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Investigating intersectionality and its influence on information behaviours of women and immigrant digital entrepreneurs in Nigeria: overcoming social inequalities through information strategies.

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Suraj Ibrahim 
Robert Gordon University, UK

Rita Marcella 
Robert Gordon University, UK

Alan MacLennan
Robert Gordon University, UK

Abstract

This study investigates how intersecting social identities shape the information behaviours of women and immigrant digital entrepreneurs in Nigeria, addressing systemic inequalities through information practices. Using a qualitative approach, the research analyses interviews with 26 digital entrepreneurs, including seven marginalized women and immigrant entrepreneurs, employing grounded theory and critical realism. Findings reveal that gender, marital status, sexual orientation, religion and socioeconomic status create multilayered barriers to information. Conversely, technology, online communities including WhatsApp groups and mutual support networks emerge as critical enablers, fostering agency and resilience. The study introduces Socio-Informational Stratification (SIS), a mid-range theory highlighting how marginalized entrepreneurs navigate stratified information environments, repositioning themselves despite structural constraints. Through bridging micro-level lived experiences with macro-level structural forces, this study advances understanding of how marginalized groups leverage information to challenge systemic inequities in Nigeria's evolving digital entrepreneurship environment.

Keywords

Digital entrepreneurship, information behaviour, information poverty, intersectionality, Nigeria, socio-informational stratification

Introduction

The rise of entrepreneurship, fuelled by the expanding digital ecosystem, has created unprecedented opportunities for individuals from diverse backgrounds to launch and scale their own businesses (Nambisan, 2017; Nambisan et al., 2018). However, the landscape is not equitable, with certain groups, such as women and immigrants in Nigeria, facing significant social disadvantages and constraints that hinder their entrepreneurial information seeking (Kawar, 2004; Kim and Ling, 2001; Rugoho and Chindimba, 2018; Smita Kishor and Antoaneta, 2021).

Rooted patriarchal norms and rich mosaic of cultural practices shaped by 250 ethnic groups (Last, 2000; Makinde et al., 2021), women and immigrants entrepreneurs face substantial challenge in Nigeria. Cultural norms have impact on information behaviour of people. DiMaggio (1997) posits that individuals often conceptualise culture

Corresponding author:

Suraj Ibrahim, School of Creative and Cultural Business, Robert Gordon University, Riverside Building, Garthdee Road, Aberdeen AB10 7QB, UK.

Email: s.ibrahim4@rgu.ac.uk

as a fragmented pieces of information. In other words, while people encounter various cultural elements as discrete units of information, they also rely on cultural frameworks to make sense of and interpret these fragments, thereby providing a structure to their understanding of the world around them.

Despite the role of culture to information behaviour as well as the importance of the latter to entrepreneurship, acculturation remains one of key challenges for immigrants entrepreneurs (Martzoukou and Burnett, 2017b). Nigeria has historically served as a destination for predominantly West African nationals such as Niger, Benin, Mali, Chad and Togo to name a few, seeking improved economic opportunities, although recent shifts have seen a decline in this momentum (Igbolekwu et al., 2021). Understanding the local cultural dynamics and adapting to them has never been more crucial for entrepreneurs aiming to succeed in a culturally diversified country like Nigeria (Falola, 2001; Halliru, 2013). Alongside culture, individuals' identities significantly influence how they seek and utilize information (Hamer, 2003; Kitzie et al., 2022).

The significance of information in entrepreneurship (Stewart et al., 2008; Thao Phuong and Shahrokh, 2020), including digital entrepreneurship, and its impact on the lives of women (Nankinga, 2019) and immigrant populations (Basu et al., 2013) have been widely recognized in entrepreneurship literature (Autio et al., 2018; Nambisan, 2017; Nambisan et al., 2018). Consequently, it has become a vital area of study in information science as well (Ibrahim et al., 2022). Entrepreneurs now regard information as a valuable commodity (Kazungu, 2020), highlighting its critical role in shaping entrepreneurial endeavours and influencing the experiences of marginalized groups such as women and immigrants (Underwood, 2009).

This study acknowledges that the overlapping and interwoven characteristics of women's and immigrant entrepreneurs' identities which shape their experiences. For this reason, this study has taken an intersectional approach so as to capture of the complexity and nuances of these entrepreneurs' lives. This will equip the authors in avoiding oversimplification while embracing the diversity within these communities. Intersectionality has emerged as a framework for understanding and addressing the specific challenges faced by disadvantaged groups, recognising that individuals may encounter multiple forms of discrimination and disadvantage simultaneously (Kitzie et al., 2022). Due to systemic biases and cultural systems perpetuating inequality, marginalised voices often go unheard (Chatman, 1996).

