authorities may be described as being in a state of flux since they seek to adapt to changing circumstances through flexible mechanisms. This occurs because notwithstanding their bureaucracy, they redesign institutional structures to conform to trends in the corporate world premised on performance management and administrative efficiency.

Moreover, policy and organisational learning in Namibian local authorities partly occur through the adoption of technology-based tools for decision making. Specifically, the realisation that existing modes of governance fall short of citizen expectations creates the need for alternative forms of communication. This leads to the creation of websites, social media accounts and other virtual platforms for public engagement. Admittedly, this phenomenon is still emergent and mostly confined to large or relatively wealthy local authorities. However, the potential exists for it to become more widespread across the country.

Policy and organisational learning in Namibian local government have also occurred through the transformation of jurisdictional boundaries to incorporate townships and areas previously excluded on the bases of race. The result has been the upgrading of many outlying settlements, as well as improvements in service provision to these areas (Simon, 1996). Thus, learning from the ills of discrimination in the pre-independence era has led to a new local government approach which ensures more equitable development outcomes. Also, as noted earlier, enactment of the Regional Councils Act 1992 and the Local Authorities Act 1992 resulted in substantial transformation of the nation's local government structure. Through policy and organisational learning, the structure now primarily comprises of regional councils and local authorities (made up of parts I and II city councils, town and village councils). The regional councils are premised on both top-down and bottom-up administrative mechanisms whereas the local authorities transfer appreciable amounts of power to localities and communities. Moreover, the local authorities comprise the executive wings (i.e. management committees) answerable to the full council (Commonwealth Local Government Forum, 2017/18).

Public Accountability

With the enactment of the Public Procurement Act 15 of 2015, the issue of accountability has taken centre-stage in Namibian local government administration. There have arisen the need to minimise leakages and ensure the optimal utilisation of allotted resources. The public procurement act helps to attain these goals by promoting accountability and transparency. This occurs through improved compliance and monitoring mechanisms, as well as policy synchronisation and capacity enhancement.

Another important issue when it comes to accountability in Namibian local government administration is record keeping. While the traditional approach to record keeping has been through the paper trail, electronic approaches have assumed increasingly important roles in the recent past. The track record of local authorities with respect to record keeping appears mixed as first tier municipalities such as Windhoek seem to be doing well in terms of both paper-based and electronic record keeping. However, second tier municipalities such as Otjiwarongo are confronted with challenges regarding capacity and facilities thus portending negatively for their ability to maintain records effectively (Barata et al., 2001).

The mixed fortunes in terms of local government record keeping in Namibia appear to suggest that while new public management has witnessed advancements in terms of electronic transactions, there still remains much room for improvement. For instance, a systemic reorientation towards electronic record keeping will serve to improve local government transparency and efficiency. Moreover, addressing capacity challenges particularly in smaller municipalities would be crucial towards creating a robust approach to new public management across all municipal tiers in Namibia.

The promulgation of the national Anti-Corruption Act of 2003 and creation of the Anti-Corruption Commission in 2006 have also proven pivotal in engendering local government accountability in the recent past. These in turn have resulted in the emergence of the National Anti-Corruption Strategy of 2016-2019 which seeks to rid Namibia of corruption through improved integrity and transparency. The strategy affects new public management in local authorities by empowering actors to embark on actions

which engender transparency in decision-making. Moreover, it creates a policy rubric for preventing corruption and also punishing offenders once acts of graft are identified.

Public-Private Partnerships

In terms of PPPs, Namibia's PPP Act 4 of 2017 aims to involve the private sector in the provision of public services or infrastructure assets. It also seeks to enhance capacity for PPP projects. Moreover, it aims to promote efficiency and accountability in the administration or execution of these projects. This occurs through better oversight and an institutional reinvention. The promulgation of the PPP Act 4 of 2017 has meant that local authorities in Namibia are increasingly resorting to these partnerships to enhance the quality of service delivery. The rationale lies in the need to pool synergies from both sectors towards addressing pervasive inefficiencies. Moreover, financial and human resource constraints in the public sector create the need for private actors to come on board to help address shortfalls.

