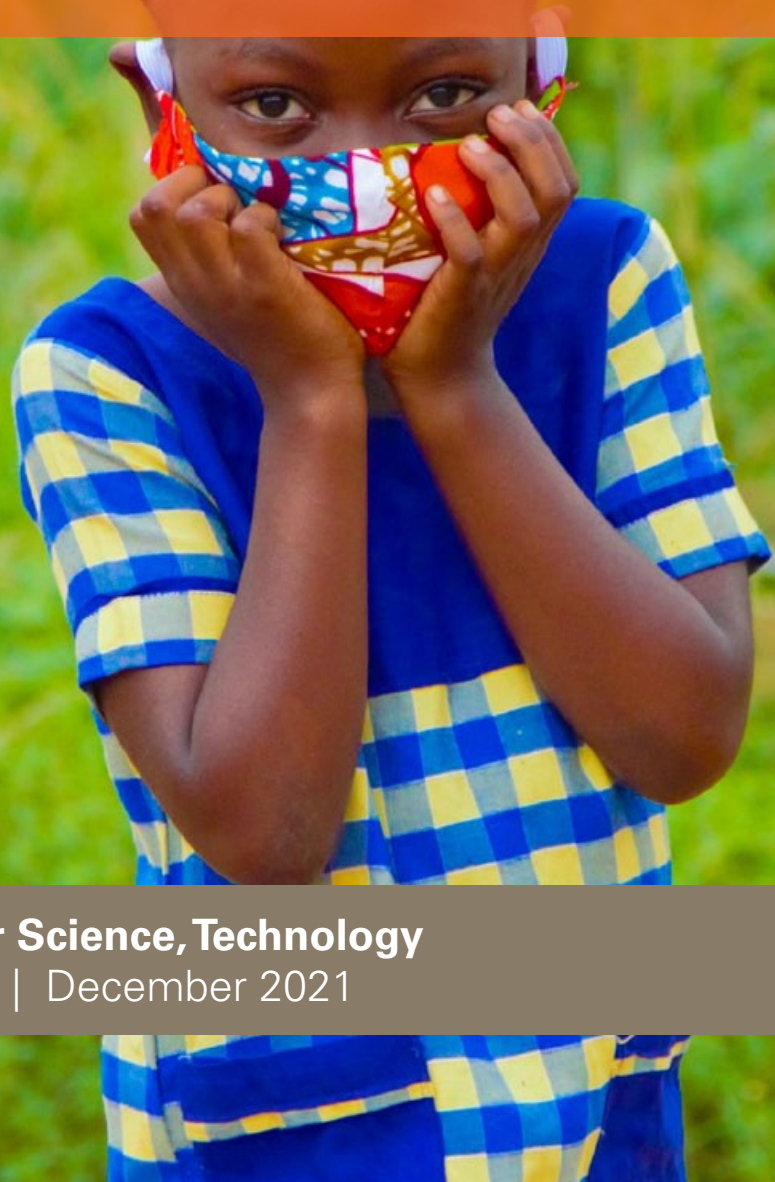


# *Innovation in the Informal Sector*

## A Case Study of **Informal Apparel Businesses** in **KwaZulu-Natal, South Africa**



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# ABBREVIATIONS AND ACRONYMS

<b>CeSTII</b>	Centre for Science, Technology and Innovation Indicators
<b>CIS</b>	Community Innovation Survey
<b>CBPR</b>	Community-based participatory research
<b>CBO</b>	Community-based organisation
<b>CMT</b>	Cut, make and trim
<b>CTFL</b>	Clothing, textiles, footwear and leather
<b>DSI</b>	Department of Science and Innovation
<b>DUIIS</b>	Doing, using, interacting, imitating and searching
<b>HSD</b>	Human and Social Development research programme at the HSRC
<b>HSRC</b>	Human Sciences Research Council
<b>IIS</b>	Innovation in the Informal Sector Survey
<b>IKS</b>	Indigenous knowledge systems
<b>IP</b>	Intellectual property
<b>IPR</b>	Intellectual property rights
<b>LIPC</b>	Local Innovation and Production Classification
<b>LIPS</b>	Local innovation and production systems
<b>NGO</b>	Non-governmental organisation
<b>NSI</b>	National System of Innovation
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>RedeSist</b>	Brazilian Research Network on Local Innovation and Production Systems
<b>Stats SA</b>	Statistics South Africa
<b>STI</b>	Science, technology and innovation
<b>TVET</b>	Technical and vocational education and training



# DEFINITIONS AND DESCRIPTIONS

**Homeware sub-sector or industry** includes the production, repair and retail of upholstered furniture, couch covers, cushions, traditional rugs and linen.

**Innovation** “is a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)” (OECD 2018:20).

**Innovation intensity** is the proportion of employees that are involved in innovation activity, expressed as a percentage.

**Innovation rate** measures the fraction of successful innovators in the population; that is, excluding abandoned or ongoing innovation activity.

**Informal sector enterprises** are private unincorporated enterprises that are unregistered or do not keep formal accounts (EC, IMF, OECD, UN and WB 2009). A perspective that promotes inclusivity informed this study’s methodology. This is an important fundamental in the context of informal settings, in order to promote quality of responses from the participants in the study. In contrast to the practice adopted by national accountants and the like, the informal sector here is defined in an inclusive manner using local community individuals’ perceptions of what they consider to be informal sector businesses. However, there is great overlap between this definition – a bottom-up working definition – and the definition used for statistical tabulations of national accounts or labour statistics. In many cases, informal sector businesses consider themselves part of the informal sector, even though they may have registered as formal businesses in the past, or are considering formalisation as an aspirational ideal or motivational goal.

**Local innovation and production systems (LIPS)** are “groups of economic, political and social agents localised in the same area, performing related economic activities, in which formal and informal interdependence and consistent linkages usually result in cooperation and learning processes, with a potential to generate the increase of productive and innovative capabilities” (Lastres and Cassiolato 2005:7).

**LIP Classifications** are groupings of informal sector businesses involved in related production activities, from the production of raw materials and other inputs into the final production of goods and services at the local level. LIP Classifications are based on an alternative method for describing economic activities at the local level.

**Main economic activity** of a business is the economic activity that generated the most income.

**Production value chain** includes the full range of activities required to bring a good or service “from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use” (Kaplinsky and Morris 2001).

**Wearing apparel sub-sector or industry** includes the production, repair and retail of clothing, shoes, bags and other accessories.



# PREFACE

This is a study of innovation in the informal sector. It covers business innovation in small, informal businesses. It is distinct from grassroots innovation, which “covers a diverse set of activities in which networks of neighbours, community groups and activists work with people to generate bottom-up solutions for sustainable development” (DST, 2018), and social innovation.

This report contains the analysis of results and conclusions from the case study on Innovation in the Informal Wearing Apparel and Homeware Sector in Sweetwaters / Mpumuza, Msunduzi, a peri-urban area in KwaZulu-Natal. The case study was informed by quantitative data collected from the Baseline Survey of Innovation in the Informal Sector (CeSTII 2020) and data from qualitative methods, designed to determine what innovation takes place in informal settings like this one.

The qualitative components consisted of interviews with semi-structured questions for businesses in three selected sectors and other actors (community-based organisations and government actors) operating in the study area and a digital storytelling workshop for business owners in the area. One of the sectors selected was the clothing, textiles, footwear and leather (CTFL) sector. The mixed-methods approach was adopted as relatively little is known about how innovation takes place in informal settings in South Africa and on the African continent. Furthermore, researchers in the field of informal sector studies have emphasised the need for community-based research methods to elicit in-depth responses and openness.

This case study report analyses the survey and qualitative data for the CTFL sector. It aims to shed light on innovation in informal settings and provide useful information and insights for the policy community. It should be read as a companion to the statistical report which reports the results, with few or no inferences drawn from the statistics therein. A second case study on the food sector has also been drafted. Finally, a more detailed report analysing the survey data in greater detail and synthesising the results of the individual case studies will complete the suite of products from the project.

## **Dissemination**

The findings of the 2017–2018 IIS Survey, case study reports, and integrated analysis report will be disseminated to stakeholders. The report and others in the series are available on request from CeSTII and the DSI. The reports can be downloaded from the HSRC-CeSTII website (<http://www.hsrc.ac.za/en/departments/cestii>). Care is taken to ensure the confidentiality of respondent information and the data presented in the reports are anonymised as far as possible. Data extractions in response to users’ special data requests are generally provided free of charge unless substantial analytical work is required to meet any such request. Data extractions are done in accordance with the approved data access protocol and requests should be sent to [cestiidata@hsrc.ac.za](mailto:cestiidata@hsrc.ac.za)

## **Storage and archiving**

The IIS project data will be archived according to established CeSTII procedures. All data are stored electronically on secure servers.





# EXECUTIVE SUMMARY

In South Africa, the informal sector is inextricably linked to the formal sector. The survival of the well-established clothing, textiles, footwear and leather (CTFL) sector, a strategic sector for employment growth, is partly attributed to this interdependent relationship. For example, as a competitive strategy formal businesses sub-contract to informal sector cut, make and trim (CMT) providers to save costs while maintaining design and quality standards. Since the trade liberalisation of the 1990s, businesses in the CTFL sector, particularly those serving the mass market segment, have struggled to compete in both domestic and global markets. Technological development and innovation are highlighted as key but tend to be low (Rogerson 2000; Salinger et al. 1999; Vlok 2006).

This case study investigates the extent, nature and potential impact of business innovation in the informal CTFL sector in a peri-urban area in KwaZulu-Natal, a leading region in the South African CTFL sector. Since the production, repair and retail of wearing apparel was the dominant activity found in the study area, the analysis of innovation activities focused on the wearing apparel sub-sector. The analysis explores one pathway through which innovation contributes to socio-economic development at the local level: developing and strengthening of the local ecosystem for “innovation-oriented entrepreneurship” (Hoffecker 2018: 10), that is, the local innovation and production system.

The case study explores: What is the nature of innovation and learning in the informal apparel businesses? How can informal businesses, located in peri-urban local settings such as Sweetwaters / Mpumzu, use their innovation activities to compete to survive and grow? How can linkages across the production value chain, and with knowledge and intermediary organisations, be built to better harness the potential of innovation to contribute to socio-economic development at the local level?

## **Local-level innovation and pathways to development**

Little is known about the impact of innovation in the informal sector and development. Innovation in the informal sector often takes the form of ‘everyday’ activities in ‘everyday settings’ such as people’s homes (Hoffecker 2018) tending to be of a ‘basic or duplicative’ nature (Kraemer-Mbula et al. 2019). Scholars investigating innovation in informal settings such as townships and rural villages have shown that the process of engaging in innovation contributes most significantly to local development, for example through building technological capabilities and building linkages with knowledge actors. It is argued that building the components of local innovation systems has more significant impact on local development in the long term than mainly promoting the actual innovations produced.

## **Case study design and methodology**

The analysis is based on quantitative data from the 2017–18 Innovation in the Informal Sector (IIS) survey and a set of semi-structured interviews. The research uses a local innovation and production systems (LIPS) framework (Cassiolato et al. 2020; Lastres and Cassiolato 2005), which was adapted to the informal sector in South Africa.

