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Examining the impact of family and governmental support on the intention to formalise of women entrepreneurs in Sub-Saharan Africa

Análisis del impacto del apoyo familiar y gubernamental en la intención de formalizar las empresas de las mujeres emprendedoras en el África subsahariana

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Abstract

This paper argues that supporting informal women entrepreneurs (IWEs) in their intention to formalise may advance the agenda of improved economic inclusion, economic growth, and development. This, therefore, contributes to reversing the apparent sub-Saharan African (SSA) failure to achieve the Sustainable Development Goals. As policymakers and families are essential stakeholders of IWEs, the paper examines the impact of their support in fostering the transition of IWEs into registered business ventures. To achieve its aim, the paper employs structural equation modelling (SEM) to analyse survey data collected in Cameroon during a period of crisis. The SEM results show that family support significantly and positively predicts IWEs' intention to formalise ($\beta = 0.39$, $p < 0.01$), while governmental support is positively associated with this intention ($\beta = 0.76$, n.s.). The model displays a good fit (SRMR = 0.055; RMSEA = 0.077; CFI = 0.963; TLI = 0.950). These findings suggest that (1) family support positively influences all dimensions of IWEs' formalisation intention, (2) governmental support tends to discourage formalisation, and (3) specific types of governmental programmes may still foster a positive impact depending on their quality and design. Following finding (1), as direct financing received from IWEs' families appears to best support IWEs' transition, the paper proposes an "on behalf of " support plan wherein governmental policy or programmes provide financial guarantees or

Resumen

Este artículo argumenta que apoyar a las mujeres emprendedoras informales (MEI) en su intención de formalizar sus negocios puede impulsar la inclusión económica, el crecimiento económico y el desarrollo. Por tanto, contribuye a revertir el aparente fracaso del África subsahariana (ASS) en el logro de los Objetivos de Desarrollo Sostenible. Dado que los responsables políticos y las familias son actores clave para las MEI, el artículo examina el impacto de su apoyo en la transición de estas mujeres a empresas registradas. Para lograr su objetivo, el artículo utiliza modelos de ecuaciones estructurales (MEE) para analizar datos de encuestas recopilados en Camerún durante una crisis. Los resultados del MEE muestran que el apoyo familiar predice de manera significativa y positiva la intención de las MEI de formalizar sus negocios ($\beta = 0.39$, $p < 0.01$), mientras que el apoyo gubernamental se asocia positivamente con esta intención ($\beta = 0.76$, n. s.). El modelo presenta un buen ajuste (SRMR = 0.055; RMSEA = 0.077; CFI = 0.963; TLI = 0.950). Estos hallazgos sugieren que (1) el apoyo familiar influye positivamente en todas las dimensiones de la intención de formalización de las emprendedoras informales (EI), (2) el apoyo gubernamental tiende a desalentar la formalización y (3) ciertos tipos de programas gubernamentales aún pueden fomentar un impacto positivo, dependiendo de su calidad y diseño. A partir del hallazgo (1), dado que la financiación directa recibida de las familias de las EI parece ser el factor que mejor apoya su transición, este artículo propone un plan de apoyo

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subsidies to IWEs' families that can demonstrate successful support in the transformation of IWEs to formal businesses. By highlighting the critical role of family support, the paper advances research on women's entrepreneurship and provides actionable insights for policymakers.

Keywords: Informal women entrepreneurship (IWE), Sustainable Development Goals (SDGs), Formalisation, Entrepreneurial intention (EI), Family support, Governmental support, Structural equation modelling.

"en nombre de" las familias de las EI, mediante el cual las políticas o programas gubernamentales ofrecen garantías financieras o subsidios a dichas familias que demuestren un apoyo eficaz en la transformación de las EI en empresas formales. Al destacar el papel fundamental del apoyo familiar, este artículo contribuye a la investigación sobre el emprendimiento femenino y proporciona información práctica para los responsables políticos.

Palabras clave: emprendimiento informal femenino (EIF), Objetivos de Desarrollo Sostenible (ODS), formalización, intención emprendedora (IE), apoyo familiar, apoyo gubernamental, modelado de ecuaciones estructurales.

Introduction

Entrepreneurial activities, particularly formal ones, generate material wealth, provide additional tax revenue sources, and contribute to economic growth and development (Boly, 2020; Zylfijaj et al., 2020). Yana Mbena et al. (2025) emphasised that all entrepreneurial sectors are ubiquitous worldwide, yet they represent a substantial policy deficit. It is, therefore, not surprising that, along with the broader interests that academics and policymakers demonstrate towards formal structures, they also appear to encourage the formalisation process of informal business ventures.

Although there are studies providing insights into the factors that can influence the formalisation of business ventures (Bağış et al., 2023; Baral et al., 2023; Corrêa et al., 2024; Lingappa & Rodrigues, 2023), the fact remains that the number of informal ventures is stable or even increases, while the number of formal ventures decreases (World Bank, 2023a; Yana Mbena et al., 2024). This points to a 'formalisation crisis' and raises questions about the impact of decades of policy inferences and theoretical discussions on how best to promote the formalisation of informal entrepreneurship (IE) objects. This perspective is particularly essential in the context of the Sustainable Development Goals (SDGs), which aim to alleviate persistent poverty in many countries by supporting inclusive policies and behaviours towards the most vulnerable economic agents, such as informal entrepreneurs in Sub-Saharan African (SSA) countries (Yana Mbena, 2022; Yana Mbena et al., 2024; Yana Mbena et al., 2025).

Informal women entrepreneurs (IWEs) are an important and vulnerable economic agent in the informal sector (Yana Mbena et al., 2025). Durst et al. (2025) argue that an approach such as inclusive and responsible entrepreneurship, which considers IWEs, is an essential and promising way to address innovation, sustainable entrepreneurship, and equity within societies. Moreover, IWEs, which are believed to hold significant promise for gender inclusion, poverty reduction, and sustainable economic development (Chen, 2014; Kabeer et al., 2023; OECD, 2007; Thapa Karki et al., 2021), warrant special attention. Hence, there is a need to investigate how IWE can be better nurtured to contribute to the achievement of SDGs.

SSA has the world's poorest population (World Bank, 2023b), and its IWEs are involved in various sectors, including agriculture, retail, services, and artisanal production. They often experience limited access to education, financial services, land ownership, and employment opportunities (Ackah et al., 2023; Gueye, 2021). While supporting IWEs may contribute to poverty alleviation by creating income-generating opportunities (SDG 1), nurturing IWEs' formalisation aims is essential for addressing these disparities and advancing gender equality (SDG 5), which in turn may enhance sustainable cities and communities (SDG 11), responsible consumption and production (SDG 12) and decent work and economic growth (SDG 8) (Sreenivasan & Suresh, 2023).

The achievement of the SDGs for SSA economies has been questioned (Yana Mbena, 2022). It is argued that supporting women entrepreneurs, in general, and IWEs, in particular, can contribute to the achievement of the SDGs (Kim, 2017).

Since the SDGs indirectly imply an interdependent relationship between policymakers, family support and IWEs' dynamics, advocating for IWEs' main stakeholders to foster their efforts to IWE formalisation can be beneficial for all parties. This assumption seems to be supported by a few facts:

(1) while the family members of IWEs may subsist due to IWEs' incomes, the latter may also benefit from family support to maintain or develop their business ventures (Dewitt et al., 2023; Makandwa & de Klerk, 2024; Woldesenbet et al., 2024) and; (2) policymakers are interested in inferring supportive IWE formalisation frameworks as future formalised businesses will increase not only the pool of tax objects, and the taxable base, but will also contribute to economic growth and development (Boly, 2020; Yana Mbena & Yeboah, 2024; Zylfijaj et al., 2020). Therefore, the authors sustain the need to deepen research on the role that selected main stakeholders of IWEs may play in shaping their intention to formalise.

