

P O L I C Y B R I E F

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Gender, informality and innovation: Insights from research in Sweetwaters, KwaZulu-Natal



Key messages

- Women in South Africa are disproportionately affected by unemployment and poverty and must find alternative means for their livelihoods. Their needs and motivations differ from men who often report the loss of formal sector jobs as their main motivation for turning to the informal sector.
- Women-owned businesses require specific kinds of support due to structural and socio-economic constraints on their entrepreneurial activity.
- Developing suitable policy interventions require an understanding of how women, in comparison to men, learn and innovate to sustain and grow their businesses.
- An intersectional approach illuminates the unique experiences, needs and challenges of women-owned businesses in resource-poor informal settings, such as rural towns, villages and townships, providing new insights for public policies promoting the mobilisation of science, technology and innovation for gender inclusivity.

Introduction

Mobilising science, technology and innovation (STI) to achieve gender equality and inclusion is a key policy goal. The 2019 White Paper on STI and its implementation plan, the 2022 STI Decadal Plan, emphasise the inclusion and participation of 'all people, regardless of gender, race, age, disability, socio-economic status or geographical location in the national system of innovation'¹. While gender inclusivity has been on the policy agenda for many years, little is known about the intersection between STI, gender and spatial inclusivity, particularly the experiences and needs of women in the informal sector.

This policy brief applies a gender lens to exploring innovation in informal businesses. A gender lens can help policymakers understand the innovation behaviour of both men and women-owned businesses towards the development of suitable targeted interventions. The analysis is based on data collected through the Centre for Science, Technology and Innovation Indicators' 2017-2018 Innovation in the Informal Sector Survey conducted in a peri-rural area in KwaZulu-Natal, 'Sweetwaters', Msunduzi². KwaZulu-Natal is associated with relatively higher levels of emigration, poverty, unemployment, and inadequate infrastructure³. The brief provides snapshots of the data to inform further research.

Why a gender perspective to understanding informal sector innovation in South Africa?

In South Africa, female-headed households have higher levels of poverty compared to their male counterparts⁴. Women are disproportionately affected by unemployment, with approximately 35,5% of women unemployed compared to 32,6% of men⁵. Consequently, women are crucial contributors to the informal economy as they continually seek new ways to support themselves and their households, and many rely on informal employment as their primary source of income. Moreover, a smaller proportion of women (3,3%) tend to be employers than men (7,5%)⁶. Unequal gender norms and structural barriers contribute to women's lack of access to resources, credit and financing. Women also face higher barriers to entry and, therefore, require more support, such as technical assistance, access to infrastructure, capacity building, and links to markets⁷. These gender disparities were further exacerbated by restrictions aimed at combating the spread of the COVID-19 pandemic⁸.

A recent study by researchers at the Human Sciences Research Council shows the importance of innovation for the survival of informal businesses in South Africa⁹. The rate of innovation is high as informal businesses continuously implement changes to remain competitive and survive. How men and women differ in innovation is not yet well understood. The limited research on gender and innovation is inconclusive, with some studies finding no differences and others showing differences in product innovation and employment¹⁰.

Overlooking gender disparities in entrepreneurial development and innovation leads to inadequate support for women-owned businesses. The following sections present key findings from the research in Sweetwaters, pointing to underlying structural and socio-economic constraints shaping gender differences in learning and innovation.

