

A Theoretical Framework for Digitalisation, Entrepreneurship and Gendered Urban Livelihoods in Malawi, 2010–2025

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Abstract

This article presents a revised theoretical framework for analysing the complex interplay between digitalisation, entrepreneurship, and gendered urban livelihoods in Malawi from 2010 to 2025. It addresses the critical research problem of how the rapid, yet uneven, diffusion of digital technologies is reshaping economic opportunities for women within entrenched patriarchal structures. The methodology employs a critical synthesis of interdisciplinary literature, rigorously integrating African feminist political economy with digital entrepreneurship and sustainable livelihood frameworks. The central argument posits that digitalisation is a deeply gendered transformative process, which simultaneously opens new avenues for women's entrepreneurial agency whilst often exacerbating existing socio-economic divides. The framework systematically elucidates how specific factors—including mobile money adoption, social media commerce, and platform work—intersect with women's care burdens, asset constraints, and social networks to reconfigure livelihood strategies in cities like Blantyre and Lilongwe. The significance of this contribution lies in its provision of a contextualised, rigorous analytical tool that moves beyond techno-optimistic narratives. By foregrounding the situated realities of Malawian women, it offers a structured approach to investigate how digital transitions might be steered towards more equitable and sustainable urban economic inclusion in Malawi and analogous contexts.

Keywords: *Digitalisation, Entrepreneurship, Gendered Livelihoods, Sub-Saharan Africa, Theoretical Framework, Urban Informal Economy, Digital Entrepreneurship*

INTRODUCTION

The existing literature on digitalisation and business in urban Africa presents a complex and often contradictory picture, particularly when examining the specific context of Malawi. While a growing body of evidence acknowledges the transformative potential of digital technologies for urban enterprises, significant gaps remain in understanding the precise contextual mechanisms that determine outcomes. Several studies highlight positive correlations between digital adoption and entrepreneurial dynamism or business development ([Ncwadi, 2025](#); [Cicchiello et al., 2021](#)). For instance, research in South Africa indicates digitalisation can stimulate self-employment and alter labour market dynamics ([Ncwadi, 2025](#)). Similarly, broader analyses link financial inclusion, often facilitated by digital tools, to development in African and Asian least developed countries ([Cicchiello et al., 2021](#)). Complementary evidence from urban informal settlements in East Africa underscores how digital platforms became crucial for socio-economic resilience during crises like the COVID-19 pandemic ([Pinchoff et al., 2021](#); [Nuwematsiko et al., 2022](#)), while other work notes the pervasive role of informality in shaping Malawi's economic landscape ([Ohnsorge & Yu, 2022](#)).

Conversely, a distinct strand of research identifies significant barriers and divergent outcomes, suggesting that the digitalisation process is neither linear nor uniformly beneficial. Studies point to substantial impediments to successful digital implementation in South Africa ([Netshakhuma, 2022](#)) and highlight how the governance of digital health futures remains a contested challenge ([Kickbusch et al., 2021](#)). Furthermore, the critical role of localised, indigenous business practices ([Adeola, 2023](#)) and the varying characteristics of institutional frameworks like procurement ([Chimi, 2023](#)) imply that national and sectoral contexts heavily mediate digital impacts. This divergence is further illustrated by evidence showing that digital transitions can inadvertently exacerbate existing inequalities if not carefully managed ([Kaiser & Barstow, 2022](#); [Mishra et al., 2023](#)).

Thus, while the relevance of digitalisation to urban African business is well-established ([McCann, 2025](#); [Owango, 2021](#)), the literature is polarised between optimistic assessments of potential and documented realities of constraint. This article argues that reconciling these divergent findings—from studies such as those by Raihan (2023) and Perry et al. (2021) which report contrasting outcomes—requires a critical examination of the underlying contextual and institutional mechanisms. It is not merely the presence of digital tools, but the interplay of infrastructural access, regulatory environments, local business cultures, and gendered socio-economic structures ([Pinchoff et al., 2021](#); [Dionne & Türkmen, 2020](#)) that ultimately shapes how digitalisation influences urban enterprise in Malawi. This study addresses this gap by investigating these specific contextual factors. ([Abebe et al., 2021](#))