The relationship and interdependence that IWEs have with their socioeconomic environment and stakeholders appear to have been scrutinised by researchers at various levels. Indeed, there is research where scholars have investigated informal entrepreneurship (Kede Ndouna & Zogning, 2022; Salvi et al., 2022), the determinant of its transformation (Bravo-Ortega et al., 2024; Sendawula et al., 2024; Yana Mbena & Yeboah, 2024), the gendered gap within entrepreneurial arrangements and women's entrepreneurial support (Hashim et al., 2024, Ojong et al., 2021, Sherwani et al., 2023; Weiss et al., 2023; Woldesenbet et al., 2024) and the impact of crises on women's entrepreneurship (Rahayu et al., 2023). Also, several works have explored the nexuses of these phenomena in the global context (Desta & Haug, 2024; Thapa Karki et al., 2021; Xheneti et al., 2017). However, there appears to be a lack of research that considers the impact of governmental and family support on IWEs' formalisation intention in general and within sub-Saharan economies in particular. The authors contend that, considering the role that the formalisation of IWE structures plays in achieving the SSA SDGs objectives and the perception of a "formalisation crisis" in this region, it becomes necessary to address this deficiency.

To ascertain whether there is a relationship between the support that SSA IWEs receive from their governments and families and their entrepreneurial intention (EI) to formalise, this paper shall go beyond the information available at the macro level and previous research on IWE and draw on the analysis of empirical data collected at the micro level. The results of this analysis will be used to draw conclusions regarding the status quo and outline a future research agenda.

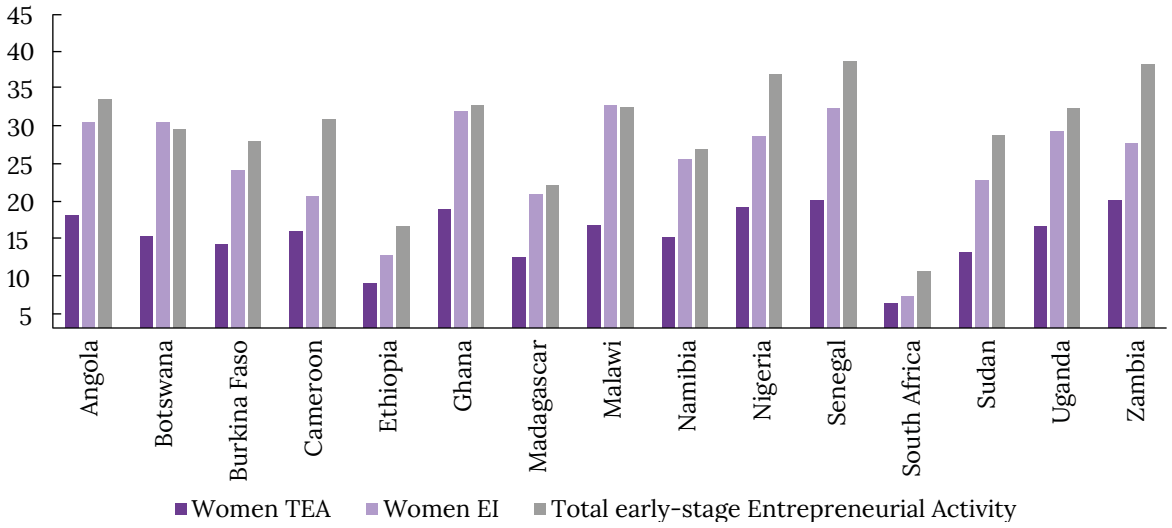
Presentation of information available at the macro level

Analysing the data available at the macro level on women's EI helps to acknowledge a few key pieces of information about the support that women may receive from their environment in Sub-Saharan African countries. Given the availability of data, the emphasis in this section is on governmental support. Figure 1 suggests that women's entrepreneurship is highly variable and low in Sub-Saharan Africa. Also, EI is far higher than the actual entrepreneurship rate among women. In other words, while excluding women who are engaging in entrepreneurial activities at any stage, the percentage of the population aged between 18 and 64 representing latent entrepreneurs and those intending to start a business within the next three years is significantly higher than the rate of actual women's entrepreneurship.

It becomes clear that countries such as Senegal (38.5 %), Zambia (38 %), and Nigeria (36.6 %) report the highest levels of entrepreneurship. South Africa (8.1%) has the lowest level in the region.

EI is highest in Malawi (32 %) and Senegal (31%), while the countries with the lowest level of EI are South Africa (4.5 %) and Ethiopia (10.44 %).

Figure 1. Level of entrepreneurship and women's EI



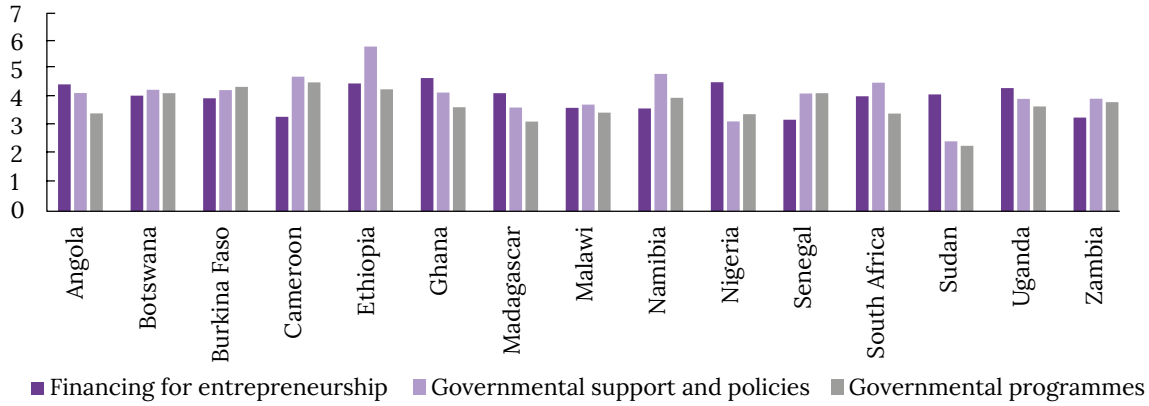
Source: Calculations based on GEM data (2024).

Governmental support and policies for entrepreneurs in small and medium-sized enterprises (SMEs), including start-ups, can take a variety of forms, including grants, low-interest loans, tax breaks, training, and support programmes (Ackah et al., 2023; Oppedal Berge & Pires, 2020). These measures aim to support the development of SMEs by promoting their growth, competitiveness, and sustainability (Ackah et al., 2023). Figure 2 suggests that the availability of financial resources (equity and debt) for SMEs (including grants and subsidies) in SSA countries is low. Countries where entrepreneurs report receiving more financial support are Ghana (4.7%), Nigeria (4.6%), and Angola (4.5%). On the other hand, Ethiopia (5.9%), Namibia (4.9%), and Cameroon (4.8%) are the countries where many respondents declared that public policies support entrepreneurial structures. The governmental support programmes for SMEs at all levels of government (national, regional, municipal) is reported to be primarily offered in Cameroon (4.6%), Burkina Faso (4.4%), and Ethiopia (4.3%). These observations are troubling because governmental support was expected to determine entrepreneurship in developing countries (Adegbile et al., 2024). For example, Ethiopia, as a country offering the most governmental programme support, was also one of the countries with the lowest level of women's entrepreneurial intent. Perhaps other forms of support are determinant in some of these countries.

