

OPTIMISING PUBLIC HEALTH OPEX: A CONCEPTUAL SYSTEMATIC REVIEW OF HEALTH SECTOR AND RURAL DEVELOPMENT STAKEHOLDER MANAGEMENT IN KENYA

Lavender Awino Okore¹, Dejsi Qorri², Patrick Mbullo Owuor³,
Krisztián Kovács⁴, Edina Molnár⁵

^{1,2}Doctoral School of Management and Business, University of Debrecen, Debrecen, Hungary

³Faculty of Anthropology and Public Health, Wayne State University, USA

⁴Faculty of Economics, Institute of Economics, University of Debrecen, Hungary

⁵Faculty of Health Sciences, Institute of Social Studies, University of Debrecen, Debrecen, Hungary

¹Corresponding author e-mail address: lokore@econ.unideb.hu

Abstract: *The African Health ecosystem is yet to optimize multi-stakeholder collaborative efforts for desired outcomes in health-care interventions. Despite heavily relying on multiple sectors and developing progressive engagement frameworks, challenges in harnessing diverse stakeholder contributions to meet evolving health-care priorities persist within the sector. This situation exacerbates the challenge of health disparities, especially regarding regional and rural development. We seek to focus on Reversing the Hierarchical Overview of Public Health Stakeholders in Kenya by redesigning it to fit - a community and related stakeholders-centred Approach. We used the Conceptual Systematic Review to conceptualize the complexity of stakeholders' ecosystem coordination. We use peer-reviewed literature and reports covering the stakeholders in public health, including the rural development context. We coded the literature findings following the CSR stages. The study develops a proposed ecosystem map of stakeholders that incorporates suggested changes for improved local stakeholders' coordination and local ownership of health investment activities in Kenya. The structuring and layering of the stakeholders was informed by the tenets of the stakeholder salience model, thus advancing theoretical and implementation discourse in the area by including households, proposed Village Development Committees, Ward Development Committees, Community Development Committees, Cooperatives, Associations, Self-Help Groups, County Delivery Unit and the Specialised Directorate of Rural Development.*

Keywords: Operational Excellence (OPEX), Rural, Governance, Ecosystem, Public Health
(JEL code: P11, H 51, I15)

INTRODUCTION

The African Health ecosystem is yet to optimize multi-stakeholder collaborative efforts for desired outcomes in healthcare interventions. Despite heavily relying on multiple sectors and developing progressive engagement frameworks, challenges in harnessing diverse stakeholder contributions to meet evolving healthcare priorities persist within the sector.

This situation exacerbates the challenge of health disparities, especially regarding regional and rural development (NGO-MA et al., 2024). Habitually, the Kenya Public Health Landscape has been reliant on a traditional top-down approach to resolving challenges in the sector. Strategic health-care decisions inadequately capture local and community engagement strategies. Local communities and surrounding stakeholders should play a pivotal role in intervention design, account-

ability practices, and activities delivered (HALDANE et al., 2019). Community is the most impacted by health-care outcomes; therefore, they should be at the core of the design and decision-making process. In the context of Rural Healthcare Project Planning and Management, for purposes of equitable distribution at the sub-national level, sector players leverage structures for coordination, which is vital in resolving inequalities and inefficiencies. Often, lack of prioritisation, misalignment, and duplication of efforts/interventions limit the outcomes of health-care provision (ADJAGBA et al., 2024). Furthermore, since 2010 Kenya made notable steps within its legal, regulatory and policy framework with the objective to enhance local development and ownership at the last mile. Despite the promulgation of the new constitution which majorly targeted the institution of a new and responsive system of governance, the devolved system is still greatly faced with quantifiable implementations gaps towards delivering its mandates.

This study presents a proposed ecosystem map of stakeholders that incorporates suggested changes for improved local stakeholders' coordination and local ownership of health and rural development investment activities in Kenya. The structuring and layering of the stakeholders were informed by the tenets of the stakeholder salience model: legitimacy, urgency and power.

This study involves the design of a proposed ecosystem map of stakeholders that incorporates suggested changes for improved local stakeholders' coordination and local ownership of health and rural development investment activities in Kenya. The structuring and layering of the stakeholders were informed by the tenets of the stakeholder salience model: legitimacy, urgency and power.