## **Clothing, textiles, footwear and leather sector in South Africa**

Although the CTFL sector has stabilised in recent years, both formal and informal businesses in the sector are challenged to develop new skills and capabilities to produce high value-added products, improve productivity and competitiveness towards a higher employment growth path. The informal sector has been identified as important for developing niche markets, specifically markets based on African traditional dress and traditional printed fabric that is gaining popularity in the domestic and global markets. Pressure to compete with cheap and illegal imports from Asian and African countries is a major challenge.

## Economic activities and innovation in the informal apparel and homeware sector in Mpumzu

The findings show that the ability of the apparel and homeware businesses to innovate, with very limited resources, has helped them to compete at the local level and sustain their businesses for several years. At the same time, the basic nature of their innovations, and their inward approach to learning has restricted their growth potential. The case study argues that one way for the informal businesses to compete and grow is to leverage their local knowledge and networks to build innovation capabilities that enable shifts in trajectory towards better development pathways.

### Recommendations for policy

- Promote new and stronger forward and backward linkages between informal businesses in the local area through promoting clustering and co-operatives.
- Improve the impact of government co-operative programmes with mentorship and coaching. This is also one way to shift deep-rooted norms, values and practices associated with necessity-driven entrepreneurship.
- Promote and incentivise universities, colleges and other formal knowledge producers to engage with informal businesses in the CTFL sector.
- Promote and incentivise partnerships between formal sector businesses, particularly well-established businesses such as design houses and manufacturing businesses. Including community-based organisations (CBOs) and non-governmental organisations (NGOs) with strong linkages in the local area may be beneficial in broadening and deepening the reach of such partnerships, and in advocating for fair practices.
- Create accessible market spaces in the local area and nearby city where informal CTFL businesses can trade and link with other businesses and organisations.
- Promote easily accessible internet access via free WiFi hotspots in the neighbourhood, such as the library and informal internet cafés.
- Improve coordination across government – national, provincial and local levels – to promote innovation in the informal sector through local economic development strategies.



# A. INTRODUCTION

*The performance of our informal sector is intimately linked to the rest of the economy.  
This fact has profound implications for public policy. (Bernstein 2020)*

In South Africa, the survival of the well-established clothing, textiles, footwear and leather (CTFL) sector is partly attributed to the interdependent relationship between the formal and informal sectors. As numerous accounts of the history of the CTFL sector show, the informal segments of the value chain emerged and grew in response to crises faced by formal CTFL businesses (Fakude 2000; Palmi 2006), and formal businesses have relied on relocation strategies and cheap (informal) labour for survival (Salinger et al. 1999). Since restructuring in the 1990s, thousands of employees in the CTFL sector have lost their jobs. Many decided to use their provident payments to operate from home or establish small CMTs in the informal sector. As part of competitive strategies, formal businesses also began to sub-contract more from informal sector CMTs to save costs while maintaining design and quality standards. Informal businesses thus form an important part of formal value chains and the informal segment has been described as a ‘safety valve’ for the sector (Salinger et al. 1999: 9).

As a labour-intensive sector, it is of strategic importance for increasing employment. However, businesses in the sector, particularly businesses serving the mass market segment, have struggled to compete in both domestic and global markets. Technological development and innovation are highlighted as key but tend to be low (Rogerson 2000; Salinger et al. 1999; Vlok 2006).

This case study report investigates the extent, nature and potential impact of innovation in the informal CTFL sector, specifically the wearing apparel sub-sector in a peri-urban area in KwaZulu-Natal, a leading region in the South African CTFL. Based on a local innovation and production systems (LIPS) approach (Cassiolato et al. 2020; Lastres and Cassiolato 2005), the analysis explores one pathway through which innovation contributes to socio-economic development at the local level by developing and strengthening the local ecosystem for ‘innovation-oriented entrepreneurship’ (Hoffecker 2018: 10). The main questions that the case study report aims to address is: what is the nature of innovation activities and learning in the informal apparel businesses? How can linkages across the production value chain and with knowledge and intermediary organisations be built to better harness the potential of innovation to contribute to socio-economic development at the local level?

The next section draws on the emerging literature on local innovation and production systems in discussing the nature and significance of innovation for socio-economic development at the local level. The second section describes the case study design and methodology. The remainder of the report focuses on the CTFL sector, starting with a description of the sector in South Africa and KwaZulu-Natal in the third section. The fourth section presents the key findings of the research, describing the informal businesses and their main economic activities, the nature of the innovation activities and the main learning strategies. The last section discusses the key findings and provides some recommendations for building a local innovation and production system around the informal production, repair and retail of wearing apparel.

## Local-level innovation and pathways to development

### A.1.1 Innovation at the local level: what it is and why it is important

Innovation in the informal sector typically takes place at the local level and tends to be new to the individual business or local context only. In her analysis of 300 innovations in local, resource-poor contexts, Hoffecker (2018) shows that local-level innovations are typically introduced by individuals in response to challenges or needs related to everyday life experiences, using mainly resources found in the local area, and are likely to take place in 'everyday settings' that are typically informal and community-based (e.g. homes, gathering spaces).

In this research study, the focus is on *business innovation* in informal local settings. Examples of innovations identified in the informal sector are illustrated in Figure 1, which is based on a bottom-up conceptualisation of innovation developed as part of the research study. The examples illustrate the incremental, non-technological nature of innovation. Therefore, local level innovation activities in informal settings may not fit mainstream understandings of innovation that tend to emphasise radical (often technological) change, and, as a result, may not be considered as innovation in other parts of the world (Hoffecker 2018). Since innovation in the informal sector tends to take the form of 'everyday' activities, the significance of informal sector innovation for development is often questioned.

*Why is innovation in the informal sector significant?* Little is known about the links between informal sector innovation and development. Hoffecker (2018) identified two potential pathways through which informal local-level innovation contributes to local development:

- Pathway 1 is through the direct social and economic benefits related to the use and adoption of the specific innovations.
- Pathway 2, which has the most significant impact, is the contribution to building and strengthening local ecosystems for entrepreneurship and innovation (i.e. local innovation and production systems).

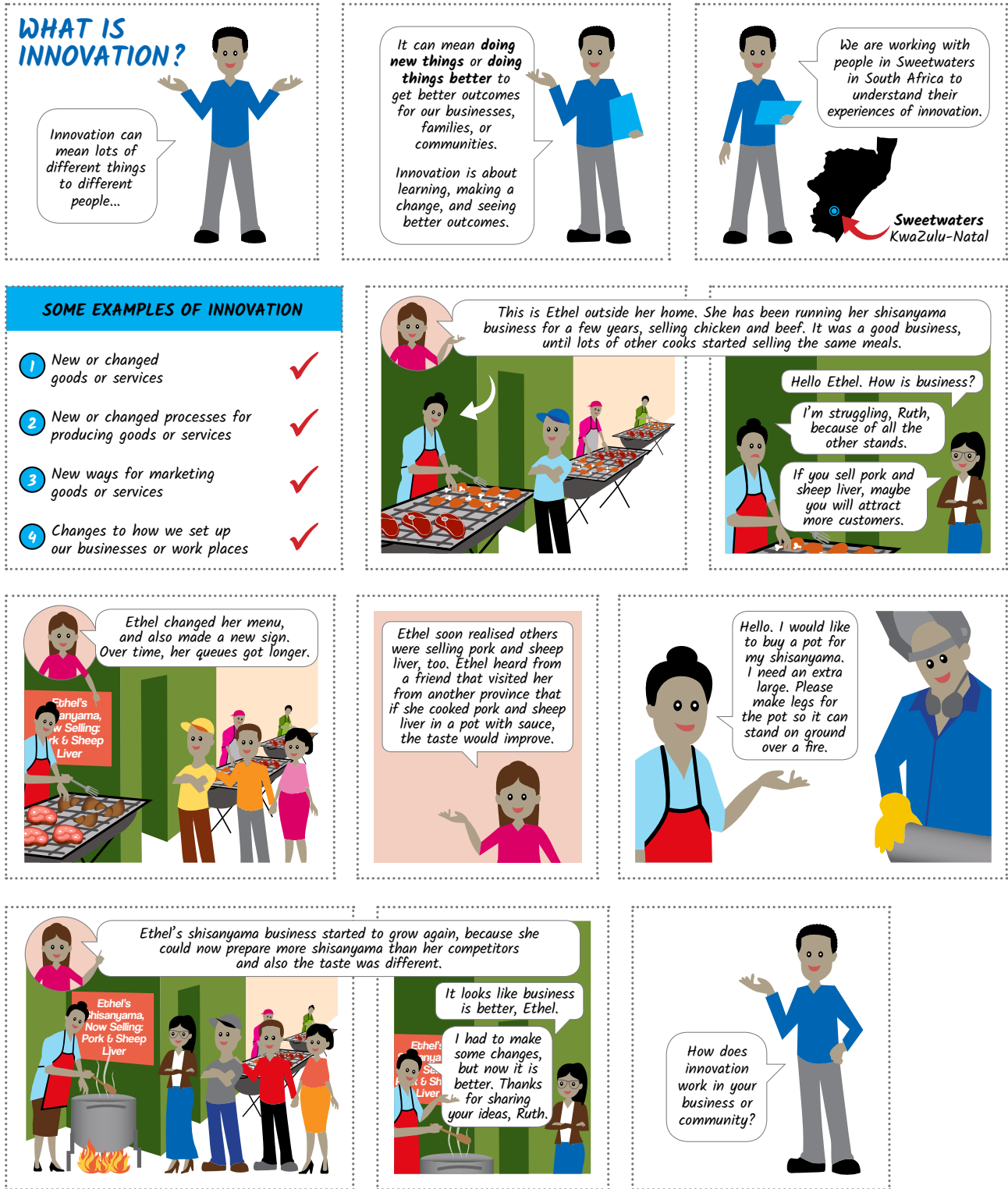
Therefore, both the end product and the process of innovation is important. Ferretti and Parmentola (2015:10) concur and explain that

*The local economy gains evolutionary momentum through the generation of innovation, produced by recombining various types of endogenous knowledge with externally sourced new knowledge...the degree to which the actors in a local economy can access, understand and convert leading-edge knowledge to new products and services determines their capacities to generate new pathways and renew old ones.*

The importance of building local innovation systems for transformative change and development is thus highlighted. A concern is that policy instruments aimed at promoting innovation for inclusive and sustainable development tend to pay greater attention to pathway 1 through technology push approaches, for example.



Figure 1: Diagram defining innovation and illustrating innovation activities in an informal business



Source: Mustapha et al. (forthcoming)

Note: The diagram is based on one of the digital stories produced through a digital storytelling workshop, conducted in September 2018, as part of the research study.

## A.1.2 Building local innovation and production systems as a pathway to development

### A.1.2.1 Emphasis on the social and institutional context of a territory

Socio-economic development is underpinned by local entrepreneurial systems (Ferretti and Parmentola 2015), specifically innovation-oriented entrepreneurship (Hoffecker 2018). Local innovation systems approaches are “grounded in developing local capabilities to produce a diverse range of goods and services which meet local needs” (Hoffecker 2018). Emphasis is on the territorial dimension and cumulative knowledge or collective learning processes that shape path dependencies and opportunities (Cooke 2001).