Despite academics arguing that financing can also help to overcome initial financial barriers (Urueña-Mejía et al., 2023) and boost women's confidence in the success of their businesses (Ackah et al., 2023; Yang et al., 2023), Figure 3 suggests that it may be negatively related to women's entrepreneurial intention for some SSA countries. That is, when the financing granted to entrepreneurs generally increases by one-point, entrepreneurial intention decreases by 1.43 points, *ceteris paribus*. For some countries, high/low entrepreneurial intention levels are recorded with low/high financing levels (e.g., Zambia, Senegal, Ethiopia, South Africa). For others, it is possible to observe a low/high level of entrepreneurial intention associated with a low/high level of financing to entrepreneurs (e.g., Burkina, Ghana, Angola, Nigeria). It is believed that for the latter group, access to financing can encourage women to consider entrepreneurship as a viable option, thereby increasing their entrepreneurial intent.

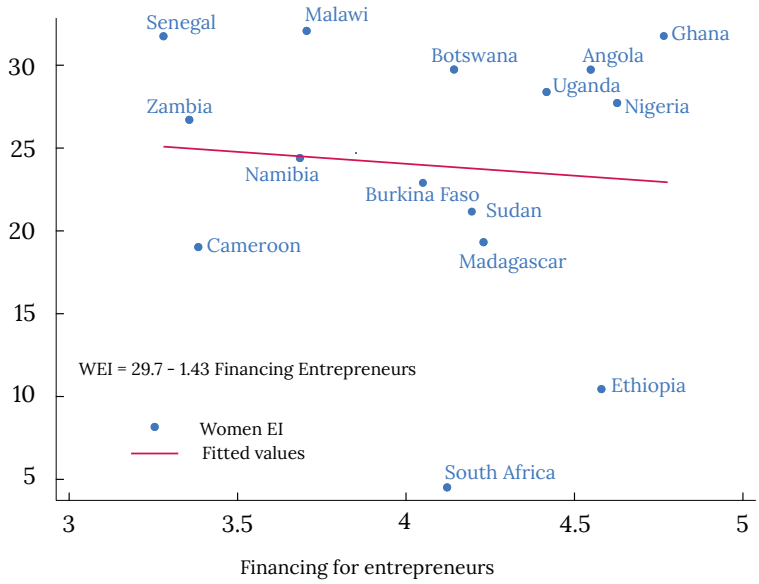
As displayed in Figure 4, there are indications that governmental support and policies are negatively associated with women's entrepreneurial intentions. In other words, women's entrepreneurial intentions may be slightly reduced despite

Figure 2. Level of financing for entrepreneurs, governmental support, and programmes - 2x



Source: Calculations based on GEM data (2024).

Figure 3. Graphical correlation between entrepreneurial financing and women's EI

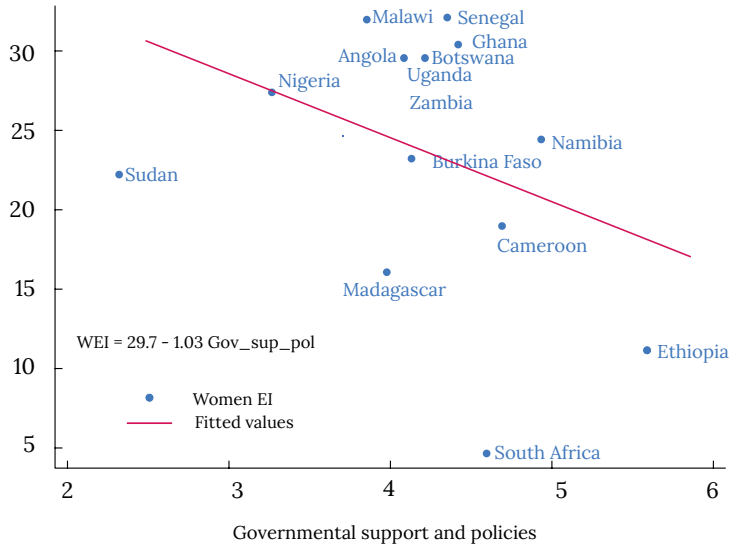


Source: Calculations based on GEM data (2024).

government policies and support. For some countries, a one-point increase in government support reduces women's entrepreneurial intention by 4.03 points. This could be due to various factors, such as bureaucratic barriers, unfavourable economic conditions, or shortcomings in policy implementation in the region. This could dampen women's enthusiasm for entrepreneurship despite efforts by the relevant authorities to support them. This observation led to the following question: What impact may such government moves have overall?

Figure 5 illustrates the apparent connection between government programmes and women's entrepreneurial intentions. In most countries in our sample, government programmes support women's entrepreneurial intention, although this association remains weak. The significant differences among the countries in Sub-Saharan Africa make it challenging to interpret this statistical link. This is because some countries with high/low levels of programmes have high or low levels of intention (e.g., South Africa, Ethiopia, Sudan). In contrast, other countries have high/low levels of programmes and high/low levels of intention (e.g., Madagascar, Zambia, Namibia, etc.). These programmes may include initiatives such as grants, training, mentoring, or financing facilities specifically

Figure 4. Graphical correlation between entrepreneurial financing and women's EI

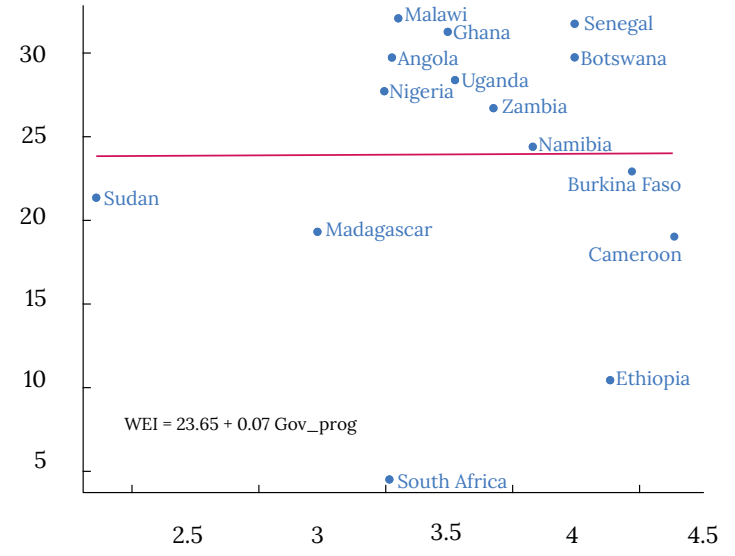


Source: Calculations based on GEM data (2024).

designed to encourage women's entrepreneurship. Therefore, the authors believe that by offering targeted support, government programmes would help stimulate women's interest and confidence in setting up and developing their own businesses. The South African experience may require further investigation.

The data presented above emphasise the need for specific actions or support towards women entrepreneurs in Sub-Saharan Africa. Especially given that the level of women's entrepreneurship in this region remains significantly uneven and lower than that of men entrepreneurs, public policies appear to influence its dynamics. It is worth noting that while direct access to financing and governmental support programmes appears to positively influence women's EI, governmental policy support seems to have the

Figure 5. Graphical correlation of governmental programmes and women's EI 2x



Source: Calculations based on GEM data (2024).

opposite effect. Although the data collected at the macro level provide an initial understanding of the impact of governmental support and venture financing on women's business ventures, they fall short of addressing the specific case of IWEs. Especially the way IWEs are financed, and the impact available supportive instruments may have on their intention to formalise. The authors, therefore, decided to examine previous research in this regard.