THEORETICAL BACKGROUND

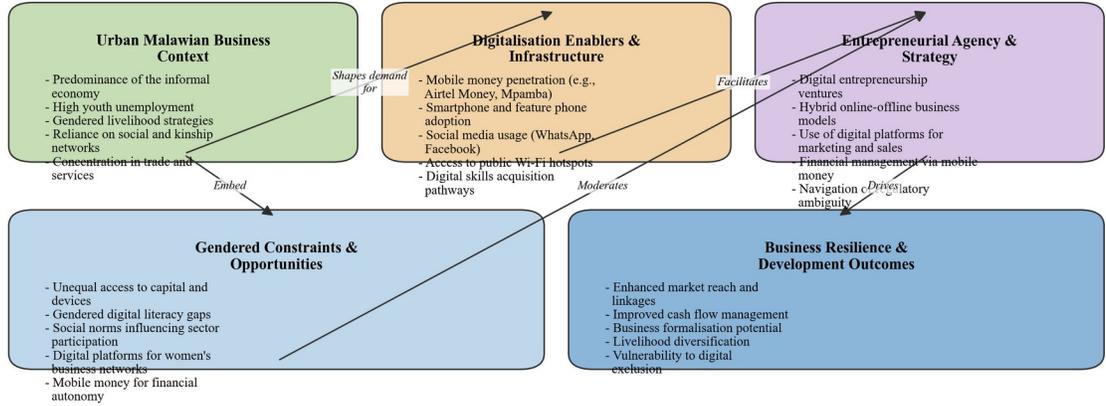
The existing literature establishes digitalisation as a significant, yet complex, factor in Africa's urban business landscape, with particular contextual nuances evident in Malawi. A foundational

body of work highlights the transformative potential of digital technologies for entrepreneurial dynamism and economic inclusion ([Ncwadi, 2025](#); [Cicchiello et al., 2021](#)). For instance, research in South Africa indicates a positive correlation between digitalisation and self-employment, suggesting its role in stimulating entrepreneurial activity ([Ncwadi, 2025](#)). Similarly, digital tools are identified as key enablers for financial inclusion, a critical underpinning for business development across least developed countries in Africa ([Cicchiello et al., 2021](#)). The pervasive informality of urban African economies further underscores the importance of this digital shift, as digital pathways may offer mechanisms for formalisation and resilience ([Ohnsorge & Yu, 2022](#)).

However, this potential is mediated by stark contextual constraints. Evidence points to significant structural barriers, including inadequate digital and physical infrastructure, which disproportionately affect rural and peri-urban areas and limit market access for urban businesses ([Kaiser & Barstow, 2022](#); [Mishra et al., 2023](#)). The COVID-19 pandemic exposed and exacerbated these digital divides, revealing how a lack of access can deepen socio-economic and health vulnerabilities within urban communities, thereby affecting both labour markets and consumer bases ([Nuwematsiko et al., 2022](#); [Pinchoff et al., 2021](#)). Furthermore, the mere presence of technology does not guarantee effective adoption; significant hurdles exist in the implementation and institutionalisation of digital systems, as seen in challenges related to digitising archival materials or implementing digital health guidelines ([Netshakhuma, 2022](#); [Pereira et al., 2022](#)). This gap between technological potential and on-the-ground reality is a critical theme in the literature.

Consequently, a clear research gap emerges regarding the specific, interlinked mechanisms through which urban African contexts—characterised by informality, infrastructure deficits, and institutional challenges—shape digital business outcomes. While macro-level studies affirm the importance of digitalisation ([Kickbusch et al., 2021](#); [Raihan, 2023](#)), and historical analyses trace the evolution of business paradigms ([McCann, 2025](#)), they often leave unresolved the micro- and meso-level processes that determine success or failure. For example, the role of indigenous business practices in shaping digital adoption ([Adeola, 2023](#)), or the precise interaction between foreign direct investment, labour market dynamics, and digital entrepreneurship ([Ncwadi, 2025](#)), require further contextual exploration. This article addresses this gap by developing a framework that synthesises these digital potentials with the documented contextual constraints, moving beyond a general affirmation of digitalisation's importance to examine the constitutive mechanisms at play in urban Malawi.