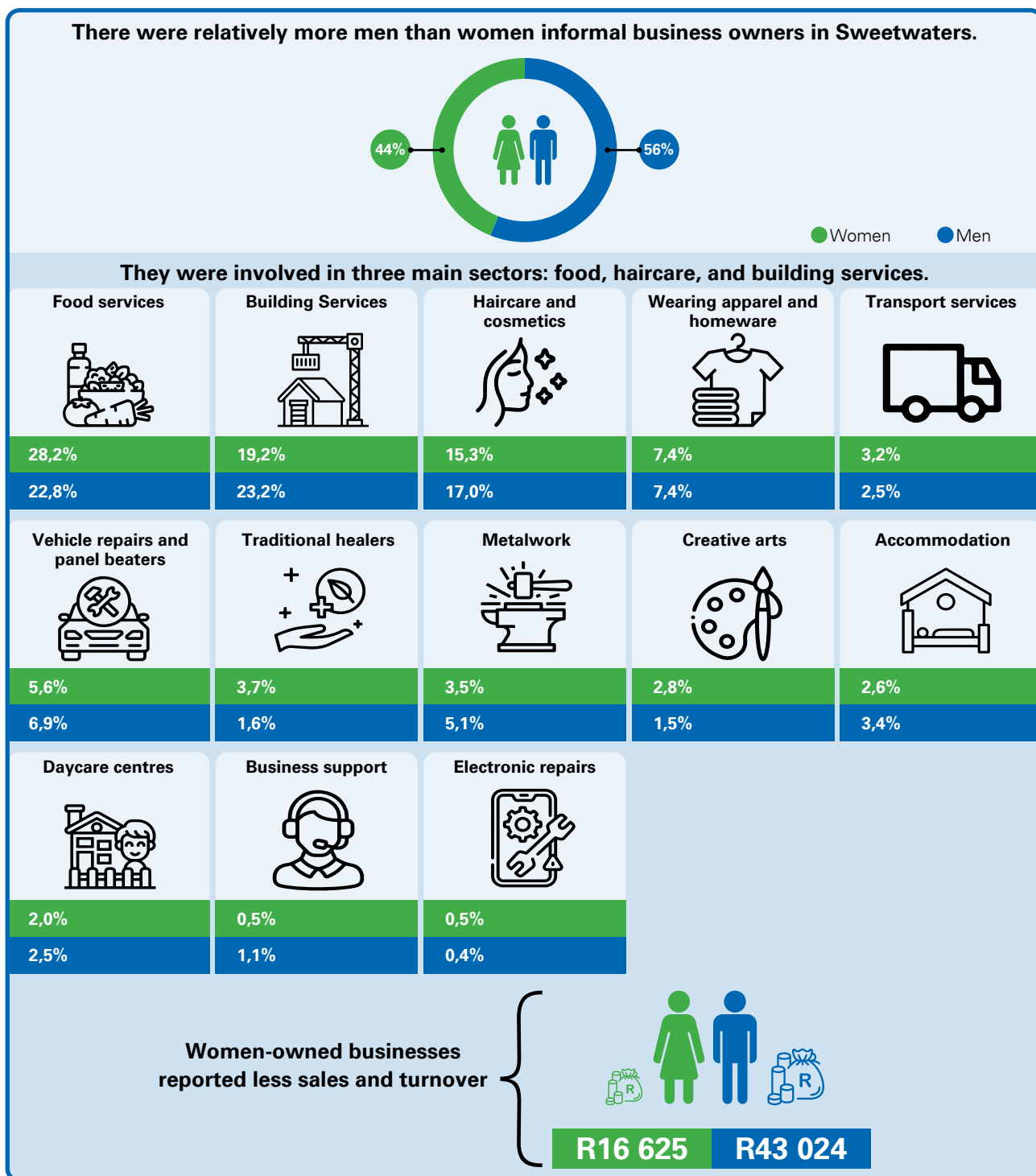
What are the gender differences among the informal businesses in Sweetwaters?

Figure 1 shows that of the 990 informal businesses surveyed, a slightly larger proportion (56%) were men-owned. Informal food services accounted for the main economic activity, with 28,2% of business owners in this sector being women, while 22,8% were men. On the other hand, the building services sector was dominated by men-owned businesses (23,2%) compared to women-owned businesses (19,2%) women. This trend aligns with the most recent Statistics South Africa

Labour Force Survey (2023), which showed that men dominated the construction, transport and finance industries, whereas women accounted for a larger proportion of the community and social services industries. Interestingly, the haircare and cosmetics sector had 1,7% more men-owned than women-owned informal businesses.

