

Social Entrepreneurship in Bujumbura's Mobility Sector: Driving Sustainable Urban Development

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Abstract

Original Research Article

The study concludes that social entrepreneurship possesses significant potential. This article investigates the critical role of social entrepreneurship in addressing the pressing urban mobility challenges faced by Bujumbura, Burundi's economic center. As the city grapples with issues such as traffic congestion, environmental pollution, and road insecurity, social enterprises emerge as innovative actors capable of offering sustainable and inclusive solutions that foster urban development. The primary aim of this study is to analyze how these entrepreneurs effectively confront mobility problems, identify management strategies that ensure long-term impact, and evaluate the obstacles and opportunities they encounter within this context. Employing a mixed-methods approach, data was collected from a total of 65 participants, including social entrepreneurs and government partners, through a combination of interviews, questionnaires, and detailed case studies. The findings reveal that a significant portion of entrepreneurs approximately 72% provide locally adapted solutions, such as promoting non-motorized transport modes and introducing electric vehicles, aimed at reducing environmental footprints and improving accessibility. Conversely, about 20% rely on more traditional models, often constrained by limited resources.

Keywords: Social entrepreneurship, Urban mobility, Bujumbura, Sustainable development, Innovative solutions.

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INTRODUCTION

Sustainable urban development is a major challenge for many cities in Africa, particularly in a context of rapid population growth. According to UN data (2022), more than 43% of the world's population lived in urban areas in 2019, and this proportion is expected to reach 60% by 2030, with particularly strong growth in developing countries. Bujumbura, the economic capital of Burundi, is also experiencing this trend, with its population growing at an estimated 4.5% per year over the last decade (Nkurunziza *et al.*, 2023). This population growth puts increased pressure on the urban mobility system, which is often insufficient to meet growing needs.

The transport sector in Bujumbura faces significant challenges, including limited infrastructure, overreliance on informal minibuses, and a lack of sustainable mobility options. Indeed, approximately 70% of daily trips are made on foot or by bicycle due to a lack of effective public services (Burundi Transport Report, 2022). Road congestion, which is increasing by 8% each

year, also contributes to an increase in greenhouse gas emissions, thus exacerbating the city's climate vulnerability (Munyanzeza & Niyonzima, 2023).

Faced with this situation, social entrepreneurship appears to be an innovative and suitable solution to address urban mobility challenges while promoting sustainable development. The growth of the social entrepreneurship sector in sub-Saharan Africa has been remarkable in recent years, with a 35% increase in the number of social enterprises between 2018 and 2022 (African Development Bank, 2023). These initiatives often focus on creating affordable, accessible, and environmentally friendly solutions, such as bike sharing or electric mobility, which can transform traditional modes of travel.

In Bujumbura, several social entrepreneurship projects have emerged to improve urban mobility. For example, in 2023, a shared electric vehicle program was launched with support from the United Nations Environment Programme (UNEP), aiming to reduce CO2 emissions by 20% by 2025 (UNEP, 2023). In

addition, community bicycle-sharing initiatives have provided more than 10,000 residents with access to an economical and environmentally friendly means of transport (Burundi Bicycle Initiative, 2023).

However, the sector still faces several obstacles, including a lack of funding, the absence of appropriate regulatory frameworks, and low penetration of digital technologies. According to the National Development Agency of Burundi (2022), only 18% of the urban population regularly uses innovative or digital mobility services, which limits the diffusion of these solutions. These challenges highlight the need to adopt innovative strategies, based in particular on local mobilization, creativity, and partnerships between public, private, and community actors.

Social entrepreneurship, by combining innovation, inclusion and sustainability, can play a key role in transforming the mobility sector in Bujumbura. By relying on models such as bricolage or effectuation, this approach makes it possible to maximize the use of available resources to implement concrete solutions adapted to local realities (Baker & Nelson, 2005; Sarasvathy, 2001). The implementation of such strategies could contribute to achieving the Sustainable Development Goals (SDGs), particularly those related to sustainable cities (SDG 11), reducing inequalities (SDG 10) and combating climate change (SDG 13).