Review of existing research on informal women's entrepreneurship support

Macro data suggest that funding and governmental support for women's EI in the SSA region are not practical. This raises the question of whether other actors support the formalisation of businesses led by women in SSA, and if so, who they are. To answer this, we review existing literature on IWEs. After providing a historical perspective on the intersection between formalisation research and IWEs, a descriptive review (Paré et al., 2015) of recent contributions is presented.

To better underpin our hypotheses, we draw on two theoretical perspectives that link this literature with our empirical model. First, the institutional theory suggests that governmental policies and regulations shape entrepreneurs' incentives and behaviours by creating enabling or constraining environments (North, 1990; Scott, 1995). This framework helps explain why specific governmental policies may inadvertently discourage rather than promote formalisation. Second, the social capital theory (Coleman, 1988; Putnam et al., 1993) emphasises the importance of relational resources embedded in family and community ties. Family support, whether financial, emotional, or moral, can provide the trust, resources, and resilience needed for IWEs to transition into formal ventures. In line with this framing, we conceptualise governmental and family support as two main determinants of the formalisation process for IWEs, wherein the desire to formalise acts as a mediator between external support and entrepreneurial intention.

Research on informal women entrepreneurship formalisation

The traditional gender roles that primarily relegated women to domestic obligations and thereby strengthened the domination of a masculine view within early economic theoretical discussions have not spared the marginalisation of women within entrepreneurial theoretical developments. It is only through the emergence of a feminist perspective on women's agency, autonomy, and contributions to economic development in the early 1970s and 1980s, as highlighted in the seminal work of Schwartz (1976), that scholars began to show interest in women's role in entrepreneurship. This interest has resulted in a gendered perspective informing specific challenges that women developing business ventures are facing regarding financial inclusion, network influences, and family support (Hisrich & Brush, 1987). Since then, research on women's entrepreneurship has been exponentially developing and diversifying.

Recent research on informal women's entrepreneurship

Following the exponential developments that marked women's entrepreneurial research in the last two decades, it is not surprising that a review of the literature on IWE phenomena informs us of the influence of similar schools of thought. Indeed, while at its early-stage IWE research focused on a gendered approach to informality and the challenges and opportunities that come with IWEs involvement in business ventures development (Chen, 2001, 2014, 2016), IWE theoretical discussions have later embraced the intersectionality with geographics (Skinner & Valodia, 2001; Skinner & Watson, 2020); gender, poverty and social class (Bradshaw et al., 2017; Kabeer, 1991; Kabeer and Natali, 2013). Academics have also gradually addressed questions such as those related to policy, empowerment, socioeconomic inclusion (Chant, 2016; Diop et al., 2007), and technological development (Asongu & Odhiambo, 2023; Ditta-Apichai et al., 2024). Nowadays, research on IWE continues to reflect the complexity of the relationship between

gender, social norms, economic structures, and institutional arrangements while also extending the discussion to questions such as on how the transformation and support of IWE can be best achieved (Bağış et al., 2023; Baral et. al., 2023; Corrêa et al., 2024; Dana et al., 2024; Lingappa & Rodrigues, 2023; Woldesenbet et al., 2024).

A consistent theme that can be acknowledged from existing research is the precarious position IWEs occupy. As Yana Mbena et al. (2025) stress, informal entrepreneurship constitutes both a critical source of livelihoods and a persistent policy deficit in emerging economies, with women disproportionately concentrated in low-income, insecure activities. This dual reality, vital and yet marginalised, highlights the vulnerabilities of IWEs, especially in SSA. The precariousness is not only economic but also institutional, as women must navigate overlapping regulatory, social, and cultural barriers that limit their scope for growth and formalisation.

Recent developments, however, emphasise new avenues for empowerment. One striking example is the role that digital and social media platforms may play. Yana Mbena et al. (2025) demonstrate how Facebook commerce and other social media tools have created entrepreneurial opportunities for women, facilitating market access despite restrictive environments and weak institutional support. These innovations are far from a cure-all, but they demonstrate how technological disruption can create spaces where women bypass traditional barriers, thereby enhancing their visibility and connectivity. For IWEs lacking physical infrastructure or legal standing, digital platforms may provide an entry point into more formalised ecosystems.

In addition to these digital openings, the inclusive entrepreneurship literature has advocated for systemic reform. Drawing on the example of the compounded political, economic, and social barriers that women entrepreneurs face in contexts such as Mali, Durst et al. (2025) postulate that inclusive frameworks are essential for underrepresented groups. This perspective underlines that IWEs' struggles are not isolated but symptomatic of entrenched exclusion. Addressing such barriers requires coordinated action. These researchers argue that isolated interventions, whether microfinance or ad hoc training, cannot achieve sustained transformation on their own. Indeed, Durst et al. (2025) argue that government initiatives, such as subsidies, diversity-oriented programmes, and entrepreneurship training, are crucial for fostering equitable access to resources. The existing literature, therefore, suggests a paradox: while supportive policies are widely acknowledged, their effectiveness is constrained by structural imbalances and inadequate implementation.

Distinguishing entrepreneurial intention from formalisation intention

The conceptual distinction between entrepreneurial intention and formalisation intention is central to understanding the transition and change of IWE. As Yana Mbena et al. (2024) argue within the Entrepreneurial Intention Transformation Model (EITM), entrepreneurial intention is evident the moment individuals engage in economic activity (formal or informal business venture). Therefore, IWEs are, by definition, already entrepreneurs; even if their decision to start a venture often stems from survival imperatives, a lack of wage employment, or the pursuit of autonomy (Meagher, 2010; Williams & Kedir, 2016).

In contrast, formalisation intention refers to the aspiration to transition from informal to formal structures. This may exist from the outset or develop later, but it is often postponed due to financial exclusion, institutional weakness, regulatory burdens, or limited trust in state mechanisms (Chen, 2016; Oppedal Berge & Pires, 2020). For example, many women may wish to register their businesses but remain informal initially to secure immediate income and avoid the risks of bureaucratic hurdles (De Castro et al., 2014; Kabeer & Natali, 2013).

In practice, entrepreneurial intention explains why IWEs exist, while formalisation intention explains under what conditions they evolve. It is posited that, while family support sustains entrepreneurial activity, access to credit and enabling policies may determine the formalisation of entrepreneurial activity (Gueye, 2021;

Welter & Smallbone, 20101). Thus, formalisation is contingent, a part of the informal entrepreneurial cycle, and, as Yana Mbena et al. (2024) contend, an integral part of the entrepreneurial lifecycle (both formal and informal), but not an automatic one.

Approaches to IWEs' formalisation: Barriers, resources, and support

In the wave of the intersectional approaches to women and IWEs research, seminal scholars examining these topics have emphasised the fact that the multiplicity of traits, origins and environments that women as entrepreneurial subjects are characterised by, is reflected in their challenges in accessing resources, markets, and even in the way of grasping which opportunities are available for formalising their business ventures (Chen, 2016; Kabeer & Natali, 2013). Following the above school of thought and regarding the latter venue, further perspectives were advanced by academia. For example, the regulatory approach has highlighted the barriers that discriminatory laws and patriarchal-oriented social norms play in impeding women's intention and efforts to formalise (Oppedal Berge & Pires, 2020; Shah et al., 2024; Utouh, 2013); the resource-oriented approach posited that, as IWEs have a higher hurdle to accessing credit, tailored financing such as microcredits may help lower the barriers of formalising their business (Gueye, 2021). The nexus of the resource-oriented and regulatory approach informs us of the social support and financing challenges that follow the impacts on IWE's performance. Hence, relatives and acquaintances of IWEs are presumed to play an important role. This role has been explored in previous research on women's entrepreneurship. Indeed, women entrepreneurial scholars have found that the perception of family support helps to address the role conflict of women entrepreneurs (Welsh et al., 2021), encourages women's entrepreneurship (Dewitt et al., 2023), and impacts women's performance (Makandwa & de Klerk, 2024).