On average, in contrast to women, the men-owned businesses reported more than double the earnings per annum from the sale of their goods and services. A plausible explanation is that men tend to have more access to resources and opportunities that enable them to scale-up and expand. For instance, research shows that 71% of men have access to land, compared to only 13% of women¹¹. Gender-based discrimination and unequal access to resources and opportunities may also be factors that contribute to the lower turnover rates for women-owned businesses¹².

Figure 1. Gender differences in the economic activities of informal business owners in Sweetwaters



Data source: CeSTII 2017-18 IIS Survey

Women informal business owners report slightly lower levels of education

While a relatively larger proportion of women obtained primary education (12%) compared to men (9%), more men reported further education qualifications particularly at the Intermediate and Matric levels (Table 1).

Table 1. Formal education levels of informal business owners

	Men (%)	Women (%)
Primary not completed	4,2	7,3
Primary or equivalent	8,5	11,7
Intermediate (grade 9)	41,2	38,2
School leaving certificate (matric) or equivalent	34,2	31,8
Diploma	10,6	10,3
Primary degree	0,4	0,7
Postgraduate diploma/ degree	0,9	0

Data source: CeSTII 2017-18 IIS Survey

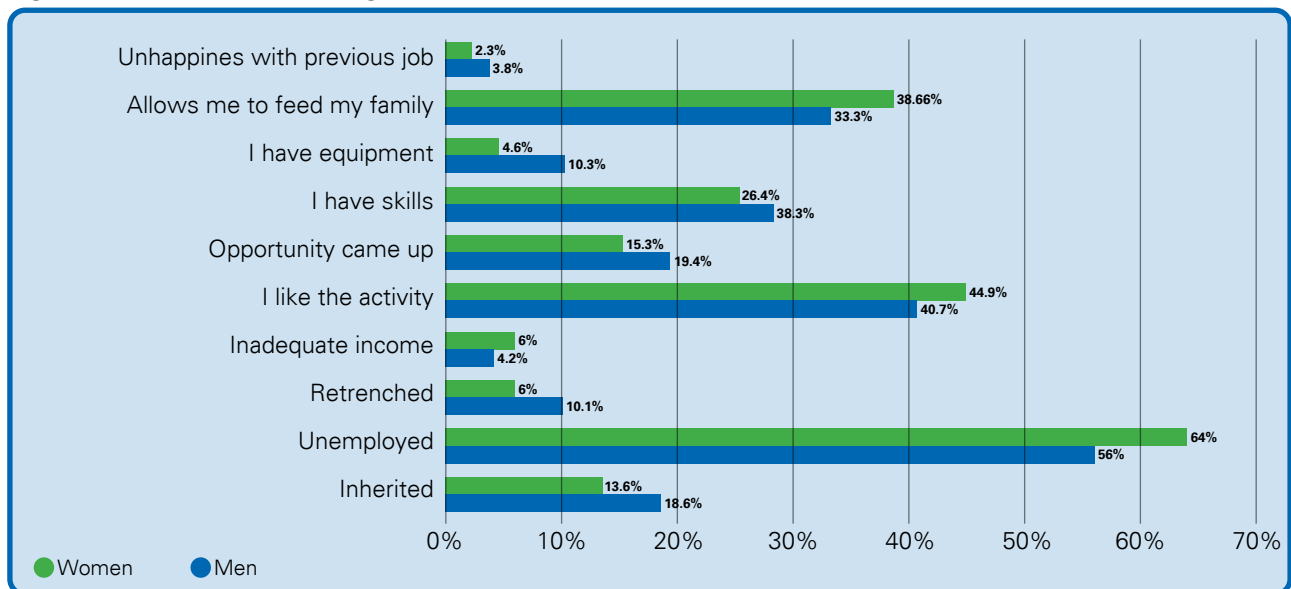
In general, informal business owners report limited levels of education¹³. Education can help improve a business owner's skills, knowledge, and their ability to navigate access to resources and markets. Recent research shows a positive relationship between the level of education and the likelihood of women innovating¹⁴. Therefore, the extent to which women can access education, training opportunities, and formal knowledge is important for understanding gender differences in innovation.

