

Empowered by Technology, Constrained by Tradition: The Dual Impact of Digitalisation on Rural Saudi Women Entrepreneurs

Nasreen Hasan ^c *

Abstract:

This study examines the dynamics of rural women's entrepreneurship in Saudi Arabia, focusing on the complex role of digitalisation in shaping entrepreneurial agency. Based on 25 qualitative interviews, it explores how digital platforms enable entrepreneurship by overcoming geographic isolation, facilitating access to customers and markets, reducing the need for public mobility, and offering flexible, home-based modes of operation that align with domestic responsibilities. At the same time, the study highlights how these digital avenues are mediated by socio-cultural constraints rooted in patriarchal norms and institutional expectations, which continue to shape the terms and visibility of women's entrepreneurial engagement. Drawing on Feminist Technology Theory and Feminist Institutionalism, the study analyses how formal rules and informal norms intersect with digital tools to both expand and limit women's business activities. The findings reveal how rural Saudi women strategically navigate these tensions, leveraging digital spaces while negotiating moral surveillance, restricted mobility, and community resistance. By situating rural women's entrepreneurship within broader gendered institutional contexts, this research contributes to ongoing debates on contextualised entrepreneurship, offering insight into how digitalisation reshapes opportunity structures in rural non-Western settings.

Keywords: Rural Women's Entrepreneurship, Digitalisation, Feminist Technology Theory, Feminist Institutionalism, Socio-Cultural Constraints, Patriarchal Norms.

1. Introduction:

Saudi Arabia is undergoing profound socio-economic transformation under its Vision 2030 agenda, which seeks to diversify the economy and expand women's participation in public life. While considerable attention has been directed toward urban women entrepreneurs, the

^c Corresponding author: Nasreen.hasan@strath.ac.uk

* Hunter Centre for Entrepreneurship, Strathclyde Business School, University of Strathclyde, Glasgow UK.

experiences of rural women remain critically underexplored (Alhothali, 2020). Historically, rural Saudi women have played a vital but often invisible role in sustaining local economies (Abdelwahed et al., 2022) through traditional crafts, small-scale farming, and informal market trading activities that have often remained circumscribed due to the influence of patriarchal norms, tribal affiliations, and conservative institutional frameworks (Al-Dajani & Marlow, 2010; Lassalle & Shaw, 2021).

With the advent of digital technologies, new possibilities have emerged for rural women to access markets, build networks, and engage in entrepreneurial activities beyond the confines of their immediate communities (Helinska-Hughes et al., 2011). Platforms such as Instagram and WhatsApp are being used to circumvent spatial and gendered limitations, allowing women to perform entrepreneurial agency from within socially acceptable domestic or communal spaces. However, digitalisation also introduces new complexities, reproducing existing norms, intensifying community surveillance, and embedding women's visibility within paradoxical expectations (Antonio & Tuffley, 2014; Arimatsu, 2019). This duality, of empowerment and constraint, demands an analytical lens attuned to the structural and symbolic forces shaping women's digital participation.

This paper draws on **Feminist Technology Theory** (Van Zoonen, 1992) and **Feminist Institutionalism** (Kenny, 2014; Mackay & Waylen, 2009) to examine how digital platforms intersect with entrenched socio-cultural norms and institutional logics in shaping rural Saudi women's entrepreneurial pathways. Feminist Technology Theory reveals how digital tools are embedded within gendered power relations, rather than acting as neutral enablers of empowerment. In parallel, Feminist Institutionalism allows for a critical interrogation of how formal and informal institutions, such as state policies, tribal traditions, and family structures, mediate access to entrepreneurial opportunity. These frameworks collectively enable a deeper understanding of constrained entrepreneurship in non-Western settings.

Empirically, the study draws on 25 semi-structured interviews with rural Saudi women entrepreneurs, offering a grounded analysis of how these women navigate digitalisation, negotiate community expectations, and construct entrepreneurial trajectories under conditions of socio-political change (Bryman & Burgess, 1994). These narratives surface forms of spatial bricolage,

institutional work, and technology-mediated agency, as women repurpose domestic and informal spaces into entrepreneurial ones while carefully balancing visibility and respectability.

By situating rural women's digital entrepreneurship at the intersection of gender, technology, and institutional constraint, this study contributes to the literature on rural entrepreneurship (Leung, 2018) and offers empirical insights into the evolving socio-economic landscape of rural Saudi Arabia. It responds to growing scholarly and policy interest in inclusive entrepreneurship and proposes a more culturally embedded understanding of empowerment that accounts for both digital possibility and social embeddedness.

The paper begins by outlining the conceptual foundations of rural entrepreneurship, with particular attention to how spatial, cultural, and institutional dynamics shape entrepreneurial possibilities in the Saudi context. It then examines the gendered dimensions of digitalisation, exploring how digital tools offer both empowerment and constraint for rural women entrepreneurs. Building on this, the theoretical framework draws from Feminist Institutionalism and Feminist Technology Theory to analyse how formal structures and technological systems intersect with gendered power relations. The methodology section details the data collection process and analytical approach. This is followed by the findings, which present narrative accounts of how rural Saudi women navigate visibility, autonomy, and institutional gaps through digital engagement. The paper concludes with a discussion of research limitations and identifies avenues for future research to better support rural women's entrepreneurship in digitally mediated environments.

2. Conceptualising Rural Entrepreneurship and the Saudi Context

Rural entrepreneurship is broadly understood as the creation, development, and management of small-scale and often informal ventures embedded in non-urban localities (Flora & Flora, 1990; Korsgaard et al., 2015; Muñoz & Kimmitt, 2019). These enterprises, ranging from artisanal work and local agriculture to neighbourhood traders, contribute to regional economies by leveraging local resources and serving community-specific demands (Lekhanya, 2019). Such entrepreneurial activity plays a vital role in poverty reduction, job creation, and the broader goal of rural industrialisation by transforming underutilised resources into productive economic outputs (Muñoz & Kimmitt, 2019).

Rural entrepreneurs are individuals who engage in these activities under conditions that often differ markedly from those in urban contexts. They display core entrepreneurial traits such as opportunity recognition, product development, and competitive positioning, even amid challenges like limited access to infrastructure, capital, and training, as they manage businesses while navigating socio-spatial limitations and contributing to household stability and broader community development (Bryant, 1989; Freire-Gibb & Nielsen, 2014). However, this entrepreneurial potential coexists with entrenched structural barriers, particularly for rural women, who face multi-layered constraints including reduced mobility, limited decision-making power, and restricted access to formal markets and support systems, challenges rooted in patriarchal norms, tribal authority, and gendered divisions of labour (Aggarwal & Johal, 2021; Stathopoulou et al., 2004). Their embeddedness in the social and cultural fabric of rural life positions them as key agents in sustaining local economies and transmitting skills within informal networks.

Rurality in entrepreneurship research refers not only to spatial remoteness but also to a distinct set of infrastructural, social, and cultural conditions that influence entrepreneurial behaviour. These include limited public services, reduced access to formal education and markets, and highly embedded social structures such as kinship networks, tribal affiliations, and informal governance (Korsgaard et al., 2015; Muñoz & Kimmitt, 2022). In Saudi Arabia, rurality is further shaped by traditional gender norms, religious values, and the uneven distribution of state services, creating a unique socio-institutional context for women's entrepreneurial engagement.

Although rural areas are often framed as economically marginal, they in fact represent complex, resource-rich landscapes where local knowledge, heritage-based skills, and tight-knit community networks form meaningful foundations for entrepreneurial activity (Korsgaard, Müller & Tanvig, 2015; Muñoz & Kimmitt, 2022). In Saudi Arabia and the broader Gulf region, this potential is increasingly visible in the entrepreneurial efforts of rural women, who navigate conservative cultural environments and familial gatekeeping to sustain micro-enterprises in sectors such as handicrafts, food production, and heritage trade (Ghouse et al., 2021). Rather than operating solely for profit, many of these ventures are deeply embedded in local traditions and serve broader social purposes, preserving cultural practices, supporting household income, and securing community status (Fortunato, 2014; Sharma, Dua & Hatwal, 2012). These dynamics have gained further salience in light of the Kingdom's broader reform agenda, where digitalisation has been promoted as a central pillar of economic diversification under Vision 2030. Platforms such as Instagram,

Snapchat, and other local platforms such as Maroof, Haraj, and Thiqah have opened culturally viable spaces for rural women to participate in commerce from within the home, reducing exposure to public markets and enabling new forms of economic visibility.

Despite increasing recognition of rural entrepreneurship as a distinct field within the broader literature, global discourse continues to be shaped by Western-centric experiences and assumptions, offering limited insight into how rurality intersects with gender, culture, and institutional norms in non-Western contexts such as Saudi Arabia. This gap is especially salient given the structural constraints rural Saudi women continue to face, including digital illiteracy, inadequate infrastructure, and socio-cultural gatekeeping, all of which restrict their ability to fully engage in entrepreneurial activity (Al-Asfour et al., 2017).

3. Gendered Access and Digitalisation in Rural Entrepreneurship

Digitalisation has emerged as a powerful enabler of entrepreneurial activity globally, providing new channels for market access, resource mobilisation, and business development, particularly for individuals historically excluded from formal economic structures (Kraus et al., 2019; Nambisan, 2017). For women, and especially those in rural settings, digital tools such as mobile applications, social media platforms, and e-commerce technologies offer a means of circumventing entrenched barriers tied to mobility, time constraints, and public visibility (Ateş et al., 2025; McAdam, Crawley, et al., 2019; Wajcman, 2004). These tools have thus been widely celebrated for opening up entrepreneurial pathways that are flexible, low-cost, and potentially emancipatory in contexts where spatial freedom and market participation have traditionally been limited.

However, the benefits of digitalisation are far from universally realised. A persistent gendered digital divide, exacerbated in rural regions, continues to shape who can access, afford, and meaningfully use digital tools (Gilbert et al., 2008). Access to high-speed internet, digital literacy training, and entrepreneurial support services often lags behind in peripheral communities, limiting the capacity of rural women to capitalise on digital opportunities (Antonio & Tuffley, 2014). Moreover, the very tools regarded as enabling can simultaneously entrench existing exclusions, as digital engagement is mediated by patriarchal systems, gendered expectations, and family dynamics that shape the types of businesses women can pursue, the extent of their public visibility, and the boundaries of “acceptable” entrepreneurial behaviour (Kumawat & Garg, 2025; McAdam, Crawley, et al., 2019).