As a result of its resource endowments and orientation towards efficiency, the private sector appears more likely to adopt technologically adept methods to facilitate the delivery of public services. These may occur through the use of new equipment, methods and strategies. Moreover, the ability of the private sector to invest in research and development can serve as an advantage in the utilisation of novel approaches to ensure better citizen-responsiveness.

PPPs in Namibian local administration are a product of four main developments. To begin with, the increased acceptance of this practice at the national level has made it both feasible and prudent for the concept to be implemented at the local level. Moreover, PPPs at the local level may be easier to put together due to the relatively less legal and bureaucratic hurdles associated with them. Also, local level PPPs demonstrate the ability of local authorities to reduce their reliance on the national government by looking for alternative partners to finance their development activities. Moreover, global political economic currents with their concomitants such as governance innovation and citizen empowerment create the need for alternative approaches to resource mobilisation for development.

SOLUTIONS AND RECOMMENDATIONS

Overall, the main issues in Namibian local governance include the need to create more platforms for citizen participation, enhance the quality of service delivery, improve information management, ensure better performance and accountability, as well as mobilise additional resources for development. In the era of the fourth industrial revolution, these endeavours have therefore been facilitated by the use of innovative technologies. This chapter thus observes that new public management is inherently linked with the adoption of science and technology tools in delivering local governance. This occurs because the concept entails the promotion of governance efficiency, a tenet enhanced by these tools. Specifically, technology speeds up the decision-making process and ensures greater data integrity.

With specific reference to smart local governance, technology-based platforms such as social media serve as avenues for the promotion of greater transparency through the creation of new and alternative avenues for public participation. While the argument can be made that these platforms may be out of reach for low-income residents due to the digital divide, it nonetheless creates awareness about trending issues in the public domain. Moreover, it underscores the need to bridge the technology gap among different segments of the population towards better public accountability.

The era of the fourth industrial revolution has underscored the need for technologically adept modes of governance. This is evident for instance in the effective management of knowledge and information systems for enhanced service delivery. The creation of a spatial data infrastructure thus comes across as a pivotal system for the generation of reliable data for local administration.

Towards facilitating the promotion of new public management in the era of the fourth industrial revolution, it is recommended that the operations of most government ministries, departments and agencies should be digitised. This could entail greater focus on electronic transactions and a reduction in the paper trail. Also, the emphasis on data and information management systems is pivotal for achieving this goal.

Similarly, local governments must enhance their public engagement through the adoption of more technology tools or platforms. At the most fundamental level, this should involve a more reliable online presence in the form of websites where regular updates are provided regarding their activities. Moreover, the creation of social media platforms will facilitate informal interactions between public officials and citizens on various matters of interest.

At the strategic level, Namibia's various policies on technology should be operationalised in the activities of public agencies and local authorities. Moreover, the rolling out of strategic plans and policies by these entities should place the technological imperative at the core of their initiatives. Equally important is the need to emphasise related concepts such as efficiency, transparency and the improved quality of service delivery. These may occur through proper accountability and feedback mechanisms in terms of records management and institutional reforms.

FUTURE RESEARCH DIRECTIONS

Future research should explore in-depth the digital divide in developing countries with the view of unpacking how this affects new public management and smart local governance in the era of the fourth industrial revolution. This will serve to understand the differential impacts of the governance process on various segments of the population. It will also demonstrate how differences in technology access are mediated by socio-spatial dynamics which in turn determine who benefits most from a technologically oriented approach to local governance.

Future research should also examine implications of the national policy architecture for technological advancements in developing economies. Equally important is the commitment of the political leadership to the implementation of these policies, as well as the resources available for their realisation. Other important areas for future research include the roles of institutional or organisational path dependencies in mediating the effectiveness of implementation of technology policies.

CONCLUSION

This chapter observes broader lessons for new public administration based on observations from the analysis of Namibian smart local governance. To begin with, local governance is a dynamic process which must be reinvented as per the changing praxis of the broader field of public administration. This occurs through science and technology, performance management, administrative efficiency, policy and organisational learning, public accountability and PPPs.

Technological tools serve as enabling agents for the promotion of local governance by creating avenues for public participation and better quality of service delivery. Due to public apathy as well as relatively

limited platforms for direct involvement in the planning process, alternative forums such as social media may be the most viable way for many people to make their voices heard. These platforms should however be streamlined to ensure the expression of constructive ideas devoid of vitriol. Also, regular online surveys which obtain citizen feedback on the quality of service delivery is another practical way of helping local authorities to deliver on their mandate.