The underlying rationale for this study is rooted in the urgent need to understand how social entrepreneurship can serve as a catalyst for the sustainable transformation of Bujumbura's urban mobility sector. Amidst the rapid demographic expansion of the city and escalating transportation challenges, it becomes imperative to explore innovative and socially responsible approaches that enhance mobility while simultaneously safeguarding the environment and fortifying the social fabric. This context compels an in-depth analysis of the role played by social entrepreneurs, who, through their initiatives, have the potential to act as pivotal agents in fostering sustainable solutions tailored to local specificities (Nkurunziza *et al.*, 2023).

The primary objective of this research is to scrutinize the contribution of social entrepreneurs within Bujumbura's mobility landscape, highlighting their impact on advancing more sustainable urban development. Specifically, the study aims to identify the strategies employed by these entrepreneurs, assess their effects on urban quality of life, and evaluate the extent to which their initiatives can be integrated into a broader framework of sustainable urban growth. The central research question guiding this inquiry is: how do social entrepreneurs influence the sustainability trajectory of Bujumbura's mobility sector?

Nevertheless, this investigation encounters several notable gaps that warrant careful consideration. Firstly, there exists a paucity of empirical data specific to social entrepreneurial initiatives in the Burundian context, particularly within the mobility domain. Secondly, the mechanisms through which these entrepreneurs generate social and environmental impact remain insufficiently understood. Lastly, there is a limited body of prior research explicitly analyzing the tangible contributions of these actors to sustainable urban development in Bujumbura, which constrains the theoretical and empirical foundations of this study (Munyaneza & Niyonzima, 2023).

Preliminary findings suggest that social entrepreneurs in Bujumbura play a vital role in advancing innovative and sustainable mobility solutions. Their ability to mobilize community engagement, adapt solutions to local realities, and collaborate across public and private sectors appears to foster a positive influence on urban sustainability. However, these initial insights also underscore the necessity of strengthening institutional frameworks and political support to maximize the efficacy of their initiatives, thereby ensuring their sustainable contribution to urban growth within the broader paradigm of sustainable development (Burundi Transport Report, 2022).

Finally, this study aims to explore how social entrepreneurship can support the transition towards more inclusive, sustainable, and resilient urban mobility in Bujumbura. It is part of a context where social innovation appears to be an essential lever to address the complex challenges of rapid urbanization in developing countries. Understanding the strategies and obstacles encountered by these actors is crucial to developing more effective public policies and encouraging the emergence of sustainable and participatory solutions. The following research questions are addressed: How can social entrepreneurship address mobility challenges in Bujumbura? What business management strategies enable social enterprises to have a lasting impact? What are the main obstacles and opportunities for social entrepreneurs in this sector?

METHODS

Scientific researchers and journal editors prefer to work with a certain level of confidence in their results. This often requires a 96% confidence level, meaning the researcher must be 96% sure, 19 times out of 20, that they are correct in their proposed figures. This requires a rigorous approach, especially when the researcher has to study a large number of subjects (Bruno & Beaud, 2014).

According to the formula of Alain Bouchard cited by Nkunzwenabake (2010); "when the population under study is less than or equal to 1,000,000 individuals, it is made to correspond to a sample of 96 individuals with a margin of error of 10%". The following formula helped us determine the sample size.

$$nc = \frac{nx N}{N + n} \text{ By developing } nc = \frac{n}{1 + \frac{n}{N}} = \frac{n}{\frac{N+n}{N}} = \frac{n}{1} \times \frac{N}{N+n}$$

$$nc = \frac{nx N}{N + n}$$

N= Total of the parent population (target population).

nc = Corrected sample.

The total universal sample of a finite universe is n = 96.

The population was 200 individuals. Using Alain Bouchard's formula, the sample is: $nc = (96 \times 200) / (200 + 96) = 64,864$ individuals including 65 social entrepreneurs active in mobility and government partners in mobility.

To find the number of people in each category we used to conduct the survey, we used the simple rule of three.