Policy implication: Prioritise entrepreneurship education and training programmes that specifically target women, equipping them with the necessary skills and knowledge. Such interventions need to be informed by an understanding of the current education, and training levels, skills and needs of women informal entrepreneurs.

Women were more likely to start their businesses due to unemployment

Unemployment and passion for business activity were the most common reasons for starting a business among men and women. Men were more likely than women to report access to equipment, skills and opportunity, or it being an inherited business, as the main reasons for starting their businesses. More women (64%), compared to men (56%), started the business due to unemployment and meeting basic needs (Figure 2). Relative to 6% of the women, about 10% of men started their informal businesses because they were retrenched from their previous jobs. Unhappiness at a previous job was the least likely reason for both men and women to start an informal business in Sweetwaters.

Figure 2. Reasons for starting the informal business



Data source: CeSTII 2017-18 IIS Survey

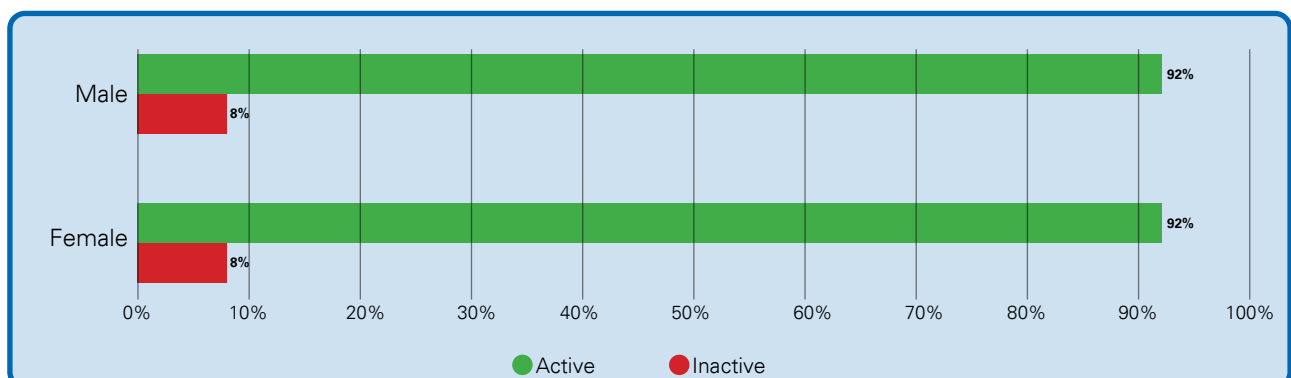
Policy implication: Women-owned informal businesses tend to be started out of necessity and may therefore require different types of entrepreneurship support that are more suited to survivalist enterprises.

What are the gender differences in innovation and learning among informal businesses in Sweetwaters?

There was a high rate of innovation regardless of gender

Most of the informal businesses (approximately 92%) were found to be innovation-active, meaning that most had engaged in innovation activities, including ongoing and abandoned activities in 2017 and 2018. Only 8% of the businesses reported no innovation activity during this period (Figure 3). The high rate of innovation is not surprising, as the challenging and unpredictable nature of the informal business environment necessitates constant creativity and adaptability. Furthermore, the informal nature of these businesses allows for fewer regulatory barriers, providing more room for experimentation and innovation¹⁵. The analysis indicates no difference in the level of innovation activity between the men and women-owned businesses.