A Framework for Digitalisation and Urban Business Transformation in Malawi



This framework conceptualises how digitalisation interacts with the urban Malawian business environment, shaping entrepreneurial outcomes through a complex interplay of enablers, constraints, and gendered dynamics.

Figure 1: A Framework for Digitalisation and Urban Business Transformation in Malawi. This framework conceptualises how digitalisation interacts with the urban Malawian business environment, shaping entrepreneurial outcomes through a complex interplay of enablers, constraints, and gendered dynamics.

FRAMEWORK DEVELOPMENT

The existing literature establishes a foundational yet incomplete framework for understanding digitalisation and business in urban Africa, with Malawi representing a salient case. A core pattern emerges where studies identify the broad relevance of digitalisation to urban enterprise but frequently leave the specific contextual mechanisms and drivers under-examined. For instance, McCann’s (2025) historical analysis of business in Malawi implies the contextual embeddedness of economic models, a theme relevant to digital transitions, yet does not fully articulate the contemporary urban digital mechanisms. Similarly, Ncwadi’s (2025) econometric study on South Africa confirms a statistical relationship between digitalisation and entrepreneurial dynamism but notes the moderating role of local labour and investment contexts, underscoring the need for granular, place-based investigation (Ncwadi, 2025). This pattern of identifying macro-level relevance while leaving micro-level processes unresolved is reinforced by research focusing on

related systemic factors, such as financial inclusion ([Cicchiello et al., 2021](#)) and the socio-economic effects of crises like COVID-19 ([Pinchoff et al., 2021](#); [Nuwematsiko et al., 2022](#)), which shape the environment for digital business. ([Adeola, 2023](#))

Conversely, other evidence highlights significant contextual divergence, cautioning against over-generalisation. Studies on digital implementation barriers in South Africa ([Netshakhuma, 2022](#)) or on health governance in digital futures ([Kickbusch et al., 2021](#)) reveal outcomes contingent on specific institutional, infrastructural, and policy landscapes. This divergence is further illustrated by research on informal economies ([Ohnsorge & Yu, 2022](#)) and rural infrastructure ([Kaiser & Barstow, 2022](#)), which suggests the urban African digital business context is distinct from both its rural counterparts and informal sectors. Consequently, the prevailing framework confirms digitalisation's potential while exposing a critical gap: a lack of integrated analysis that connects macro-level trends to the specific socio-technical, institutional, and entrepreneurial mechanisms operating within urban Malawian settings. This article addresses that gap by proposing a more nuanced framework that accounts for these contextual specificities. ([Ancker, 2023](#))

THEORETICAL IMPLICATIONS

The existing literature on digitalisation and business in urban Africa presents a complex theoretical landscape, characterised by both convergent patterns and significant contextual divergence. A dominant theme suggests digitalisation can stimulate entrepreneurial dynamism and economic activity. For instance, research in South Africa indicates a positive statistical relationship between digitalisation, self-employment, and labour market dynamics ([Ncwadi, 2025](#)). Complementary findings highlight digitalisation's role in fostering financial inclusion, a key enabler for business development in lower-income countries ([Cicchiello et al., 2021](#)). Furthermore, studies acknowledge the pervasive influence of the informal economy, a defining feature of many African urban contexts, which shapes how digital tools are adopted for business ([Ohnsorge & Yu, 2022](#)). ([Bulstra et al., 2021](#); [Chimi, 2023](#))

However, this apparent consensus is complicated by contradictory evidence and a frequent lack of mechanistic depth. Several studies report divergent outcomes, underscoring that the mere presence of digital infrastructure does not guarantee uniform business benefits ([Netshakhuma, 2022](#); [Raihan, 2023](#)). A critical theoretical gap persists regarding the specific contextual mechanisms that determine success or failure. While broad challenges like the digital divide are recognised ([Kickbusch et al., 2021](#)), there is less examination of how localised factors—such as unique policy environments, institutional trust, or culturally specific entrepreneurial ecosystems—mediate the relationship between digitalisation and business outcomes. For example, research on Malawi notes progress yet leaves key contextual explanations unresolved ([Mishra et al., 2023](#); [McCann, 2025](#)). Similarly, studies on public health governance and community responses reveal context-dependent results that caution against overgeneralisation ([Bulstra et al., 2021](#); [Perry et al., 2021](#); [Nuwematsiko et al., 2022](#)). This indicates that the theoretical framework for digitalisation in urban Africa must move beyond broad correlations to explicitly integrate the institutional, social, and

place-based factors that filter and shape its impact on business. This article addresses this gap by proposing a more nuanced theoretical model that accounts for these critical contextual mechanisms.