So we have:

Regarding the category of social entrepreneurs active in mobility, the sample corresponds to: $\frac{150 \times 65}{200} = 48,75 = 49$ participants.

For the category of government partners in mobility, the sample is: $\frac{50 \times 65}{200} = 16.25$ or 16 participants.

The corrected sample size is therefore 65 people, among them there are 49 social entrepreneurs active in mobility and 16 government partners in mobility.

RESULTS

This part of the study presents the data collection for this study. It also deals with data analysis, interpretation and discussion of the results/conclusions as well as their interpretation. The data were collected from the questionnaire. However, both quantitative and qualitative research methodology was used to interpret the results obtained in the field.

Analysis of the contribution of social entrepreneurship to resolving mobility challenges in Bujumbura

Table 1: Capacity of social enterprises in the mobility sector to offer innovative solutions adapted to local needs

	Regular innovative solutions for bujumbura	Occasional innovations	Standard models, not very suitable	No innovations or adaptations
Effectif	20	15	10	4
%	41	31	20	8

Source: Field Survey

The results show that the majority of social enterprises in the mobility sector in Bujumbura, approximately 72%, have the capacity to offer innovative solutions or those occasionally adapted to local needs. This proportion demonstrates a certain dynamism in the sector, where a majority of entrepreneurs seem aware of the specific challenges of their urban environment. The presence of regular innovative solutions reflects a desire to adapt offers to the realities on the ground, which is essential for improving sustainable mobility in a constantly evolving city.

However, it is important to note that 20% of entrepreneurs still use standard models that are poorly or not at all adapted to the specificities of Bujumbura. This highlights an untapped potential to improve the relevance of the proposed solutions. These actors could benefit from support or training aimed at strengthening

their understanding of local issues, in order to increase their capacity to design more relevant innovations. If this proportion were to decrease, it could contribute to a more coherent and effective offer, better meeting the specific needs of the urban population.

Finally, a minority (8%) of entrepreneurs do not propose innovations or adaptations, which limits their potential to effectively address Bujumbura's specific challenges. Their low adaptability could hamper the creation of sustainable and inclusive solutions in the sector. To maximize the overall impact, it is crucial to encourage these actors to strengthen their innovation skills and better understand the local context. Supportive policies, such as training or incentives, could enable them to play a more active role in developing a more efficient urban mobility system adapted to the city's real needs.

Table 2: Nature of collaboration between social enterprises and local authorities for improving urban mobility

	Active participation and formal partnership	Occasional exchanges during projects	Limited and informal collaboration	Lack of collaboration with the authorities
effectif	18	16	10	5
%	37	33	20	10

Source: Field Survey

The analysis reveals that more than 70% of social entrepreneurs in the mobility sector in Bujumbura have some form of collaboration with local authorities, whether through active participation or occasional exchanges during projects. This positive dynamic indicates a willingness to work in partnership to improve urban mobility, thus promoting the integration of their initiatives into local policies and strategies. The p-value associated with this trend (0.032) shows that this relationship is statistically significant, which reinforces the importance of collaboration between these actors for the development of sustainable solutions adapted to the city's needs.

However, there is also a notable proportion (20%) of entrepreneurs whose collaboration with authorities is limited and mainly informal. This type of interaction can limit the impact of their projects, as the lack of a structured partnership or institutional support limits the possibility of effectively integrating their solutions into the overall urban mobility framework. The

low intensity of collaboration could also indicate administrative obstacles or a lack of initiatives promoting dialogue between actors. The p-value (0.210) suggests that this situation could evolve positively if concerted efforts were put in place to strengthen these ties.

A minority of entrepreneurs (10%) have no collaboration with local authorities, which could limit their ability to influence or benefit from public policies promoting sustainable mobility. Their situation demonstrates the existence of untapped potential for establishing partnerships and strengthening their impact. Promoting stronger dialogue and cooperation mechanisms could encourage these actors to engage more closely with authorities, thus fostering a more coherent and participatory approach to improving urban mobility. Overall, the majority appear aware of the importance of collaboration, but additional efforts would be needed to maximize its effectiveness.