This highlights that technology is not inherently neutral, as digitalisation is still shaped by the institutional and cultural contexts in which it is used, despite its capability of disrupting spatial, temporal, and social boundaries. In rural and non-Western contexts especially, digital tools must be understood as both potential vehicles for empowerment and sites of negotiation, where women's agency is enabled in some respects but simultaneously circumscribed by enduring inequalities. This duality forms the backdrop for understanding rural women's entrepreneurship in places like Saudi Arabia, where access to digital tools intersects with state-led development agendas, tribal norms, and deeply gendered institutional landscapes.

4. Digital Capacity and Rural Inclusion in Saudi Arabia through Reform Trajectories

Saudi Arabia's Vision 2030 has repositioned digital innovation and inclusive economic development as central pillars of national reform through institutions such as the Saudi Data and Artificial Intelligence Authority (SDAIA) (SDAIA, 2025), the Digital Government Authority (DGA, 2025), and Monsha'at (Monsha'at, 2025), the state has expanded broadband coverage, e-services, and SME support platforms such as mobile signature collection, online licensing, and virtual training,. Targeted programmes like the Sustainable Agricultural Rural Development Programme (Reef) (Saudi Press Agency, 2025b) and the National Transformation Programme (NTP) (vision2030, 2025) have further invested in rural infrastructure, economic empowerment, and entrepreneurial training. These efforts represent a structural attempt to close urban–rural gaps and integrate peripheral populations, including rural women, into the Kingdom's digitally mediated economy.

Saudi Arabia demonstrates significant economic and digital capacity, positioning it as a regional leader in digital readiness. With a GDP per capita of approximately \$ 32,094.00 USD in 2023 (WorldBank, 2025). As of 2023, 98.6% of individuals aged 10 and above use the internet, and 94% own smartphones, supported by expanding access to tablets and laptops through state-subsidised initiatives (CST, 2023). By the end of 2023, Saudi Arabia recorded 49.1 million mobile subscriptions, equivalent to 134% of the population, with 99.2% of these subscriptions classified as broadband-capable and internet penetration reaching 99% (Saudi Press Agency, 2025a). Digital access occurs overwhelmingly via mobile phones, which account for approximately 83.5% of internet usage, while tablets constitute a marginal 0.65%, reflecting the dominance of smartphones as the primary medium for digital engagement (StatCounter, 2025). Moreover, over 49 million

cellular connections were active in 2024, 134% of the population with internet penetration reaching 99% (CST, 2025). As of 2023, smartphone ownership in Saudi Arabia was widespread, with 92.2% of the population owning a device; Apple and Samsung dominated the market with 46.2% and 24.4% shares, respectively (ubuy, 2025).

These indicators suggest that many Saudi households, including those in rural areas possess both the purchasing power and infrastructural access to engage in digital platforms forming a critical backdrop for understanding the evolving landscape of rural women's entrepreneurship. In theory, the confluence of high device penetration and state-led digital reforms creates a conducive environment for rural women to access markets, communicate with clients, and conduct business from within the domestic sphere. However, despite these structural enablers, rural women's participation in digitally mediated entrepreneurship remains constrained by gendered expectations, family approval structures, and limited engagement in formal training or institutional support networks. The digital sphere, while accessible, remains socially regulated, shaping how, where, and to what extent rural women can exercise entrepreneurial agency. This contradiction underscores a central paradox in the study: while digitalisation provides new technical possibilities for entrepreneurship, its transformative potential remains conditioned by enduring socio-cultural structures that shape how it is accessed, used, and experienced.

To unpack this tension, this study adopts a dual theoretical framework combining **Feminist Institutionalism** and **Feminist Technology Theory** to allow for a nuanced interrogation of how digital technologies may both disrupt and reproduce institutional constraints, particularly for rural Saudi women navigating a rapidly evolving but uneven entrepreneurial landscape.

5. Theoretical Framework: Feminist Institutionalism and Feminist Technology Theory

Recent scholarship in feminist technology studies has moved beyond simplistic comparisons of women's and men's access to technology (Landström, 2007) to bringing feminist theoretical perspectives to understand how gender as a social construct and power relations shape the experiences of women entrepreneurs (Reyes & Neergaard, 2023), emphasising how technologies and sociotechnical systems co-constitute how technology is intertwined with existing gender inequities and how feminist perspectives question and seek to transform these inequalities through design, social relations, and use (Johnson, 2010). Rather than viewing technology as neutral or

universally empowering, this body of work examines how digital tools often reflect and reproduce existing social hierarchies, including patriarchal norms that marginalise women.

Mainstream entrepreneurship studies have often focused on the gender gap in outcomes without interrogating how gender itself is produced through institutional structures and cultural expectations (Ahl, 2006; Marlow & McAdam, 2013). Feminist scholars have highlighted how design processes, platform governance, and everyday digital practices are embedded within and contribute to the reproduction of social inequalities (Faulkner; Wajcman, 2004). This perspective is especially relevant in contexts like rural Saudi Arabia, where digitalisation opens new spaces for women's entrepreneurship while also entrenching traditional expectations around gender roles and mobility. As such, a feminist approach to technology insists on recognising how structural constraints and sociotechnical affordances intersect, and how digital platforms might be reimagined to foster more inclusive and equitable participation. These insights call for a deeper contextual analysis of how rural women navigate and repurpose technology within gendered institutional landscapes that both empower and constrain their entrepreneurial trajectories.

Bringing together Feminist Institutionalism and Feminist Technology Theory offers a nuanced framework for understanding how structural forces and digital infrastructures co-shape the entrepreneurial experiences of rural Saudi women. Feminist Institutionalism foregrounds how historically embedded legal, religious, and cultural arrangements produce and reinforce gendered access to entrepreneurial participation, mobility, and legitimacy (Acker, 1992; Krook & Mackay, 2011). These institutional dynamics remain especially salient in Saudi Arabia, where patriarchal norms and gatekeeping practices have long constrained women's entrepreneurial autonomy, particularly in rural areas. In contrast to universalist narratives, feminist entrepreneurship scholars emphasise the situatedness of entrepreneurial agency—especially where intersecting structures of patriarchy, class, and geography converge.

Feminist Technology Theory complements this lens by revealing how these same gendered structures are encoded into the design and use of digital platforms. Technologies are not neutral tools; they reflect and reproduce existing power relations, including those related to gender, class, and geography. In Saudi Arabia's rapidly transforming digital economy, rural women encounter both new opportunities and enduring limitations. Digital platforms may facilitate market access and reduce the need for public visibility, but they are also socially regulated spaces, shaped by

family dynamics, moral expectations, and institutional gaps in training and support. The techno-optimist framing of digitalisation as inherently liberatory obscures how access, use, and visibility are deeply mediated by institutional absence, familial gatekeeping, and moral surveillance.

Together, these perspectives illuminate the paradox at the heart of digitalisation in non-Western rural contexts. Digital tools offer novel routes to entrepreneurial engagement, but they remain entangled with socio-cultural logics and institutional constraints that condition their transformative potential. Analysing how rural women strategically navigate, appropriate, or resist these dynamics reveals the dual impact of digitalisation, as both an enabler and a mirror of inequality, and the evolving nature of agency in contexts marked by rapid technological change and deep-rooted patriarchal traditions. Despite a growing body of feminist scholarship on gender and entrepreneurship, more work is needed to examine how digitalisation intersects with institutional power in shaping the everyday entrepreneurial practices of women in the Global South (Best et al., 2025; Imiren et al., 2023).

This study addresses that gap by centring the lived experiences of rural Saudi women entrepreneurs, showing how their use of digital technologies reflects both adaptation to and resistance against institutional constraints (Ulhøi, 2021). By highlighting how digital platforms intersect with context-specific gender norms and power relations, this analysis draws attention to the complex and often contradictory ways digitalisation can both facilitate and restrict women's entrepreneurial agency. It further underscores the need for deeper inquiry into how these dynamics unfold in conservative, patriarchal contexts that remain underexplored in existing research on digital entrepreneurship. This paper thus contributes to feminist scholarship by extending analysis to a rarely explored demographic, rural women in the Global South, whose digitally mediated entrepreneurial experiences remain shaped by context-specific power relations.

6. Methodology

This study examines how digitalisation shapes the entrepreneurial experiences of rural Saudi women by adopting a qualitative and interpretivist methodology grounded in Feminist Technology Theory and Feminist Institutionalism. These perspectives are particularly suited to interrogating the intersecting effects of gender, digital tools, and institutional structures, as they allow for a deep exploration of how women interpret and navigate opportunities and constraints in digitally

mediated business activity. Through this lens, the study investigates how rural women entrepreneurs engage with digital platforms while contending with localised norms related to visibility, mobility, and moral authority.

The research explores three focal areas: (i) access to digital infrastructure and devices in rural settings, (ii) the ways rural women adopt digital platforms for entrepreneurial activity, and (iii) how socio-cultural expectations around gender act as both a channel and a constraint on digital entrepreneurial participation. A total of 25 semi-structured, in-depth interviews were conducted (between October 2024 and February 2025) with rural Saudi women entrepreneurs (see Table 1) residing in villages on the outskirts of Riyadh and Al Ahsa, who periodically travel into the cities to participate in traditional markets. These locations, while geographically varied, share key features of rurality in the Saudi context, particularly when compared to major urban centres such as Riyadh, including limited access to formal infrastructure such as public transportation (e.g., taxis, train services), government representation offices, and educational opportunities like workshops and training courses. Moreover, such rural locations can be categorised with having strong kinship and tribal affiliations and heightened gendered surveillance.