From another perspective, Oppedal Berge and Pires (2020) claimed, "field experiments on business training programmes and grants have shown that it is more challenging for women entrepreneurs to improve business outcomes than for their male counterparts" (p. 881). The empowerment approach, on the other hand, suggests that providing IWEs with the right skills and knowledge, as well as promoting networking and economic empowerment, are the best ways of supporting their transformation (Thapa Karki & Xheneti, 2018; Thapa Karki et al., 2021). On a similar note, since the transformation of IWEs is believed to be in the best interests of governments, the policy implication perspective has become prominent in recent times. According to this perspective, advancing gender-sensitive legal and regulatory frameworks that support access to resources and foster a supportive environment may enhance IWEs' intention to transition to formal structures (Zelin et al., 2021). As dedicated research on both relational and economic support for IWEs' formalisation intention appears to be missing, and the work of Soluk et al. (2021) has found that family support influences women's entrepreneurship at the macro level, the paper questions the impact that family support may have on IWEs at the micro level. To answer this question and build upon existing insights, this paper will review the findings of the latest works in the field.

Descriptive review of recent research on IWEs

A high-level analysis of recent research published in entrepreneurial and gender-specialised journals, as displayed in Table 1, confirms the diversity of means utilised to support IWEs. The analysis of these works suggests that scholars have yet to answer the question of whether the support provided to IWEs influences their transformation into more formalised structures. Indeed, the works presented in Table 1 allow us to argue that despite scholars' attempts to consider all layers covered by women's entrepreneurial research in fostering IWEs settings, very few are linking IWEs' available supports to their formalisation intention. For example, while academia has well acknowledged the impacts of public policy and programmes supporting

Table 1. Summary of recent papers related to IWEs

Authors	IWEs topic(s) Discussed	Research Aims	Future Research Avenues	Paper proposed future research question
Yu et al., 2024	Financing and crisis	*Drawing on role congruity theory and the crisis and strategic decision-making literature... [The paper aim at] understanding of how macro-level crises specifically influence investors' funding decisions related to female entrepreneurs, and whether different types of crises lead to varying outcomes. (p. 1)*	Strive to cultivate more inclusive entrepreneurial ecosystems.	How will this inclusive move impact IWEs formalization?
Quagrainie et al., 2023	Social inclusion & individual perceptual factors	*The paper examines the influence of women micro-entrepreneurship on social inclusion with entrepreneurial self-efficacy, fear of failure and resilience as moderators. (p.77)*	Policy aimed at using women micro- entrepreneurship as a strategy for social inclusion.	Is micro-entrepreneurship the targeted lifecycle for women businesses?
Ackah et al.,2024	Financing/ underfunding and productivity	*The paper informs about how liquidity can fuel the success of the 'Lionesses' and other businesswomen. (p. 1051)*	*Targeting tax-cuts towards such suppliers would boost the emergence of future 'Lionesses'.* (p. 1051)	What is the aim that financial inclusion through qualitative and precise public policies support strives to achieve?
Shah et al., 2024	Subsistence and inequalities	*The paper aims to identify the key dimension(s) that reproduce inequalities in women's subsistence entrepreneurship within urban-poor settings in the global south. (p. 1)*	Nexus between multiple social hierarchies and inequalities operate simultaneously and their impacts on women entrepreneurs.	How can social norm and socio-economic status be influenced to achieve IWEs' transformation?
Kromidha et al., 2023	Digital microfinance and crowdfunding	*The paper investigates digital microfinance crowdfunding for women entrepreneurship and development by comparing environment and project factors in India. (p. 459)*	*The importance and gender- specific role played ... is also acknowledged, driving more attention to gender equality and to the digital divide for access to finance.* (p. 459)	How to link environmental factors to gender equality and venture transformation?
Manishimwe et al., 2023	Motivation to become an entrepreneur	*This study aims to explore the motivational factors that drive women to venture into entrepreneurship within male-dominated industries in Nigeria... (p. 1)*	Highlights the need for supportive institutional frameworks to facilitate their success.	How can these factors be leveraged to support IWEs change?
Majeed et al., 2023	Empowerment, link to development and formalization	*The present research challenges this structuralist [...to foster development and modernization, it is believed that the informal sector should gradually disappear over time.] perspective specifically in relation to women-led enterprises operating in the informal sector in India. (p. 1)*	Informal sector as a catalyst for women's empowerment.	Is formalization an aim that empowered IWEs shall strive for?

(Continued)

Authors	IWEs topic(s) Discussed	Research Aims	Future Research Avenues	Paper proposed future research question
Mukherjee, 2023	Motives and the business model canvas	*The paper examines the motives and the business model canvas adopted by urban poor women to set up microenterprises in the informal sector. (p. 398)*	Women's entrepreneurial motives and the role of business network and ecosystem.	How can these motives or models be used to achieve or support microenterprises of IWEs to formalize?
Adegbile et al., 2024	Effectiveness of policy support	*This study aims to evaluate the effectiveness of entrepreneurship policies targeted at women's entrepreneurship in sub-Saharan Africa (SSA). (p. 1)*	Intricate interrelationship between entrepreneurship policies, women's entrepreneurship and formalization.	Do financial inclusion and effective supporting policies also foster IWEs business ventures transformation?
Gavigan et al., 2023	Entrepreneurial Skillsets	*...the purpose of this study is to examine the impact of entrepreneurship training on entrepreneurial skillsets of rural women working in Uganda and how such training influences their entrepreneurial activity. (p. 77)*	The benefits of appropriate training programs.	Is the effectiveness of governmental programs depending on IWEs' entourage?
Urueña-Mejía et. al., 2023	Financial inclusion	*This research has three aims. First, to explore how adopting business practices can impact the usage of financial products and services of these firms.* *Second, to determine if higher levels of microbusinesses' formalization mediate the impact. Third, to establish if there are differences according to gender and education level. (p. 465)*	Soft skill-based training programs that enhance business practices, to improve microbusinesses' financial inclusion	Does formalization or comprehensive public policy strategies nurture a better inclusion?
Yang et al., 2023	Informal financing strategy	This article examines the relationship between IRS [Interest rate risks] and IFS [informal finance strategies] and its moderated effects by COVID-19. (p.673)	Research on the optimization and upgrading of SMEs' IFS	How can policy supporting IFS foster IWEs' formalization?

women's entrepreneurial skills, venture development, and inclusion, the latest research is believed to still omit linking them to the formalisation process. Even the section related to future research venues presented by most of this research does not foresee this aspect. Therefore, the authors claim the need for further empirical investigations.