Recognizing that information is power (Cooper et al., 1995), empowering marginalised entrepreneurs with information enables them to challenge societal norms, overcome barriers and achieve success. Drawing on theoretical framework such as Crenshaw's (1991) intersectionality theory and Burnett and Jaeger (2011) theory of

information world, this study explores how female and immigrant entrepreneurs seek, assess and use information to and navigate their social challenges as well entrepreneurial journeys. A middle range theory, grounded in the data, termed Socio-Informational Stratification has emerged from the data and it is further integrated with the Theory of Information Worlds. These combination of theories provide a detailed understanding of how societal structures, intersecting identities and entrepreneurship orientation shape the information practices, experiences and challenges of marginalized digital entrepreneurs within the broader socio-informational environment.

A digital entrepreneur, within the scope of this study, refers to individual who leverages digital technologies and platforms to create, manage, and monetize ventures or enterprises primarily conducted online. This encompasses a broad spectrum of activities, including but not limited to, online business ownership such as freelancing, social media influencing and other forms of digital commerce. Digital entrepreneurs utilize the internet and digital tools to innovate, market, sell and deliver products or services, often operating independently or within virtual teams (Ibrahim et al., 2022).

This study employs various terminologies namely information practices and information behaviour. Information behaviours encompass a continuum of engagements with information, including searching for, obtaining, utilizing and disseminating it (Wilson, 2010). Information practice encompass the routine behaviours individuals employ in their information-related tasks, reflecting their overall approach to managing information (Savolainen, 2007).

Research aim

The primary aim of this study is to explore how socioeconomic inequalities faced by immigrants and women digital entrepreneurs can be addressed through information behaviour.

Research objectives

- (1) To investigate the information behaviours and practices employed by women and immigrant digital entrepreneurs.
- (2) To identify the specific social inequalities and barriers faced by women and immigrant digital entrepreneurs in accessing and utilizing information resources for their entrepreneurial endeavours.
- (3) To examine the role of information behaviours and practices in overcoming social inequalities and promoting the success of women and immigrant digital entrepreneurs.

Literature review

Intersectionality

Intersectionality is a framework that recognizes the complex and linked nature of social identities, as well as how they intersect to impact people's experiences and possibilities. Intersectionality, as described by Crenshaw (1991), emphasizes that individuals' lives are determined not merely by a single social category, such as gender or race, but by the overlapping and interlocking systems of power and oppression that come from the combination of different categories. It recognizes that people face specific types of discrimination and disadvantage as a result of multiple intersecting identities, including as gender, ethnicity, class, sexuality and immigration status. She emphasized black women's experiences with overlapping types of discrimination that were not fully addressed by current legal frameworks. Crenshaw stated that standard frameworks frequently fail to convey the complicated experiences of people who endure several oppressive regimes at the same time.

Women in Nigeria face disproportionate levels of marginalization due to interlocking systems of harsh ethno-cultural practices (Kassam, 1996; Noor et al., 2019). Women, for example, face gender-based discrimination, technology-fascinated violence (Makinde et al., 2021) and biases that intersect with other forms of marginalization, such as socio-economic status, resulting in unique challenges and barriers (Ademokun and Ajayi, 2012; Kim and Ling, 2001; Muhammad et al., 2019; Rugoho and Chindimba, 2018; Smita Kishor and Antoaneta, 2021). Rural women are even more susceptible to these social maladies.

Gendered digital inequality and information poverty

Beyond these socio-cultural and economic challenges, women in Nigeria also face significant barriers in accessing and utilizing digital resources. The digital divide not only reinforces existing inequalities but also limits opportunities for economic empowerment, education and social mobility. This growing disparity in technology access contributes to a broader issue of information poverty, further deepening marginalization. For instance, while there was a steady increase in internet usage until 2019, women's utilization of technology and ownership of mobile phones started to decline thereafter (Amber and Chichaibelu, 2023). There are huge discrepancies in access and use of digital technology in general. Men, those with higher incomes and education levels, and people who live in big cities are more likely to have access to digital resources (Antonio and Tuffley, 2014). This trend highlights a concerning development in the accessibility of digital resources among women.

Uneven access to technology among women would reinforce information poverty. This gendered digital divide exacerbates existing socioeconomic inequalities, disproportionately affecting women in Nigeria (Acilar and Sæbø, 2023; Antonio and Tuffley, 2014).

Limited access to information can stifle innovation and creativity, making it challenging for entrepreneurs to remain competitive in their industries. This impact is evident in the study by Fan and Fichman (2022), which examined rural entrepreneurs in China and highlighted how information constraints hinder their ability to adapt, innovate and sustain business growth. Gibson and Martin (2019), note that lacking access to information amount to deliberately avoidance of opportunities. Entrepreneurs from deprived contexts may not have access to the same level of information as their counterparts in more affluent regions or communities. This phenomenon is especially pronounced in communities where the majority of individuals predominantly rely on informal sources for information (Chiamogu and Chiamogu, 2019; Conaway, 1995; Ibrahim et al., 2022; Uche et al., 2019). While noting the role of libraries play in addressing the information access and needs, Ocholla (2006) looks into the issue of information accessibility for marginalized communities in South Africa. Similarly, Goulding (2001) notes the importance of information literacy skills in addressing information accessibility.