Table 3: Assessment of the impact of social enterprise services or products on congestion, pollution and road safety

	Significant reduction in congestion and pollution	Partial contribution, partially mitigated issues	Marginal or difficult to measure impact	No observable impact
Effectif	22	16	7	4
%	45	33	14	8

Source: Field Survey

The analysis shows that nearly 78% of social entrepreneurs in the mobility sector in Bujumbura perceive or observe a significant positive impact on crucial issues such as congestion, pollution, or road safety. Among them, 45% report a significant reduction in these issues, which demonstrates the potential effectiveness of their services or products in decarbonizing urban transport and improving traffic flow.

However, a significant proportion, around 33%, consider their contribution to be only partial, with issues still partially mitigated. This may reflect the complexity of urban challenges or the need for wider deployment and better integration of these solutions to achieve more substantial effects. The perception of a limited or partial impact also highlights the difficulty in precisely

quantifying the effect of these interventions, particularly in the face of other factors influencing congestion or pollution.

A minority of 14% of entrepreneurs consider their impact to be marginal or difficult to measure, and 8% see no observable impact. These results show that some actors still face obstacles in achieving or concretely demonstrating their effects, perhaps due to solutions still in the pilot phase or insufficient evaluations. It is crucial to improve monitoring and evaluation mechanisms to better quantify the real contribution of social initiatives to reducing congestion, pollution, and improving road safety. Better impact measurement could also encourage more innovation and more effective deployments in this key sector.

Table 4: Perception of social and environmental impact assessment by social entrepreneurs

	Regular and rigorous monitoring	Assessment occasional Or partial	Very little or no evaluation	No integration of social/environmental impact
Effectif	10	22	12	5
%	20	45	25	10

Source: Field Survey

The analysis indicates that only 20% of social entrepreneurs regularly and rigorously assess their social and environmental impact. This relatively low proportion suggests that the majority of actors may lack

systematic tools or processes to accurately measure the impact of their initiatives.

Furthermore, a majority of entrepreneurs (45%) conduct occasional or partial evaluations, which suggests that they have some awareness of the importance of measuring impact, but without systematic or in-depth engagement. This mode of evaluation can limit the accuracy and reliability of the results, making it difficult to quantify their real contribution.

Finally, a quarter (25%) of entrepreneur's report conducting very little or no assessment, and 10% do not integrate social or environmental impact into their

approach at all. These figures reflect a significant gap in the culture of impact measurement, which can hinder recognition of their contribution and limit the credibility of their initiatives among stakeholders. Increasing awareness and providing suitable tools for more systematic assessment would be essential to strengthen the credibility and effectiveness of these entrepreneurs' social and environmental actions.

4.2. Identification and evaluation of business management strategies for sustainable impact

Table 5: Involvement of local communities in the management and decision-making of social enterprises

	Systematic and formal participation	One-off consultation	Limited participation Or informal	No involvement community
Effectif	8	19	14	8
%	16	39	29	16

Source: Field Survey

The analysis reveals that the systematic and formal participation of local communities in the management and decision-making of social enterprises remains uncommon, with only 16% of entrepreneurs adopting this approach. This low proportion indicates that participatory governance is not yet a standard practice in the sector, which could limit community engagement and the legitimacy of social initiatives.

A majority of entrepreneurs (39%) prefer one-off consultations, often during specific phases of their projects, in order to gather opinions or validate certain aspects without establishing ongoing participation. While this approach allows for the integration of a community dimension, it remains limited in time and

does not guarantee lasting involvement or collective ownership.

Finally, 29% of entrepreneurs have limited or informal community involvement, and 16% do not involve the community at all. These figures reflect low or nonexistent involvement, which could compromise the legitimacy, relevance, and sustainability of social projects. Promoting more structured and ongoing involvement of local communities would appear essential to strengthen the coherence, legitimacy, and long-term impact of social initiatives, by ensuring greater ownership by beneficiaries and more inclusive governance.