Additionally, political players should be empowered to better respond to the needs of citizen principals rather than bureaucrats and national level power centres. This is important since these players have to choose between pandering to citizen demands vis-à-vis those of higher-level authorities. The empowerment of these political players would require more effective approaches towards local resource mobilisation in order to reduce reliance on national authorities. Moreover, legislative and policy reforms which confer increased powers to local level actors would be pivotal. Ultimately, the fourth industrial revolution creates avenues for alternative forms of local governance which utilise the power of technology to promote innovation and ensure that citizen needs are better attended to.

Moreover, the management of information or knowledge systems is important for enhanced decision-making by public organisations such as local authorities. This may entail the socio-economic profile of residents which helps the entities to better respond to their needs. It also comprises various databases for the storage of organisational or public data. Moreover, as already noted, the management of indigenous knowledge is particularly important for the development of rural communities.

Besides information or knowledge management, governance efficiency is also facilitated by emphasis on greater productivity and minimisation of waste through accountability mechanisms. Agency and innovation are important for a more responsive decision-making process. Moreover, improvements in policy and organisational choices are a product of lessons learned from past developments. The political economy of local governance in the era of new public management is also a confluence of public and private interests. While local governance has traditionally been the domain of public sector actors, private players have been playing an increasingly preeminent role due to their expertise and resource endowments.

Overall, this chapter observes a number of implications of new public management for smart local governance in the era of the fourth industrial revolution. To begin with, smart local governance may be regarded as a specific manifestation of new public management. This is due to its focus on ensuring efficiency in decision-making and improving the quality of public service delivery. Moreover, the emphasis on public accountability and public-private partnerships lend credence to this assertion.

The conceptualisation of local governance may also be understood as a scientific process which comprises participatory planning as a strategy for problem identification in terms of the needs of residents. This is followed by further stakeholder engagement and decision-making by technocrats such as planners. Moreover, there is the allocation of resources to address or mitigate the problems identified.

Moreover, new public management results in local governance innovation. This occurs by promoting agency on the part of mayors and other players. It also creates avenues for the incorporation of alternative approaches which ensure novel ways of addressing residents' needs. Additionally, managers in local authorities play pivotal roles in ensuring the actualisation of an effective performance management system. For instance, middle level managers serve as leaders when it comes to strategy formulation and implementation. They also act as catalysts and managers of information, thus helping to attain organisational goals (Katoma & Ungerer, 2011, pp. 39-51).

Ultimately, new public management portends that the incorporation of technology-based platforms in the governance process is facilitated by public policy. This in turn creates the enabling institutional and regulatory environment for local governance. In other words, the prioritisation of technology as a

tool for decision-making encourages local authorities to adopt this in their modus operandi. Also, new public management promotes the utilisation of data and information as tools for efficient decision-making. This occurs because the concept recognises the need for better understanding of the socio-economic conditions which underpin the governance process.