The territorial nature of innovation is now well-recognised (Asheim et al. 2011; Cooke 2001; Ferretti and Parmentola 2015). In this study, we adopt a local innovation and production systems (LIPS) approach which was introduced by innovation scholars from Brazil: Jose Cassiolato, Helena Lastres and their colleagues at RedeSist (see Lastres and Cassiolato 2005; Cassiolato et al. 2020). The LIPS approach captures both the production and innovation sides, and, because it integrates key ideas from both innovation and development studies and is based on empirical analysis in a highly unequal developing country context (Brazil), it emphasises linkages across the informal and formal sectors. A LIPS refers to

*...groups of economic, political and social agents localised in the same area, performing related economic activities, in which formal and informal interdependence and consistent linkages usually result in cooperation and learning processes, with a potential to generate the increase of productive and innovative capabilities. (Lastres and Cassiolato 2005: 7)*

The LIPS approach recognises the blurring of formal-informal boundaries in developing country contexts and has been used to explore innovation activities in the informal sector in Africa (e.g. Kraemer-Mbula and Wunsch-Vincent 2016; Petersen and Kruss forthcoming).

Interaction is necessary for innovation and is made easier by geographical and institutional proximities. Here, institutions refer to the informal and formal rules or guides for behaviour and their associated practices. The institutional contexts of informal local settings differ from formal settings in the relative importance placed on collective action (Cozzens and Sutz 2014) and the prevalence of necessity-driven (BER 2016) entrepreneurship and innovation.

### A.1.2.2 Forms of knowledge and modes of learning

Since entrepreneurship and innovation at the local level is typically driven by local needs and challenges, knowledge of the local context is crucial but knowledge as well as materials from outside of the local area may also be used (Cassiolato et al. 2020, 2018; Ferretti and Parmentola 2015; Hoffecker 2018). The innovation systems literature highlights the value of local knowledge and its value when combined with other forms of knowledge. The intimate knowledge of the social context relates to what Asheim et al. (2011: 882) refer to as ‘symbolic knowledge’, that is knowledge based on “the cultural meaning of ideas, images and design.” According to Asheim et al. (2011: 882), “symbolic knowledge...has most resonance in cultural industries where the aesthetic/design content of goods and services is high” such as the apparel industry, is grounded in humanities or the arts, and has “a high degree of place specificity.” Informal businesses often possess intimate knowledge of the local market, which relates to a specific form of knowledge that Lundvall (2016: 112) identified as ‘know-who (when and where)’, that is ‘knowing who knows what’ and ‘can do what’ and forming relations with actors who are in possession of useful knowledge and resources. ‘Symbolic knowledge’ (Asheim et al. 2011: 882) and ‘know-who’ become more useful when combined with relevant ‘know-how’, which is usually developed through work experience in a relevant industry, and more scientific knowledge centred on facts (i.e. ‘know-what’) and ‘know-why’ (Lundvall 2016: 112) (see also Petersen and Kruss forthcoming).

'Know-who' and 'know-how' are typically developed through experiential learning or learning based on doing, using, interacting, imitating and searching (see Jensen et al. 2007) and thus interaction is crucial as these forms of tacit knowledge are embedded in people, making it difficult to codify. 'Know-what' and 'know-why' are usually developed through interaction with universities, research institutes and other formal knowledge producers, which play a central role in promoting a science, technology and innovation (STI) mode of learning. Since DUIS modes of learning tend to foster mainly incremental change, STI modes are required to bring about more radical or transformative change that opens up alternative pathways (Lundvall 2016). The importance of knowledge combinations or complexity is also highlighted in their relation to the degree of novelty of innovation (Bell and Figueiredo 2012; Kraemer-Mbula et al. 2019).

### *A.1.2.3 Actors and networks*

In a resource-poor local setting, knowledge actors that are crucial for innovation such as research institutes, universities and other education and training organisations may play a role in stimulating and supporting innovation but the role of knowledge actors tends to centre on education and training rather than research and development (R&D) activities. Innovation based on R&D and technological change is however needed to enable a change in development trajectory towards more promising pathways. As Lundvall (2016) argues, the STI mode of learning must be combined with experiential-based learning (the DUIS mode of learning) to be useful in resource-poor contexts.

Intermediary actors such as NGOs, religious organisations and other community-based organisations may also play a role in providing training and other support services (Kraemer-Mbula and Wamae 2010).

The roles and dynamics as well as the types of actors included in the system are thus different to those typically found in the formal sector and in advanced countries. Also, the roles and network configurations of local innovation systems are shaped by the degree of development of the local entrepreneurial system. In local settings with weak entrepreneurial systems, government actors tend to take the lead in building the local system whereas universities play more prominent roles in contexts where the entrepreneurial system is more developed (Ferretti and Parmentola 2015).

Therefore, the nature of innovation, and the key components of the innovation systems found in informal local settings differ significantly from formal settings. This needs to be considered when selecting suitable frameworks and methods for researching and measuring innovation in these contexts.

In this study, we explore the use of a local innovation and production systems framework (Lastres and Cassiolato 2005; Cassiolato et al. 2020) and novel community-based participatory research techniques. The methodological framework and research techniques used in this study are described next, followed by a description of the socio-economic context and local system selected for the case study research.

# B. CASE STUDY DESIGN AND METHODOLOGY

This case study report forms part of a larger study measuring innovation in the informal sector in Msunduzi (IIS study). The IIS study employed a mixed-methods approach to measurement with two components: 1) a quantitative survey on all informal businesses in the study area (2017–18 IIS Survey), and 2) case study research on two key sets of informal economic activities in Msunduzi: i) wearing apparel and homeware manufacturing and retail, and ii) food services.

The case studies explore the nature of innovation in greater depth than is possible through a quantitative survey, and each focuses on a different strategy for building a LIPS. The food services case study focuses on the individual business and business upgrading, whereas this case study report investigates ways in which specific innovation activities and processes contribute to building different components of a LIPS towards creating an ecosystem for innovation-oriented entrepreneurship.

## Local innovation and production systems framework

As discussed, the research uses a LIPS framework (Cassiolato et al. 2020; Lastres and Cassiolato 2005), which has been found to be more suitable for studying innovation in the informal sector. We adapted the framework, taking into consideration the characteristics of businesses and economic activities in the informal sector in South Africa. For example, informal sector businesses tend to be survivalist and micro-businesses operating in informal, resource-poor local settings with distinct spatial dynamics (Charman et al. 2018; Faure 2018). As shown in Figure 2, the LIPS framework emphasises the following:

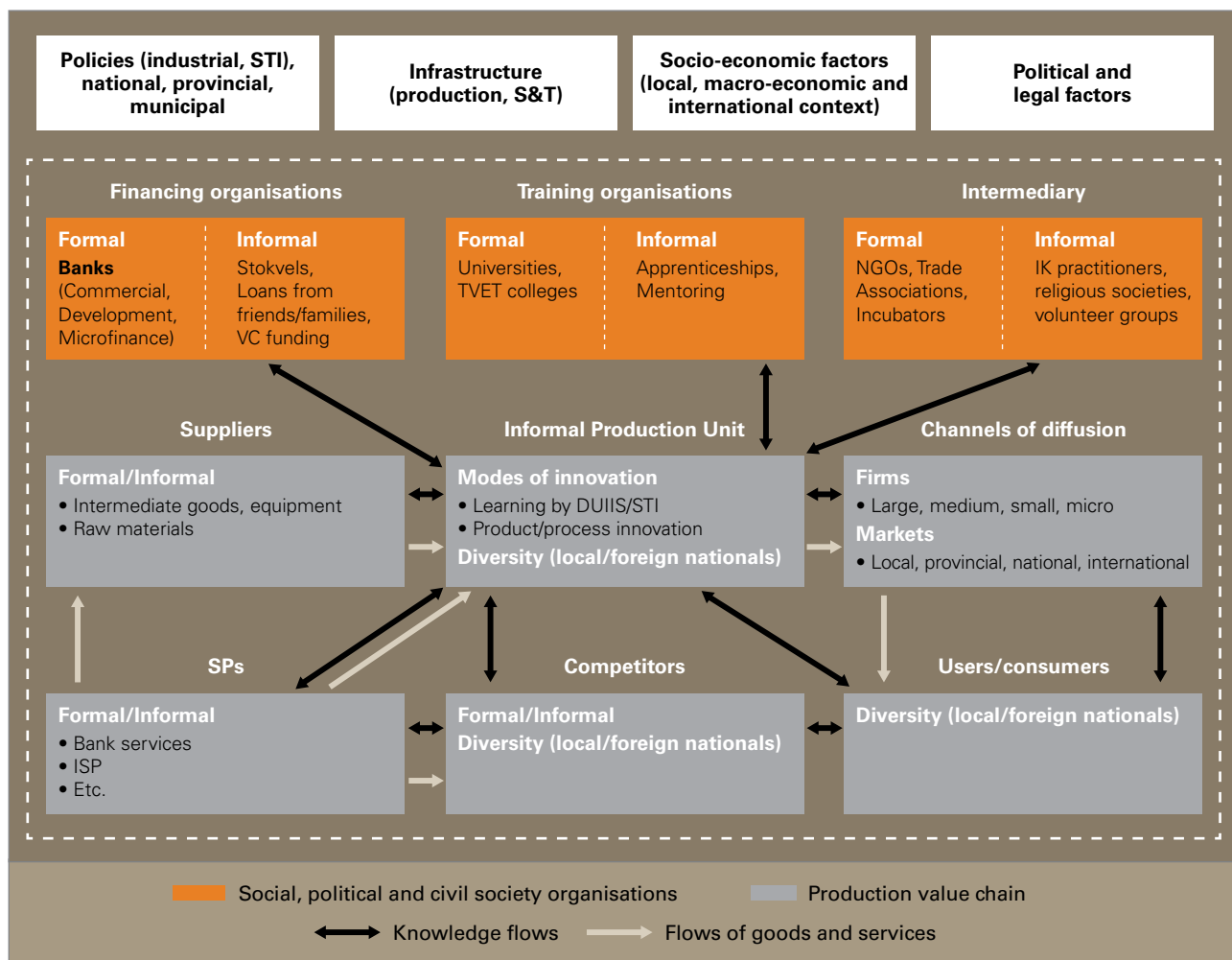
- Territorial dimension – as a specific focus of analysis and policy;
- Link between micro-, meso- and macro-dimensions;
- Diversity of activities and actors – economic, political and social;
- Interactive learning – creation, assimilation and use of knowledge – and innovation;
- Coordination ('governance') – power relations and coordination among actors and activities;
- Embeddedness – common identities and goals, cooperation and commitment of the different actors and the articulation and adherence of production and innovation initiatives to the development of that territory (Cassiolato et al. 2018).

The LIPS framework thus places the unit of analysis in the set of agents, at the collective level, going beyond the individual business, specific sectors or production chains, establishing a close relationship between the territory and the economic activities (Cassiolato et al. 2018). The focus is on studying the linkages among a range of actors involved in interrelated economic activities, from firms producing goods and services to suppliers of raw materials, equipment and other inputs; distributors and traders; workers and consumers; organisations geared towards capacity building and training of human resources, information, research, development and engineering; support, regulation and financing; cooperatives, associations, trade unions and other representative bodies as well as policy design and implementation actors.