LITERATURE REVIEW

The main challenges discussed in the literature are connected to the hierarchical structure of public health management in rural areas (FRANCO et al., 2021). As such, reversing this hierarchical approach of public health stakeholders in Kenya can avoid the potential bottlenecks.

As the findings on the impact and sustainability of development projects from ARISE CONSORTIUM (2024) majorly in poverty stricken/informal areas, enhancing local stakeholder participation, incorporating local cultural dynamics and implementing continuous monitoring and evaluation are essential elements of successful development projects. This is further complicated by the unique dynamic of rural Kenyan communities. Meanwhile, the engagement strategies would require agile methodologies for effective stakeholder engagement. In addition, factors such as education levels, access to information, communication platforms, and technology hinder participative planning that is centred around communities. Mainly to empower lower-level stakeholders, analysis must be undertaken to provide a landscape of sector stakeholders, their roles, types of engagement, existing coordination frameworks, and nature of decision making (ARISE CONSORTIUM, 2024).

Moreover, as shown by experiences in developing countries, a more decentralized development planning can benefit regional and rural areas (AKATCH 2001; AKATCH et al., 2021). This is further confirmed by the evaluation done on Kenya's special rural development program which presents decentralized decision making in rural areas and successfully implemented innovative and flexible procedures within the government organization (WORLD BANK GROUP, 2018).

Systems Thinking Design Framework

There are varied definitions of OPEX FOUND et al. (2018); KOVILAGE et al., (2022a, 2022b); MAQABLEH and AKHORSHAIDEH (2016); NAIK et al. (2024), though it is widely perceived as a state in which strategically designed processes, relevant technologies and tools are sought after by a team to optimize the flow of value in a context that is leadership, solution-focused and empowerment oriented (WELCH et al., 2016). Based on the proposition that all stakeholder groups have inherent benefits if applied appropriately, the concept and its laws could drive improvement, bolster performance, and facilitate best practice. The objective of our paper is to provide an insightful mapping of Kenyan stakeholders in the public health sector highlighting the opportunities and challenges for project management in rural areas. Contemporarily, there has been growing scholarly and empirical interest in systems thinking approaches given the myriad of precedent factors and complexity of health-care design. However, there are significant shifts towards practical inter-disciplinary knowledge that transcends theoretical advancements (MORGAN et al., 2024). Essentially, the systems thinking design framework evolved from a raft of perspectives, dynamic interrelationships and a conceptual lens for complexity. The theory is based on the precept that there exist levers within entities that can be combined to interact optimally, through a design approach that maximises desired outcomes, greater than the independent total of independent value (BORAL et al., 2025). Change is considered a critical enabler of operational excellence (OPEX).

Salience Model

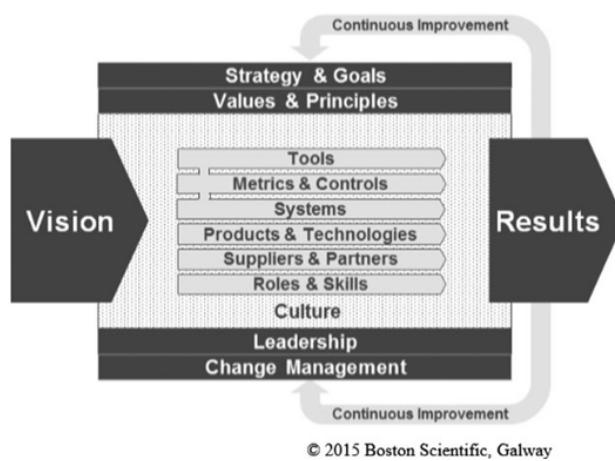
The salience model is a strategic tool that aids in identification and differentiation of stakeholders in ecosystems. It is a 3-phased/strategy tool that is useful in categorising stakeholders and management issues for systematic analysis that informs action plans, strategic tools, instruments and policy implementation (RAUM, 2018). The assessment of the salience model captures multiple benefits, synergies and interrelationships based on urgency, legitimacy and power. By mapping stakeholders and inherently varied stakes, ecosystem regulation, governance, sustainability and optimisation of outcomes can be achieved (BERTASSINI et al., 2021). These are imperative in designing effective and efficient stakeholder engagement activities, building capabilities and responding to community needs.