Figure 3. Innovation-active and innovation-inactive informal businesses

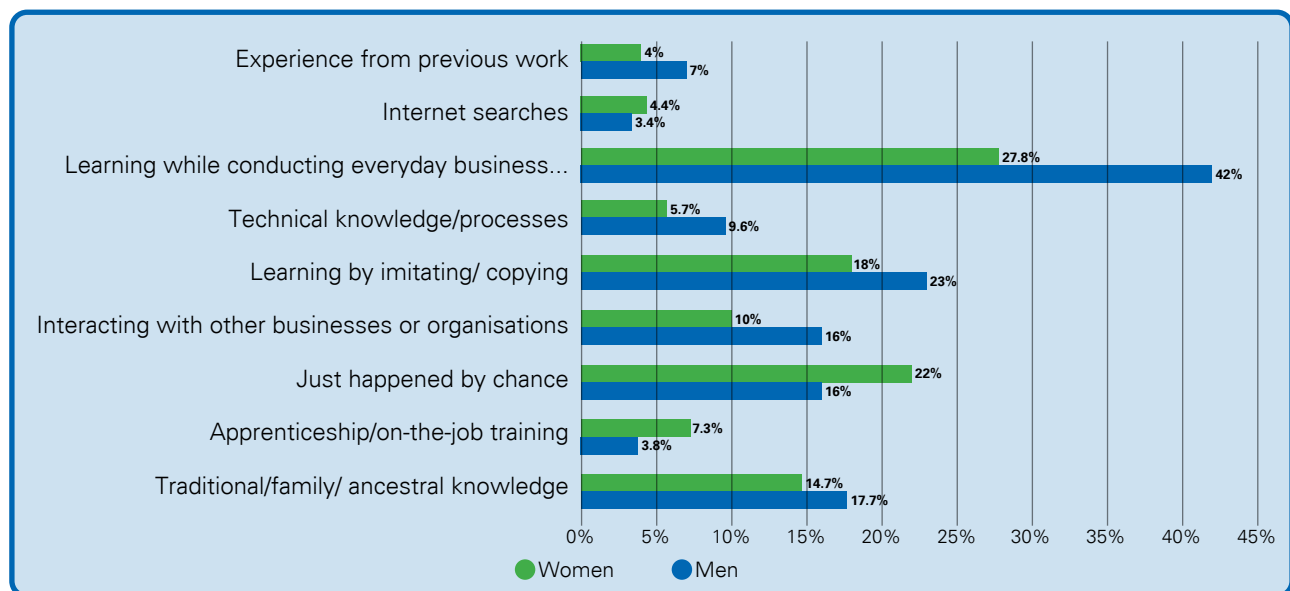


Data source: CeSTII 2017-18 IIS Survey

Informal business owners, regardless of gender, tended to develop new goods and services through learning-by-doing and imitating other businesses

A larger proportion of men (42%) used knowledge gained through everyday operations to develop new goods and services compared to women (27,8%) (Figure 4). Also, slightly more men used traditional (17,7%) and technical knowledge (9,6%) than women (14,7% and 5,7%, respectively). About a fifth of the women-owned businesses reported developing their product innovations 'by chance'.