To better align with the characteristics of the informal sector, the LIPS framework was adapted by including a broad range of new actors within the system (e.g. informal financing options and intermediaries), informal linkages among the actors, as well as the peculiarity of the socio-cultural, political, institutional and technological landscape of the continent. A detailed description of the LIPS framework and the full methodology can be found in the 2017–18 IIS Survey Statistical Report (CeSTII 2020).



**Figure 2: Local Innovation and Production Systems (LIPS) framework adapted for the informal sector**



Source: Authors, based on Cassiolato et al. (2018) and de Beer and Wunsch-Vincent (2013)

## Wearing apparel and homeware case study

This case study report focuses on one of the Local Innovation and Production Classification (LIPC) categories covered by the 2017–18 IIS Survey, that is, wearing apparel and homeware as the main CTFL sector-related economic activity found in the study area. Based on the LIPS framework, the informal sector businesses were grouped into production networks covering the range of activities from the production of raw materials and other inputs into the final production of goods and services at the local level. The method of categorising the economic activities allows for the development of insights pertinent for the informal sector: the relation between production activities and the local territory – that is the ‘localness’ of production activities – as well as potential learning and competence-building networks. The full description of the rationale and method used for identifying the LIPC categories is included in the 2017–18 IIS Survey Statistical Report (CeSTII 2020).

The case study draws on both the 2017–18 IIS Survey data and a set of semi-structured interviews conducted with six informal businesses, whose main economic activities fall within the informal wearing apparel industry, and two informal homeware businesses. A total of 73 informal apparel and 11 informal homeware businesses were included in the 2017–18 IIS Survey, which included a total sample of 996 informal businesses. In addition, to inform an understanding of the local context, six interviews were conducted with intermediary organisations including representatives from local government, NGOs and CBOs operating in the study area.

We found that the manufacture and retail of clothing, shoes and accessories (i.e. wearing apparel) accounted for most (86.91%) of the economic activity in the CTFL sector in the selected local area, of which 13 businesses identified

themselves as shoe manufacturing and retail businesses. These businesses were included as part of the wearing apparel group as some of these businesses also produced or sold clothing, bags and other accessories. Other relevant economic activities focused on the manufacture and retail of homeware, including the re-upholstery of couches, making of traditional Zulu mats and linen etc. Since the LIPC group was dominated by the apparel businesses, the analysis of innovation activities and learning focuses on this group of businesses.

## Study area

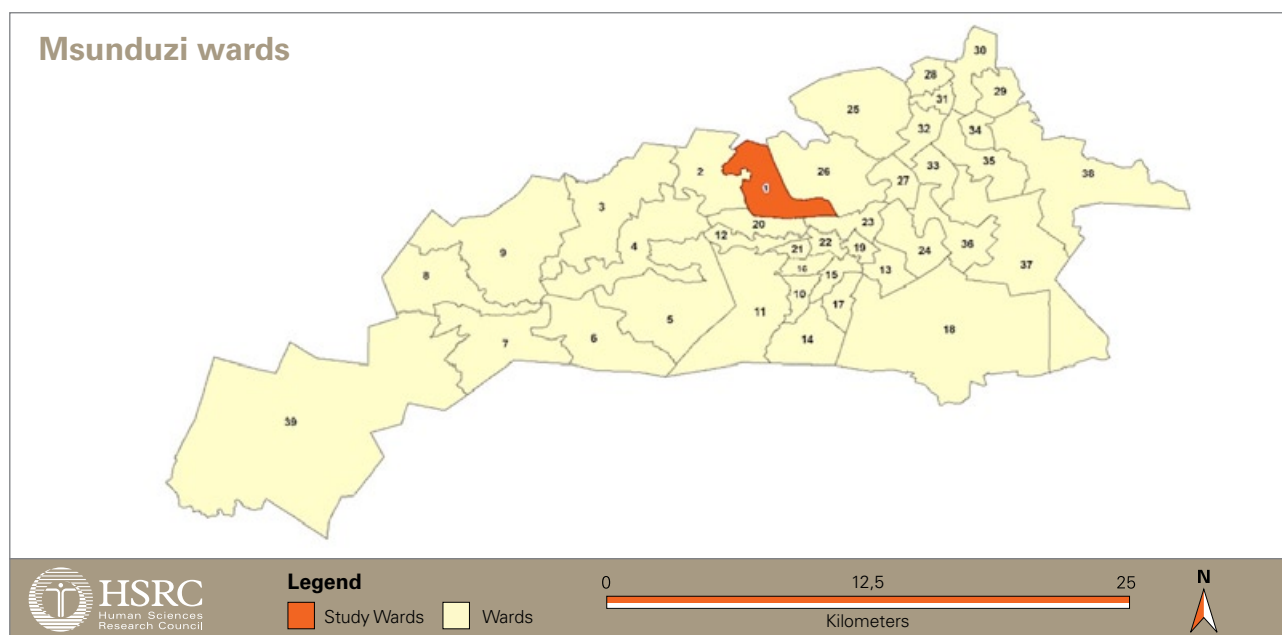
The IIS study was conducted in Mpumuza / Sweetwaters in Pietermaritzburg, KwaZulu-Natal. Mpumuza forms part of the Msunduzi Local Municipality and falls within the boundaries of the uMgungundlovu District Municipality, northwest of South Africa's third largest city, the coastal city of Durban. The Msunduzi Local Municipality contributes 7.45% to the GDP of KwaZulu-Natal and 1.19% to national GDP (Pietermaritzburg Msunduzi Integrated Development Plan 2018).

Mpumuza is a predominantly peri-urban area, but it also has areas that are rural residential. The municipality encompasses the city of Pietermaritzburg, which is the second largest metropole in KwaZulu-Natal and the capital of the province. Pietermaritzburg is the main economic hub of the district. On a regional scale, the municipality is situated at the junction of an industrial and agro-industrial corridor. As the second largest local municipality in KwaZulu-Natal, it has entrenched its role and position as the political hub of the province. Despite consistent economic growth in recent years, unemployment and poverty levels in Msunduzi remain a concern, particularly in the townships and peri-urban settlements where unemployment rates may exceed 70% (Pietermaritzburg Msunduzi Integrated Development Plan 2018).

The exact contribution of the informal sector to GDP is not known and is estimated to range from 8% to 12% of national GDP (DEDAT 2011). At a regional level, support for economic activities in the informal sector is coordinated by the KwaZulu-Natal Department of Economic Development and Tourism, which has introduced an informal economy policy and targeted policy instruments such as the establishment of an informal sector business chamber. A key aim is to bring informal economic activities into the mainstream to reduce the vulnerability and exclusion of informal sector workers (DEDAT 2011).

The IIS study focuses on one geographical area within Mpumuza, Ward 1 and surrounds (see Figure 3). The study area had a population of approximately 18 500, with a working age population of 59% (Census 2011 and Community Survey 2016). The population consisted of a slightly larger proportion of females (52%) and isiZulu was the main language spoken. Mpumuza falls under the authority of traditional Zulu leadership, by a Chief and Izinduna. All economic and social activity is overseen by the traditional authority of the area (Mthandeni 2002), and this is done in partnership with local government. The social structure, norms, values and practices are deeply entrenched in Zulu customs.

**Figure 3: Map of the study area, Ward 1, Msunduzi**



Source: CeSTII (2021)

# C. THE CLOTHING, TEXTILES, FOOTWEAR AND LEATHER SECTOR IN SOUTH AFRICA

## Significance as a labour-intensive sector

In South Africa, the CTFL sector accounts for approximately 14% of manufacturing employment, 8% of manufacturing GDP and 2.9% of overall GDP (DTI IPAP 2018/19-2020/21; <https://capeclothingcluster.org.za/sector-profile>). In the 1990s and early 2000s, the sector reported a marked decline in revenue and employment due to the increase in cheap imports from China and other Asian countries following trade liberalisation (Fakude 2000; Palmi 2008; <https://kznctc.org.za/about-kzn-ctc>). To prevent further losses, government introduced a quota system and support programmes such as cluster development programmes. The sector has since stabilised and sales continue to grow, slowly, as businesses continue 'to feel intense pressure from cheaper (and often illegal) imports' (DTI 2018/19: 21). A more recent trend is increasing, often illegal, imports from other sub-Saharan African countries (Raats 1998 in Rogerson 2000).

Activity in the CTFL sector is concentrated mainly in two provinces, the Western Cape, which is best known for its capabilities in fashion design and focus on the high fashion market and KwaZulu-Natal, which focuses more on producing for the mass market. Although KwaZulu-Natal's prominence in the CTFL sector has declined in recent years, until the 1990s, "the region was renowned for the production of high quality textile, clothing and footwear products" (<https://en.wikipedia.org/wiki/Pietermaritzburg>). KwaZulu-Natal has capabilities across different segments of the value chain including textiles production (Chaddha et al. 2009) and shoe manufacturing. The apparel industry, due to its labour-intensive nature and relatively low barriers to entry, is of strategic importance for development purposes (Salinger et al. 1999). The provincial apparel industry is the largest employer within the manufacturing sector (Vlok 2006) and has higher export capabilities than the Western Cape (Morris and Reed 2008). Almost a third of national textiles exports originate in KwaZulu-Natal (<http://kzntopbusiness.co.za/site/manufacturing>).

## Informalisation

In response to restructuring in the 1990s, when thousands of employees in the CTFL sector lost their jobs, many decided to use their provident payments to operate from home or establish small CMTs within the informal sector. As part of competitive strategies, formal businesses also began to sub-contract more to informal sector CMTs to save costs while maintaining design and quality standards. Informalisation in the sector has thus grown since the 1990s with informal businesses making up an integral part of formal value chains (Morris and Reed 2008). Alongside formal apparel manufacturing, informal, mainly home-based apparel production is growing in major South African cities and in township areas, with immigrant-owned informal businesses also increasing (Rogerson 2000). Fakude (2000: 12) identified four forms of informalisation in the apparel industry, indicating specific ways in which the informal sector links with the formal:

- Informal producers to informal sellers (low-income segments)
- Informal producers for up-market segments
- Informal producers to formal retailers
- Quasi-informalisation by the formal sector

Integration into formal value chains comes with opportunities for growth but also challenges such as more direct exposure to global competition. As recent research shows, the informal sector may be more vulnerable to macro-level challenges

and shocks than originally thought (see for example, Rogan and Skinner, 2020, who describe the impact of the recent South African national lockdown regulations on the informal economy). In the apparel industry, informal businesses serving the formal sector tend to get the short end of the stick as they respond to demand for shorter production times at cheaper costs. Working within a quick response model, competition tends to be based on meeting demand in terms of time and quality standards (DTI 2018/19; Salinger et al. 1999). This results in increasing competition among informal businesses to offer their services at lower prices, which leaves employees with lower wages and often harsher working conditions (Palmi 2008).

Formal producers and retailers are also increasingly endeavouring to serve low-income markets, and thus are increasingly competing with informal businesses (Competition Commission 2019). The apparel industry is dominated by a small group of large formal retailers that account for most (70% to 85%) of the domestic market (Palmi 2008; DTI 2018/19). This trend of horizontal integration, into townships and low-income markets, is not unique to the apparel industry, as concerns about the increasing presence of large supermarket chains in township areas shows (Competition Commission 2019). Formal retailers and producers of course have the advantage of access to capital, finance and strong marketing capabilities, making it difficult for informal businesses to compete.