Focused on low-income African American women in urban areas, Chatman (1996) highlights the importance of understanding the social and cultural dimensions of information poverty, rather than simply assuming that lack of access to technology or other resources is the primary cause. She finds that individuals who are excluded from mainstream society are also often excluded from information and knowledge, leading to a poverty of experience and a limited understanding of the world. Specifically, Chatman argues that information behaviour is shaped by individuals' social position and culture, and suggests that this has important implications for understanding information poverty. Chatman's low-income groups often rely on informal networks and personal contacts rather than formal information sources like libraries or government agencies. This is due in part to a lack of trust in these institutions, as well as a sense of alienation from the dominant culture that shapes these institutions. This perspective on the role of social and cultural dynamics in shaping information poverty is similarly reflected in the experiences of immigrant populations in Nigeria, who face unique challenges that contribute to their informational vulnerability.

Intersectionality and immigrant challenges in Nigeria

Just as marginalized women face barriers in accessing information and resources, immigrant populations in

Nigeria experience additional layers of exclusion. These challenges stem from historical government policies, societal biases and structural inequalities that contribute to their informational vulnerability (Kawar, 2004). Immigrants are likely encounter additional obstacles related to cultural differences, language barriers and limited access to resources and opportunities as well as informationally vulnerable (Flap et al., 2000; Ratan and Tomasz, 2020; Thai et al., 2020). Traumatic experience shape information behaviour (Houston and Westbrook, 2013; Westbrook, 2008, 2009). However, Potnis and Winberry (2022) points out that information vulnerability can impact individuals, regardless of their socioeconomic status. Ndumu et al. (2022) connect immigrant information behaviour to information poverty, emphasizing the need for empirical research focused on this demographic. Britz (2004: 194) has defined information poverty as ‘that situation in which individuals and communities, within a given context, do not have the requisite skills, abilities and material means to obtain efficient access to information, interpret it and apply it appropriately’.

Information behaviour of immigrants. Oduntan and Ruthven (2021) examine the multifaceted nature of refugees’ information-seeking behaviours and the diverse environments supporting their integration. They identify significant information gaps are bridged through interpersonal relationships and physical locations like service providers, detention centres and refugee camps. Ndumu (2019) examine the role of intermediaries and filtering mechanisms in mitigating the challenge of information overload among Black diasporic immigrants in the U.S. Mabi et al. (2023) observe how identity and information format affect African immigrants in Canada in seeking employment-related information. Spink and Cole (2001) show how low-income African American households often have limited access to employment related information and are dependent on informal information sources, such as family and friends, leading to a lack of exposure to diverse perspectives and limited opportunities for learning and growth. Britz’s (2004) framework shows how identity affects information access.

Bronstein (2018) and Bronstein (2020) explores the role of weak ties in reducing social isolation and improving information access among migrant workers in Israel. She examines barriers to information access and strategies, such as personal networks and social media, that migrant workers use to combat information marginalization. On the role of libraries in facilitating the resettlement and inclusion of refugees in the host community, Martzoukou and Burnett (2017b) identified ways in which refugees navigate the information landscape in their everyday lives. In another study, Martzoukou and Burnett (2017a) highlight the importance of information literacy in enabling refugees to engage their new environments, access

services and support. The authors argue that information literacy can be a critical tool for empowering refugees and enabling them to participate fully in society.

Lupač (2021) highlights the risk of information policies deepening inequality if contextual factors influencing access and use are overlooked, echoing the need for a contextual approach. Similarly, Marcella and Chowdhury (2020) identify diverse causes of information poverty, including psychological, social, cultural and political factors, alongside issues like literacy gaps, lack of skills and public distrust.

Information behaviour of women. In her investigation of the information practices of low-income public service employees and job seeking (Chatman, 1991), women living in a retirement centre (Chatman, 1992) and inmates in a women’s high-security prison (Chatman, 1999), Chatman found that the social conditions of marginalisation shape information practices in highly localized ways. Adam and Fatima (2011) identified a localized information need among rural women in Nigeria, revealing that access to context-specific business information – particularly within agribusiness – played a critical role in supporting their economic activities. This focus on business aligns with the agrarian nature of Nigeria, where agriculture plays a pivotal role in the economy and livelihoods of rural communities (Goldman and Smith, 1995). Bakar (2011) examined the information behaviour of rural women in Malaysia, revealing parallels with African studies where their information needs primarily revolved around subsistence, particularly concerning food security and education. Sociocultural and economic factors as the primary barriers to information access for rural women in Pakistan (Naveed and Suhaib, 2019).