OPEX Framework / Model

Presently, global uncertainties require a further in-depth assessment of the gaps and critical challenges in prior research on stakeholder management for health and rural development, often hindering systemic optimisation of operations (WOOD

et al., 2021). In this context, Operational Excellence is also commonly known as OPEX. This model emphasizes consistent improvements based on the results presented, as well as the importance of leadership and change management in the results. Furthermore, the tools, metrics & controls, systems, products & technologies, suppliers & partners, roles & skills enhance the overall performance, provide evaluation and metrics, benchmarking, and improve overall the strategy implementation, values, and organizational culture (FOUND et al., 2018). The Boston Scientific Operational Excellence Model gives a whole system approach to operational excellence as illustrated in Figure 1, being a useful model for improving the stakeholders in the public health sector of Kenya.

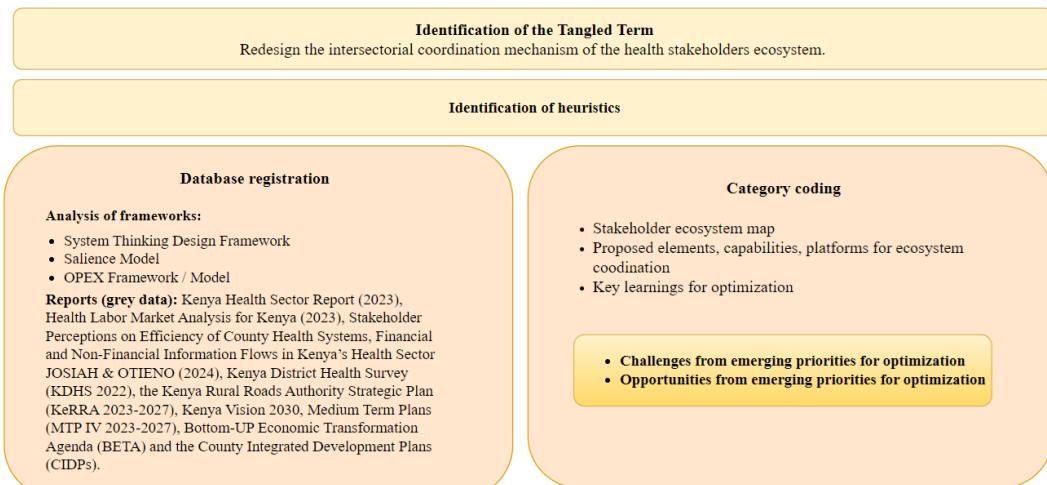
Figure 1: Boston Scientific Strategic Operational Excellence Model



Source: FOUND ET AL., 2018, page 11.

Research gap identified: Based on the literature reviewed, we found out that there is a need to redesign and / or improve the intersectoral coordination mechanism of the health stakeholder's ecosystem to make it responsive, build a culture that supports continuous improvement and remedy overlaps and implement stumbling blocks.

Figure 2: Conceptual Systematic Review process of sourcing evaluation and synthesis of the findings



Source: Authors' conceptualization based on SCHREIBER and CRAMER (2022)

MATERIALS AND METHODS

Materials

The materials used for this study is a combination of peer-reviewed articles and reports done on Kenyan stakeholders. The scholarly work analyzed was from 2010 until 2024, from different databases. Because of the complex nature of the topic, we used a narrative review to present a thorough evaluation of the stakeholders. Meanwhile, the secondary data analyzed where from Kenya Health Sector Report (2023), Health Labor Market Analysis for Kenya (2023), Stakeholder Perceptions on Efficiency of County Health Systems, Financial and Non-Financial Information Flows in Kenya's Health Sector JOSIAH and OTIENO (2024), Kenya District Health Survey (KDHS 2022), the Kenya Rural Roads Authority Strategic Plan (KeRRA 2023-2027), Kenya Vision 2030, Medium Term Plans (MTP IV 2023-2027), Bottom-UP Economic Transformation Agenda (BETA) and the County Integrated Development Plans (CIDPs).

Methodology

The method used for this study is Conceptual Systematic Review (CSR) which helps break down a complicated term by using 6-stage which starts with the identification of the complex term, identification of heuristics, the database registration and coding of categories (added inductively), and findings are presented in the results and documented narratively as visualized in Figure 2. This new method was introduced by SCHREIBER and CRAMER (2022) for simplifying interdisciplinary topics. The study reviews the innovative frameworks done on stakeholders for System Thinking Design Framework, Salience Model, OPEX Framework / Model which helped us map the proposed elements, capabilities and platforms in the discussion session (see Results section). We applied the qualitative content analysis method (using coding) to extract data and draw insights on health and rural development to integrate the current empirical studies and reports done on the topic (SNYDER, 2019).