REFERENCES

- Angelidou, M. (2015). Smart cities: A conjuncture of four forces. *Cities (London, England)*, 47, 95–106. doi:10.1016/j.cities.2015.05.004
- Anti-Corruption Commission - Namibia. (2016). *National anti-corruption strategy and action plan 2016-2019*. Author.
- Barata, K., Bennett, R., Cain, P., & Routledge, D. (2001). *From accounting to accountability: managing financial records as a strategic resource - Namibia, a case study*. Report to World Bank infoDEV Programme.
- Bekkers, V., & Tummers, L. (2018). Innovation in the public sector: Towards an open and collaborative approach. *International Review of Administrative Sciences*, 84(2), 209–213. doi:10.1177/0020852318761797
- Borrás, S. (2011, November). Policy learning and organizational capacities in innovation policies. *Science & Public Policy*, 38(9), 725–734. doi:10.3152/030234211X13070021633323
- Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2014, July/August). Public value governance: Moving beyond traditional public administration and the new public management. *Public Administration Review*, 74(4), 445–456. doi:10.1111/puar.12238
- City of Windhoek. (2017). *Transformational strategic plan: 2017-2022*. Author.
- City of Windhoek. (2017/18). *Annual council performance report 2017/18*. Author.
- Colon, M., & Guérin-Schneider, L. (2015). The reform of new public management and the creation of public values: Compatible processes? An empirical analysis of public water utilities. *International Review of Administrative Sciences*, 81(2), 264–281. doi:10.1177/0020852314568837
- Commonwealth Local Government Forum. (2017/18). *The local government system in Namibia: Country profile 2017-18*. Retrieved from www.clgf.org.uk/namibia
- Corbett, J., Cochrane, L., & Gill, M. (2016). Powering up: Revisiting participatory GIS and empowerment. *The Cartographic Journal*, 53(4), 335–340. doi:10.1080/00087041.2016.1209624
- Cuadrado-Ballesteros, B., García-Sánchez, I.-M., & Prado-Lorenzo, J.-M. (2013). Determinants of functional decentralization and their relation to debt: Empirical evidence based on the analysis of Spanish municipalities. *International Review of Administrative Sciences*, 79(4), 701–723. doi:10.1177/0020852313501246
- Forrer, J., Edwin Kee, J. E., Newcomer, K. E., & Boyer, E. (2010, May/June). Public-private partnerships and the public accountability question. *Public Administration Review*, 70(3), 475–484. doi:10.1111/j.1540-6210.2010.02161.x
- Freudendal-Pedersen, M., Kesselring, S., & Servou, E. (2019). What is smart for the future city? Mobilities and automation. *Sustainability*, 11(1), 1–21. doi:10.3390/u11010221

- Gao, J. (2015). Performance measurement and management in the public sector: Some lessons from research evidence. *Public Administration and Development*, 35(2), 86–96. doi:10.1002/pad.1704
- Glasmeier, A., & Christopherson, S. (2015). Thinking about smart cities. *Cambridge Journal of Regions, Economy and Society*, 8(1), 3–12. doi:10.1093/cjres/rsu034
- Goel, R. K., Mazhar, U., Nelson, M. A., & Ram, R. (2017). Different forms of decentralization and their impact on government performance: Micro-level evidence from 113 countries. *Economic Modelling*, 62, 171–183. doi:10.1016/j.econmod.2016.12.010
- Gustafson, P., & Hertting, N. (2017). Understanding participatory governance: An analysis of participants' motives for participation. *American Review of Public Administration*, 47(5), 538–549. doi:10.1177/0275074015626298
- Iacovino, N. M., Barsanti, S., & Cinquini, L. (2017). Public organizations between old public administration, new public management and public governance: The case of the Tuscany region. *Public Organization Review*, 17(1), 61–82. doi:10.1007/11115-015-0327-x
- Jauhainen, J. S., & Hooli, L. (2017). Indigenous knowledge and developing countries' innovation systems: The case of Namibia. *International Journal of Innovation Studies*, 1(1), 89–106. doi:10.3724/SPJ.1440.101007
- Jurnali, T., & Siti-Nabiha, A. K. (2015). Performance management system for local government: The Indonesian experience. *Global Business Review*, 16(3), 351–363. doi:10.1177/0972150915569923
- Katoma, F. N., & Ungerer, M. (2011). The role of middle managers in strategy execution: A case study of a local authority council (LAC) in Namibia. *Politeia*, 30(3), 32–54.
- Lapueute, V., & Van de Walle, S. (2020). The effects of new public management on the quality of public services. *Governance: An International Journal of Policy, Administration and Institutions*, 33(3), 461–475. doi:10.1111/gove.12502
- Lee, M., Yun, J. J., Pyka, A., Won, D., Kodama, F., Schiuma, G., Park, H., Jeon, J., Park, K., Jung, K., Yan, M.-R., Lee, S. Y., & Zhao, X. (2018). How to respond to the fourth industrial revolution, or the second information technology revolution? Dynamic new combinations between technology, market, and society through open innovation. *Journal of Open Innovation*, 4(21), 1–24. doi:10.3390/joitmc4030021
- Masik, G., & Stępień, J. (2021). Smart local governance: The case of the Gdańsk-Gdynia-Sopot Metropolitan Area in Poland. *Journal of Urban Technology*, 1–19.
- McGirr, K. (2021, September). *Regional government in Namibia: Is decentralisation a reality?* Briefing paper. Institute for Public Policy Research.
- McGirr, K. (2022, November). *Local and regional government in Namibia: annual governance assessment.* Briefing paper. Institute for Public Policy Research.
- Mchombu, K. J. (2007). Harnessing knowledge management for Africa's transition to the 21st century. *Information Development*, 23(1), 25–42. doi:10.1177/0266666907075628
- Morrar, R., Arman, H., & Mousa, S. (2017). The fourth industrial revolution (industry 4.0): A social innovation perspective. *Technology Innovation Management Review*, 7(11), 12–20. doi:10.22215/tim-review/1117