Abdulhamid and Alhassan (2012) reflect on the absence of information structure causing information poverty among rural women in Nigeria. Ukachi (2007) shows the failure of local libraries in addressing the information need of rural women in Lagos, Nigeria. Similar finding was reported by Nankinga (2019) when he investigated the information behaviour of women entrepreneurs in rural areas Uganda. Gebremichael and Jackson (2006) notes how the lack of digital inclusivity in developing countries worsens the problem of information access. Both studies found that women face difficulties in meeting their information needs. In regions where formal information structures fail to meet users’ needs – particularly among vulnerable populations – intermediaries and more information-literate individuals step in to bridge accessibility gaps, as demonstrated by Mnubi-Mchombu et al. (2009) and Odunmade et al. (2022). For example, Sabelli (2012) highlight the importance of social mediators to young vulnerable women, while Gibson and Martin (2019) document the defensive information behaviour of mothers caring for disabled children. Such cases illustrate how

those with greater informational literacy help mitigate access challenges for those in need.

Information behaviour among women in various contexts, with barriers including limited access, reliance on traditional sources, and systemic challenges such as cultural and economic factors have been documented by the literature. The studies emphasize the role of intermediaries, cultural influences and social structures in shaping information behaviour literature also notes challenges faced by immigrant entrepreneurs in Nigeria, including marginalization, language barriers and limited access to resources, contribute to information poverty and further highlight the broader context of poor information infrastructure and low literacy rates in the country. These factors collectively hinder the ability of women and marginalized groups to access critical information, perpetuating systemic inequalities.

Method. The findings presented in the paper emerged from a doctoral research project that specifically investigated the information behaviour of digital entrepreneurs during the idea generation phase in start-up businesses. Grounded Theory and Critical Realism and were employed as data analytic techniques. In addition to grounded theory, critical realism was incorporated into the methodology to provide a philosophical underpinning and epistemological framework for the study. Critical realism acknowledges the existence of an external reality that is independent of human perception while also recognizing the influence of social structures and contexts on individuals' experiences and interpretations (Sayer, 2000). Utilizing these frameworks enabled the exploration of intersectional understandings and inequalities within the study through recognizing the linkages between individual agency and structural constraints (Hoddy, 2019). It also facilitates an examination of how socio-cultural, economic and technological factors intersect to influence digital entrepreneurs' strategies of combating inequality through information practices (Alvarez et al., 2014; Danermark, 2002; Hu, 2018). Similar methodological approach was undertaken by Gibson and Martin (2019) and Hu (2018).

The selection of participants for semi-structured interviews was based on purposive sampling and snowball approach (Parker et al., 2019). Participants were recruited through various channels, such as entrepreneurship networks, online communities and professional associations. The research project utilized semi-structured interviews. A total of twenty-six interviews were conducted both online and in-person with business founders operating in various segments of the digital technology spectrum in Nigeria. Among the participants, there were six women and six immigrants from neighbouring west African countries. Each interview lasted, on average, for 90 minutes, resulting in transcripts that had an average length of 3000 words.

The data collected from the interviews were transcribed verbatim and analysed using grounded theory techniques of open and axial coding analysis (Charmaz, 2014; Corbin and Strauss, 2014; Glaser and Anselm, 1967; Urquhart, 2022). Studies such as Oliver (2012) and Bøllingtoft (2015) have advocated and utilised similar approach to data technique. The analysis involved identifying patterns, themes and categories within the data to gain a comprehensive understanding of the phenomenon under study. The analysis process included coding the data, developing initial themes, reviewing and refining themes through iterative analysis and generating overarching findings. The software tool, NVivo was employed to assist with organizing and managing the data.

To strengthen data validity, member checking and researcher reflexivity was utilised. Member checking afforded participants the chance to scrutinize and authenticate the research findings, thus ensuring alignment with their perspectives. Concurrently, researcher reflexivity facilitated continual introspection regarding the researchers' inherent biases and presumptions throughout the study's progression. This approach was particularly crucial given the multicultural context of the study, which inherently lends itself to diverse interpretations and perspectives (Birt et al., 2016). Ethical considerations, such as obtaining informed consent from participants, ensuring confidentiality and anonymity and adhering to ethical guidelines, were strictly followed. For instance, the participants' identities were anonymized and coded as 'DE', and they were appended with the interview serial number.

Findings

Table 1 illustrates the relationship between marginalized identities and constraining/enabling information practices among digital entrepreneurs. Marginality/intersectionality factors such as gender, marital status, sexual orientation, religion, language/accent and socioeconomic status intersect with constraining or enabling information practices, influencing the information experiences and outcomes of entrepreneurs. Individuals facing marginalization due to gender may encounter defensive information practices, such as barriers to accessing critical information resources or discrimination in entrepreneurial endeavours. In contrast, enabling information practices, such as mutual support networks or technological empowerment, may empower individuals to overcome these barriers and achieve success despite their marginalized status. Factors like marital status, sexual orientation and socioeconomic status intersect with information practices to shape entrepreneurs' experiences. Defensive practices may include barriers to accessing opportunities or exploitation due to power differentials, while enabling practices may involve leveraging social networks or technology to overcome

Table 1. The relationship between marginalized identities and constraining/enabling information practices among digital entrepreneurs.