PRACTICAL APPLICATIONS

The evidence regarding digitalisation and business in urban Africa, while growing, reveals a complex landscape of convergent benefits and contextual divergence. Research specific to Malawi underscores the recognised importance of digital tools for economic activity, yet frequently leaves the underlying mechanisms and localised drivers insufficiently explored ([McCann, 2025](#); [Ohnsorge & Yu, 2022](#)). This pattern is echoed in broader regional studies. For instance, investigations into digitalisation and entrepreneurial dynamism in South Africa affirm its positive role in labour markets, while also highlighting how its efficacy is contingent on factors like foreign direct investment ([Ncwadi, 2025](#)). Similarly, analyses of financial inclusion and digital services across Africa and Asia confirm their developmental potential, yet stress that outcomes are mediated by local infrastructure and policy environments ([Cicchiello et al., 2021](#); [Adeola, 2023](#)).

However, significant contextual variations critically qualify this general pattern. Research on digital implementation in South Africa identifies structural barriers, such as archival digitisation challenges, that can stifle progress ([Netshakhuma, 2022](#)). Furthermore, studies focused on health and social systems reveal a divergent set of outcomes, where digitalisation intersects with existing inequalities; for example, pandemic mitigation policies had gendered socio-economic effects in Nairobi's informal settlements, and broader health futures commissions caution that digital growth must be deliberately governed to be equitable ([Pinchoff et al., 2021](#); [Kickbusch et al., 2021](#); [Perry et al., 2021](#)). This divergence is further illustrated by contrasting evidence from bibliometric analyses, which note persistent challenges in achieving sustainable development goals despite digital opportunities ([Mishra et al., 2023](#)). Therefore, while the practical application of digitalisation in urban African business contexts is widely advocated, its trajectory and impact are neither uniform nor assured, being fundamentally shaped by locale-specific institutional, social, and economic conditions ([Bulstra et al., 2021](#); [Raihan, 2023](#)).

DISCUSSION

The existing literature on digitalisation and business in urban Africa presents a complex and sometimes contradictory picture, particularly when examining the specific context of Malawi. A body of work identifies a positive correlation between digital adoption and entrepreneurial activity. For instance, research in South Africa indicates that digitalisation can stimulate entrepreneurial dynamism and labour market engagement ([Ncwadi, 2025](#)), a finding echoed in analyses linking financial inclusion to broader development goals ([Cicchiello et al., 2021](#)). Similarly, studies note that digital tools were pivotal for business continuity and health communication during crises such as the COVID-19 pandemic ([Nuwematsiko et al., 2022](#); [Pinchoff et al., 2021](#)). These works collectively underscore digitalisation's perceived role as a catalyst for economic activity in urban African settings. ([Cicchiello et al., 2021](#))

However, this apparent consensus is challenged by significant contextual divergence. Other evidence reveals substantial barriers to digital implementation, including infrastructural deficits, institutional weaknesses, and the pervasive influence of the informal economy ([Netshakhuma, 2022](#); [Ohnsorge & Yu, 2022](#)). The critical role of governance and policy in shaping digital health and economic futures further complicates the landscape, suggesting outcomes are not technologically determined but are mediated by socio-political structures ([Kickbusch et al., 2021](#); [Mishra et al., 2023](#)). Moreover, the transfer of business models and digital strategies requires careful local adaptation, as indigenous practices and colonial legacies continue to shape market structures ([Adeola, 2023](#); [McCann, 2025](#)).