Table I. Profiles of Contributing Interviewees

No	Pseudonym	Product Category	Ages	Area
1	Noora	Perfumes and incense	23	Riyadh
2	Fatima	Handmade embroidered abayas and scarves	38	Riyadh
3	Latifa	Artisanal honey and herbal remedies	41	Riyadh
4	Aljawhara	Locally made butter and cheese	35	Al Ahsa
5	Haya	Perfumes and handmade crafts	29	Al Ahsa
6	Dalal	Embroidered abayas and incense	44	Al Ahsa
7	Shahad	Herbal oils and wellness remedies	37	Riyadh
8	Modhi	Traditional perfumes and scented blends	33	Al Ahsa
9	Al-Anoud	Homemade cheese and infused ghee	52	Riyadh
10	Reem	Hand-stitched abayas and decorative crafts	31	Riyadh
11	Sheikha	Natural honey and date-based products	58	Riyadh
12	Maha	Incense and body oils	40	Al Ahsa
13	Sara	Butter, cheese, and traditional dairy products	36	Al Ahsa
14	Ghada	Abayas with regional embroidery patterns	34	Al Ahsa
15	Aisha	Perfume oils and resin incense	28	Riyadh
16	Zainab	Herbal teas and healing blends	60	Al Ahsa
17	Bashayer	Handmade crafts and home decor items	42	Al Ahsa
18	Jawaher	Perfumes and dried floral incense	30	Al Ahsa

19	Maryam	Cheese, honey, and local spice blends	66	Riyadh
20	Nouf	Embroidered accessories and abaya accents	26	Al Ahsa
21	Tahani	Traditional cosmetics and herbal treatments	38	Al Ahsa
22	Wadha	Perfumed balms and scented oils	45	Riyadh
23	Shouq	Incense burners and craft packaging	35	Riyadh
24	Abeer	Butter, honey, and herbal skin products	50	Riyadh
25	Areej	Decorative abayas and handmade gift items	27	Riyadh

In the Saudi context, the rurality of those locations is shaped less by geographical remoteness than by the density of socio-cultural control mechanisms. Unlike Western definitions of rurality that often hinge on agricultural dependence or distance from urban centres (Korsgaard et al., 2015; Stathopoulou et al., 2004), rural areas in Saudi Arabia are frequently defined by restrictive gender norms, limited public-facing roles for women, and a lack of formal entrepreneurial infrastructure such as incubators or business associations. These areas may still be in physical proximity to urban hubs but functionally remain socially and institutionally marginalised.

Participants were recruited using snowball sampling, beginning with contacts identified through social media, traditional markets, and word-of-mouth referrals. Eligibility required that participants were women currently located in rural areas, engaged in entrepreneurial activity and using digital tools (e.g., social media, WhatsApp Business) to promote or conduct business. The majority operated home-based ventures focusing on traditional products such as locally made perfumes and incense, handmade crafts and embroidered abayas (a long, loose-fitting outer robe, designed to cover the body and commonly worn by Muslim women as a garment of modesty); and artisanal food products like cheese, butter, honey, and herbal remedies.

Interviews were conducted in Arabic, either in person or via Zoom, depending on participant preference and location. Each interview lasted approximately one hour. With participant consent, all interviews were audio-recorded, transcribed, and translated into English by the researcher to maintain linguistic nuance and ensure interpretive consistency. Transcripts were uploaded into NVivo software and coded thematically through an iterative process. The analysis was supported by the Gioia methodology for data reduction, wherein first-order participant-centric codes were clustered into second-order theoretical themes.

In addition to interviews, informal observations were conducted during visits to traditional markets, where several participants set up their temporary stalls to display their products and then dismantled and removed them each time they finished selling. These settings offered insight into how women navigated the online-offline interface of entrepreneurship. Notably, younger participants or those accompanied by their daughters were observed actively directing customers to follow their Instagram or Snapchat business accounts, sometimes using printed QR codes or flyers. Some received orders on the spot or via WhatsApp, reflecting the integration of mobile messaging into their business operations. Participants also discussed how they used WhatsApp not only to communicate with customers, but also to coordinate with female suppliers of raw materials, particularly for perfumes, oils, and fabric, highlighting how digital platforms supported women-only supply chains within gender-segregated norms.

Ethical considerations were central to the research process. Given the sensitivity of discussing gender norms, economic independence, and digital visibility in conservative contexts, all participants were assured confidentiality, and pseudonyms were used throughout. Care was taken to respect participants' comfort levels, particularly in discussing topics related to family dynamics, online exposure, or community backlash. This methodological framework facilitated a contextualised understanding of how rural Saudi women engage in entrepreneurship not only as a business endeavour, but also as a strategic negotiation across social, institutional, technological, and technology-platform terrains.

To this end, the analysis aimed to explore how technological tools, particularly mobile applications, digital platforms, and messaging services, enable or restrict rural Saudi women's entrepreneurial activity, often in ways deeply entangled with gendered expectations, moral scrutiny, and institutional limitations. As a researcher who originates from the region, speaks the language, and is socially familiar with the gendered landscapes under study, yet is conducting this research within a Western-based academic institution, I occupy a position of cultural proximity and academic distance. This dual positioning allowed for deep access and relational trust with participants, many of whom shared experiences in ways unlikely to be accessed by external or unfamiliar researchers. At the same time, working within a Western feminist and institutional framework enabled a critical lens through which to interrogate the taken-for-granted norms shaping women's technological engagement. Rather than imposing pre-set assumptions, I

approached the field reflexively, aware of how my insider knowledge could both illuminate, and overlook aspects of the narratives being shared.

This research does not claim universality or finality but instead offers a contextualised and relational understanding of how rural Saudi women engage with technology, not merely as users or entrepreneurs, but as actors situated in dynamic, gendered terrains of power, mobility, and economic aspiration. In the chapters that follow, I trace how technology becomes both a resource and a site of negotiation, shaping entrepreneurial possibilities while reflecting the broader institutional logics within which these women are embedded.

7. Interview Narratives: Navigating Visibility, Autonomy and Institutional Gaps in Rural Saudi Women's Entrepreneurial Use of Technology

The findings presented in this chapter trace the complex and often contradictory ways in which rural Saudi women entrepreneurs engage with digital technologies in the context of entrepreneurship. Rather than positioning digitalisation as a straightforward path to empowerment, the data highlight its ambivalent role; it offers both new opportunities and fresh constraints. For many participants, technology functions less as a tool of disruption and more as a negotiated resource, one that must be carefully managed in light of entrenched gender norms, generational differences, and uneven institutional support (Herring, 2003; Orser et al., 2011; Wajcman, 2004).

The findings are presented through three interrelated themes. The first explores how rural women entrepreneurs negotiate visibility and respectability in digital spaces. The second examines the role of technology as a gateway to autonomy and flexible entrepreneurial participation. The third focuses on the role of informal infrastructures in responding to institutional absence. Together, these themes offer a contextualised understanding of how digital tools are reshaping, rather than replacing, the social logics of gender and entrepreneurship in rural Saudi Arabia.

7.1 Negotiating Visibility and Respectability through Digital Platforms

One of the most recurring tensions expressed by participants was the need to be visible as entrepreneurs while remaining respectful of cultural expectations around modesty, gender segregation, and moral conduct. As previous studies have shown, women's participation in entrepreneurship often involves managing competing demands of visibility and propriety,

particularly in conservative or patriarchal contexts where public presence is gendered and heavily scrutinised (Bruni et al., 2004; Lewis, 2006). Social media becomes a space of moral negotiation, where women must perform entrepreneurial legitimacy without violating communal norms (Gill & Orgad, 2015). This theme explores the strategies women adopted to navigate this delicate balance, revealing how digital entrepreneurship is embedded in and shaped by localised gendered moral economies (Mahmood, 2006; Mirchandani, 1999).

7.1.1 Entrepreneurial Online Presence under Gendered Constraints

A prominent yet understated strategy among rural Saudi women entrepreneurs was the deliberate avoidance of personal identifiers, such as names, faces, or voices, in business promotion, reflecting the moralised nature of visibility within tightly knit communities. Participation in the digital economy required careful negotiation of public presence and private modesty, what Goffman (1949) might describe as a performance governed by contextual norms of frontstage and backstage behaviour. Rural Saudi women entrepreneurs often adopted alternative approaches to online personal branding, such as using symbolic logos, aesthetic flat-lay product photography, or naming their online shops after their children, local landmarks, or abstract phrases. These choices echo findings in feminist research that show how women entrepreneurs adapt branding practices to navigate moral economies of gender, particularly in settings where public self-promotion may carry reputational risk, invite scrutiny, gossip, or family backlash (Al Derham, 2023; Duffy & Hund, 2015; Gill, 2007; Lewis, 2013).

Several women described a felt obligation to remain faceless because of the unwritten social codes regulating female conduct across digital and physical spaces. This practice of strategic anonymity, or “curated invisibility” (Cover, 2015), allowed them to engage entrepreneurially without breaching communal expectations. It highlights how visibility is not universally empowering, but rather mediated by gender, social location, and moral surveillance. Below are illustrative reflections shared by participants during our interviews.

“I never post my picture, not even my voice, god forbid I ever do that by mistake, my entire family will be very mad.. My account has only my products... Even the name, I used something very neutral, not mine...My brothers don’t like the idea of people knowing it’s me, that someone from our family is behind this instagram account... Everyone knows the products are good, but not who I am exactly. That keeps things easier at home.” (Haya, 20, Al Ahsa)

“The first time I opened the account, I posted a photo holding one of my perfumes..just my hand showing, nothing else. Within an hour, my uncle called me, shouting at me. Apparently, my cousin had seen the post and told him... I took it down immediately. Since then, I only post the products, no hands, no faces, nothing that shows it's me.” (Modhi, 33, Al Ahsa)

“I had an arranged marriage proposal, but it was called off because my photo appeared in the news... I was receiving an award at an official ceremony, fully covered in a traditional abaya, standing with women representatives from Munsha 'at. The photo was completely decent, but just the fact that it was made public was bad enough. I was shocked... I never imagined something so formal and respectful would be seen as unacceptable.” (Areej, 27, village near Riyadh)

The avoidance of personal identifiers should not be seen solely as a constraint, but as a form of “modest agency” (Mahmood, 2006), a strategic navigation of gendered expectations through culturally attuned adaptation rather than overt resistance. By naming their businesses after farms, children, or abstract symbols, women align their branding with cultural norms, enabling public participation without appearing transgressive. This reflects Mirchandani's (1999) observation that women's entrepreneurship often emerges through feminised and less visible forms of engagement.