Figure 4. Knowledge used to develop new goods/services

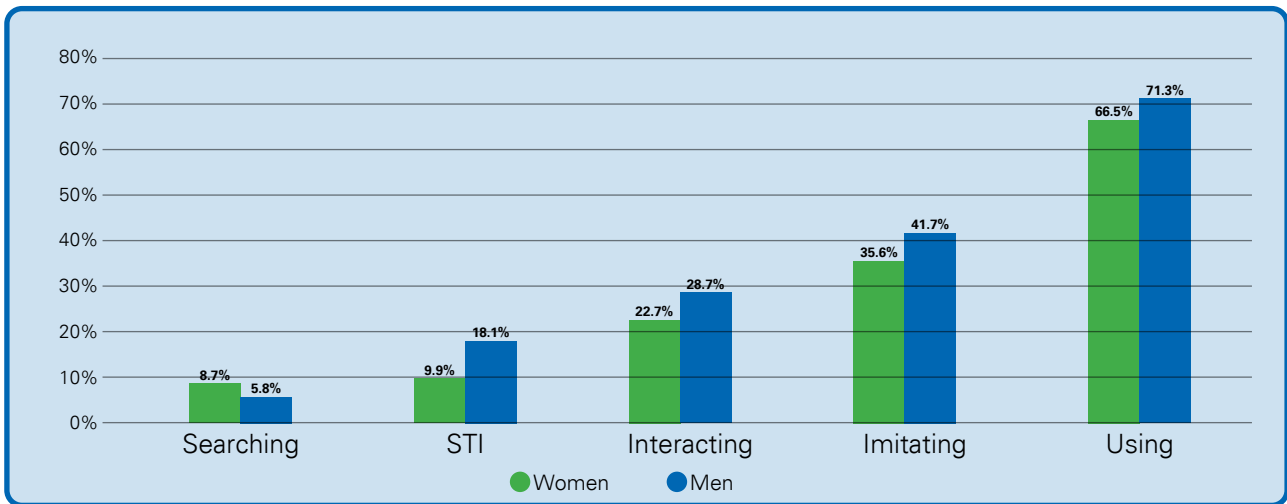


Data source: CeSTII 2017-18 IIS Survey

More men than women-owned businesses used technical and scientific knowledge

There were notable gender differences in the modes of innovation (Figure 5). The main strategy used by both men and women-owned informal businesses was learning by using (71,3% and 66,5% respectively). The biggest difference was in the use of science, technology and innovation (STI) modes of innovation, with more (18,1%) men-owned informal businesses using technical and/or scientific knowledge to inform their innovation activities than women-owned businesses (9,9%). Men also tended to rely more on learning by observing and learning from others by imitating (41,7%) or through interaction (28,7%). In contrast, women-owned businesses relied more on searching, for example seeking out external information and resources (8,7%) than men (5,8%).