- Mundia, L. C. (2013). An exploration of participatory mapping approaches for integrated land use planning in the Hardap Region, Namibia. *PROGRESS Multidisciplinary Research Journal*, 3(1), 9–41.
- Mundia, L. C. (2016a). Participatory mapping approaches aided by GIS technology towards sustainable land use planning in Namibia. *Environment and Ecology Research*, 4(6), 289–293. doi:10.13189/eer.2016.040601
- Mundia, L. C. (2016b). The georeferenced digital database for sustainable land use management in Namibia. *Environment and Ecology Research*, 4(6), 294–301. doi:10.13189/eer.2016.040602
- Namibia Institute for Democracy (NID), Namibia Association of Local Authority Officers (NALAO), & Management Systems International (MSI). (2003). *The Namibian resident's guide to integrity in local government*. Author.
- Namibia Statistics Agency. (2015). *Draft metadata specification for capturing and publishing metadata for spatial data and services in Namibia: Specification 2 of 2015*. Author.
- North, K., & Kumta, G. (2018). *Knowledge management: Value creation through organizational learning* (2nd ed.). Springer.
- Office of the Auditor-General. (2015). *Summary report of the auditor-general on the accounts of the Government of Namibia: For the financial year ended 31 March 2014*. Author.
- Office of the Prime Minister: Government of Namibia. (2005). *A performance management system for the public service of Namibia: principles and framework*. Author.
- Office of the Prime Minister. (2015). *Government gazette of the Republic of Namibia: public procurement act 2015*. Author.
- Oviasuyi, P. O., Idada, W., & Isiraojie, L. (2010). Constraints of local government administration in Nigeria. *Journal of Social Sciences*, 24(2), 81–86. doi:10.1080/09718923.2010.11892848
- Pellini, A., Weyrauch, V., Malho, M., & Carden, F. (2019). *State capability, policymaking and the fourth industrial revolution: do knowledge systems matter?* Discussion paper.
- Republic of Namibia: Annotated Statutes. (2015). *Public procurement act 15 of 2015*.
- Republic of Namibia: Annotated Statutes. (2017). *Public-private partnership act 4 of 2017*.
- Republic of Namibia: Ministry of Information and Communication Technology. (2018). *National broadband policy for the Republic of Namibia: 2018-2022*. Author.
- Republic of Namibia: Ministry of Regional, Local Government and Housing. (1998). *Decentralisation in Namibia: Situational analysis*. Author.
- Republic of Namibia: Office of the Prime Minister. (2014). *E-government strategic action plan for the public service of Namibia: 2014-2018*. Author.
- Republic of Namibia: Office of the Prime Minister. (2020). *Public sector innovation policy*. Author.
- Rodríguez Bolívar, M. P. (2015). Smart cities: big cities, complex governance? In M. P. Rodríguez Bolívar (Ed.), *Transforming city governments for successful smart cities* (pp. 1–7). Springer. doi:10.1007/978-3-319-03167-5_1