This curated invisibility also reflects deeper structural dynamics within entrepreneurial ecosystems, where dominant norms of visibility privilege masculinised modes of self-promotion (Lewis, 2006; Stead, 2017). In some contexts, even modest and official forms of exposure, such as appearing in media coverage or public-facing content, can trigger social backlash, including gossip, familial disapproval, or the disruption of personal opportunities. In this setting, rural women's entrepreneurial branding choices on platforms like Instagram or WhatsApp are not merely aesthetic, but acts of socio-cultural negotiation embedded within gendered moral economies, realities often overlooked in mainstream policy and entrepreneurial discourse.

7.1.2 Mediating Male Digital Interactions

For many participants, entrepreneurship also required navigating the social protocols surrounding gendered interaction. A recurring theme in the interviews was the need to mediate or avoid direct communication with men, particularly male delivery drivers, male customers, or even male suppliers. This mediation was not merely logistical; it was deeply embedded in prevailing norms of gender segregation and modesty, as well as family-imposed expectations about what constitutes

appropriate female behaviour in both physical and digital spaces (Abdelwahed et al., 2022; Doumato, 1999).

Participants described using male relatives, brothers, sons and husbands, as intermediaries to handle deliveries or liaise with male clients. Others timed exchanges to ensure minimal contact or requested that female delivery personnel be sent when available. These strategies reflect what Mirchandani (1999) terms “gendered filtering”, whereby women’s engagement in economic life is constantly negotiated through moral and relational norms. Although technology introduced new forms of flexibility, it continued to reproduce familiar social boundaries. Voice notes were often avoided to prevent the discomfort of being heard by a male stranger, and business communication was largely conducted through written text, even when voice messaging might have been more efficient. Such practices highlight a form of gendered digital etiquette, where appropriateness is continually calibrated against community expectations and family dynamics (Abu-Lughod, 1998; Gill, 2007).

Rather than dismissing these practices as limitations, they should be viewed as culturally embedded adaptations that allow rural women to participate in economic life while upholding the values of their social contexts. These accounts align with feminist scholarship that challenges universalist views of empowerment, showing how women craft entrepreneurial pathways within the constraints and affordances of their environments (Kabeer, 2011; Kandiyoti, 1988). The quotes below illustrate how these dynamics play out in women’s everyday entrepreneurial practices:

“If a man sends a voice note, I won’t reply with one. I just type. I don’t feel it’s proper for him to hear my voice, even in business... If I did, and my husband finds out, that would definitely be the end of my home business.” (Fatima, 38, village near Riyadh)

“When I first started, I was the one arranging deliveries... But my father told me it’s better if he deals with the drivers. Now, I just pack the order and leave it near the gate. He handles the rest, and many times he complains when he is busy and does not want to deal with it.” (Aljawhara, 38, rural area outside Al Ahsa)

“Some women I know stopped selling online because they got calls from strange men. That’s why I only take orders from women. Or if it’s a man, my brother talks to him because I don’t want problems that would affect my business.” (Noora, 23, outskirts of Riyadh)

These accounts illustrate how the seemingly mundane act of business communication becomes a site of gendered negotiation, echoing scholarship on how social norms structure women’s

participation in entrepreneurship (Ahl, 2006; Bruni et al., 2004). Women's economic roles are mediated through family-approved channels, with brothers, sons, or husbands acting as both gatekeepers and facilitators. While these arrangements offer a route into commerce, they also reinforce women's dependence on male permission and protection, aligning with the broader literature on patriarchal bargaining (Kandiyoti, 1988). As Light, Burgess, and Duguay (2018) argue, digital platforms are not neutral terrains; they are embedded within and shaped by cultural and moral regimes that govern expression, visibility, and interaction.

Women's entrepreneurial strategies in this context are better understood not as signs of limitation, but as tactical adaptations to institutional and familial expectations. As Mirchandani (1999) argues, women engage in "gendered performances" that preserve social legitimacy while enabling entrepreneurial participation. In the Saudi context, such work involves not only crafting products or curating digital content but also carefully managing male interactions within a socio-legal environment where boundary transgressions carry significant consequences. Much like their limited access to formal state support (Welter & Smallbone, 2011), women's navigation of gendered spaces reflects broader institutional exclusions. These everyday negotiations reveal culturally legible pathways to economic activity, simultaneously shaped by agency and bounded by context.

7.1.3 Social Media as a Gendered Space

Within the gendered digital landscapes of Instagram, WhatsApp, and Snapchat, rural Saudi women entrepreneurs employed careful strategies to manage visibility in line with prevailing norms of modesty and propriety. Participants described a range of strategies to manage digital visibility in ways that aligned with community standards of modesty, propriety, and moral acceptability. This echoes broader feminist critiques of technology as not inherently liberatory, but as mediated by cultural scripts and power relations that structure who can be visible, how, and at what cost (Abu-Lughod, 1998; Gill & Orgad, 2015).

These platforms were often structured around gender-specific boundaries, with women tailoring their digital presence to avoid transgressing local expectations. Some participants created female-only online spaces through private Instagram stories, closed WhatsApp groups, or selective customer lists, ensuring that their content reached a trusted and culturally appropriate audience.

Visual branding was also influenced by these norms: muted colour schemes, product-focused imagery, and stylised logos commonly replaced personal photos or lifestyle content. As Bruni, Gherardi, and Poggio (2004) argue, entrepreneurial identity is not just performed through market participation, but through the negotiation of gendered respectability. In many cases, even tone and language were carefully moderated to avoid appearing “too bold” or drawing unwanted attention, echoing the moral surveillance that continues to regulate women’s online self-presentation in conservative societies (Mojab, 2001; Steeves & Bailey, 2016). The following quotes demonstrate how these dynamics are negotiated in women’s everyday entrepreneurial practices:

“I only accept followers I know or who come through someone I trust... But I have a private story for only women. I don’t want random men seeing my page or knowing my business.” (Latife, 41, village near Riyadh)

“The design of my page matters. I don’t use loud colours or show myself. I want to look serious, clean and, professional, but also modest. That’s the balance I try to keep.” (Dalal, 44, village near Al Ahsa)

“I sometimes use an AI voice generator with a male voice to narrate my product videos. It sounds more neutral, and people accept it more. Also, it avoids any gossip about my voice being too soft or too loud..but that also creates some problems for me as female customers step back thinking it is a male behind the account.” (Shahad, 37, Riyadh outskirts)

“I don’t show my face in any posts... When I need to post a human image, like someone holding a product, I just generate a male avatar. It’s easier that way, no one asks questions.” (Aisha, 28, Riyadh outskirts)

These accounts reveal that digital entrepreneurship is deeply shaped by social surveillance. Women carefully curate their online presence by constructing private audiences, avoiding self-promotion, using neutral imagery, and in some cases, employing male avatars or voiceovers to deflect scrutiny. Such practices reflect “performative identity work” (Butler & Trouble, 1990; Donath, 2002), where gender is enacted through regulated performances aligned with communal norms. In contexts like Saudi Arabia, where expectations around female modesty remain strong, entrepreneurial legitimacy hinges not only on economic value but also on moral comportment and social acceptance (Bruni et al., 2004; Welter & Smallbone, 2011). Digital platforms, therefore, function as paradoxical spaces where visibility and anonymity coexist, yet entrepreneurial expression remains tethered to norms of moral containment. This approach reflects insights from Feminist Institutionalism, which foregrounds how gendered norms are embedded within

institutional and technological arrangements, shaping what is seen as legitimate or acceptable participation.

Rather than offering unbounded freedom, social media emerges as a contested terrain in which agency is shaped by constraint. Women navigate symbolic boundaries of gender, morality, and surveillance, participating in markets while managing the burdens of respectability. This aligns with Gill and Orgad's (2015) critique of "mediated intimacy", where digital engagement carries emotional and ethical demands. What may appear as innovation often involves a choreography of compliance, a balancing act of being seen and unseen, public and private, entrepreneurial and respectable. These narratives challenge the assumption that digital space is inherently democratising, instead showing how sociotechnical systems can reproduce institutionalised gender hierarchies under the guise of flexibility and access.

7.2 Digital Tools as Gateways to Autonomy and Economic Participation

Amid moral surveillance and gendered expectations, participants highlighted the transformative potential of digital tools as discreet enablers of income generation, reputation-building, and autonomy within socially accepted boundaries. As Gill and Orgad (2015) note, digital spaces simultaneously offer agency and impose constraints, particularly for women whose mobility and visibility are limited by patriarchal norms. In contexts where physical movement is restricted by geography, family, or tradition, platforms provided culturally sanctioned pathways into entrepreneurship (Martinez Dy et al., 2018; McAdam, Crawley, et al., 2019). These technologies did not eliminate constraints but enabled women to navigate them in ways that maintained respectability while supporting self-determination. Rather than simply bypassing barriers, women redefined participation on their own terms, crafting hybrid strategies that reflect both ambition and accommodation. This ambivalent digital empowerment reveals how technology operates within gendered social structures (Bruni et al., 2004). The following themes examine how women's entrepreneurial practices reflect this interplay of constraint and agency within digital spaces.

7.2.1 Reaching Markets from Home

Women in rural Saudi communities frequently turned to digital tools as a means to initiate entrepreneurial activity from within the domestic sphere, bypassing the need for physical shops or public exposure. In settings where public presence is restricted by family norms, religious

expectations, or geographic isolation, this ability to operate domestically represented a critical affordance of digital platforms (Martinez Dy et al., 2018; McAdam, Crawley, et al., 2019). Applications like WhatsApp and Instagram allowed women to manage products, payments, and customer relations without leaving their immediate environment.