RESULTS AND DISCUSSION

The Kenya Health Sector Strategic Plan, which largely focuses on health systems strengthening and sustainable preventive healthcare practices at national, sub-national, and community levels, bases the success factors of its implementation on stakeholder needs mapping and assessment, beyond financing (WACHIRA et al., 2024). Arguably, organisations achieve operational excellence but grapple with sustenance. Scholarly discourse on sustainable operational excellence advances that it requires complex integration of multiple factors such as systems thinking, organisation-specific variables, technology, people, processes, coupled with socio-economic aspects (NAIK et al., 2024).

Kenya Health and Rural Development Ecosystem Players

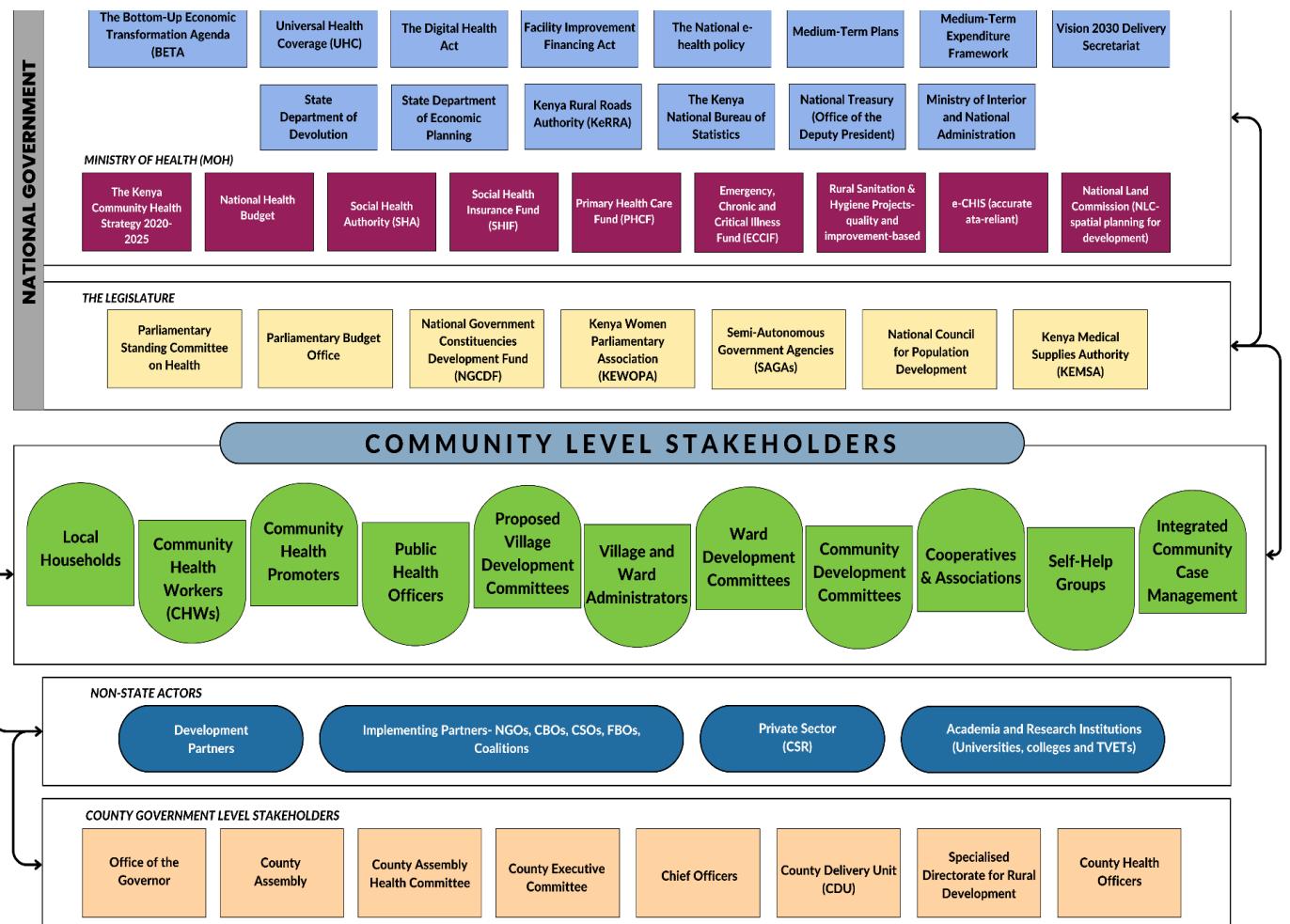
The main ecosystem players in Kenya are the National

Government with executive and legislature roles, community level stakeholders, country government level stakeholders and non-state actors.