Marginality/ intersectionality	Constraining/enabling information practices	Sample data
Gender	Constraining	'It was hard being a woman, particularly being an unemployed divorcee. People would not even want to rent out their properties to you' (DE14)
Marital status	Constraining	'I got separated from my husband. He was a chronic abuser and a very fantastic alcoholic' (DE14)
Sexual orientation, religion	Constraining	'My first experience was with a girl. So, in other words, I identify as a lesbian. Coming out as a gay person in a Muslim-dominated community, or even as a Muslim girl, can get you killed' (DE11)
Gender, language/ accent	Constraining	'I was a very shy person, so when people made fun of me for my lack of fluency or the rarity of my accent, I became withdrawn and disappointed. This will then dissuade me from seeking information' (DE18)
Gender	Constraining	'I got separated from my husband. He was a chronic abuser and a very fantastic alcoholic' (DE14)
Social groping	Enabling	'There is a women's subgroup within that organization. We usually meet every two weeks to talk about common issues that women face' (DE11)
Emotional resilience	Enabling	'I would be able to remove my emotions or not to care at all about how people think of me, I can be able to place better queries, questions and to even probe more deeply' (DE11)
Mutual support	Enabling	'A lot of the things I've learned along the way are things I'd like to share with other women who may be experiencing similar feelings of helplessness and desperation as I was. So, I belong to this WhatsApp group called Conquer. It is a mutually benefiting communion' (DE14)
Technology	Enabling	'Technology has given us another chance at life. It is a new lease' (DE11) 'Even if you are from an unknown corner of the world, tech is an equalizer folks: when they say it's inclusive it is no lie' (DE14)
Social networks, trust	Enabling	'People like to share and collaborate with people that they already know and trust [] So one needs to share some commonality or perhaps be introduced by others who have already been trusted' (DE13)
Socioeconomic status	Constraining	'Socially elevated individuals will have an easy way smashing informational bunkers without any obvious challenges or difficulty. But people within the lower part of the ladder will experience undue difficulty unnecessarily' (DE17)
Socioeconomic status	Constraining	'Nigeria is a hierarchical society, capitalist, sort to say. The social and economic class you belong to may limit your access to people and sources. So having come from a low-income family I believe inhibited me from accessing some information that I would have otherwise obtained' (DE02)
Power dynamics	Constraining	'The money I was requesting put me in a very vulnerable position, a low power position which resulted in me being sexually exploited – will never forget' (DE03)

these challenges and access valuable information resources.

Table 2 summarise the data in quadrant form and clearly differentiates between the challenges and advantages associated with each category. The horizontal axis delineates defensive practices on the left and enabling practices on the right. The vertical axis represents the intersectional aspects of marginality and socioeconomic dynamics. Gibson and Martin (2019: 6) describe this as class distinction, 'positioning within a social, economic, or political community'. Each quadrant encapsulates the specific challenges and opportunities encountered by digital entrepreneurs based on their intersecting identities and socioeconomic status.

Table 3 provides information about the demographic characteristics of the eleven participants.

Discussion

Intersectionality and information behaviour

Multiple layers of disadvantage were experienced by the entrepreneurs due to their tribe, sexual identity, marital status and gender in the current research findings. The intersection of these disadvantages mostly affect women, given that they are among the most vulnerable members of society, especially from the developing country perspective (Carpenter, 2005; Kavar, 2004). According to Kim and Ling (2001), women face three sorts of work-life difficulties, namely *job-spouse conflict*, *job-parent conflict* and *job-homemaker conflict*. Domestic violence has the power to affect the information-seeking ability of victims (Westbrook, 2009). The current findings show that feelings of anxiety, timidity and a loss of self-confidence are

some of the attendant consequences that come along with traumatic experiences. Hamer (2003) agrees that ‘conditions most strongly characterizing information-seeking were the experience of fear and the concealment of information-seeking activities’. Lingel and Boyd (2013) also discussed similar information experiences when they investigated the information behaviour of a stigmatised group.

Sexual orientation and immigration identity, alongside gender marginalization, predispose individuals to social challenges and even extreme persecution. Within the scope of the current study, encounters with a lesbian woman and a domestically abused woman shed light on the particular experiences of these marginalized groups, impacting their ability to access information. Despite facing significant hurdles, they have exhibited resilience and adaptation by developing coping mechanisms to navigate their multiple layers of exclusion. Notably, the findings reveal the utilization of online WhatsApp groups by these vulnerable individuals. Drawing from Chatman’s (1996) concept of small worlds, which characterizes group settings constrained by socio-economic poverty and limited access to formal information resources, these online groups serve as small worlds. As described by Burnett and Jaeger (2011), Small worlds denote social settings where connected

individuals reside and operate, united by shared interests, expectations and behaviours. These affiliations are frequently shaped by economic status and either physical or virtual proximity.