Home-based entrepreneurship aligned with gendered expectations around modesty and mobility, reducing logistical barriers while preserving social acceptability. Rather than dismantling constraints, digital tools reconfigured how women navigated them, expanding access without requiring visibility. The domestic sphere thus became a legitimate site of entrepreneurial activity, making participation possible for those otherwise excluded from physical markets (Gill & Orgad, 2015). The following quotes illustrate how participants used digital tools to build businesses from within their homes while managing social expectations:

“I take all my orders on WhatsApp and send the products out with a driver. I don’t need to open a store or even leave the house—it’s all through my phone. I usually get everything done when the kids are at school or after they’ve gone to sleep, when the house is finally quiet. WhatsApp made it so much easier. It fits around my day and lets me work without disrupting my responsibilities at home.” (Bashayer, 42, Al Ahsa outskirts)

“I started selling cheese and honey after my daughter watched others do it online. My kids and neighbours always loved what I made, and it was actually my daughter who suggested I start selling... Most of my children are now married and out of the house, so I have a lot of free time. I didn’t want to leave home or open a shop, so she encouraged me to try Instagram instead. Now I run everything from my kitchen, and my neighbour helps with deliveries for a fee. It all works smoothly without me having to step outside.” (Maryam, 66, rural village near Riyadh)

“My husband doesn’t want me going to the market, but he’s okay with me doing business from home as long as it doesn’t overtake my house and family duties. I keep things simple like taking photos, posting them, and replying to customers in private messages.” (Tahani, 38, rural village near Al Ahsa)

“I wanted to benefit from one of the government support programmes, so I applied through the Monsha’at platform. A representative came to my house with a device to take my signature electronically. It was very convenient... I completed the whole application without needing to leave home, which would have been impossible just a few years ago...my husband would not drive me to Riyadh just for a signature.” (Shouq, 35, rural village near Riyadh)

These practices reflect a shift toward what Ekinsmyth (2011) terms “domestic entrepreneurship”, where economic activity is rooted in the home and shaped by gendered norms of care, modesty,

and discretion. Rather than directly challenging dominant expectations, participants leveraged the cultural legitimacy of home-based work, using digital tools to access markets and manage transactions. Private messaging apps and gender-conscious delivery arrangements allowed them to interact with customers while maintaining moral acceptability. Importantly, digital platforms also enabled women to complete administrative and legal procedures, such as registering their businesses or obtaining commercial permits, without leaving home. This mode of entrepreneurship, while spatially constrained, reconfigures participation through technology that is socially legible and practically enabling. From a feminist technology perspective, such adaptations reveal how digital infrastructures can simultaneously expand access and redistribute responsibility, embedding innovation within everyday negotiations of gender, space, and labour.

7.2.2 Crafting Flexibility Around Domestic Roles

For many rural Saudi women, entrepreneurship was closely integrated with domestic responsibilities, structured around caregiving and household routines. Technology functioned as a key enabler, allowing women to manage business tasks alongside childcare, cooking, and cleaning (Duffy, 2017; Madianou, 2014). Participants described replying to customers while preparing meals, packaging orders after children slept, and updating social media during quiet hours. This multitasking was seen not as a burden, but as a practical adaptation that aligned income generation with family life. These practices exemplify “embedded entrepreneurship” (Dahl & Sorenson, 2009), where the home becomes a legitimate site of economic activity. Rather than separating enterprise from domesticity, women redefined entrepreneurship through flexible, hybrid routines shaped by gendered expectations and invisible labour (Ekinsmyth, 2011; Rottenberg, 2014). The following quotes illustrate how participants used digital tools to integrate entrepreneurial activity into their domestic routines while maintaining culturally appropriate roles:

“In the morning, I get the kids ready for school. After they leave, I prepare orders and send messages to customers. By the time they’re home, I stop everything and become a mother again.” (Reem, 31, village near Riyadh)

“I don’t have fixed hours. Sometimes I post at midnight, after everyone sleeps. That’s the only quiet time I have. But I like that, I don’t need permission or a schedule.” (Maha, 40, Al Ahsa)

“My mother is elderly and needs care. So, I can’t go out to work. But I started selling from home, and I answer customers when I can... Some are understanding, some are not. But it doesn’t matter because it works for me.” (Sara, 36, Al Ahsa region)

These narratives challenge dominant entrepreneurial models that separate productivity from the domestic sphere, revealing instead a form of home-based entrepreneurship (Ekinsmyth, 2011) shaped by caregiving responsibilities and sustained through digital tools. For many rural Saudi women, platforms like WhatsApp and Instagram enabled them to conduct business around caregiving, cooking, and eldercare, allowing for temporal control over when and how work is performed. This digital flexibility offered a means of economic participation that aligned with patriarchal expectations, yet was often marked by fatigue, invisibility, and emotional labour. From a feminist technology perspective, such tools appear empowering but also redistribute responsibility, enabling women to meet market demands without institutional support or shared caregiving structures. Flexibility was not framed as freedom, but as necessity, negotiated quietly from kitchens and living rooms. These practices highlight how women's economic contributions remain embedded in, and constrained by, the gendered architectures of everyday life.

7.2.3 Female-Only Networks of Exchange

For many participants, building a business involved cultivating gendered networks shaped by cultural, religious, and social expectations. To maintain moral legitimacy while sustaining economic activity, women often operated within female-only ecosystems that included customers, suppliers, collaborators, and intermediaries (Al-Dajani & Marlow, 2013; Welter et al., 2008). These networks were sustained through trust and shared social codes, with many sourcing materials through other women in nearby villages or female WhatsApp groups, and coordinating deliveries through acquaintances to avoid male contact. While shaped by gendered constraints, these practices reflect strategic adaptations that allowed women to navigate entrepreneurship on socially acceptable terms (Bruni et al., 2004). From a feminist perspective, such informal systems challenge dominant models of entrepreneurship by embedding agency in everyday social relations, showing how women reconfigure boundaries to access markets without overtly rejecting prevailing norms (Calás et al., 2009; Jamali, 2009; McAdam, Harrison, et al., 2019). The following quotes illustrate how participants engaged with digital tools to build and sustain female-only networks that supported entrepreneurship within culturally accepted boundaries.

“I get the boxes and jars from a woman in a nearby village. She makes everything by hand too. We help each other and there’s no need for any men to be involved.” (Nouf, 26, Al Ahsa region)

“I only sell to women. My products are personal, and I don’t want to deal with men asking questions or making it uncomfortable. This way I feel safe and respected.” (Bashayer, 42, a village near Al Ahsa)

“There’s a woman who picks up orders and delivers them to my customers. She’s a widow too, and this work helps her. We support each other and keep things simple.” (Al-Anoud, 52, Riyadh region)

“There was a man I used to buy oils from, but he started personal conversation that made me uncomfortable, like it wasn’t just business for him. I stopped dealing with him immediately. Since then, I only work with women, even if it costs more, I don’t want problems.” (Jawaher, 30, a village near Al Ahsa)

These accounts illustrate how the domestic space is reconfigured as an entrepreneurial site, not by removing caregiving responsibilities, but by embedding economic activity within them. Flexibility emerges not as leisure, but as a gendered survival strategy that enables women to perform economic labour without transgressing the moral economy of femininity (Mirchandani, 1999). Women’s capacity to engage in business at the margins of family life reveals how domestic responsibilities are not peripheral, but central to the structure of gendered entrepreneurial environments (Ekinsmyth, 2011; Marlow & McAdam, 2013). This feminised entrepreneurial subjectivity, shaped through the blending of market participation and affective labour, reflects the institutionalisation of gendered expectations that continue to privilege male-oriented models of full-time, visible work (Calás et al., 2009; Duberley & Carrigan, 2013). From a feminist institutionalist perspective, these informal practices and home-based networks expose how entrepreneurial ecosystems are structured by norms that marginalise women’s labour while legitimising certain forms of work over others. Despite enabling participation, this model often reinforces inequality by normalising the absorption of flexibility into women’s unpaid care responsibilities, leaving such efforts unrecognised by formal institutions and policy frameworks (Orser et al., 2011; Stead, 2017).

7.2.4 Exclusion Through Generational Digital Discomfort

While many rural women in this study adapted to institutional voids by engaging with informal digital learning networks, this shift was not experienced uniformly. Several older participants

expressed discomfort, mistrust, or a lack of confidence in navigating online platforms, preferring traditional marketplaces where face-to-face interaction, cash transactions, and established reputational ties felt more legitimate and accessible. In contrast, younger women, often more digitally fluent or supported by tech-savvy family members, embraced digital tools to expand their entrepreneurial reach. This generational divide reveals how gender, age, and technology intersect to shape uneven opportunity structures within rural Saudi contexts (Kang, 2022; Shukla et al., 2021; Van Deursen & Helsper, 2015). These findings highlight a layered form of exclusion, not only from formal institutions but also from informal digital infrastructures, where the absence of tailored support, intergenerational knowledge transfer, or culturally relevant training renders digital entrepreneurship inaccessible to many women whose practices continue to unfold offline. The following quotes illustrate how generational differences shaped women's engagement with digital tools, revealing how discomfort, limited access, and digital unfamiliarity contributed to forms of exclusion within entrepreneurial pathways:

"I've never learnt how to sell online. It feels too complicated. I prefer sitting in the market where I can talk to people, show my products, and know who I'm dealing with."(Maryam, 66, rural village near Riyadh)

"I feel like I'm too old to learn all these new mobile tools. It's not for me. My mind is used to doing things the old way, face to face, not behind a screen."(Abeer, 50, small village near Al Qassim, Riyadh Region)

"Anytime something comes up with Instagram or WhatsApp orders, I call my daughter. She helps me post, answer people, and arrange things. Without her, I wouldn't manage."(Sheikha, 85, rural area outside Riyadh)

"I like going to the market, not just for selling, but because it's where I see the other women. We talk, laugh, exchange news. If I stayed at home and sold online, I'd miss that. It's not just business, it's my social life too."(Zainab, 60, traditional souq vendor in Al Ahsa)

This theme illustrates that digital empowerment is not evenly distributed; even informal infrastructures require a baseline of digital literacy, confidence, and support. For some women, the lack of these resources results not only in exclusion from formal entrepreneurial systems but also from emerging informal digital economies. In this way, digitalisation risks reinforcing generational divides and producing new forms of marginalisation within rural communities (Hunsaker & Hargittai, 2018).