The review indicates that some policies or government programmes that appear effective for women entrepreneurs may not be suitable for IWEs. It also shows that there are diversified ways of supporting IWEs. More specifically, the review found that: (1) Past research confirms that even if public policy and support are important for women entrepreneurship, their effectiveness is questioned as far as IWEs development is concerned; (2) Financial inclusion plays an important role for women entrepreneurship but needs to be specifically designed to support IWEs transformation effectively; (3) The particulars of IWEs such as social norms, environmental factors, network and family may also be determinant for their ventures' success and change and; (4) Very few works are linking available support to the formalisation willingness of IWEs. Concerning the latest finding, as the formalisation of IWEs is believed to address the economic development challenges of SSA economies (OECD, 2007) more effectively, the

paper shall endeavour to examine the signs of the relationship that exists between IWEs' intention to formalise and the governmental and family support they receive. It is believed that by empirically addressing the observed gap, the paper will contribute to the body of knowledge on women's entrepreneurship theories at large and support the achievement of SDGs by providing insights on how to support IWEs' transformation.

Methods

The setting

To achieve the paper's aim, the authors needed to select a SSA country from the panel presented in its macro-level analysis. The authors decided to focus on Cameroon for two reasons: (1) the country's rationales with respect to the findings presented in the section related to macro information, and (2) the data availability. Concerning the first reason, while Cameroon is among the Sub-Saharan African quartet of economies where many respondents declared that public policy support is available for SMEs and support programmes for entrepreneurial structures are most offered at all levels of government, the country is also among the quartet where such supports are less effective. Surprisingly, within the panel of countries with the highest level of total early-stage entrepreneurial activities (TEA), Cameroon is the most effective, as it displays less discrepancy between Women's EI and Women's TEA (5.0 points). This observation suggests that IWEs of this country could benefit from other forms of support that are more effective than direct governmental support and programmes. Cameroon, therefore, seems to be an interesting object of study. Regarding the second reason, the survey conducted by Yana Mbena et al. (2024) is believed to provide a fair sample of data that the paper can use. Indeed, beyond the fact that the data collected by these academics were available for use, their survey also captured, among other dimensions, the support that IWEs of Cameroon received from their government and family during the crisis, their EI, and their intention to formalise.

Data used

As stated earlier, this paper utilises the data collected by Yana Mbena et al. (2024). These scholars used self-administered and pre-tested questionnaires with street vendors (Eijdenberg, 2016; Igudia et al., 2022) in the primary markets of Cameroon, in line with the conclusions of Fowler (2014). It is noted that convenience sampling, which is a common technique in research (Ali et al., 2018; Lin et al., 2012; Wang & Yang, 2016), was applied. This non-probability sampling technique helps obtain a general overview of the phenomenon of interest (Wei Chong et al., 2011). To tackle the growing problem of low response rate that is observed within quantitative studies (Bryman & Bell, 2011), Yana Mbena et al. (2024) applied a combination of methods that enabled a larger number of responses [N=307] from informal entrepreneurs with knowledge on the studied question. The number of questionnaires completed by IWEs was [N = 117]. Of these, only [N = 93] questionnaires were utilised after disqualifying all respondents who had not answered the question related to their eventual desire to formalise. Consequently, the paper's final data set consisted of questionnaires, yielding an overall valid response rate of 27.7%.

Measurements

This study aims to examine the relationship between IWEs' EI, governmental and family support, and IWEs' intention to formalise. Governmental support (S1) and Family support (S2) were measured using five-point Likert scales, ranging from "1 = Strongly Disagree" to "5 = Strongly Agree." This approach captures respondents' perception of the intensity of support rather than treating support as a simple binary indicator. While such ordinal measures are more nuanced than dichotomous coding ("support received" versus "no support received"), they allow us to better reflect the variability in the perceived degree of support. For consistency, all analyses were conducted using these Likert-scale variables as presented in Table 6. Further research could benefit from separately operationalising these dimensions, drawing on insights from social capital

literature, where the quality and type of relational resources are key factors influencing entrepreneurial outcomes. (1) EI was measured through IWEs' answering to Liñan and Chen's (2009) defined six questions (LCq): (LCq1) firm " Firm intention…", (LCq2) thinking "Very seriously thought…", (LCq3) determination "I am determined to create…", (LCq4) effort " I make every effort to…", (LCq5) goal "My professional goal…" and, (LCq6) readiness " I am ready to do anything…"; (2) IWEs' desire to formalise was indicated through direct question: (Idic) striving "I am striving to develop my business from an informal to a formal status" and; (3) participants experience of support is measured based on two direct questions (Dq): (Dq1) government "have you received government support…", (Dq2) family "have you received family support…" during the COVID 19 pandemic.

Statistical method

To determine if there is a relationship between entrepreneurial support and IWEs' intention to formalise, a Structural Equation Modelling (SEM) approach was applied using Stata software, version 17.0. SEM is particularly suitable here because it allows the simultaneous estimation of multiple latent constructs and the testing of mediation effects, which would not have been possible with simpler regression techniques (Wei et al., 2008).

Before the structural model was developed, a confirmatory factor analysis (CFA) was conducted on the six indicators of entrepreneurial intention (Liñán & Chen, 2009). The results confirmed a unidimensional structure, with all factor loadings above 0.70 and a Cronbach's alpha of 0.91, justifying the treatment of entrepreneurial intention as a latent construct in the SEM. Table 2 presents the standardised factor loadings for the six indicators of entrepreneurial intention. All loadings exceed the recommended threshold of 0.50 and are highly significant ($p < 0.001$), ranging from 0.54 (Ready) to 0.96 (Firm). These results confirm the unidimensional structure of the construct and support its convergent validity. The structural model then included governmental and family support (both coded as binary variables), the desire to formalise, and entrepreneurial intention. While dichotomous indicators provide a simplified representation of support, they obscure meaningful distinctions (e.g., financial versus emotional family support, subsidies versus training as forms of governmental support). This limitation is acknowledged and calls for future refinement of measurement.

Regarding sample size, the relatively small N (93 IWEs) and the number of estimated parameters raise concerns about model stability. While conventional recommendations, such as those of Kline (2016), caution that N < 100 may produce unstable results, it is believed that such thresholds are guidelines rather than rigid cut-offs. Indeed, prior methodological work shows that SEM can still provide meaningful results in small-N contexts when models are relatively simple and converge properly (Bentler & Chou, 1987; Wolf et al., 2013). Moreover, Hu and Bentler (1999) point out that fit indices such as RMSEA and TLI can be oversensitive with samples ≤ 250

Table 2. CFA – Entrepreneurial intention construction

Indicators	Loading	SE	z	p	Std. loading	Sig
Ready	1000				0.538	***
Goal	1300	0.227	5.74	0.000	0.856	***
Effort	1027	0.178	5.76	0.000	0.841	***
Determinate	1275	0.258	4.94	0.000	0.930	***
Thought	1186	0.229	5.18	0.000	0.726	***
Firm	1416	0.271	5.24	0.000	0.960	***

yet still offer practical diagnostic value. Bentler and Yuan (1999) further demonstrate that modified test statistics, such as the Yuan-Bentler F-statistic, enhance performance in intermediate to small sample sizes. Thus, SEM remains appropriate here, given its firm theoretical grounding, the mediation hypothesis, and the availability of robust estimation techniques.

Model fit was evaluated using multiple indices as recommended by Hu and Bentler (1999). The results show SRMR = 0.055, RMSEA = 0.077, CFI = 0.963, and TLI = 0.950, indicating a generally good fit. The chi-square test ($\chi^2 = 44.03$, df = 26, $p = 0.018$) was also reported but given its known sensitivity to small samples (Kenny & McCoach, 2003; Vandenberg, 2006), it was not considered a decisive criterion.