Figure 5. Modes of innovation among informal business owners

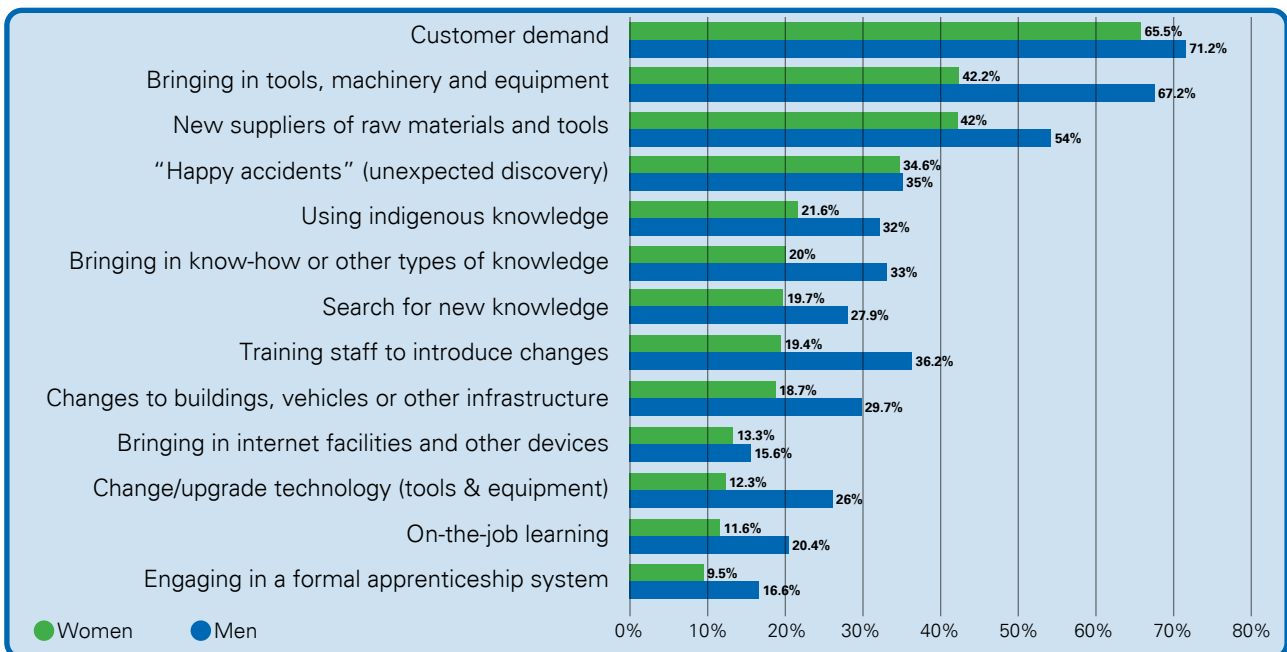


Data source: CeSTII 2017-18 IIS Survey

Different factors can influence the choice of innovation mode. One possible explanation for the higher percentage of men using the STI mode is that they may have more access to technology and formal education, which can facilitate the adoption of new technologies and the use of technical knowledge¹⁶. On the other hand, women face more constraints in terms of access to education, technology, and resources, which may limit their ability to innovate using more sophisticated modes, such as STI and interaction.

Innovation activities were mainly customer-driven, but women-owned businesses reported more organic and reactive forms of innovation

Figure 6. Innovation activities of informal business owners



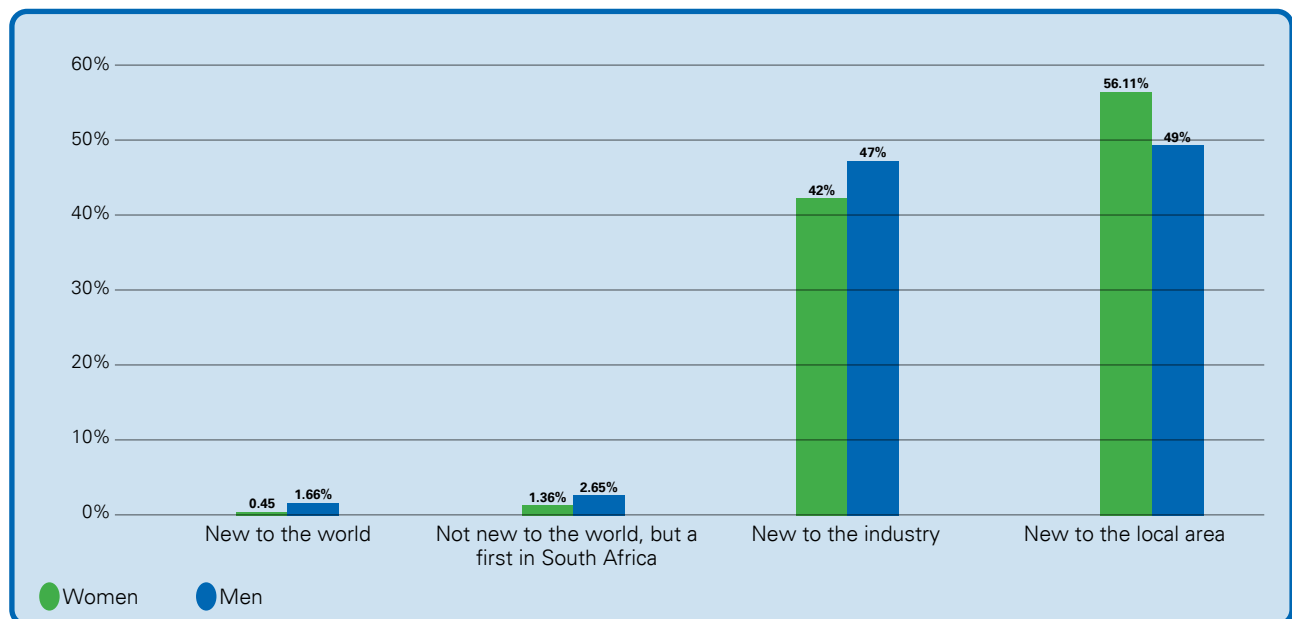
Data source: CeSTII 2017-18 IIS Survey

Besides customer demand; bringing in tools, machinery and equipment was the second most common innovation activity adopted by the informal business owners (women = 42,2%; men = 67,2%), and the third was bringing in new suppliers of raw materials and tools (women = 41,5%; men = 53,6%). However, men also tended to engage more in structured and intentional innovation activities, such as training staff to introduce changes (36,2%) and bringing in know-how or other types of knowledge (32,5%) in comparison to women who tended to engage in more organic and reactive forms of innovation. 'Happy accidents' is the only innovation activity where women- and men-owned businesses were approximately on par.