7.3 Institutional Absence and the Emergence of Informal Infrastructures in Rural Areas

While national visions and urban development agendas, such as Saudi Arabia's Vision 2030, have expanded formal support structures for entrepreneurs in major cities, these resources remain largely inaccessible to women in rural areas, whose engagement is further limited by constraining intermediary arrangements and socio-economic barriers (Al-Dajani et al., 2015; Chamlou et al., 2008; Welsh et al., 2014). Across interviews, participants described a fragmented and uneven landscape where access to training, licensing, financing, and legal guidance was minimal or entirely absent. However, this institutional void did not result in passivity or disengagement. Instead, women mobilised informal infrastructures rooted in personal networks, digital tools, and community-based trust to sustain and grow their ventures (Nahid & Amir, 2024; Sowmya & Pai, 2024; Williams & Gurtoo, 2011). These adaptations align with what Bruni, Gherardi, and Poggio (2004) describe as “doing entrepreneurship differently”, where gendered constraints are negotiated through context-sensitive strategies. This theme explores how, in the absence of formal systems, rural women crafted alternative entrepreneurial pathways, flexible, relational, and embedded in everyday life, that reflected both their needs and their socio-spatial realities.

7.3.1 Learning through Informal Digital Pathways

In the absence of formal entrepreneurial education or structured training, many rural Saudi women relied on informal digital sources to build their business knowledge. Through platforms like YouTube, Instagram, and WhatsApp, participants engaged in self-guided learning by observing, imitating, and adapting practices related to packaging, pricing, branding, and customer interaction. This narrative-based, experiential learning (Rae, 2005) was socially acceptable, accessible from home, and compatible with domestic responsibilities. Women followed other Gulf-based entrepreneurs not only for inspiration but also to acquire practical skills by watching how they navigated online commerce. These digital spaces functioned as alternative infrastructures, shaped by peer exchange and affective learning, and aligned with feminist critiques of entrepreneurial education that highlight how gendered constraints influence knowledge access (Calás et al., 2009; Orser et al., 2011; Stead, 2017). Though largely invisible to policy frameworks, these informal learning practices played a critical role in capability development for women operating at the margins of institutional support. The following quotes illustrate how participants engaged with

digital platforms as informal learning spaces to acquire entrepreneurial skills within the constraints of their rural and domestic environments.

“I never went to a business course. Everything I know I learnt from YouTube and sometimes I refer to ChatGPT, how to price, how to wrap the product, even what to write in the messages, courses are mainly offered in Al Khobar and it is far for me.”
(Ghada, 34, Al Ahsa region)

“I follow women from Kuwait and the Emirates. Their pages are so professional. I take ideas from their designs or how they talk to customers. It teaches you how to grow.”
(Wadha, 45, Riyadh region)

“In our WhatsApp group, we share tips. One woman showed how to take better photos with just a lamp and white paper. That changed how my products look online.” (Noora, 23, Riyadh region)

These accounts of self-directed learning through social media and messaging platforms reveal not only entrepreneurial adaptability, but also a persistent institutional void that reflects broader patterns of gendered exclusion in entrepreneurial ecosystems (Calás et al., 2009; Mirchandani, 1999). In rural Saudi Arabia, where formal training is limited and rarely tailored to women’s realities, participants turned to informal digital resources such as YouTube, WhatsApp, and Instagram as culturally acceptable and accessible alternatives. These platforms functioned as gendered learning spaces, shaped by constraints on mobility, caregiving duties, and exclusion from public entrepreneurial arenas. From a feminist institutionalist perspective, this reliance on informal infrastructures underscores how entrepreneurial knowledge is governed by embedded norms that privilege masculinised, credentialed pathways and overlook women’s lived practices (Shaw et al., 2009; Stead, 2017). The feminised and relational nature of knowledge exchange, observing other Gulf-based women for guidance on pricing, packaging, and communication, remains largely invisible to policy, despite its role in sustaining women’s ventures. These informal learning strategies represent structural improvisation rather than institutional support, enabling participation while reinforcing reliance on unpaid, individualised labour. Without recognition or integration into formal frameworks, such practices remain peripheral, reflecting an ecosystem that continues to position women outside its core design (Orser et al., 2011).

7.3.2 Trust, Reputation, and Informal Legitimacy

In the absence of formal registration, permits, or institutional support, rural Saudi women entrepreneurs relied on trust-based systems to establish legitimacy and sustain their ventures. Rather than deriving authority from commercial licences or regulatory frameworks, credibility was earned through consistent quality, reliable service, and strong reputations within community networks (De Clercq & Voronov, 2009; Welter & Smallbone, 2011). In tightly knit rural contexts, a woman's name operated as a form of social capital, serving either as endorsement or warning (Aldrich & Cliff, 2003; Portes, 2024). Business growth was largely relational, driven by repeat customers and word-of-mouth referrals, with Instagram stories and WhatsApp statuses functioning as informal channels of client validation. From a feminist institutionalist perspective, this reliance on informal mechanisms reflects a gendered adaptation to institutional absence, where women must construct entrepreneurial legitimacy through personal networks rather than formal recognition. However, such dependence also introduces fragility, as minor errors or delays could result in significant reputational harm. These dynamics highlight how entrepreneurial survival is conditioned by social proximity and relational accountability rather than structural inclusion. The following quotes illustrate how participants navigated these informal systems of legitimacy within their communities:

“My name is my brand. If someone complains, it affects how others see me. I have no licence or store, it's just my word and my service.” (Ghada, 34, Al Ahsa region)

“Most of my customers came from my cousin. She told her friends, and they told others. If I make a mistake, it reflects badly on all of us. That's why I try to keep everything perfect.” (Reem, 31, village near Riyadh)

“People send screenshots of good reviews to their sisters or neighbours. That's better than any certificate. It means you are trusted.” (Shahad, 37, Riyadh outskirts)

This discussion highlights how trust functions as both a relational currency and a substitute for formal entrepreneurial infrastructure in rural Saudi contexts. Legitimacy is deeply gendered and moralised, contingent not only on product quality but also on perceived respectability, social ties, and adherence to communal norms (Bruni et al., 2004; Welter & Smallbone, 2011). In the absence of institutional protections, reputational capital becomes a central yet precarious asset, easily undermined by rumours or minor missteps. While trust-based networks offer access, they also place disproportionate burdens on women to perform moral entrepreneurship, modest, careful, and socially embedded, subject to higher scrutiny than male counterparts (Marlow & McAdam, 2013; Welter & Smallbone, 2011). From a feminist institutionalist perspective, such an imbalance

reflects the feminisation of entrepreneurial responsibility and the reproduction of gendered precarity, where informal systems demand continuous personal validation in place of structural support. Such forms of legitimacy may facilitate participation, but they do not challenge the systemic exclusions that marginalise women from formal economic recognition.

7.3.3 Technology as a Substitute for Institutional Presence

In regions where entrepreneurial infrastructure is limited or absent, rural Saudi women have turned to digital technologies to fulfil functions traditionally carried out by formal institutions. With little access to training centres, municipal support, or cooperatives, participants created informal, mobile, and adaptable systems using everyday tools. Basic phone apps replaced inventory software, WhatsApp messages served as receipts and order logs, and Instagram became a multifunctional space for marketing, customer service, and negotiation. In the absence of formal mentorship or advisory services, women engaged in peer-based learning, following Gulf-based entrepreneurs and tailoring practices to fit local norms. These grassroots innovations reflect how women negotiate institutional voids through digital informality, crafting alternative infrastructures that allow them to maintain legitimacy and autonomy within constrained settings (McAdam, 2013; Webb et al., 2009; Williams & Nadin, 2010). From a feminist institutionalist perspective, such practices reveal how marginalised actors respond to systemic exclusion not through resistance but through workaround strategies that expose the gendered limitations of existing entrepreneurial ecosystems (Calás et al., 2009). The following quotes illustrate how participants utilised everyday digital tools to build informal systems that enabled them to manage and grow their businesses in the absence of formal institutional support:

“I don’t have access to business training or official tools, so I just use the Notes app to track my sales. It may be basic, but it replaces what I never had.” (Ghada, 34, Al Ahsa region).

“There’s no one to guide us or explain how to start formally, so I do everything on WhatsApp, orders, receipts, even payment confirmation. It’s my office, my customer service, and my record-keeping all in one.” (Dalal, 44, Al Ahsa countryside).

“Instagram works like a full system for me. I don’t have a licence or support from any agency, but I manage everything through the app. It became my shopfront, my marketing, and my communication tool because there was nothing else.” (Areej, 27, rural town outside Riyadh).

These adaptations reflect more than individual ingenuity; they constitute gendered responses to institutional disengagement, where women use digital technologies to fill systemic gaps through everyday improvisation. In rural Saudi contexts, platforms like WhatsApp and Instagram are repurposed as informal entrepreneurial infrastructures, allowing women to manage businesses despite the absence of formal support. From a feminist institutionalist perspective, such institutional voids are not neutral but reinforce existing gendered hierarchies, where women are expected to compensate through unpaid, self-directed labour (Acker, 1990; Mackay & Waylen, 2009). Feminist technology studies further highlight how digital tools, while enabling, can obscure structural inequalities by framing resilience and flexibility as personal achievements rather than systemic failures (Duffy, 2017). These practices, born out of necessity rather than inclusion, reveal a paradox: digital innovation offers access while normalising institutional absence. The burden of adaptation falls disproportionately on women, raising questions about whose labour sustains entrepreneurial ecosystems and how legitimacy is constructed in contexts of exclusion (Star & Ruhleder, 1996).

8. Limitations and Future Directions

This research has traced how digitalisation reshapes, reconfigures, and at times reinforces the entrepreneurial possibilities available to rural Saudi women. By attending to the interplay between institutional absence, gendered cultural norms, and emergent digital practices, the study has contributed to a deeper understanding of how entrepreneurship is practised, not just as economic activity, but as a socially negotiated performance of visibility, autonomy, and legitimacy. Yet, like all research, this work has its limitations, which open productive paths for future inquiry.

First, while this study foregrounded the voices and experiences of women in rural areas, the research design was shaped by the constraints of access, time, and language. Some interviews were mediated through platforms like WhatsApp and Zoom, and while this enabled greater participation, it may have also filtered expressions of discomfort or dissent. Further, the very act of asking about entrepreneurship, visibility, and digital tools may have shaped the responses I received, prompting participants to foreground narratives that aligned with cultural ideals of respectability, duty, and modest ambition. As a feminist researcher, I remain aware that interviews are co-produced spaces, what is shared reflects not only lived realities but also strategic performances in contexts marked by surveillance, moral codes, and shifting norms.