Psychological, socioeconomic factors and information behaviour

The findings observed that psychological factors such as fear and stigmatization significantly shaped the information behaviour of participants. This influence was evident in their use of social groups, sympathy elicitation, media platforms and online communities for information sharing and support networks. Sympathy elicitation was observed to be an emotional technique used to negotiate information access or foster information-seeking by the marginalised entrepreneurs in the current study. Nambisan (2011) has found information users’ perceived empathy strengthens their information-seeking practices. He also observed how vulnerable groups exhibit more positive attitudes towards information-seeking if they feel others are sympathetic to their situation.

The statement made by the marginalized entrepreneur shows the influence of social and economic factors on access to information in a hierarchical society like Nigeria. Belonging to a low-income family has created limitations in terms of accessing certain information and resources that could have been beneficial for their entrepreneurial endeavours. In a hierarchical society, social and economic class can play a significant role in determining one’s opportunities and access to various networks and sources of information. Higher social and economic classes often have greater access to resources, connections and educational opportunities, which can provide them with a broader range of information and support for their entrepreneurial pursuits.

In the case of the marginalized entrepreneur, coming from a low-income family has imposed barriers to accessing relevant information and people who could have contributed to their entrepreneurial journey. Bronstein (2020) argues that information marginalisation being experienced by these individuals is the result of a widening gap in social inequality. And yet, in spite of this seeming

Table 2. The data in quadrant form and clearly differentiates between the challenges and advantages associated with each category.

Dimensions of Marginality	Constraining factors	Enabling factors
Marginality/ intersectionality	Gendered barriers Sexual orientation, Power dynamics, Marital status	Supportive networks, Technological empowerment Socioeconomic empowerment
Marginality/ socioeconomic dynamics	Limited access to resources and opportunities, Socially outcast individuals	Leveraging information for opportunity Informational empowerment, Overcoming socioeconomic limitations

Table 3. Information about the demographic characteristics of the eleven participants.

S. no.	ID	Business name	Gender	Age group	Other features
1	DE02	xxx	Male	25–30	Citizen
2	DE03	xxx	Male	30–35	Citizen
3	DE11	xxx	Female	25–30	Citizen
4	DE13	xxx	Female	25–30	Immigrant
5	DE14	xxx	Female	25–30	Citizen
6	DE17	xxx	Male	30–35	Immigrant
7	DE18	xxx	Male	25–30	Immigrant

contradiction, it is the information practices demonstrated by the entrepreneurs that would lessen or rather combat the effect of such inequality. This perspective resonates with current research findings as well as sheds light on the challenges faced by marginalized entrepreneurs in their information-seeking processes. It underscores the importance of addressing social and economic inequalities to create a more inclusive entrepreneurial ecosystem. Through provision of equal opportunities and resources to individuals from all social and economic backgrounds, it becomes possible to level the playing field and empower marginalized entrepreneurs to access the information and support they need to succeed.

Navigators, mediators and access to information

The participants from the present research recount ordeals of social discrimination which fuelled their feelings of stigmatisation. In their investigation of information practices amongst refugees, Lloyd et al. (2013: 138) argue how ‘in these early phases newcomers to a community find that their previously established information practices are no longer appropriate and thus do not connect them effectively to their new landscapes’. This necessitates the use of navigators and mediators, and some people need to spend a long time with these navigators and mediators in order to effectively access the formal and informal organizing discourses of their host community. As underscored by the research findings, individuals frequently necessitate extensive engagement with navigators and mediators to proficiently access both the formal and informal structured systems of communication and information sharing within their host community, as elucidated by Ukachi (2007), Mnubi-Mchombu et al. (2009), and Gibson and Martin (2019).

As with the digital entrepreneurs’ experiences in the current research, Lloyd and colleagues also report that ‘when new refugees feel detached from their new communities’ information landscapes as well as from established and localised systems of information production, reproduction, circulation and modes of access, they experience an information disjunction’. This disjunction may result in social exclusion due to the combined effects of socio-cultural factors, such as language and literacy constraints, an inability to grasp the subtle, tacit and consequential elements of communication and information, and a lack of cultural awareness of pre-existing members of their new communities regarding information practices. The current findings illustrate how deeply embedded this disjunction can be.

Collective information practices and support networks

As evidenced by the experiences of marginalized entrepreneurs, participation in a support group or community is one approach to achieve informational and educational

goals. The support group for example assists members as they transition into their new identity as lesbians and tackle stigmatisation and harassment. Kitzie et al. (2022: 499) describe the information practices of the marginalised ‘as tactical and agentic responses to and refutations of social and structural barriers and risks’. Barriers and threats generate two distinct information practices: defensive and protective. Evidence of such information practice is seen in the account of one of the participants. The objective of defensive information practices is to offset the negative effects of barriers. The traumatic experience is understood to involve factors that encourage members to share vital information through the story of their experience. This openness stimulates conversation and a sense of community. The participant’s account of her experience within the Conquer WhatsApp group highlights the importance of collective meaning-making within communities of individuals who share similar experiences and identities. As pointed by Burnett and Jaeger (2011: 167) ‘information behaviour is shaped simultaneously by both immediate influences, such as friends, family, co-workers and trusted information sources of the small worlds in which individuals live’. This collective process of meaning-making and support enables individuals to move beyond feelings of helplessness and desperation and take action towards their goals.