In order to produce for the formal sector, informal traders may be required to comply with formal regulations and thus be registered for tax, for example. Labour brokers or intermediaries that are compliant often fill the gap by linking informal businesses to formal producers or retailers (Salinger et al. 1999; van der Westhuizen 2006). Sub-contracting then takes place via the intermediary. Intermediary organisations such as NGOs, churches and other community-based organisations (CBOs), often with funding from development agencies, also play a role in supporting informal businesses to access financial support and capital to purchase equipment, as well as networks, to produce for formal markets. Palmi (2006), for example, describes how an informal business benefited from an initiative, facilitated by a religious organisation, aimed at producing custom-made industrial clothing to sell to sugar companies.

For informal businesses to grow, they need to improve their productivity and competitiveness, which depends on their skills and capabilities to innovate. As Rogerson (2000: 712–713) shows, many “high growth” SMMEs start out in the informal sector, operating from “the bedroom, the garage or backyard”, and, undergo major growth through building “(d)esign capability” or introducing “innovative products” (Rogerson 2000: 706). Competition would be on the “basis of quality and responsiveness to change” (Salinger et al. 1999) and thus innovation capability.

## **Importance of innovation for improving productivity and competitiveness**

According to Barnes (2019), new digital technologies such as 3-D printing, the Internet of Things and mobile commerce are beginning to change how things are done and the kinds of products produced in the CTFL sector as well as business position and the meanings attached to products. In South Africa, a growing trend is environmentally conscious design using recycled materials, and locally produced goods that incorporate elements of local traditional cultures and design (Hoskins 2015; Levin 2006). Growth potential lies in the production of high value-added goods to better serve high fashion and niche markets such as African ethnic fashions (Salinger et al. 1999) or Shweshwe markets (DTI 2019).

A challenge for the participants in the study is that capability in KwaZulu-Natal is concentrated in the mass market rather than high fashion, which is Cape Town’s forte. Historically, innovation activity in the CTFL sector has been low, particularly in mass market production hubs where clothing manufacturers tend to be slow to adopt new machinery (Salinger et al. 1999), and slow to implement process innovations or skills development programmes (Altman 1996 in Rogerson 2000). One obstacle to innovation is the “highly traditional outlook on productivity improvement” resulting in “static” strategies such as relocation to peripheral cheap labour markets, and a lack of a long-term vision for restructuring (Altman 1994 in Rogerson 2000). Informal businesses are thus approached to help keep costs low rather than for building niche markets, for example. Large retailers have also reported the lack of business skills as a major challenge to building the design and manufacturing segment of the value chain (Palmi 2008).



A promising trend is the recent growth and increasing visibility of South Africa's fashion industry in the domestic and global apparel value chain, through the support of initiatives such as SA Fashion Week that was launched in 1997 (Palmi 2008). The apparel industry is going through a "creative revolution" (King 2016), as capabilities in the fashion industry continue to grow. South African designers are reportedly pushing boundaries through new approaches, including combining global influences with traditional dress to reflect the country's unique history. Examples include small businesses emerging in townships (see for example, King 2016) as well as partnerships with well-established local designers. A notable example is the partnership between South African designer, Amanda Laird Cherry, and a traditional Zulu tailor to produce traditional Zulu Mblaselo pants (Levin 2006).

Building stronger design capabilities and linkages between fashion designers and the supply chain could potentially lead to the kind of restructuring needed to overcome constraints imposed by the high concentration of large formal retail chain stores (Palmi 2008). Building local supply capability is also crucial for competitiveness to leverage local advantage such as being able to better respond to domestic customer needs (e.g. Asian import sizes are smaller than South African market sizes) (Rogerson 2000).

## Promotion through policy

As a well-established and labour-intensive manufacturing sector, the CTFL sector has been on the policy agenda as a strategic sector for growing employment opportunities. Government has supported various initiatives such as the regional SA Fashion Week events that have been successful networking opportunities linking designers with manufacturers and retailers (Palmi 2006). In 2019, the Department of Trade and Industry (DTI) released a strategic plan for the CTFL sector, providing a framework for improving productivity and competitiveness.

### C.1.1 South African R-CTFL Value Chain Master Plan to 2030

The Master Plan for the CTFL sector (DTI 2019) is an enabling framework for growing the sector. It emphasises building local manufacturing capabilities and the domestic market for locally produced goods through a set of core action commitments (DTI 2019: 11):

1. Grow the local market for local CTFL products
2. Increase local CTFL procurement
3. Stem the flow of illegal imports
4. Employ strategic tariff and rebate measures
5. Extend the CIP and PI & CIPC in an appropriate format for three years
6. Align production capacity to sales cycles
7. Transform the value chain.

The Master Plan includes the promotion of upgrading and skills development within the formal retail value chain. SMMEs are also targeted, especially through Commitment 7, with one of the main actions focused on: "Retail and CTFL manufacturing procurement to actively support BBBEE transformation and SMME inclusion in supply chains and the value-chain ecosystem" (DTI 2019: 15).

The first phase of the Master Plan focuses on building the formal retail value chain with plans to support the informal sector and adjacent value chains that focus on niche markets in subsequent phases (DTI 2019). The integral role of the informal sector, particularly in the Shweshwe market or the traditional African fabric-based apparel market, is well recognised and is thus beginning to be promoted in policy. The emphasis on building local value chains and ecosystems is encouraging. A shortcoming is that, although the importance of technology and upgrading is emphasised, the plan does not give enough attention to building an ecosystem for innovation.

Some of the other key policy instruments that have been implemented over the past several years are described below.

### C.1.2 Clothing and Textiles Competitiveness Programme

The Clothing and Textiles Competitiveness Programme (CTCP), which was launched in September 2010, is a programme of the Department of Trade and Industry (DTI) and forms a core part of the implementation of the Customised Sector Programme (CSP) for the CTFL industries. The CTCP's main objective is to assist industry in upgrading equipment, processes, products and people, to re-position South Africa to compete effectively against other low-cost producing countries ([www.thedti.gov.za/financial\\_assistance/financial\\_incentive.jsp?id=35&subthemeid](http://www.thedti.gov.za/financial_assistance/financial_incentive.jsp?id=35&subthemeid)).

### C.1.3 Cluster development across the value chain

Supporting cluster development across the value chain is an important part of government's strategy to develop the sector. It is also an opportunity to build co-operatives as a way of reaching small businesses, but it is not clear how much of this support for clustering includes informal businesses. Research on informal apparel businesses indicates some constraints to cluster development in the informal sector, including limited collective learning due to a lack of trust among informal businesses and a lack of business management skills (Palmi 2006).

Value chain development is also promoted through the KwaZulu-Natal Clothing and Textile Cluster (KZN CTC), which was established in 2005 as a joint initiative between government and industry. One of the programmes of the KZN CTC focuses on value chain alignment to develop "competitive and responsive local value chains" (<https://kznctc.org.za/programmes/value-chain-alignment/>). Other programmes include: World Class Manufacturing, Boost SME, Skills Development Programme, Competitiveness Improvement Programme (<https://kznctc.org.za/programmes>). A key strategic focus is on promoting the concept of quick response (QR) through a Quick Response Handbook and training course.

Implementation of the quick response model, which has been a key way for local retailers to remain competitive in the domestic market, is facilitated by strong linkages across the value chain. Strong social relations between manufacturers and retailers, developed over time, are thus a key characteristic of the South African CTFL sector.

## Social embeddedness, skills and learning

As a longstanding sector in South Africa, it is common to find more than one generation within a family working in the sector (see Hoskins 2015; Rogerson 2000). This leads to high levels of social capital and the transfer of specialised technical skills and the norms, values and practices that "make" a CMT or fashion designer, for example. Research on formal and informal businesses in the apparel industry indicates the importance of collective action, learning-by-doing and previous work experience within the industry (Palmi 2008; Rogerson 2000). Experience in the industry is important for skills development and building strong linkages. Rogerson (2000) found that SMEs collaborate for various reasons including to share materials such as thread, for sub-contracting to manage demand during peak seasons or for assistance with specialised production activities such as embroidery, and for joint marketing. Operating as a collective is thus valued. Clusters have thus been promoted as useful mechanisms to support SMEs in the industry.

As indicated above, although collective action is valued, lack of trust, limited knowledge sharing and lack of business management skills hinder cluster development in the informal sector (Palmi 2006). The lack of trust in SMEs is partly due to concern about protecting designs and ideas for new products (Rogerson 2000). Lack of trust has been raised as a concern in studies on innovation in the informal sector (Kraemer-Mbula and Wamae 2010; Petersen and Kruss forthcoming). Government co-operative initiatives, which are key policy instruments supporting livelihoods in informal settings, may thus have limited reach as their effectiveness depends on collective action and learning, which is hindered by a lack of trust among informal businesses and a lack of business management skills (Kruss and Gastrow 2015; Palmi 2006, 2008).

## Creating an enabling environment for the inclusion of informal businesses

The role of the informal sector in meeting national development goals and in economic development at the local level is increasingly promoted through policy at different levels – national, provincial and local. At the national level, the Department of Small Business Development (DSBD) has been tasked with championing and coordinating efforts to support micro-, small and medium enterprises (SMMEs), which includes informal businesses. The DSBD supports SMMEs through its two agencies, the Small Enterprise Development Agency (SEDA) and the Small Enterprise Finance Agency (SEFA). The DSBD introduced a National Informal Business Upliftment Strategy (NIBUS) (DSBD 2015). NIBUS seeks to support informal businesses through skills development, technology support and funding. It provides support to local government to deliver and facilitate access to upliftment programmes (DSBD 2015).

In 2011 the provincial Department of Economic Development and Tourism (DEDAT) launched a policy on the informal economy, with the aim of improving the regulation of and support for informal businesses (DEDAT 2011). KwaZulu-Natal was the first province in the country to introduce such a policy ([www.kzntopbusiness.co.za](http://www.kzntopbusiness.co.za)). At the local level, the Msunduzi municipality established the Msunduzi Informal Economy Chamber (MIEC) in 2012, and is in the process of implementing an informal economy and street trader policy (Msunduzi Local Municipality 2020). These policies are targeted at survivalist, micro- and small enterprises operating in the informal sector, and provide the framework for supporting informal businesses to register their businesses, access micro-finance options, and access skills training and other business support opportunities. The policies also emphasise infrastructure development support, encouraging formal businesses to support informal businesses, particularly where inter-dependent relationships already exist such as in the wearing apparel industry where informal businesses source fabric and other supplies from formal businesses.

This section has described how strong social networks contribute to the survival of both formal and informal sector businesses. The domestic supply chain is well-established, facilitating the quick response model that is crucial for competitiveness but also contributes to low wages and harsher working conditions in the informal sector. Although the CTFL sector has stabilised in recent years, both formal and informal businesses in the sector are challenged to develop the necessary skills and capabilities to produce new high value-added products and improve productivity and competitiveness towards a higher employment growth path. The informal sector has been identified as important for developing niche markets, specifically markets based on African traditional dress and traditional printed fabric that is already gaining popularity in the domestic and global markets. Pressure to compete with cheap and illegal imports from Asian and African countries is a major challenge, even to the development of niche markets with countries like China already mass producing lower quality African print fabrics and apparel based on traditional African dress (Palmi 2006).