Finally, to assess the mediation effect of the desire to formalise, indirect effects were estimated using bootstrapped confidence intervals (5,000 resamples). The results suggest that family support exerts a significant indirect effect on entrepreneurial intention through the desire to formalise ($\beta = 0.18$, $p < 0.05$), while governmental support does not. Nevertheless, we acknowledge a conceptual ambiguity: whether the desire to formalise is a predictor of entrepreneurial intention or an expression thereof. In this study, we modelled it as a mediator for analytical purposes, but future research should investigate this relationship more deeply.

Analyses and results

Table 3 presents the means, standard deviations, and correlations of the main analysed variables. Statistical observations indicate that the individual means of the variables are much higher than their standard deviations. This suggests a low statistical dispersion between the responses of IWEs. Furthermore, a strong correlation [0.42 up to 0.91] can be observed between the six sub-measures of IWEs' EI (LCq). This strong relationship is also confirmed by a Cronbach's alpha level of [0.9115]. The measure of governmental support for IWEs (Dq1) appears to weakly correlate with the measure of family support (Dq2), the desire to formalise (Idic), and EI (LCq).

Regarding the variables of interest, Table 4 shows a significant positive correlation between (Dq2) family and (Idic) striving ($r = 0.39$, $p < 0.01$). Additionally, (Idic) striving is significantly related to all the dimensions of EI (LCq) (correlation coefficients ranging from 0.54 to 0.96, $p < 0.01$). However, no correlation existed between (Dq1) government and (Idic) striving. In other words, (Dq1) the government could not affect EI (LCq) through (Idic) striving.

Following the above observations, it became important to also examine the relationships that may exist between the dimensions of EI (LCq) as derived from the literature, (Dq1) government and (Dq2) family. The linkage test presented in

Table 3. Means, standard deviations, and correlations among variables

Variable	Mean	S. D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Ready	3.73	1.01	1.00								
(2) Goal	4.23	.82	0.52	1.00							
(3) Effort	4.33	.66	0.52	0.78	1.00						
(4) Determinate	4.35	.74	0.50	0.78	0.74	1.00					
(5) Thought	4.28	.88	0.42	0.68	0.70	0.63	1.00				
(6) Firm	4.35	.80	0.48	0.81	0.79	0.91	0.68	1.00			
(7) Striving	1.52	.50	0.13	0.19	0.22	0.16	0.13	0.26	1.00		
(8) Family	3.53	1.31	0.04	0.01	0.02	-0.03	-0.11	0.04	0.39	1.00	
(9) Government	1.39	.96	-0.01	-0.16	-0.04	-0.03	-0.03	-0.07	0.06	-0.05	1.00

Note. $n = 93$. Cronbach's alpha coefficient on the measures of entrepreneurial intention (Firm, Thought, Determinate, Effort, Goal and Ready) hits 0.9115

Source: Based on Yana Mbena et al. (2024) data.

Table 3 shows that family support is significantly linked to (LCq4) effort. Governmental support is linked to (LCq5) goals, (LCq4) efforts, (LCq3) determination, and (LCq1) firms.

Although indicating the existence of a correlation between support and EI, it is observed at this stage that the meaning of the relationship and the significance of the results obtained from the paper remain unclear. Hence, the authors argue that there is a need to further the analysis by defining a general hypothesis whose verification will help to understand the relationship between variables better. The following hypothesis was therefore defined: [governmental (Dq1) and family supports (Dq2) positively affect the dimensions of EI (LCq) through (Idic) the desire to formalise.

Table 4. Chi2 linkage test

Entrepreneurial Intention	Family Support Pearson chi2	Governmental support Pearson chi2
(LCq6) readiness	21.76	20.84
(LCq5) goal	12.52	38.71***
(LCq4) effort	25.03**	25.60**
(LCq3) determination	11.79	23.23**
(LCq2) thinking	14.46	11.79
(LCq1) firm	17.47	43.77***

Note. Standardised coefficients significant at **$p < 0.01$, *$p < 0.05$.

Source: Based on Yana Mbena et al. (2024) data.

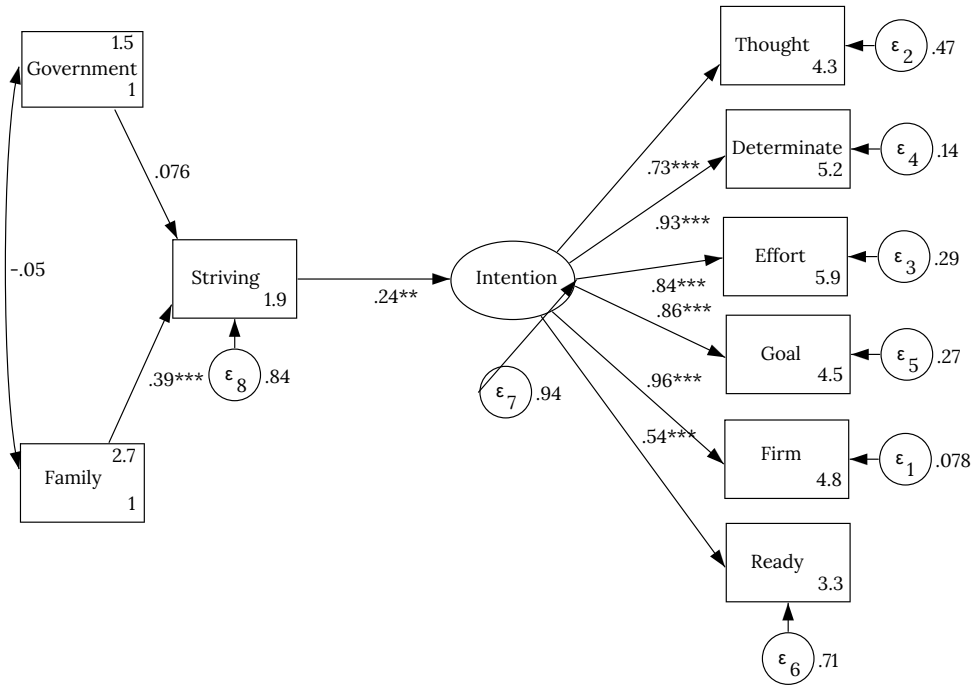
The path diagram in Figure 6 illustrates the structural and measurement models applied to verify the above-defined hypothesis. The results indicate that all model fit indices suggest a good fit (SRMR = 0.055, RMSEA = 0.077, CFI = 0.963, TLI = 0.950). The chi-squared test ($\chi^2 = 44.03$, df = 26, $p = 0.018$) was also reported; however, given its known sensitivity to small samples, it was not considered a decisive criterion (Kenny & McCoach, 2003; Vandenberg, 2006). Overall, the structural model provides a satisfactory fit for the analysed data. Beyond model fit, the SEM path coefficients offer important insights. Family support positively and significantly predicts the desire to formalise ($\beta = 0.39$, $p < 0.01$), which in turn predicts entrepreneurial intention across its sub-dimensions. In contrast, governmental support is negatively associated with the desire to formalise ($\beta = -0.21$, n.s.), and its indirect effects on entrepreneurial intention are non-significant. All coefficients are displayed in the revised path diagram (Figure 6), with asterisks marking significance levels.

The adverse effect of governmental support may appear counterintuitive, yet it aligns with macro-level findings reported earlier. Possible explanations include bureaucratic barriers, misaligned policy instruments, or low trust in public institutions. In contexts where administrative processes are perceived as costly or burdensome, IWEs may interpret governmental "support" as additional constraints rather than opportunities. Finally, given the strong correlations among the six indicators of entrepreneurial intention (ranging from 0.42 to 0.91), the risk of multicollinearity must be acknowledged. However, the high internal consistency (Cronbach's alpha = 0.91) and confirmatory factor analysis results support the treatment of entrepreneurial intention as a single latent construct. This reduces concerns about redundancy while acknowledging conceptual overlap among dimensions.