The dynamic responsibilities and complexities displayed in the map are based on the anchoring proposition of systems thinking design frameworks. Similarly, the concept of urgency, legitimacy and power as enshrined in the salience model suggest that the scoped issues, challenges and opportunities could be combined to achieve optimal impact.

Through the map, we depict the synergistic influence, reliance and contribution of all ecosystem players in advancing the health and rural development agenda. We used Microsoft excel sheets to map stakeholders from analysed literature and further, Canva for android, version 2.310 to visualise the mapped stakeholder ecosystem map as illustrated in figure 3.

Figure 3: Redesigned Ecosystem Map



Source: Authors (2025)

Proposed Elements, Capabilities and Platforms for Ecosystem Coordination: Our analysis of inherent capabilities, elements and platforms using the Boston Scientific Strategic Operational Excellence Model scoped the ecosystem coordination illustrated in table 1.

Table 1. Categorisation, Rationale, Elements and Capabilities

Stakeholder Category	Rationale/Areas of Interest	Documents/ Elements/ Instruments, Capabilities and Platforms
National	National Government Engagement Plans	The Bottom-Up Economic Transformation Agenda (BETA)
	Review of stakeholder engagement forums	Universal Health Coverage (UHC)
	Social accountability audits	Medium-Term Plans
	Data-driven initiatives	Medium-Term Expenditure Framework
	E-development platforms	The Kenya Community Health Strategy 2020-2025
	Adjusted County Development Priorities	National Health Budget
	Rural development budget tracking	Social Health Authority (SHA)
	Collaborative project and delivery monitoring	Social Health Insurance Fund (SHIF)
	Transparency scoreboards	Primary Health Care Fund (PHCF)
	Performance Score tracker and Dashboard	Emergency, Chronic and Critical Illness Fund (ECCIF)
Community	Community Needs Identification	Preventive Care Programs
	Social accountability audits	Rural Sanitation & Hygiene Projects-quality and improvement-based
	Data-driven initiatives	e-CHIS (accurate data-reliant)
	Community Feedback surveys and trackers	The Digital Health Act
	Community initiated project monitoring	Facility Improvement Financing Act
	Community Cooperation Coordinating Programs	The National e-health policy
		Integrated Community Case Management
County	Adjusted County Development Priorities	Analogous Inspiration
	Health Budget Tracking	County Government Engagement Plans
	Data-driven initiatives	Social accountability audits

Source: Authors (2025)

Findings: Key Learnings, Challenges, Opportunities and Emerging Priorities for Optimisation

Based on analysed literature, mostly grey sources, the emerging priorities, challenges and learnings have been demonstrated in table 2, 3 and 4.

Table 2. Key learnings for optimisation

Constraint	Key learnings
Budget	Inadequate financing
Leadership/suboptimal salience	Delayed operationalization. Some health and rural development guidelines and operational plans are yet to be fast-tracked- hindering efficiency and effectiveness.
Technology	Use of input data that does not reflect the full ecosystem needs, players and priorities in budgeting and policy implementation.
Leadership/suboptimal salience	Need for integration of all community stakeholders in the health and rural development ecosystem.
Infrastructure	Limited supporting infrastructure in rural and marginalised areas to support health development and OPEX.
Leadership/suboptimal salience	Misaligned research priorities and duplication of research trends/outputs, raising deficiencies in critical comprehensive development aspects- sub-optimal solution, product and service delivery within marginalised communities.