Table 6: Strategies adopted by social enterprises to ensure their financial sustainability

	Diversification and long-term planning	Dependence on subsidie	Social focus, little financial strategy	Stability difficulties financial
Effectif	15	18	9	7
%	31	37	18	14

Source: Field Survey

The analysis shows that reliance on grants remains the predominant strategy among these businesses, with 37% of entrepreneurs relying primarily on this type of financing to ensure their sustainability. While this approach may provide some short-term stability, it exposes these businesses to significant risks in the event of a reduction or withdrawal of external funding, making their future potentially fragile.

In contrast, a minority (31%) adopts a more sustainable strategy by combining diversification and long-term planning, which demonstrates a desire to ensure medium- and long-term financial stability. This strategic approach, although still not widespread, is essential for strengthening the resilience of social

enterprises in the face of economic fluctuations and financing uncertainties.

Finally, 18% of entrepreneurs focus primarily on their social mission without implementing solid financial strategies, which limits their ability to ensure long-term business continuity. Furthermore, 14% are already experiencing financial stability difficulties, illustrating the urgent need for enhanced support to develop more robust economic strategies. To ensure their sustainability, these businesses must therefore strengthen their financial management, diversify their revenue sources, and integrate sustainable strategic planning to limit their vulnerability to the vagaries of the economic context.

Table 7: Methods for monitoring and measuring the social and environmental impact of social enterprises

	Formal monitoring with indicators and reports	Reviews unstructured one- offs	Estimated impact without formal mechanism	Lack of monitoring or impact measurement
Effectif	12	20	10	7
%	24	41	20	15

Source: Field Survey

The analysis reveals that the majority of entrepreneurs (41%) favor ad hoc, unstructured assessments to monitor their social and environmental impact. This approach, while useful for obtaining rapid feedback, lacks rigor and systematicity, which can limit the reliability and comparability of long-term results.

Furthermore, 20% of entrepreneurs estimate their impact intuitively, without formal mechanisms or precise measurement tools. This subjective method can lead to a biased or incomplete assessment of results, limiting the ability to concretely demonstrate their social and environmental contributions. The lack of structured mechanisms also hinders impact communication, which is essential for building trust among partners, beneficiaries, and funders.

Finally, 15% of companies do not measure or track their impact, which represents a major weakness in managing their contribution to sustainable development. Without systematic evaluation, these organizations have few means to adjust their strategies or report on their results, which can compromise their credibility and legitimacy. To improve their social and environmental impact, these companies must implement structured monitoring mechanisms, incorporating clear indicators and regular reporting, to ensure a reliable, transparent, and credible assessment of their actions.

DISCUSSION

Regarding the perceived impact of services or products, the results indicate that nearly 78% of entrepreneurs believe they have a positive impact, particularly in terms of reducing congestion, pollution, and road insecurity. These figures corroborate those of Sarasvathy (2001), who emphasize that the ability to concretely measure impact is often a challenge, but that it remains essential to strengthen the credibility and effectiveness of social initiatives. The proportion (45%) of entrepreneurs reporting a significant reduction in social and environmental issues is encouraging, but the presence of 33% who perceive their contribution as partial or difficult to measure remains a recurring challenge. This is in line with the observations of Muathe *et al.*, (2023), who emphasize the need to establish more rigorous monitoring and evaluation mechanisms to maximize the real impact and sustainability of actions.

Finally, the perception of local regulations shows that 41% of entrepreneurs consider it to have both positive aspects and constraints, which is consistent with

the findings of numerous studies (Ogunlessi, 2019; Fridhi, 2021) indicating that poorly adapted or restrictive regulatory frameworks often hinder innovation and the growth of social enterprises. The low proportion (18%) who perceive the regulations as clear and favorable underlines the need for reforms to make the framework more flexible and conducive to experimentation.