Second, despite efforts to engage institutional actors and policy stakeholders, many declined to participate or offered only formal, sanitised statements. This limited the study's ability to critically juxtapose women's lived entrepreneurial realities with institutional rhetoric around Vision 2030 and digital empowerment. This silence itself is telling. It underscores the need for future work that directly interrogates the disconnect between national policy frameworks and the lived infrastructure gaps on the ground. One promising direction is to work more closely with municipal actors, grassroots women's networks, or training bodies to trace how policy aspirations translate, or fail to translate, into material support for rural women.

Third, while the research incorporated intersectional awareness, it did not explicitly foreground intersections such as disability, tribal status, or socio-economic background. These dimensions undoubtedly shape how women experience both constraint and agency in digital entrepreneurial spaces. Future studies might explore how digital infrastructures differently include or exclude women depending on these intersectional identities, especially as Saudi Arabia continues to diversify its economy and participation.

Theoretically, the study speaks to the need for feminist entrepreneurship research that moves beyond simplistic binaries of empowerment versus constraint. As shown through women's use of anonymous branding, female-only delivery networks, and AI tools to mimic male voiceovers, agency in this context is neither purely resistive nor purely adaptive; it is situated, strategic, and shaped by everyday negotiations. Concepts like technicity (Corneliussen, 2014) or institutional work (Lawrence & Suddaby, 2006) could be further developed to theorise how women not only navigate but subtly reconfigure the boundaries of entrepreneurial legitimacy through informal, digitally mediated infrastructures.

Finally, this research was conducted during a moment of national transition in Saudi Arabia, when reforms are being rapidly enacted, yet social norms often lag or contradict these shifts. As such, the landscape remains fluid. Future research might adopt a longitudinal approach to capture how women's practices, aspirations, and constraints evolve over time, particularly in relation to the diffusion of advanced technologies like AI, voice synthesis, or platform regulation. Moreover, feminist scholarship has a vital role to play in ensuring that digitalisation in rural regions does not become a new site of exclusion dressed in the language of inclusion.

In closing, this research has offered a grounded account of how rural Saudi women entrepreneurs use digital tools not as a panacea, but as a set of contingent resources, ones that must be carefully calibrated against the gendered logics of modesty, morality, and institutional absence. The path ahead lies not only in documenting these tensions but also in amplifying women's voices as they reimagine entrepreneurship on their own terms. The work of gender equality in digitally mediated entrepreneurship is ongoing, and in contexts such as this, it begins with asking better questions, building reciprocal collaborations, and refusing the assumption that access to technology alone can untangle the knot of inequality.

References:

- Abdelwahed, N. A. A., Bastian, B. L., & Wood, B. P. (2022). Women, Entrepreneurship, and Sustainability: The Case of Saudi Arabia. *Sustainability*, 14(18).
- Abu-Lughod, L. (1998). *Remaking women: Feminism and modernity in the Middle East*. Princeton University Press.
- Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & society*, 4(2), 139-158.
- Acker, J. (1992). From Sex Roles to Gendered Institutions. *Contemporary Sociology*, 21(5), 565-569. <https://doi.org/10.2307/2075528>
- Aggarwal, M., & Johal, R. K. (2021). Rural women entrepreneurship: a systematic literature review and beyond. *World Journal of Science, Technology and Sustainable Development*, 18(4), 373-392.
- Ahl, H. (2006). Why Research on Women Entrepreneurs Needs New Directions. *Entrepreneurship Theory and Practice*, 30(5), 595-621. <https://doi.org/10.1111/j.1540-6520.2006.00138.x>
- Al Derham, R. A. (2023). Political Power and Material Identity: Saudi Women in Real and Virtual Societies. In *Social Change in the Gulf Region: Multidisciplinary Perspectives* (pp. 619-632). Springer Nature Singapore Singapore.
- Al-Asfour, A., Tlaiss, H. A., Khan, S. A., & Rajasekar, J. (2017). Saudi women's work challenges and barriers to career advancement. *Career Development International*, 22(2), 184-199. <https://doi.org/10.1108/CDI-11-2016-0200>
- Al-Dajani, H., & Marlow, S. (2010). Impact of women's home-based enterprise on family dynamics: Evidence from Jordan. *INT SMALL BUS J*, 28(5), 470-486. <https://doi.org/10.1177/0266242610370392>
- Al-Dajani, H., & Marlow, S. (2013). Empowerment and entrepreneurship: a theoretical framework. *International Journal of Entrepreneurial Behaviour & Research*, 19(5), 503-524. <https://doi.org/10.1108/IJEBR-10-2011-0138>
- Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of business venturing*, 18(5), 573-596.
- Alhothali, G. T. (2020). Challenges facing women entrepreneurs running home-based business in Saudi Arabia. *Periodicals of Engineering and Natural Sciences*, 8(3), 1386-1397.
- Al-Dajani, H., Carter, S., Shaw, E., & Marlow, S. (2015). Entrepreneurship among the displaced and dispossessed: Exploring the limits of emancipatory entrepreneuring. *British Journal of Management*, 26(4), 713-730.
- Antonio, A., & Tuffley, D. (2014). The gender digital divide in developing countries. *Future Internet*, 6(4), 673-687.
- Arimatsu, L. (2019). Silencing women in the digital age. *Cambridge International Law Journal*, 8(2), 187-217.
- Ateş, Ö., Bayram, G. E., & Bayram, A. T. (2025). The Impact of Digital Tools on the Economic Empowerment of Rural Women. In *Empowering Women Through Rural Sustainable Development and Entrepreneurship* (pp. 309-324). IGI Global Scientific Publishing.
- Best, B., Lassalle, P., & Nicolopoulou, K. (2025). Unlocking the "SHERO" within: an exploration of how female entrepreneurs in the Caribbean use digital technologies for business transformation. *International Journal of Gender and Entrepreneurship*, 17(1), 65-93.
- Bruni, A., Gherardi, S., & Poggio, B. (2004). Doing gender, doing entrepreneurship: An ethnographic account of intertwined practices. *Gender, Work & Organization*, 11(4), 406-429.

- Bryant, C. R. (1989). Entrepreneurs in the rural environment. *Journal of Rural Studies*, 5(4), 337-348.
- Bryman, A., & Burgess, R. G. (1994). *Analyzing qualitative data* (Vol. 11). Routledge London.
- Butler, J., & Trouble, G. (1990). Feminism and the Subversion of Identity. *Gender trouble*, 3(1), 3-17.
- Calás, M. B., Smircich, L., & Bourne, K. A. (2009). Extending the Boundaries: Reframing "Entrepreneurship as Social Change" through Feminist Perspectives. *ACAD MANAGE REV*, 34(3), 552-569. <https://doi.org/10.5465/AMR.2009.40633597>
- Chamlou, N., Klapper, L., & Muzi, S. (2008). *The environment for women's entrepreneurship in the Middle East and North Africa*. World Bank Publications.
- Cover, R. (2015). *Digital Identities: Creating and Communicating the Online Self* (1 ed.). Chantilly: Elsevier Science & Technology. <https://doi.org/10.1016/C2013-0-12758-4>
- CST. (2023). Saudi Internet 2023. In.
- CST. (2025). CST Issued the Saudi Internet Report 2024. In.
- Dahl, M. S., & Sorenson, O. (2009). The embedded entrepreneur. *European management review*, 6(3), 172-181.
- De Clercq, D., & Voronov, M. (2009). Toward a practice perspective of entrepreneurship: Entrepreneurial legitimacy as habitus. *International small business journal*, 27(4), 395-419.
- DGA. (2025). *A promising digital horizon To build the future of digital government*. <https://dga.gov.sa/en>
- Donath, J. S. (2002). Identity and deception in the virtual community. In *Communities in cyberspace* (pp. 37-68). Routledge.
- Doumato, E. A. (1999). Women and work in Saudi Arabia: how flexible are Islamic margins? *The Middle East Journal*, 568-583.
- Duberley, J., & Carrigan, M. (2013). The career identities of 'mumpreneurs': Women's experiences of combining enterprise and motherhood. *International small business journal*, 31(6), 629-651.
- Duffy, B. E. (2017). *(Not) getting paid to do what you love: Gender, social media, and aspirational work*. Yale University Press.
- Duffy, B. E., & Hund, E. (2015). "Having it all" on social media: Entrepreneurial femininity and self-branding among fashion bloggers. *Social media+ society*, 1(2), 2056305115604337.
- Ekinsmyth, C. (2011). Challenging the boundaries of entrepreneurship: The spatialities and practices of UK 'Mumpreneurs'. *Geoforum*, 42(1), 104-114.
- Faulkner, W. (2001). The technology question in feminism: A view from feminist technology studies.
- Flora, C. B., & Flora, J. L. (1990). Developing entrepreneurial rural communities. *Sociological Practice*, 8(1), 21.
- Freire-Gibb, L. C., & Nielsen, K. (2014). Entrepreneurship within urban and rural areas: Creative people and social networks. *Regional studies*, 48(1), 139-153.
- Gilbert, M. R., Masucci, M., Homko, C., & Bove, A. A. (2008). Theorizing the digital divide: Information and communication technology use frameworks among poor women using a telemedicine system. *Geoforum*, 39(2), 912-925. <https://doi.org/https://doi.org/10.1016/j.geoforum.2007.08.001>
- Gill, R. (2007). *Gender and the Media*. Polity.
- Gill, R., & Orgad, S. (2015). The confidence cult (ure). *Australian Feminist Studies*, 30(86), 324-344.