Source: Authors (2025)

Table 3. Challenges from emerging priorities for optimisation

Challenges	Outlook Rating
Retrogressive cultural practices	Predominant
Resource constraints	Predominant
Corruption and mismanagement of funds	Adverse
Predominant vertical, top-down approach to community service development in rural areas	Adverse
Small scale existing programs for rural development and public health, resulting in uncoordinated care.	Adverse
Integrated effort towards implementation of robust policy documents	Modest
Regional and local disparities in infrastructural development, quality and service delivery	Predominant

Source: Authors (2025)

Scoping Rationale

The outlook rating scores are based on an outlook analysis criteria based on trends, commentaries and documented gaps in operational issues on public health and rural development. The criteria incorporate the sensitivity of time and desired community outcomes against the actions that are required to be undertaken by stakeholders but are greatly hampered by scoped challenges (VAN DIJK et al., 2021). On a scale range of Modest to Adverse (where modest represents normal degree of challenge, while predominant represents main impediments/major issues and adverse depicts extreme cases that greatly impede the achievement of operational excellence).

Opportunities from emerging challenges and priorities for optimisation

The identified opportunities are ranked on a scale ranging from low to high, where low depicts least effort, medium depicts moderate effort and high indicates tangible political will and salience.

Prioritisation Rationale: The priority ranking scores are based on a ranking criterion anchored on the scope of the existing implementation and pursuit gaps, the time horizon and the matched community needs (VAN DIJK et al., 2021). Time sensitivity, strategic relevance, social/community acceptance and influence of the stakeholders handling the issues, are tenets of the assigned prioritisation score and recommended outlook (COMM, 2019). The anticipated magnitude of impact and strategic alignment underscore operational excellence. On a scale range of Low to High (where low depicts the least level of prioritisation over the longest allotted period, medium depicts considerably time sensitive, admissible social acceptance and favourable outcome while high represents prioritisation required over the shortest possible period of time- very urgent, extremely socially needed and highest possible positive outcome required).

Table 4. Challenges from emerging priorities for optimisation

Codes	Opportunities	Current priority ranking	Recommended Prioritisation Ranking
1	Expanding the scope of data inputs	Low	Medium
2	Policy implementation and budget advocacy towards costed implementation plans	Medium	High
3	Enhancing efficiency; quality; outcome metrics/tracking; accountability, coordination capabilities	Low	High
4	Leveraging capabilities such as: digital and geo-spatial markers, trackers, intelligence-disease mapping, human movement, volunteers' footprint.	Low	Medium
5	Timely review of expiring strategic plans and frameworks.	Medium	High
6	Updating the national, regional and local research agenda and priorities	Low	High
7	Exercising more salience in high-disparity areas.	Medium	High

Source: Authors (2025)

CONCLUSIONS

There is a need for a system in which county government-level constraints can be supported and resolved at national level. Creating a dashboard or interface for issues raised at local and sub-national levels can efficiently propel rural health program prioritisation, backed by adequate resourcing. Additionally, a proper convergence point needed to be introduced between the National Government Health Working Groups and the County Government Technical Health Working Groups to have a clear communication channel for feedback with government; grass root to national level communication is disintegrated. The study recommends that the executive arm of government should prioritise fast tracking the operationalisation of essential structures: rural development units, community feedback trackers, stakeholder engagement avenues and Primary Care Networks (PCNs), which are reliant on a hub and spoke model. Such structures would enhance engagement with both health and rural development stakeholders, coordination and facilitate continuous improvement in facility operations and service delivery. By exemplifying salience and predominant political will in this, it portrays a systematic approach to underscoring the crucial role of multi-disciplinary and intersectoral teams in achieving efficiency, effectiveness and consequently, operational excellence. Theoretically, the study advances the use of stakeholder theory and its evolving frameworks for contemporary contexts and multi-theoretic integration.

Study limitations

The study is largely limited to grey literature sources but corroborated with reliable peer-reviewed sources. Further, it does not fully quantify and take into consideration the ever evolving and varied preferences of stakeholders, instead it leans into centralisation and prioritisation of communities by proposing empathetic strategies to stakeholder management.

REFERENCES

Qarahasanlou A. N., Khanzadeh, D., Shahabi, R. H., and Basiri, M. Adjagba, A. O., Oguta, J. O., Wambya, E. O., & Akoth, C. (2024). Strengthening health financing at sub-national level in kenya: A

stakeholder and needs mapping through a mixed methods approach. *The Pan African Medical Journal*, 48, 186.