How then can informal businesses, located in peri-urban local settings such as Mpumzuza, compete to survive and *grow*? Innovation plays a crucial role. Specifically, how can these informal businesses leverage their locally based knowledge and networks to build innovation capabilities that shift the trajectory towards better development pathways?



# D. INFORMAL APPAREL AND HOMEWARE IN MPUMUZA

*Hand-made crafts are an integral part of Zulu culture, and incorporate items such as woven baskets, beadwork, jewellery and clothing, artefacts used in ceremonies and rituals, as well as practical items like clay pots, sleeping mats and wooden head-rests, which date back centuries.*

<http://kzntopbusiness.co.za/site/manufacturing>

The wearing apparel and homeware local system is embedded in a social context that values traditional knowledge and practices. Under traditional Zulu leadership, traditional Zulu knowledge, identities and practices are preserved and expressed through clothing and accessories. Skills for producing traditional dress, beaded jewellery, and other hand-made crafts are passed down through generations. The designs, patterns and colours used reflect more than just style. They reflect social status, lineage and identity, values and attitudes, and deep-rooted cultural symbolism, as well as history and cultural exchange (Hendrickson 1996; Levin 2006; Rovine 2015).

For many of the informal businesses in the local system, the craft skills passed down from family members, neighbours and others in their communities, have provided a means to make a living. This section describes the necessity-driven (BER 2016) nature of entrepreneurial activity in this local system, with most businesses started and sustained out of a basic need to survive. It goes on to describe the key actors and networks in the local system as well as the nature of innovation activities.

## Main economic activities and businesses

### D.1.1 Main economic activities

Classifying the economic activities of informal businesses in the CTFL sector is a challenge as these businesses often engage in more than one economic activity at any given time and tend to move from site to site (Palmi 2008). In the study, two main sets of economic activity were found: manufacture, repair and retail of homeware and wearing apparel (see Table 1). The majority of the businesses identified dressmaking as their primary economic activity (46.34%). Some of these informal CMT-type businesses also made and sold apparel accessories such as bags, and homeware accessories such as cushions and fabric couch covers. The production, sale and hire of traditional attire and accessories was a key focus.



**Table 1: Main economic activities in the apparel and homeware LIPC**

Main economic activity	Frequency (n = 82)	Percent
<b>Wearing apparel</b>		
Dressmaking/tailors	38	46.34
Clothes seller	9	10.98
Fashion design	1	1.22
Beads selling and beadwork	7	8.54
Shoemakers/repairers	12	14.63
Shoe seller	1	1.22
Bags selling	5	6.10
<b>Homeware</b>		
Upholstery repairing	5	6.10
Retail of linen	3	3.66
Manufacture of traditional rugs/carpets	1	1.22
<b>Additional economic activities:</b> Other retail sales, Herbalife seller, baking, machines seller		

Data source: CeSTII 2017–18 IIS Survey

### D.1.2 Description of the informal businesses

Interestingly, a large proportion (58.54%) reported that they started the business because they “liked the activity”, and more than a third (37.80%) found it relatively easy to start the business because they already had the basic skills for running an apparel or homeware business. A main motivation for most was unemployment or having no alternative source of income (53.66%) to take care of their family or send their children to school (36.59%). Some reported “the opportunity came up” (10.98%) or “inherited/family tradition” (17.07%) as their main motivation for starting their businesses.

Most of the businesses are home-based, with 37% of the apparel businesses operating from a designated space within their home and 34.1% from an occupied room within their home. Most were not formally registered businesses and did not have a separate business bank account. Like Palmi (2006), we found that the business owners desired to formally register their businesses when “things start working out”, as one informal business stated (Interview Informal Business VID149). Some of the reasons for non-registration include the business is “hand to mouth” (Interview Informal Business VID411) and “it’s not like the other business, it’s not big...I sometimes run out of resources” (Interview Informal Business VID149).

Most of the apparel and homeware businesses had access to basic amenities. Almost all (97.56%) had access to water and sanitation services, with 41.46% reporting access to piped water on site and 35.37% within their business structure. More than half (54.88%) had access to a toilet but it was not a flush toilet on site or off site, and less than a third (30.49%) had access to a flush toilet on site at their premises.

As shown in Table 2, in comparison to the homeware businesses, on average, the apparel businesses were older, and reported a higher turnover and growth in employees from 2017 to 2018. All of the apparel businesses had been operating for more than a year with 60.27% older than five years and more than a third (35.62%) operating for more than 10 years. The apparel businesses therefore tended to be older than many other businesses in the local area considering that, on average, 50.50% of the businesses in our sample reported operating for more than five years. A small proportion of the homeware businesses (22%) had been operating for more than 10 years. There was also a larger concentration (22%) of new businesses (one to three years old) in the homeware sub-sector, in comparison to the apparel sub-sector (13.7%).

In comparison to the overall average for the informal businesses in the local area, the apparel and homeware businesses reported the lowest average number of employees (1.3 employees in comparison to the overall average of 2.2). A small proportion of these employees were reported to be paid employees. Very few businesses employed more people between 2017 and 2018 (average of 0.32 new employees).

**Table 2: Employees per sub-sector 2018**

Sub-sector	Total employees	Paid employees	Female employees	Male employees	Increase in employees
Homeware	14 (1.6%)	11 (1.8%)	3 (0.3%)	8 (0.9%)	0 (0%)
Wearing apparel	94 (1.3%)	45 (0.7%)	43 (0.6%)	29 (0.4%)	23 (0.3%)
<b>Total</b>	<b>108 (1.3%)</b>	<b>56 (0.8%)</b>	<b>46 (0.6%)</b>	<b>37 (0.5%)</b>	<b>23 (0.3%)</b>

Data source: CeSTII 2017–18 IIS Survey

Note: The proportion of businesses relative to the total sample of businesses covered by the 2017-18 IIS Survey is included in brackets.

The apparel businesses were run by black African, Zulu-speaking, South African citizens, with the majority being female (65.75% of the owners were female and 58.90% of the employees were female). Most of the homeware businesses were run by men between 41 and 60 years old, whereas the apparel business owners were a wide range of ages (18 to over 60).

Only six of the apparel and homeware business owners spoke English. The highest level of education for 69.01% of the apparel business owners was a junior certificate (i.e. intermediate/grade nine/junior/group certificate or equivalent). Whereas most of the homeware business owners completed secondary schooling, only 20.55% of the apparel business owners completed secondary school and 9.59% had a university degree.

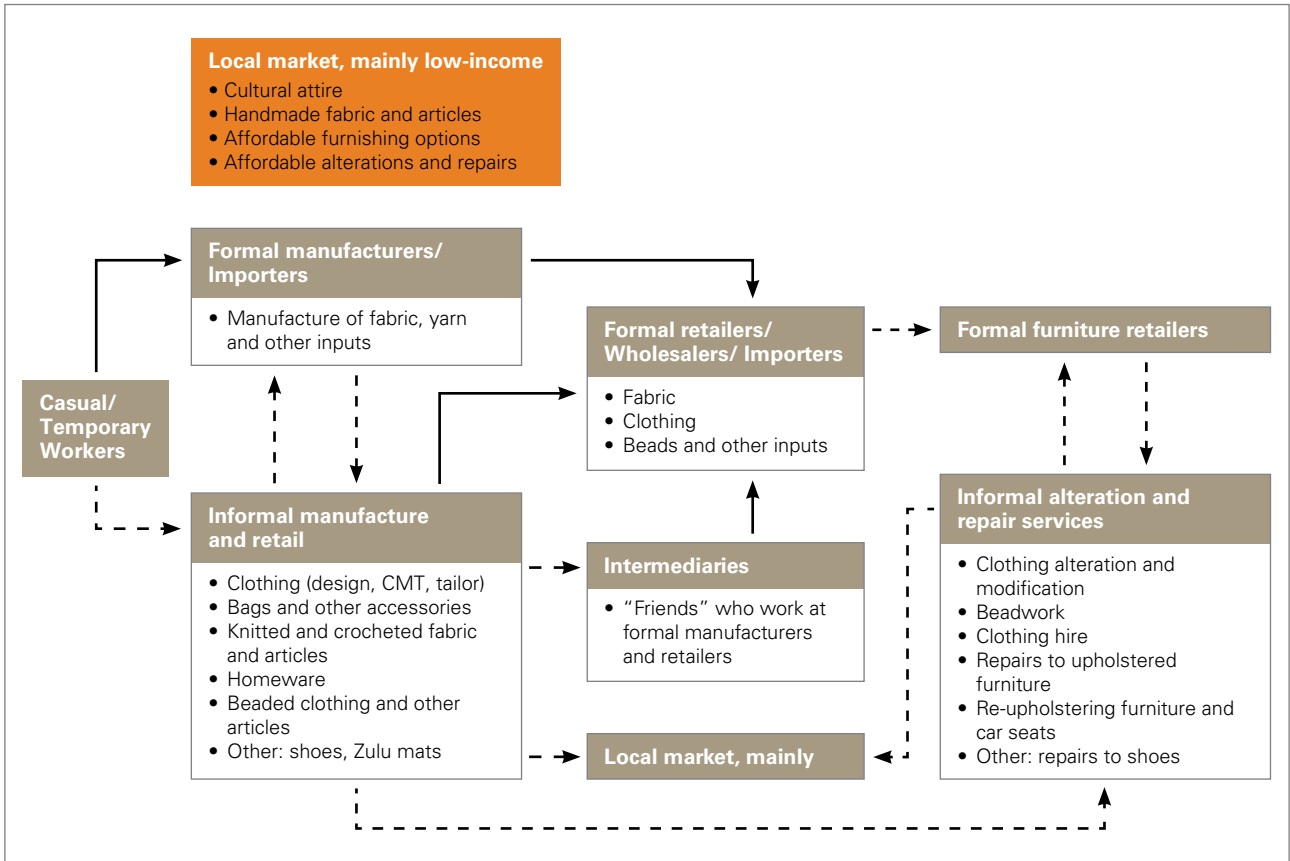
## Production value chain<sup>1</sup>

Based on the 2017–18 IIS Survey data, the interview data and the literature on the CTFL sector in South Africa, Figure 4 illustrates the production value chain of the informal wearing apparel and homeware businesses. The main economic activities described above fit into two categories: 1) informal manufacture and retail, and 2) informal alteration and repair services. As indicated, the informal businesses tended to engage in a mix of economic activities. Therefore, businesses that reported clothing design and manufacturing as their main economic activities often did clothing alterations, beadwork and sold clothing as well. The informal upholstery businesses mainly repaired and re-upholstered furniture and car seats, and were thus grouped under informal alteration and repairs services. The dotted lines in Figure 4 indicate the informal links between the different sets of informal economic activities.

The main suppliers and consumer markets are also included in Figure 4. As indicated in Fakude (2000), informal businesses in the CTFL value chain produce their wares for final consumption through informal retailers, or up-market consumption, or through formal retailers. Figure 4 indicates the sub-contracting relationships between informal businesses, particularly informal CMT businesses and formal clothing manufacturers and retailers. These sub-contracting relationships may be direct linkages or through intermediary actors, which tend to be friends or family members working for the formal manufacturers and retailers or who run their own formal businesses that are able to engage in formal contracts. The consumer markets and suppliers as well as strategies and challenges related to marketing and accessing finance are described below.