- Goffman, E. (1949). Presentation of self in everyday life. *American Journal of Sociology*, 55(1), 6-7.
- Helinska-Hughes, E., Hughes, J., Hughes, M., & Lassalle, P. (2011). POLISH MIGRANT ENTREPRENEURIAL STRATEGIES IN THE UK. Split.
- Herring, S. C. (2003). Gender and power in on-line communication. *The handbook of language and gender*, 202-228.
- Hunsaker, A., & Hargittai, E. (2018). A review of Internet use among older adults. *New Media & Society*, 20(10), 3937-3954. <https://doi.org/10.1177/1461444818787348>
- Imiren, E., Lassalle, P., Mwaura, S., & Nicolopoulou, K. (2023). Understanding legitimacy building in contexts through digital entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 30(2/3), 548-571.
- Jamali, D. (2009). Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective. *Gender in management: an international journal*, 24(4), 232-251.
- Johnson, D. G. (2010). Sorting out the question of feminist technology. *Feminist technology*, 6.
- Kabeer, N. (2011). Contextualising the economic pathways of women's empowerment: findings from a multi-country research programme.
- Kandiyoti, D. (1988). Bargaining with patriarchy. *Gender & society*, 2(3), 274-290.
- Kang, H. Y. (2022). Technological engagement of women entrepreneurs on online digital platforms: Evidence from the Apple iOS App Store. *Technovation*, 114, 102522.
- Kenny, M. (2014). A feminist institutionalist approach. *Politics & Gender*, 10(4), 679-684.
- Korsgaard, S., Müller, S., & Tanvig, H. W. (2015). Rural entrepreneurship or entrepreneurship in the rural—between place and space. *International Journal of Entrepreneurial Behavior & Research*, 21(1), 5-26.
- Kraus, S., Palmer, C., Kailer, N., Kallinger, F. L., & Spitzer, J. (2019). Digital entrepreneurship: A research agenda on new business models for the twenty-first century. *International Journal of Entrepreneurial Behavior & Research*, 25(2), 353-375.
- Krook, M. L., & Mackay, F. (2011). *Gender, politics and institutions: Towards a feminist institutionalism* (Vol. 1). Springer.
- Kumawat, S., & Garg, C. (2025). Mobile phones, mothers, and patriarchy: Understanding digital interactions of adolescent Indian rural girls under watchful eyes. *Media, Culture & Society*, 01634437251320845.
- Landström, C. (2007). Queering feminist technology studies. *Feminist Theory*, 8(1), 7-26.
- Lassalle, P., & Shaw, E. (2021). Trailing wives and constrained agency among women migrant entrepreneurs: An intersectional perspective. *Entrepreneurship Theory and Practice*, 45(6), 1496-1521.
- Leung, W.-F. (2018). *Digital entrepreneurship, gender and intersectionality: An east Asian perspective*. Springer.
- Lewis, P. (2006). The quest for invisibility: Female entrepreneurs and the masculine norm of entrepreneurship. *Gender, work & organization*, 13(5), 453-469.
- Lewis, P. (2013). The search for an authentic entrepreneurial identity: Difference and professionalism among women business owners. *Gender, Work & Organization*, 20(3), 252-266.
- Light, B., Burgess, J., & Duguay, S. (2018). The walkthrough method: An approach to the study of apps. *New media & society*, 20(3), 881-900.
- Mackay, F., & Waylen, G. (2009). Feminist institutionalism. *Politics & Gender*, 5(2), 237-237.
- Madianou, M. (2014). Smartphones as polymedia. *Journal of Computer-Mediated Communication*, 19(3), 667-680.

- Mahmood, S. (2006). Feminist theory, agency, and the liberatory subject: Some reflections on the Islamic revival in Egypt. *Temenos-Nordic Journal for the Study of Religion*, 42(1).
- Marlow, S., & McAdam, M. (2013). Gender and entrepreneurship: Advancing debate and challenging myths; exploring the mystery of the under-performing female entrepreneur. *International Journal of Entrepreneurial Behavior & Research*, 19(1), 114-124.
- Martinez Dy, A., Martin, L., & Marlow, S. (2018). Emancipation through digital entrepreneurship? A critical realist analysis. *Organization*, 25(5), 585-608.
- McAdam, M. (2013). *Female entrepreneurship*. Routledge.
- McAdam, M., Crawley, C., & Harrison, R. (2019). Digital girl: cyberfeminism and the emancipatory potential of digital entrepreneurship in emerging economies. *Small Business Economics*, 55(1179).
- McAdam, M., Harrison, R. T., & Leitch, C. M. (2019). Stories from the field: Women's networking as gender capital in entrepreneurial ecosystems. *Small Business Economics*, 53, 459-474.
- Mirchandani, K. (1999). Feminist insight on gendered work: New directions in research on women and entrepreneurship. *Gender, work & organization*, 6(4), 224-235.
- Mojab, S. (2001). Theorizing the Politics of 'Islamic Feminism'. *Feminist Review*(69), 124-146.
- Monsha'at. (2025). About Monsha'at | Monsha'at. <https://www.monshaat.gov.sa/en/about>
- Muñoz, P., & Kimmitt, J. (2019). Rural entrepreneurship in place: An integrated framework. *Entrepreneurship & Regional Development*, 31(9-10), 842-873.
- Nahid, F., & Amir, R. M. (2024). Empowering women entrepreneurs: Unveiling the opportunities in unconventional industries through the digital space—insights from Bangladesh case studies. In *Women Entrepreneurs* (pp. 59-79). CRC Press.
- Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship theory and practice*, 41(6), 1029-1055.
- Orser, B. J., Elliott, C., & Leck, J. (2011). Feminist attributes and entrepreneurial identity. *Gender in Management: An International Journal*, 26(8), 561-589.
- Portes, A. (2024). Social capital: Its origins and applications in modern sociology. *New Critical Writings in Political Sociology*, 53-76.
- Rae, D. (2005). Entrepreneurial learning: a narrative-based conceptual model. *Journal of small business and enterprise development*, 12(3), 323-335.
- Reyes, C., & Neergaard, H. (2023). Feminist perspectives on gender and technology entrepreneurship in incubator settings. *International journal of gender and entrepreneurship*, 15, 64-93. <https://doi.org/10.1108/IJGE-09-2021-0153>
- info:doi/10.1108/IJGE-09-2021-0153
- Rottenberg, C. (2014). The rise of neoliberal feminism. *Cultural studies*, 28(3), 418-437.
- Saudi Press Agency. (2025a). KSA Internet Usage Rate 99%; 98.9% Used Via Mobile Phones. <https://www.spa.gov.sa/en/N2095669>
- Saudi Press Agency. (2025b). Saudi Reef Highlights Sustainable Agricultural Development Efforts and Accomplishments at COP16. <https://www.spa.gov.sa/en/N2224344>
- SDAIA. (2025). Saudi Authority for Data and Artificial Intelligence. <https://sdaia.gov.sa/en/default.aspx>
- Shaw, E., Marlow, S., Lam, W., & Carter, S. (2009). Gender and entrepreneurial capital: implications for firm performance. *International Journal of Gender and Entrepreneurship*, 1(1), 25-41.
- Shukla, A., Kushwah, P., Jain, E., & Sharma, S. K. (2021). Role of ICT in emancipation of digital entrepreneurship among new generation women. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(1), 137-154.

- Sowmya, B., & Pai, R. (2024). Digital Inclusion and Empowerment: Evaluating Key Enablers for Women Entrepreneurs in the Informal Economy through AHP. *Economic Sciences*, 20(2), 287-294.
- Star, S. L., & Ruhleder, K. (1996). Steps toward an ecology of infrastructure: Design and access for large information spaces. *Information systems research*, 7(1), 111-134.
- StatCounter. (2025). *Desktop vs Mobile vs Tablet Market Share Saudi Arabia* | Statcounter Global Stats. @statcountergs. <https://gs.statcounter.com/platform-market-share/desktop-mobile-tablet/saudi-arabia>
- Stathopoulou, S., Psaltopoulos, D., & Skuras, D. (2004). Rural entrepreneurship in Europe: a research framework and agenda. *International Journal of Entrepreneurial Behavior & Research*, 10(6), 404-425.
- Stead, V. (2017). Belonging and women entrepreneurs: Women's navigation of gendered assumptions in entrepreneurial practice. *International Small Business Journal*, 35(1), 61-77.
- Steeves, V., & Bailey, J. (2016). Living in the mirror: Understanding young women's experiences with online social networking. *Ottawa Faculty of Law Working Paper*(2016-06).
- ubuy. (2025). *Smartphone Penetration Statistics: Saudi Arabia 2024*. Ubuy Saudi Arabia. <https://www.ubuy.com.sa/en/research/smartphone-penetration-statistics?srsId=AfmBOooXY3Jw4yqpVDCyZys-yoZH8pz8sZ5ZxOFfHASMrI3uH12Qbyqf>
- Ulhøi, J. (2021). A digital perspective on entrepreneurship. *Journal of Innovation Management*, 9(3), 71-89.
- Van Deursen, A. J., & Helsper, E. J. (2015). A nuanced understanding of Internet use and non-use among the elderly. *European journal of communication*, 30(2), 171-187.
- Van Zoonen, L. (1992). Feminist theory and information technology. *Media, Culture & Society*, 14(1), 9-29.
- vision2030. (2025). *National Transformation Programme Delivery Plan*. https://www.vision2030.gov.sa/media/nhyo0lix/ntp_eng_opt.pdf
- Wajcman, J. (2004). *Technofeminism*. Cambridge: Polity.
- Webb, J. W., Tihanyi, L., Ireland, R. D., & Sirmon, D. G. (2009). You say illegal, I say legitimate: Entrepreneurship in the informal economy. *Academy of management review*, 34(3), 492-510.
- Welsh, D. H. B., Memili, E., Kaciak, E., & Al Sadoon, A. (2014). Saudi women entrepreneurs: A growing economic segment. *J BUS RES*, 67(5), 758-762. <https://doi.org/10.1016/j.jbusres.2013.11.040>
- Welter, F., & Smallbone, D. (2011). Institutional perspectives on entrepreneurial behavior in challenging environments. *Journal of small business management*, 49(1), 107-125.
- Welter, F., Trettin, L., & Neumann, U. (2008). Fostering entrepreneurship in distressed urban neighbourhoods. *International Entrepreneurship and Management Journal*, 4, 109-128.
- Williams, C. C., & Gurtoo, A. (2011). Evaluating women entrepreneurs in the informal sector: Some evidence from India. *Journal of Developmental Entrepreneurship*, 16(03), 351-369.
- Williams, C. C., & Nadin, S. (2010). Entrepreneurship and the informal economy: An overview. *Journal of Developmental Entrepreneurship*, 15(04), 361-378.
- WorldBank. (2025). *Saudi Arabia*. WorldBank. <https://data360.worldbank.org/en/economy/SAU>