Akatch, S. O. (2001). Rural planning in regional development: The kenyan experience. *Discovery and Innovation*, 13(3), 123–131. <https://doi.org/10.4314/dai.v13i3.15603>

Akatch, W. C., Okelo, N. B., & Ong'ati, O. N. (2021). Indecomposable positive maps on positive semidefinite matrices from $m n$ to $m n$. <https://doi.org/10.21203/rs.3.rs-205976/v1>

Arise Consortium. (2024). Improving accountability for equitable health and well-being in urban informal spaces: Moving from dominant to transformative approaches. *Progress in Development Studies*, 24(4), 301–320.

BEDI, N.. *Rural development in Kenya : a review of special rural development program (English)*. Studies in employment & rural development series|no. SER 7 Washington, D.C. : The World Bank.<http://documents.worldbank.org/curated/en/691951468914156612>

Government of Kenya. (2023).Bottom-up economic transformation agenda: The Kenya plan 2022–2027. <https://www.industrialization.go.ke/sites/default/files/2023-11/BETA%20STATEMENT%20%281%29.pdf>

Bertassini, A. C., Zanon, L. G., Azarias, J. G., Gerolamo, M. C., & Ometto, A. R. (2021). Circular business ecosystem innovation: A guide for mapping stakeholders, capturing values, and finding new opportunities. *Sustainable Production and Consumption*, 27, 436–448. <https://doi.org/10.1016/j.spc.2020.12.004>

Bookstein, A. (1980). Explanations of the bibliometric laws. *Collection Management*, 3(2-3), 151–162. https://doi.org/10.1300/J105v03n02_04

Boral, S., Black, L., & Velis, C. (2025). Conceptualizing systems thinking and complexity modelling for circular economy quantification: A systematic review and critical analysis.

Comm, M. (2019). Source book.

Donatus, G. (2011). Ethical issues in health care in kenya. A critical analysis of healthcare stakeholders. *Research Journal of Finance and Accounting*, 2(3), 122–139.

Found, P., Lahy, A., Williams, S., Hu, Q., & Mason, R. (2018). Towards a theory of operational excellence. *Total Quality Management*

& Business Excellence, 29(9-10), 1012–1024. <https://doi.org/10.1080/14783363.2018.1486544>

Franco, C. M., Lima, J. G., & Giovanella, L. (2021). Primary healthcare in rural areas: Access, organization, and health workforce in an integrative literature review. *Cadernos De Saúde Pública*, 37, e00310520. <https://doi.org/10.1590/0102-311X00310520>

Haldane, V., Chuah, F. L., Srivastava, A., Singh, S. R., Koh, G. C., Seng, C. K., & Legido-Quigley, H. (2019). Community participation in health services development, implementation, and evaluation: A systematic review of empowerment, health, community, and process outcomes. *PLoS One*, 14(5), e0216112. <https://doi.org/10.1371/journal.pone.0216112>

Josiah, S. O., & Otieno, S. (2024). Financial and non-financial information flows in the kenya health sector: A pathway to health system accountability october 2024.

Joudyian, N., Doshmangir, L., Mahdavi, M., Tabrizi, J. S., & Gordiev, V. S. (2021). Public-private partnerships in primary health care: A scoping review. *BMC Health Services Research*, 21, 1–18. <https://doi.org/10.1186/s12913-020-05979-9>

Kenya National Bureau of Statistics (KNBS), Ministry of Health (MoH), National AIDS Control Council (NACC), Kenya Medical Research Institute (KEMRI), & ICF. (2023). Kenya demographic and health survey 2022: Key indicators report. KNBS. https://www.knbs.or.ke/?page_id=3142

Kenya Rural Roads Authority. (2024). Strategic plan 2023–2027. https://kerra.go.ke/wp-content/uploads/2024/11/KeRRA-FINAL-STRATEGIC-PLAN-2023_2027.pdf

Kenya Vision 2030 Delivery Secretariat. (2007). Kenya vision 2030: The popular version. <https://vision2030.go.ke/inc/uploads/2018/05/Vision-2030-Popular-Version.pdf>

Kovilage, M. P., Yapa, S. T., & Hewagamage, C. (2022a). A comprehensive definition for 'operational excellence'. *Journal of Business Research and Insights (Former Vidyodaya Journal of Management)*, 8(II)

Kovilage, M. P., Yapa, S. T., & Hewagamage, C. (2022b). A comprehensive definition for 'operational excellence'. *Journal of Business Research and Insights (Former Vidyodaya Journal of Management)*, 8(II) <https://doi.org/10.31357/vjm.v8iII.6089>

Maqableh, M., & Akhorshaideh, A. O. (2016). Review the operational excellence factors of service firms: A literature review. *European Journal of Business and Management*, 8(3), 1–11.