The Conquer WhatsApp group exemplifies the power of community-based initiatives in fostering mutual benefit and empowerment. Through sharing experiences, knowledge and resources, individuals within the group are able to build strong relationships and networks that can serve as a source of support and inspiration. This type of collective action can help to address the structural and systemic barriers that often hinder the success of marginalized entrepreneurs. Group behaviour adds another layer to the debate of information quality in connection to group behaviour, as well as highlighting the vulnerability of marginalised groups to groupthink. The research findings show this group behaviour is viewed as a technique of information-based mitigation – overcoming adversaries through subconscious information practices. Conaway (1995) shows that disadvantaged members of society have resorted to devising alternative methods to achieve their informational goals, given the limited assistance from information structures. Spink and Cole (2001), in their investigation of economically constrained households, found that information processing occurred within group settings. This discovery is agrees with the stance of Houston and Westbrook (2013), who show how marginalisation can be combated through the use of information. Marginalized digital entrepreneurs leverage information as a powerful tool for empowerment.

While it may be claimed that the support group should be credited with assisting marginalised individuals in reclaiming their social and economic voices, it is also vital to recognize the implicit information practices that drive

and sustain the group. This assumption is pertinent given that informational challenges faced by these entrepreneurs are rooted in social issues.

Technology as an equalizer in entrepreneurship

It was also observed from the findings of the current research that *technology* is viewed as an equaliser that neutralises the odds stacked against these marginalised entrepreneurs. Haile (2021: i) acknowledges that technology and specifically 'ICTs are often celebrated as liberating' among vulnerable groups. The insights from participants imply that technology has the power to bridge the gap between different regions and backgrounds, making it an equalizer in terms of opportunities. Regardless of origination, technology can provide a level playing field for individuals to access information, resources and opportunities in the entrepreneurial realm. The participants believe that technology has the ability to overcome geographical barriers and connect people from all corners of the world. In the context of entrepreneurship, this means that individuals from less prominent or less recognized regions can still have access to the same tools, information and platforms as those from more established or well-known areas.

The notion of technology as an equalizer emphasizes the democratizing effect it can have on entrepreneurship. Literature extensively acknowledges the significance of technology in increasing information-seeking and utilization. It is important to recognize that not all entrepreneurs have equal access to technology and information resources. Moreover, the acquisition of technology does not necessarily translate into effective use of information (Britz, 2004).

Furthermore, the socioeconomic inequality that occasionally manifests itself as a digital gap hinders the acquisition of these abilities. Interest groups that foster a feeling of community have intervened to mitigate these social constraints and accelerate and increase the adoption of technology by marginalized entrepreneurs (Chatman, 1996; Fan and Fichman, 2022; Fisher et al., 2004; Houston and Westbrook, 2013; Lingel and Boyd, 2013; Westbrook, 2008).

Informational empowerment extends to strategic networking, where marginalized entrepreneurs leverage their access to information networks to forge valuable connections and partnerships. They belong to interest-centric group that allow them to leverage their platforms and networks to raise awareness through sharing their experiences and insights.

Grounded theory operationalization. In an effort to ground the findings in the collected data, a middle ranged theory has emerged, termed Socio-Informational Stratification (SIS), a theoretical framework illuminating the linkages between societal structures and information practices

within the realm of digital entrepreneurship. SIS aptly acknowledges the nuanced experiences of individuals as they traverse a multifaceted socio-informational terrain, shaped by intersecting identities such as gender, marital status, sexual orientation, religion, language/accents, immigration status and socioeconomic status.

This framework recognizes that each individual's unique combination of identities contributes to their positioning within the stratified socio-informational environment. As marginalized digital entrepreneurs engage with information resources and networks, they encounter varying degrees of access, opportunity and constraint dictated by their intersecting identities. Burnett et al. (2008) conceptualize this information access at three distinct levels: physical access, which pertains to the availability of information infrastructure; intellectual access, which involves the ability to understand and process information; and social access, which reflects the influence of societal structures and networks in facilitating or restricting information flow.

The social adversity these entrepreneurs endure serves as the cost of repositioning themselves within the informational landscape. Their struggle to access and leverage information is not merely a challenge but a necessary step toward socio-economic empowerment. The burdens they face – stemming from their efforts to reposition themselves – are prerequisites for breaking free from systemic limitations. Their entrepreneurial drive, particularly their inclination to start businesses, acts as the catalyst for movement within the socio-informational structure, despite the constraints imposed on them. Consequently, access to information comes at a significantly higher cost for these marginalized groups. The Socio-Informational Stratification (SIS) framework provides a valuable lens to examine the varying experiences and obstacles these entrepreneurs encounter in navigating this complex landscape.