<sup>1</sup> Following Kaplinsky and Morris (2001), “[t]he value chain describes the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use.” A simple value chain with four links could include design, production (consisting of inward logistics, packaging, transforming inputs, etc.), marketing and consumption/recycling.

**Figure 4: Informal wearing apparel and homeware production value chain**



Source: Authors (based on van der Westhuizen (2006) and the 2017–18 IIS Survey data)

Notes: 1. The arrows indicate the flow of resources. 2. The solid lines indicate formal relationships (i.e. following formal sector rules and practices) Informal lines indicate informal relationships.

### D.1.3 Consumer market

As illustrated in the word cloud in Figure 5, besides churches and schools, the customers were mainly individuals and households.

**Figure 5: Word cloud illustrating the main customers of the homeware and apparel businesses**



Note: Based on a word frequency analysis of the interview data on the main customers of the homeware and apparel businesses.

The apparel businesses mainly serve the low-income markets in their local neighbourhood and surrounding areas, particularly affordable traditional attire, school and church uniforms, handmade clothing, shoes and accessories markets. This quote illustrates the typical market for the apparel businesses:

*...with the school, some already had the cultural attires, but some parents would send their kids to me. I get very busy during a cultural events season because they come to me or beaded skirts and beads. (Interview Informal Business VID509)*

However, even in supplying schools, the businesses tended to be constrained by the low-income market, as this quote from an apparel business owner indicates (Interview Informal Business VID1191): 'It was the money they [the schools] were giving us. We were not making enough money because we also needed to pay extra to put on the badges as we had to do it via another company'. The businesses often offered flexible payment options to suit the financial circumstances of their customers and it is not uncommon for customers to refuse to pay when the job is done, as one apparel business owner explained:

*Sometimes when they need their things urgently, they would normally pay me a deposit and then I would buy the material and get paid on completion. Some people would ask me to create something for them and they would only pay month end. Sometimes they pay the full amount and sometimes they don't. Hence, I am saying it is not easy at all (Interview Informal Business VID1168).*

Less than half (45.1%) of the apparel businesses customers were not from the local neighbourhood, whereas less than a quarter (22.2%) of the homeware businesses reported that their customers were located outside of the local neighbourhood.

The homeware businesses served mainly low-income households wanting affordable linen, homeware accessories (e.g. couch cushions) and furniture, mainly cheap re-upholstery services. One homeware business reported that they also did repair work for a well-established formal furniture retailer located nearby (Interview Informal Business VID609): "I do repairs for them. When their customers bring furniture that is still under warranty, they bring them to me instead of taking them to Pretoria to avoid them taking longer". Geographical proximity and small-scale operation may thus be an advantage for these businesses.

#### **D.1.4 Suppliers**

Interestingly, more than half (57.32%) of the apparel and homeware businesses sourced their supplies from informal sources and mainly from inside the neighbourhood, with 12.2% sourcing supplies from informal businesses and 45.1% from individuals and households. More than a third (35.4%) bought their supplies from formal businesses and 29.3% from a main city in the province. Based on the interviews, it was found that many of the informal businesses travelled about 100km to the main city, Durban, to benefit from cheaper wholesale prices for fabric and beads. They also sourced supplies from the nearest city or 'town', Pietermaritzburg, about 12km away. One of the apparel businesses interviewed reported mainly purchasing supplies in Pietermaritzburg when small quantities or urgent supplies were required (Interview Informal Business VID1296). Similar to other businesses in the local area, almost half (48.8%) of the apparel and homeware businesses identified bringing in new suppliers of raw materials and tools (average for all businesses = 48.5%). Few businesses used the internet to find suppliers (12.2%).

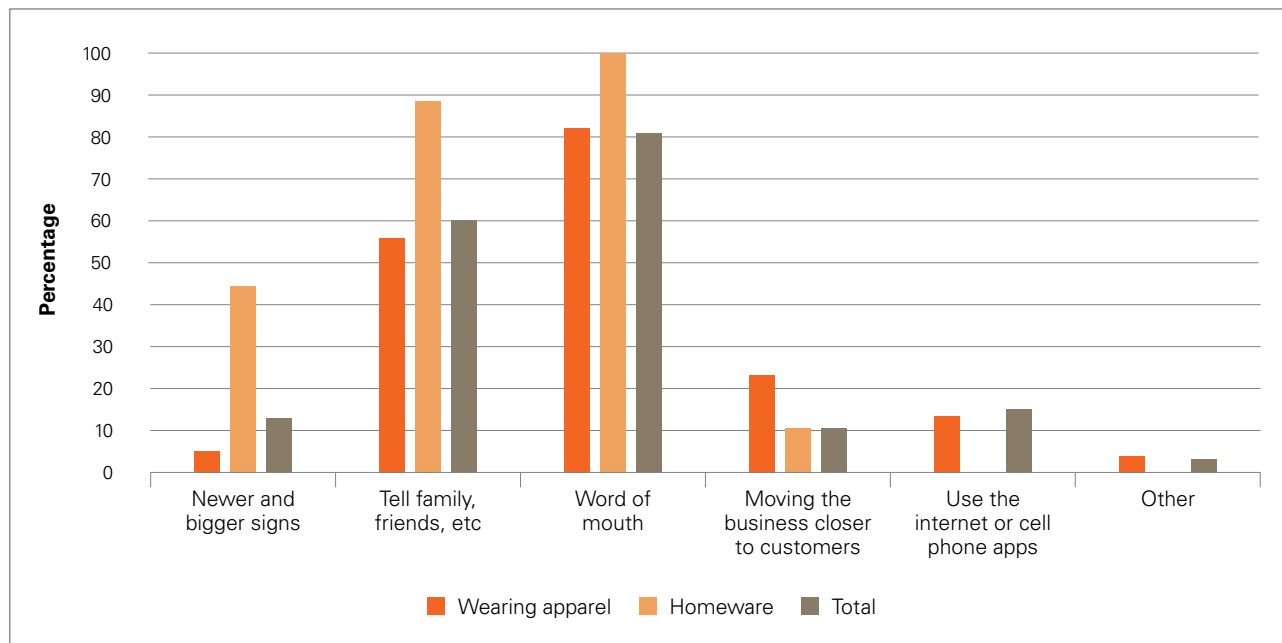
#### **D.1.5 Marketing**

In line with the general trend among the informal businesses covered in this study, the businesses mainly advertised via word-of-mouth and through family and friends (see Figure 6). It is common practice for apparel businesses to demonstrate their work through making samples that they show to teachers at schools or that they ask friends and family to share with others. One strategy not covered in the 2017–18 IIS Survey is selling and marketing products at street markets (Interview Informal Business VID1296).



Very few made use of the internet or mobile phone applications. Few businesses reported the use of Facebook (15.9%), Instagram (3.7%), Twitter (2.4%) or a business website (e.g. using “Google” to search) (1.2%). WhatsApp was the most popular app for marketing purposes (23.8%). In the interviews, lack of data was identified as a constraint to using mobile phones to access the Internet, and some accessed resources via the local library.

**Figure 6: Main marketing channels/strategies of the wearing apparel and homeware businesses, in comparison to the total sample (%)**



Data source: CeSTII 2017-18 IIS Survey

### D.1.6 Access to financial support

A significant constraint to the competitiveness and growth of informal businesses is the lack of access to finance and credit due to the small and informal nature of the businesses, and the lack of social networks that can offer financial support and credit (Competition Commission 2019; Charman et al. 2019). Only 7.3% of the apparel and homeware businesses reported that they had received some form of financial support and this was mainly from friends or family, with none reporting access to financing from commercial banks. The challenge was best articulated by one homeware business owner (Interview Informal Business VID609): “That is a big problem at the moment because whenever you apply for a loan you need to have something that the bank can hold”

### D.1.7 Other challenges to doing business

The main challenges reported relate to the seasonal nature of the apparel and homeware industries as sales tend to be low in some seasons. The second most important challenge was high levels of competition from other businesses in the area, and related to this, having too few customers, as this quote illustrates: “The most difficult thing is the fact that there are a lot of us that are doing the same thing so you have to make sure that you do your job correctly in order for you to get business” (Interview Informal Business VID609). One of the apparel business owners reported the challenge of a lack of adequate market space to reach customers: “...we can do the work, but we do not have good areas for us to sell our work. Even the place I have in town, it is not a good place to run a business as it doesn’t have a lot of traffic” (Interview Informal Business VID1296).

Other major challenges include access to transport to get supplies and collect and deliver goods to customers and crime in the local area.

# E. INNOVATION, KNOWLEDGE AND LEARNING

## Rate, intensity and nature of innovation

The innovation rate and nature of innovation activity by the apparel businesses follow a similar trend to those reported by other informal businesses in the study area (see Table 3 and Figure 7).

The majority (82.9%) of the wearing apparel and homeware businesses reported that they engaged in innovation activity during the 2017 to 2018 period, with a larger proportion (80.5%) reporting process innovation than product innovation (64.4%). Only a handful reported no innovation activity. The apparel and homeware businesses reported a very high innovation intensity in comparison to businesses in other LIPC groups covered by the 2017/18 IIS survey: 91.7% in comparison to the average of 79.9%, with the food services LIPC reporting the second highest level of innovation intensity (90.6%). This finding may be due to the need to constantly change designs to keep up with seasons and fashion trends.