Ministry of Health, Kenya. (2023). Health labour market analysis for Kenya. https://labourmarket.go.ke/media/resources/Final_Kenya_HLMA_Report_2023_v8.pdf

Ministry of Health. (2023). Health sector report: Medium term expenditure framework for the period 2024/25–2026/27. <https://www.treasury.go.ke/wp-content/uploads/2023/12/HEALTH-SECTOR-REPORT.pdf>

Morgan, M. J., Stratford, E., Harpur, S., & Rowbotham, S. (2024). A systems thinking approach for community health and wellbeing. *Systemic Practice and Action Research*, 37(2), 161–183. <https://doi.org/10.1007/s11213-023-09652-0>

Naik, S., Sony, M., Antony, J., McDermott, O., Tortorella, G. L., & Jayaraman, R. (2024). Operational excellence framework for sustainability in the organisation: A design science approach. *Production Planning & Control*, 35(11), 1215–1231. <https://doi.org/10.1080/09537287.2023.2165188>

Ngoma, C., Phiri, W. K., Chidzaye, R., Lungu, S., Matatiyo, A., Mwase, M. S., & Nyimba, W. (2024). Enhancing public health through multi-stakeholder collaboration in africa. *Annals of Medicine and Surgery*, 86(10), 5672–5675. <https://doi.org/10.1097/MS.0000000000002532>

Nyawira, L., Mbau, R., Jemutai, J., Musiega, A., Hanson, K., Molyneux, S., Normand, C., Tsofa, B., Maina, I., & Mulwa, A. (2021). Examining health sector stakeholder perceptions on the efficiency of county health systems in kenya. *PLoS Global Public Health*, 1(12), e0000077. <https://doi.org/10.1371/journal.pgph.0000077>

Oderanti, F. O., & Li, F. (2018). Commercialization of eHealth innovations in the market of the UK healthcare sector: A framework for a sustainable business model. *Psychology & Marketing*, 35(2), 120–137. <https://doi.org/10.1002/mar.21074>

Raum, S. (2018). A framework for integrating systematic stakeholder analysis in ecosystem services research: Stakeholder mapping for forest ecosystem services in the UK. *Ecosystem Services*, 29, 170–184. <https://doi.org/10.1016/j.ecoser.2018.01.001>

Schreiber, F., & Cramer, C. (2024). Towards a conceptual systematic review: Proposing a methodological framework. *Educational Review*, 76(6), 1458–1479. <https://doi.org/10.1080/00131911.2022.2116561>

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>

State Department for Economic Planning. (2024). Fourth medium term plan 2023–2027: Bottom-up economic transformation agenda for inclusive growth. <https://www.planning.go.ke/wp-content/uploads/2024/03/MTP-IV-2023-2027.pdf>

van Dijk, T. T., van der Scheer, W. W., & Janssen, R. R. (2021). Power, legitimacy and urgency: Unravelling the relationship between dutch healthcare organisations and their financial stakeholders. *Health Policy*, 125(8), 1077–1084. <https://doi.org/10.1016/j.healthpol.2021.05.002>

Wachira, W. P., Rotich, G., Ndungu, S., & Githae, P. (2024). Moderating role of stakeholders collaboration on the relationship between strategic leadership and performance of hospitals in kenya. *African Journal of Emerging Issues*, 6(5), 119–137.

Welch, C., Sinha, T., & Ward, N. (2016a). Pursuit of operational excellence: A systemic approach. *International Journal of Systems and Society (IJSS)*, 3(2), 21–34.

Welch, C., Sinha, T., & Ward, N. (2016b). Pursuit of operational excellence: A systemic approach. *International Journal of Systems and Society (IJSS)*, 3(2), 21–34.

Wood, D. J., Mitchell, R. K., Agle, B. R., & Bryan, L. M. (2021). Stakeholder identification and salience after 20 years: Progress, problems, and prospects. *Business & Society*, 60(1), 196–245. <https://doi.org/10.1177/0007650318816522>