- Rodríguez Bolívar, M. P., & Meijer, A. J. (2015). Smart governance: Using a literature review and empirical analysis to build a research model. *Social Science Computer Review*, 34(6), 1–20.
- Savitch, H. V., & Kantor, P. (2002). *Cities in the international marketplace: the political economy of urban development in North America and Western Europe*. Princeton University Press. doi:10.1515/9780691186504
- Shava, E., & Hofisi, C. (2017). Challenges and opportunities for public administration in the fourth industrial revolution. *African Journal of Public Affairs*, 9(9), 203–215.
- Simon, D. (1996, January). Restructuring the local state in post-apartheid cities: Namibian experience and lessons for South Africa. *African Affairs*, 95(378), 51–84. doi:10.1093/oxfordjournals.afraf.a007714
- Sutherland, E. (2020). The fourth industrial revolution: The case of South Africa. *Politikon*, 47(2), 233–252. doi:10.1080/02589346.2019.1696003
- Twizeyimana, J. D., & Andersson, A. (2019). The public value of e-government: A literature review. *Government Information Quarterly*, 36(2), 167–178. doi:10.1016/j.giq.2019.01.001
- Visser, M., & Van der Togt, K. (2016). Learning in public sector organizations: A theory of action approach. *Public Organization Review*, 16(2), 235–249. doi:10.1007/11115-015-0303-5
- Warsen, R., Nederhand, J., Klijn, E. H., Grotenbreg, S., & Koppenjan, J. (2018). What makes public-private partnerships work? Survey research into the outcomes and the quality of cooperation in PPPs. *Public Management Review*, 20(8), 1165–1185. doi:10.1080/14719037.2018.1428415
- Wood, M., Matthews, F., Overman, S., & Schillemans, T. (2022). Enacting accountability under populist pressures: Theorizing the relationship between anti-elite rhetoric and public accountability. *Administration & Society*, 54(2), 311–334. doi:10.1177/00953997211019387

ADDITIONAL READINGS

- Chlouba, V. (2021). One size fits all: The origins of mixed governance in Namibia. *The Journal of the Middle East and Africa*, 12(4), 445–466. doi:10.1080/21520844.2021.1964322
- Favoreu, C., Carassus, D., Gardey, D., & Maurel, C. (2015). Performance management in the local public sector in France: An administrative rather than a political model. *International Review of Administrative Sciences*, 81(4), 672–693. doi:10.1177/0020852314554541
- Hegga, S., Kunamwene, I., & Ziervogel, G. (2020). Local participation in decentralized water governance: Insights from north-central Namibia. *Regional Environmental Change*, 20(105), 1–12. doi:10.1007/10113-020-01674-x
- Hodge, G. A., & Greve, C. (2017). On public–private partnership performance: A contemporary review. *Public Works Management & Policy*, 22(1), 55–78. doi:10.1177/1087724X16657830
- Kaapama, P., Blaauw, L., Zaaruka, B., & Kaakunga, E. (2007). Consolidating democratic governance in Southern Africa: Namibia. Electoral Institute for Sustainable Democracy in Africa (EISA).
- Kahn, K. B. (2018). Understanding innovation. *Business Horizons*, 61(3), 453–460. doi:10.1016/j.bushor.2018.01.011

Leleux, C., & Webster, W. (2018). Delivering smart governance in a future city: The case of Glasgow. *Media and Communication*, 6(4), 163–174. doi:10.17645/mac.v6i4.1639

Marenga, R. (2020). Analysing the performance of public enterprises in Namibia: A challenge for the practice of public administration? *Journal of Governance and Regulation*, 9(3), 96–109. doi:10.22495/jgrv9i3art7

Myeong, S., & Jung, Y. (2019). Administrative reforms in the fourth industrial revolution: The case of blockchain use. *Sustainability*, 11(3971), 1–21. doi:10.3390/u11143971

KEY TERMS AND DEFINITIONS

Agency: The ability of humans to make choices which shape policy and decision-making outcomes.

E-Government: The use of ICT tools by government agencies to enhance their performance.

Fourth Industrial Revolution: The contemporary epoch in the industrial revolution characterised by technological advancements and creation of digital platforms for government-citizen interactions.

Innovation: Creative and novel approaches to governance with the goal of attaining better outcomes.

Knowledge Management: The creation, storage, management, and utilisation of information for enhanced decision-making.

New Public Management: A new paradigm in public administration which emphasises efficiency and effectiveness of service delivery. The goal is to overcome challenges such as bureaucracy and centralisation associated with the traditional approach.

Participatory Geographic Information Systems: The incorporation of citizens' or local community inputs in the use of technology tools for map making.

Performance Management: Evaluating inputs and outputs within an organisation in order to maximise benefits.

Policy and Organisational Learning: The ability of policies and organisations to evolve towards better formats based on lessons learned from the past.

Smart Local Governance: The use of technology tools or related platforms by local governments to facilitate decision-making and enhance service delivery.