For women-owned businesses, the novelty of their innovations was strongly linked to the local area

Product innovation in both men and women-owned informal businesses was primarily focused on introducing new products to their respective businesses and local areas rather than creating new products altogether. Women-owned informal businesses (56%) tended to introduce more innovations within their local areas, while men (47%) tended to introduce innovations that were novel to the industry, but not necessarily new to the country (Figure 7). A possible reason could be that women-owned informal businesses may be more likely to operate in industries that are more dynamic and require a greater degree of adaptation to local conditions¹⁷. Differences in access to resources, such as funding and technology, may also play a role in shaping the types of product innovations that men and women business owners are able to introduce.

Figure 7. Product innovation novelty in the informal businesses



Data source: CeSTII 2017-18 IIS Survey

Policy implication: In general, the findings highlight the need to promote learning through interaction with others, for example other informal and formal businesses, NGOs, education and training organisations. Informal business owners, particularly women-owned businesses, should be supported to make greater use of different forms of knowledge, such as traditional and technical knowledge. In this way, women-owned informal businesses may be supported to be more intentional rather than passive and reactive in using innovation.

What are the gender differences in the barriers to innovation among informal businesses in Sweetwaters?

Barriers to innovation were low, regardless of gender

According to the survey results, most of the barriers to innovation experienced by men and women had a no to low effect on their innovation activity (Table 2). The most important barriers related to economic factors and environmental factors, including access to loans, as well as informal and formal credit options, and crime. However, none of these factors stopped their innovation activities for more than one year.

Table 2. Degree of the effect of barriers to innovation*

Barriers to innovation	Male			Female		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Political factors	506	0,21	0,25	367	0,12	0,21
Economic factors	497	0,35	0,31	364	0,25	0,3
Social factors	493	0,26	0,27	359	0,24	0,27
Technological factors	491	0,21	0,25	356	0,16	0,25
Legal factors	507	0,26	0,32	365	0,18	0,29
Environmental factors	496	0,31	0,26	354	0,25	0,24
Owner/manager factors	494	0,2	0,22	357	0,14	0,22

Data source: CeSTII 2017-18 IIS Survey

*Note: In the 2017-18 IIS Survey, barriers to innovation were measured based on a 4-point Likert scale: 'no effect' = nothing has stopped innovation from taking place, 'low' = your innovation was stopped for less than a year, 'medium' = stopped for 1 to 2 years, and 'high' = stopped for more than 2 years.

Policy implication: Reduce barriers to innovation by improving access to finance and credit options for both men and women-owned informal businesses.

Conclusion and implications for policy

There is an overall need for more gender-conscious and inclusive policy approaches supporting informal sector innovation, particularly for women business owners. More specifically, policymakers can:

1. Focus on providing women-owned businesses greater access to financial resources, technology, and training. This can be done through initiatives such as microfinance programmes, grants, and subsidies targeted specifically at women entrepreneurs.
2. Foster networks and support systems that encourage knowledge-sharing and collaboration through the establishment of business incubators, mentorship programmes, and networking events tailored to women-owned businesses. Training should be informed by an understanding of the education levels and skills needs of women-owned informal businesses.
3. Invest in further research that considers the intersections of gender, innovation, and informality to better understand the specific challenges and needs of women-owned informal businesses in different sectors and regions. This research can inform the design and implementation of targeted policies and programmes.
4. Ambitious investments towards universal social protection and accessible public services, including childcare, healthcare and care for older persons, are central to enabling livelihood recovery among women informal workers, creating new decent work opportunities in the care sector, and addressing poverty among informal workers' households.

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