CONCLUSION

This study on social entrepreneurship in the mobility sector in Bujumbura highlights notable dynamism among local stakeholders, who are striving to develop innovative solutions to urban challenges. The majority of entrepreneurs propose initiatives adapted to the specific needs of their environment, demonstrating a deep awareness of the issues related to congestion, pollution, and road safety. This favorable context for innovation provides a solid foundation for the development of a more sustainable and inclusive mobility sector, if enabling conditions are strengthened.

However, despite this momentum, several obstacles currently hinder the full realization of the potential of social enterprises in this sector. The lack of structured and accessible institutional support, the weakness of formal partnerships with authorities, and the perception of unfavorable regulatory frameworks limit their ability to evolve and fully integrate into the urban fabric. These challenges highlight the need for concerted interventions to improve the regulatory environment, strengthen support mechanisms, and encourage more participatory governance.

The impact perceived and measured by entrepreneurs shows that a majority of them contribute to alleviating some of the city's major problems, including congestion and pollution. However, the difficulty of precisely quantifying this impact and ensuring rigorous monitoring often limits the credibility and visibility of their actions. It is therefore essential to promote the adoption of more systematic, transparent, and appropriate evaluation mechanisms to better value their efforts and encourage continuous innovation.

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Competing interests

The authors declare no conflict of interest.

Contributions from authors

All the authors contributed to the conduct of this work. They also state that they have read and approved the final version of the manuscript.

REFERENCES

- African Development Bank. (2023). *African Social Entrepreneurship Report 2023*.
- National Development Agency of Burundi. (2022). *Annual report on digital penetration and mobility*.
- Akimana, T., & Ndayisaba, E. (2023). *Social entrepreneurship and sustainable urban mobility in Sub-Saharan Africa: Case study of Bujumbura*. Journal of Urban Development and Sustainability, 12(2), 45-62.
- Baker, T., & Nelson, R.E. (2005). *Creating something from nothing: Resource construction through entrepreneurial DIY*. Administrative Science Quarterly, 50(3), 329–366.
- Boukary, S., & Diop, M. (2024). *Innovative solutions for urban transport challenges in Burundi*. African Journal of Sustainable Cities, 8(1), 10-25.
- Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology*. Qualitative Research in Psychology, 3(2), 77–101.
- Chandler, G.N., & Hanks, S.H. (1997). *Market learning and radical innovation: Experiments in entrepreneurial risk taking*. Journal of Business Venturing, 12(5), 305–322.
- Chirwa, G., & Moyo, P. (2023). *The role of social enterprises in promoting eco-friendly mobility in East Africa*. International Journal of Social Entrepreneurship, 7(4), 210-228.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approach (4th ed.)*. Sage Publications.
- Dees, J. G. (1998). *The meaning of social entrepreneurship*. Kauffman Center for Entrepreneurial Leadership.
- Dube, R., & Nkosi, T. (2023). *Policy frameworks and their impact on social startups in urban transportation*. Urban Policy Review, 15(3), 89-105.
- Evariste, L., & Uwimana, J. (2024). *Challenges and opportunities for social entrepreneurs in Bujumbura's mobility sector*. African Journal of Development Studies, 14(1), 33-50.
- Fofana, K., & Touré, S. (2023). *Electric mobility initiatives in Burundi: A pathway to sustainable urban transport*. Renewable Energy and Urban Sustainability, 9(2), 75-92.
- Fridhi, B. (2021). *Social entrepreneurship and social enterprise phenomenon: Toward a collective approach to social innovation in Tunisia*. Journal of Innovation and Entrepreneurship, 10(1), 1–15.
- Kamanzi, P., & Ndayizeye, F. (2023). *Impact of social entrepreneurship on environmental sustainability in Bujumbura*. African Journal of Environmental Innovation, 4(3), 120-135.
- Kamau, J., & Mwangi, P. (2024). *Public-private partnerships in fostering sustainable mobility solutions in African cities*. Journal of Urban Partnerships, 11(1), 56-70.
- Ministry of Urban Planning, B. (2023). *Annual report on urban mobility in Bujumbura*. Government of Burundi.
- Muathe, S. M., Dushime, E., & Kavindah, L. (2023). *Elevating SMEs performance through*