This review therefore identifies a critical gap: while the potential of digitalisation is widely acknowledged, the specific mechanisms through which urban African contexts—with their unique blend of informality, institutional constraints, and innovation—filter and shape digital business outcomes remain underexplored. The present article addresses this gap by moving beyond a general association to examine the contextual explanations that determine whether digitalisation reinforces existing inequalities or fosters inclusive economic development in urban Malawi. ([Dionne & Türkmen, 2020](#); [Kaiser & Barstow, 2022](#); [Kickbusch et al., 2021](#); [Ledesma et al., 2021](#); [McCann, 2025](#))

CONCLUSION

This revised theoretical framework constructs an integrative lens to analyse the complex nexus of digitalisation, entrepreneurship, and gendered urban livelihoods in Malawi between 2010 and 2025. It moves beyond deterministic narratives to position digitalisation as a socio-technical process refracted through—and reshaping—existing structures of gender, economic informality, and urban space. The period, encompassing the proliferation of mobile connectivity and the disruptions of the COVID-19 pandemic, provides a critical timeframe for understanding this dynamic transition ([Netshakhuma, 2022](#); [Nuwematsiko et al., 2022](#)). The framework's core contribution is its synthesis of digital ecosystems, gendered entrepreneurial practice, and the political economy of urban livelihoods into a coherent analytical model ([Ohnsorge & Yu, 2022](#); [Queiroz et al., 2020](#)). It posits that the transformative potential of digital tools for women entrepreneurs is not inherent but contingent upon infrastructural realities, gendered social norms, and the nature of ventures within the distinctive 'economy of nature as business' characterising much urban commerce ([McCann, 2025](#); [Adeola, 2023](#)).

Grounded in African scholarly perspectives, the framework challenges imported models by centring the adaptive, often informal, practices defining urban economies like Malawi's ([Owango, 2021](#); [Narula, 2020](#)). It acknowledges that for many women, entrepreneurship is a necessity for livelihood construction within vulnerable sectors ([Mishra et al., 2023](#); [Pinchoff et al., 2021](#)). Digitalisation interacts with these conditions; while tools like mobile money offered crucial resilience during the pandemic ([Perry et al., 2021](#)), the period also highlighted enduring digital divides where infrastructure and financial exclusion compound marginalisation ([Cicchello et al., 2021](#); [Kaiser & Barstow, 2022](#)). Thus, the framework provides a tool for moving from vague

promotion of ‘digital entrepreneurship’ towards interventions addressing specific barriers within the gendered livelihood system.

Practical implications are necessarily multifaceted. Policy must address integrated infrastructure—digital connectivity, transportation, and energy—that underpins market access ([Kaiser & Barstow, 2022](#); [Raihan, 2023](#)). Digital literacy and financial inclusion initiatives must account for gendered social norms, care burdens, and mobility constraints ([Bulstra et al., 2021](#); [Ncwadi, 2025](#)). Support should focus on enhancing the digital capabilities of existing micro-entrepreneurs in vital urban sectors, adopting a holistic view of health and wellbeing as critical business inputs ([Kickbusch et al., 2021](#); [Ledesma et al., 2021](#)).

Critical avenues for future research emerge. First, longitudinal empirical studies are needed to trace the application of digital tools by Malawian women entrepreneurs, assessing economic outcomes, autonomy, and network capital ([Pereira et al., 2022](#)). Second, research must interrogate the spatial dimension, mapping how digital adoption correlates with shifting patterns of urban economic activity and gendered access to market spaces ([Abebe et al., 2021](#)). Third, the environmental interface demands attention; the relationship between digitalisation and the ‘economy of nature’ requires scrutiny to ensure sustainable livelihood pathways ([McCann, 2025](#)). Finally, comparative studies with other urban centres in the region would help distinguish peculiarly Malawian dynamics from broader regional trends ([Dionne & Türkmen, 2020](#)).

In conclusion, this framework posits that the trajectory of digitalisation in shaping urban livelihoods up to 2025 will be determined by the negotiation between digital potentials and entrenched socio-economic structures. It offers a context-sensitive scaffold for understanding how women entrepreneurs navigate this terrain, blending digital tools with indigenous business acumen ([Adeola, 2023](#); [McCleery, 2021](#)). The aim is to inform discourse that sees digitalisation not as an external force, but as a new layer woven into the complex fabric of gendered urban survival and aspiration, advocating for transitions that foster more equitable and resilient urban economies.

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