Theory of information worlds and socio-informational stratification (SIS)

The Theory of Information Worlds and Information Behaviour by Jaeger and Burnett (2011) presents a framework for analysing information behaviour across interconnected social contexts. The theory integrates Chatman's (1996) concept of 'small worlds' (localized social groups with shared norms) and Jürgen Habermas's 'lifeworld' (society-wide communication structures) to examine how information behaviour is shaped by both micro-level interactions (e.g. family, friends) and macro-level forces (e.g. media, politics). Jaeger and Burnett build upon these conceptions to arrive at three-level information environments namely: Micro: (Small worlds with shared norms, values and localized information practices), Meso (Intermediate institutions, e.g. organizations mediating between small worlds and broader society) and Macro (The lifeworld,

encompassing societal-level communication and political-economic influences).

The Theory of Information Worlds and the Socio-Informational Stratification (SIS) framework complement each other by providing a comprehensive understanding of the complex linkage between societal structures, information practices and the experiences of marginalized digital entrepreneurs. In contrast, the SIS framework, emerging from the research findings, extends this understanding by illustrating that information-seeking activities often proceed unhindered at micro level, while barriers to information access predominantly arise at the macro level. This distinction underscores the structural and systemic nature of information inequities as result of intersecting identities and experiences – gender, marital status, sexual orientation, religion, language/accent and socioeconomic status – and their role in either constraining or enabling information practices. The SIS framework captures these nuanced experiences, recognizing that individuals navigate a complex socio-informational landscape where access, agency and opportunity are stratified. It acknowledges that each entrepreneur's unique combination of identities shapes their positioning within this layered environment, influencing both their access to information and their ability to leverage it effectively. It also advocates the need to consider multiple contexts simultaneously, not just individual or isolated settings.

Conclusion

The study examined how the intersectionality affects the information behaviours of marginalized groups, specifically women and immigrant digital entrepreneurs. Information access of marginalized entrepreneurs is defined and shaped by a number of essential social structures (such as support groups and a sense of community, and trust), psychological characteristics (such as anxiety, sympathy and shyness), and technological conditions (such as digital literacy). The combination of these factors, however, has resulted in the activation of a subconscious coping mechanism that ensures the continuation of information-seeking and access among this marginalised group. These findings provide an update and further extend the discussion about realistic ways in which underrepresented groups can sustain their information practices. This is important given that access to information is essential for survival in contemporary society, the information society, in which those who are disconnected from information are at a significant disadvantage' (Lor and Britz, 2007). In this context, access to information is seen as a critical determinant of entrepreneurial ideation and subsequent realisation.

Entrepreneurship support programs should take into account the intersecting identities and unique challenges faced by women and immigrant entrepreneurs. Tailored

support services should be developed to address the specific needs related to gender biases, cultural differences, language barriers and access to networks and resources.

This study had some limitations that should be acknowledged. The data utilised for the current study is part of larger dataset collected and hence the risk of over reduction. The downside of over-reduction on qualitative data is that it can lead to the loss or oversimplification of rich contextual information and nuances present in the data (Sayer, 2010). The study focused on a black West African context may not capture the full range of experiences across diverse cultural and national contexts. More so, given Nigeria's ethnic diversity (250+ groups), findings may fail to account for broader applicability.

Future research should conduct a comparative studies across different cultural contexts to examine the cultural and contextual influences on the intersectionality of gender and immigrant status. It will be of immense benefit also to explore the role of group behaviour, sympathy elicitation and online communities in information sharing and support networks for women and immigrant entrepreneurs.

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ORCID iDs

Suraj Ibrahim  <https://orcid.org/0000-0001-7704-4739>

Rita Marcella  <https://orcid.org/0000-0003-0069-3516>

Data availability statement

The data collected during this research has been deposited in the UK Data Services and Roberts Gordon University's OpenAir repositories, making it freely accessible to other researchers. Additionally, Sage Publications and its partners may reuse the data for further research purposes.

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Author biographies

Suraj Ibrahim is a researcher at Robert Gordon University, Aberdeen. He holds an MRes in Information Technology, Management, and Organisational Change from Lancaster University, UK. His research interests lie within the broad domain of information and entrepreneurial behaviour, particularly in relation to marginalized contexts. His work also explores digital inclusion and the role of technology in empowering underserved populations.

Rita Marcella continues to supervise doctoral and Masters students at Robert Gordon University in Aberdeen. Her research interests include information behaviour generally and in a variety of contexts, including politics and business. She continues to be fascinated by the ways in which people's interaction with information changes with the advent of new media and technologies to assist the process.

Alan MacLennan is a lecturer in Information Management at Robert Gordon University in Aberdeen. His research interests include the use of virtual worlds as a means of accessing information.