Table 5 reports the direct, indirect, and total effects estimated in the mediation model. Family support significantly predicts Striving ($\beta = 0.39$, $p < 0.001$), which in turn predicts Intention ($\beta = 0.24$, $p < 0.05$). The indirect effect of Family on Intention via Striving is marginally significant ($\beta = 0.09$, $p = 0.06$), suggesting partial mediation. By contrast, Governmental support shows no significant direct or indirect effects. These results highlight the central mediating role of Striving in the relationship between family support and entrepreneurial intention.

An intriguing finding of this study is the negative relationship between governmental support and IWEs' desire to formalise. This result may be interpreted in consideration of institutional inefficiencies and bureaucratic obstacles that characterise many SSA settings (e.g., excessive administrative costs, delays, or corruption in

Figure 6. SEM model of entrepreneurial support and intention for IWEs



Note. N = 93; B = 5000 replications. Robust standardised path coefficients; **p < 0.01, *p < 0.05, no star.s p > 0.10. Model fit: χ = 44.03, df = 26, SRMR = 0.055; RMSEA = 0.077, CFI = 0.963, TLI = 0.950.

Source: Based on the data of Yana Mbena et al. (2024).

accessing public programmes). Furthermore, as suggested by institutional theory, policies that are not sufficiently tailored to women's specific needs can act as deterrents rather than enablers of formalisation. By contrast, family support positively correlates with the intention to formalise, highlighting the vital role of social capital. In settings characterised by patriarchal norms and limited access to formal credit or training, women frequently depend on family ties for both financial and emotional resources. This reliance makes family support a more trusted and immediate source of empowerment than government initiatives.

Table 5. SEM mediation – direct/indirect/total effects (Sobel)

Block	Path	Coef	SE (bootstrap)	z	p	Std. coef	Sig
Direct	Family → Striving	0.150	0.037	4.09	0.00	0.39	***
Direct	Government → Striving	0.039	0.044	0.90	0.37	0.08	
Direct	Striving → Intention	0.255	0.125	2.04	0.04	0.24	**
Indirect	Family → Intention (via Striving)	0.038	0.021	1.87	0.06	0.09	*
Indirect	Government → Intention (via Striving)	0.010	0.012	0.82	0.41	0.02	
Total	Family → Intention	0.038	0.021	1.87	0.06	0.09	*
Total	Government → Intention	0.010	0.012	0.82	0.41	0.02	
Total	Striving → Intention	0.255	0.125	2.04	0.04	0.24	**

Note. Based on 5000 bootstrap replications. Robust standardised coefficients significant at ***p < 0.001, **p < 0.01, *p < 0.05.

Table 6. Variable definitions

Variables	Description	Range	Values / Labels
Intention	Linear prediction (Intention)	[-0.26 ; -0.03]	Continuous values (17 unique) Mean = -0.064, SD = 0.055
Ready	*Ready to do anything* (I1)	[1–5]	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree
Goal	*My professional goal* (I2)	[1–5]	Same scale as above
Effort	*Make every effort to start and run* (I3)	[2–5]	2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree
Determination	*Determined to create* (I4)	[2–5]	2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree
Thought	*Very seriously thought* (I5)	[1–5]	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree
Firm	*Firm intention* (I6)	[1–5]	Same scale as above
Striving	*I am striving to develop my business from informal to formal*	[1–2]	1 = No 2 = Yes
Family	*Family support* (S2)	[1–5]	Same 5-point Likert scale as before
Government	Recode of *Governmental support* (S1)	[1–5]	Same 5-point Likert scale as before

Conclusion

The formalisation of IWEs constitutes a vital pathway towards inclusive growth, economic resilience, and gender equality in SSA. This study finds that family support exerts a positive and significant influence on IWEs' intention to formalise, whereas governmental support is negatively associated with this intention. Although seemingly counterintuitive, the latter result reflects persistent institutional inefficiencies and bureaucratic burdens that discourage, rather than encourage, entrepreneurial formalisation. By contrast, family networks, anchored in trust, reciprocity, and cultural legitimacy, provide resources that more effectively sustain women's entrepreneurial transitions.

Theoretically, these findings demonstrate the complementarity of institutional theory and social capital theory in explaining women's entrepreneurial behaviour. Governmental support, as conceived through the lens of institutional theory, may function as either an enabler or a constraint depending on its design and implementation. Family support, on the other hand, consistently operates as a form of social capital that empowers IWEs. The study also extends the existing literature by conceptualising the desire to formalise as a mediating mechanism linking external support to entrepreneurial intention.

Practically and from a policy perspective, the findings underscore the need to design gender-sensitive programmes that simplify administrative procedures and reduce barriers to formalisation. The proposed "on-behalf of" family support model, where governments channel subsidies or guarantees through families already supporting IWEs, offers an innovative mechanism aligned with regional policy agendas. For instance, the African Union's Agenda 2063 calls for inclusive growth and innovative financing, while UNDP programmes in Sub-Saharan Africa have piloted hybrid approaches that integrate institutional resources with community and family involvement. Concrete applications could include family co-signing schemes for microfinance, government-funded training delivered with family logistical support, or conditional subsidies rewarding families for investing in women's ventures. Such hybrid models enhance trust, accountability, and cultural acceptance, thereby increasing the likelihood of successful formalisation.

Methodologically, while the use of SEM on a relatively small sample (N = 93) entails limitations, the robustness of the analysis was reinforced through confirmatory factor analysis, multiple fit indices, and bootstrapped indirect effects. Nevertheless, the operationalisation of support measures remains a simplification. Future research should refine these constructs by distinguishing between different types of governmental support (e.g., subsidies, training, tax incentives) and forms of family support (e.g., financial, emotional, logistical). Beyond sample size and generalisability, we explicitly note potential model stability concerns (e.g., sampling fluctuations in path estimates) that are typical in small-N SEM settings. Moreover, given the modest power inherent to N = 93, our design is exposed to a heightened risk of Type II errors, meaning that some theoretically meaningful effects, especially indirect paths, may remain undetected. Future studies with larger samples and power analyses a priori should reassess the structural relations, and complementary sensitivity checks (e.g., alternative estimators, parcelling strategies, or Bayesian SEM) could help evaluate the robustness of coefficients and fit indices.

There is also a need for further empirical research that tests hybrid support models across different SSA contexts. Especially the use of qualitative research methods (e.g., interview studies or case studies) could be valuable to advance our understanding of IWEs' perceptions of trust, legitimacy, and accessibility when governmental and family support are involved. Such research would deepen our understanding of how institutional and relational resources interact to facilitate formalisation.

Ultimately, this study highlights the broader developmental implications of the formalisation of IWEs. Facilitating this transition advances several Sustainable Development Goals (SDGs): it promotes SDG 5 (Gender Equality) by empowering women and reducing structural inequalities; contributes to SDG 8 (Decent Work and Economic Growth) by fostering more inclusive labour markets; and supports SDG 1 (No Poverty) by strengthening household resilience and income security. Enhancing supportive environments for IWEs is therefore not only an economic imperative but also a strategic avenue for achieving the global development agenda.

Declarations

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Data availability

The data that support the findings of this study are available from the authors upon reasonable request.

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