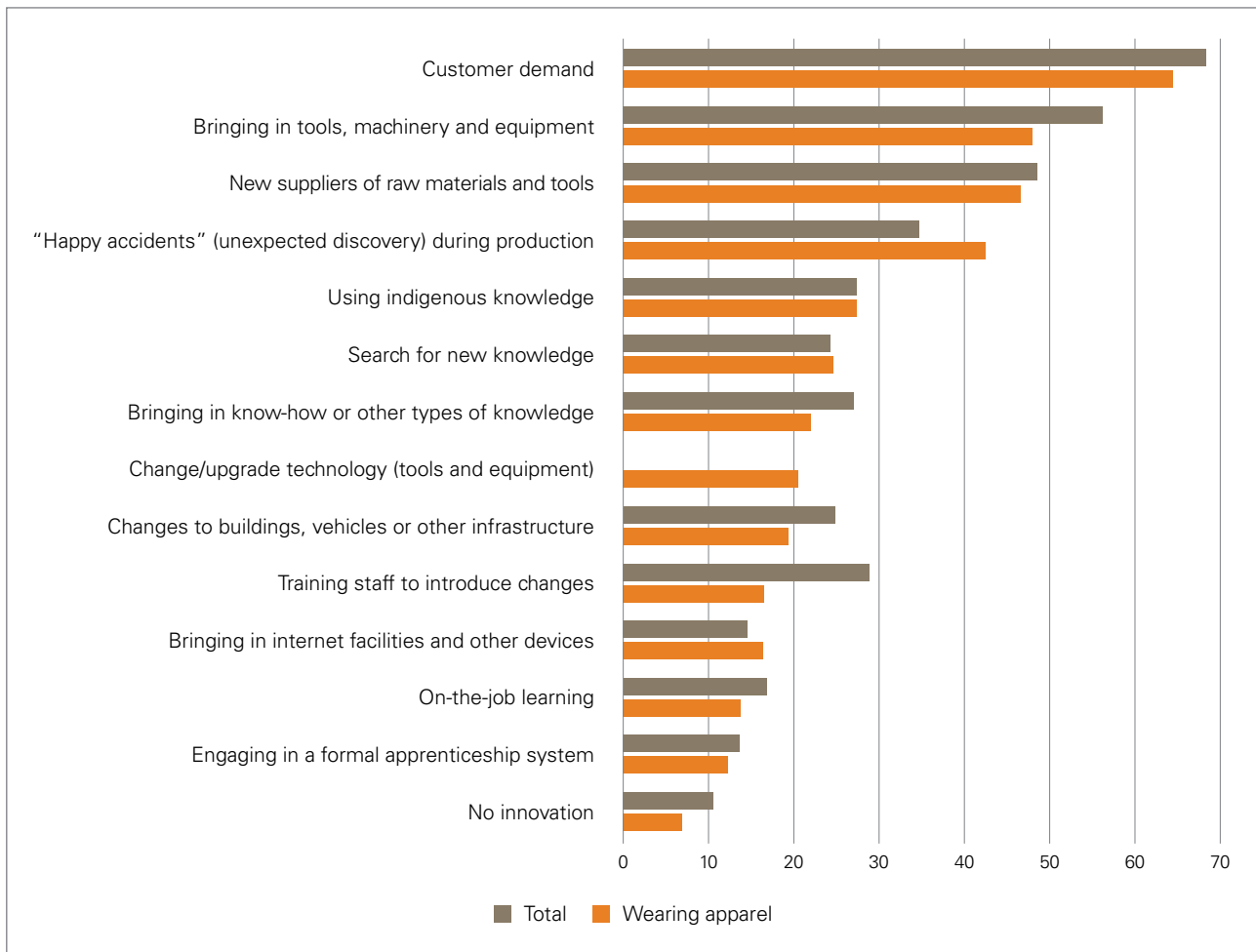
**Table 3: Types of innovation by wearing apparel and homeware businesses**

Sub-sector	Innovation activity		Type of innovation			
	Innovation	Abandoned or ongoing innovation	Product innovation	Process innovation	Marketing innovation	Organisational innovation
Homeware	6 (66.7%)	6 (66.7%)	5 (55.6%)	6 (66.7%)	2 (22.2%)	5 (55.6%)
Wearing apparel	62 (84.9%)	54 (74.0%)	48 (65.8%)	60 (82.2%)	28 (38.4%)	35 (48.0%)
<b>Total</b>	<b>68 (82.9%)</b>	<b>60 (73.2%)</b>	<b>53 (64.6%)</b>	<b>66 (80.5%)</b>	<b>30 (36.6%)</b>	<b>40 (48.8%)</b>

Data source: CeSTII 2017–18 IIS Survey

Innovation activity is mainly driven by the need to respond to customer demand, particularly in keeping up with seasonal trends. Further exploration of the innovation activities in the apparel businesses indicates that besides customer demand, changes in process and products related to bringing in tools, equipment and machinery, and new suppliers (see Figure 7). An example of a change in equipment and machinery is the move from using a manually operated sewing machine to a domestic electric sewing machine (Interview Informal Business VID411). In comparison to the total sample, innovation in the apparel businesses relied less on bringing in knowledge from elsewhere, through training staff (16.4%) or bringing in 'know-how' (21.9%) or bringing in tools, equipment and machinery (48.0%), and more on 'happy accidents' or unexpected discoveries during the production process (42.5%).

**Figure 7: Innovation activities in the apparel businesses, compared to the total sample (%)**



Data source: CeSTII 2017–18 IIS Survey

The innovation activities led to product innovations that were mainly new to the business (34.3%), local area (37.0%) or (informal) industry (27.4%). None were new-to-the-country or new-to-the-world.

We further explored the level of novelty of the innovations produced by analysing mainly the innovation activities of the wearing apparel businesses interviewed. Examples of the main innovation activities are provided in Table 4, which also includes one example from the homeware businesses as no suitable examples of using the internet were reported in the interviews with the apparel businesses. It is clear from the descriptions that the innovation activities typically led to innovations of a ‘basic’ or ‘intermediate’ level of novelty (Bell and Figueiredo 2012: 21). The innovation activities resulted in the implementation of mainly *minor* changes to *existing* products, often based on imitation or informal experimentation and requiring a low amount of new investment (see Bell and Figueiredo 2012; Miner 2010). An example of a basic-level innovation is a shoe manufacturer introducing a traditional Zulu shoe in a new colour or different colours to the traditional natural leather. In increasing the level of novelty one notch, to the intermediate level, the shoe manufacturer may, based on informal skills training from a neighbour, change the stitching and the way the shoe is put together to increase the comfort level of the shoe to better meet the needs of a specific market.<sup>2</sup> We found few examples of these types of innovations, that is, innovations that involved integrating *new features* into *existing* products, production processes or organisational arrangements (Miner 2010). It should be noted that the interview data was limited in the descriptions of specific innovations produced, and the open-ended question on innovation that was included in the survey questionnaire was not well-answered. It was thus not possible to get a more comprehensive understanding of the degree of novelty of the innovations produced.

<sup>2</sup> This example is based on a description provided by one of the informal apparel businesses included in the 2017–2018 IIS Survey.

In addition to the innovation activities described above, some apparel businesses branched into other economic activities unrelated to the apparel industry. This reflects a trend typical in the informal sector. Since most economic activity in the informal sector is necessity-driven (BER 2016), it is common for informal businesses to take up other opportunities to supplement their income in order to meet their basic needs. In some cases, it is a growth strategy as other forms of growth such as growing the size of the business or offering more sophisticated goods/services at a higher cost are often not feasible in such low-income markets. Constrained by the nature of the market they serve, informal business owners may therefore opt to add additional businesses in order to keep 'growing' (see Petersen and Magawana 2019). This type of business strategy benefits the business owner and their dependents but may not contribute much to building the LIPS or shifting development trajectories.

The "basic or duplicative" (Kraemer-Mbula et al. 2019: 6) nature of innovation in the apparel businesses is reflected in the origin of the innovation. More than a quarter (27.4%) of the apparel business owners described their product innovations as being based mainly on common knowledge. There was a stronger tendency to focus inward for sources of information (i.e. 15.1% of the apparel businesses), relying on knowledge and expertise of the owner and employees, and in adapting or modifying methods originally developed by other businesses or organisations (12.3%). A very small proportion (6.9%) of the businesses collaborated with other businesses or organisations to produce new or significantly changed products. For process innovations, the trend was similar in relation to sourcing information mainly from within the business (17.8%) and modifying or adapting methods developed by others (16.4%). A larger proportion (38.4%) reported that their process innovations were based on common knowledge and fewer businesses collaborated with others (2.7%) in developing process innovations.

The findings on the nature of innovation point to a more inward focus to learning. In the next section, the linkages, knowledge bases and learning strategies of the apparel businesses are discussed.

**Table 4: Types of main innovation activities reported by apparel businesses**

Type of innovation activity	Description based on the interviews	Level of novelty	Examples from the interviews
Customer demand	Changes to designs of apparel, in response to customer demand and seasonal trends.	Basic	"When you are making outfits for kids, you always have to change so that they are not seen in one thing all the time. Yes, you have to change constantly." (Interview Informal Business VID149) "Yes. I change, I don't have a problem, and at times I design things according to clients' requirements" (Interview Informal Business VID1191) "...the beads also change as the times go on. It also depends on the...season and also what will attract people" (Interview Informal Business VID1296).
	Demand-driven customisation of apparel ('international brands') by adding traditional fabric and design.	Intermediate	"I normally get to re-do my customers' clothes. They like international brands, so they bring them to me so that I alter them and add African print material." (Interview Informal Business VID411).
'Happy accidents'	Creating new designs or modifying designs through experimentation.	Intermediate	"So, it's the traditional skirts and pants...I taught myself. I used to use old clothing and sails to put outfits together." (Interview Informal Business VID149).

*Continues overleaf...*



Type of innovation activity	Description based on the interviews	Level of novelty	Examples from the interviews
Using indigenous knowledge	Using knowledge on traditional practice of producing traditional attire and fabric. May involve producing new or modifying designs through combining traditional and modern dress.	Intermediate	"I normally get to re-do my customers' clothes. They like international brands, so they bring them to me so that I alter them and add African print material." (Interview Informal Business VID411).
Search for new knowledge	Using designs and information available via the internet or media (mainly television or newspapers) to inspire changes to clothing and accessories, to keep up with trends.	Basic	"So, I don't go to anyone for assistance in my business, I get to figure things out on my own. Sometimes, when I see something that I like on TV, I try it out on my own until I get it right." (Interview Informal Business VID149). "I sometimes get designs from newspapers and cut them out and sometimes I buy them. Some of the designs are seasonal." (Interview Informal Business VID509).
Bringing in know-how or other types of knowledge	Approaches others in the industry, mainly friends, neighbours and family, to learn new skills or improve skills to implement a change in apparel design.	Basic, intermediate	"I go back to school and ask for help, if I want to start working on a new pattern...I go to school and other fellow seamstresses." (Interview Informal Business VID149).
Change/upgrade technology (tools and equipment)	Upgrading equipment, such as sewing machines, from manually operated to electric (domestic) machines.	Basic, intermediate	"...I started with the manual machine and then bought the electric one...I would love to get an industrial machine so that I can do more things." (Interview Informal Business VID411).
Bringing in internet facilities and other devices	Getting a smart phone to be able to use social media for advertising, usually through creating a Facebook page or advertising via WhatsApp, enabling the business to attract more customers. Also, to be able to search the internet for useful information to inform changes in the business.	Intermediate	"...we advertise, like my Facebook, my picture is a lounge suite...Yes it is helping because I have people contacting me and asking me how much is it to do a lounge suite..." (Example from an upholstery business, Interview Informal Business VID828).

Source: Authors

## Interaction, knowledge sources and modes of learning

### E.1.1 Weak interaction in a fragmented local 'system'

The apparel businesses in our study reported very weak linkages with external actors. Based on the framework illustrated in Figure 2, Figure 8 includes a map of interaction and flows of goods and services. The map was drawn up using the 2017–18 IIS Survey data on collaboration (CeSTII 2020). Figure 8 includes the production value chain, as described above, as well as the key knowledge, finance and intermediary actors that usually play a role in supporting innovation in the informal sector. The strength of the linkages is measured by the frequency of interaction reported, represented by a number between 0 and 1, with 1 indicating very frequent interaction (i.e. on average, more than once a month) and thus a strong linkage.

Reflecting the demand-driven nature of economic activities in the informal sector, the strongest linkages reported were with customers. As shown in Figure 8, the second strongest linkages were with businesses, including competitors (0.27), suppliers (0.22), other businesses part of collaborative arrangements or clusters (0.21), and other informal apparel businesses in the local area (0.18). The average apparel business interacted with these sources less than twice a year, so the interaction was not frequent.

Less than a quarter (23%) of the apparel businesses belonged to a business cluster, that is, a larger proportion than for the homeware businesses (12.5%) and the total sample. From the interviews, we found that the apparel businesses typically partnered with others in the (informal) industry, at the start-up stage and when the need arises (e.g. in pursuing a contract to make school uniforms), as this quote illustrates:

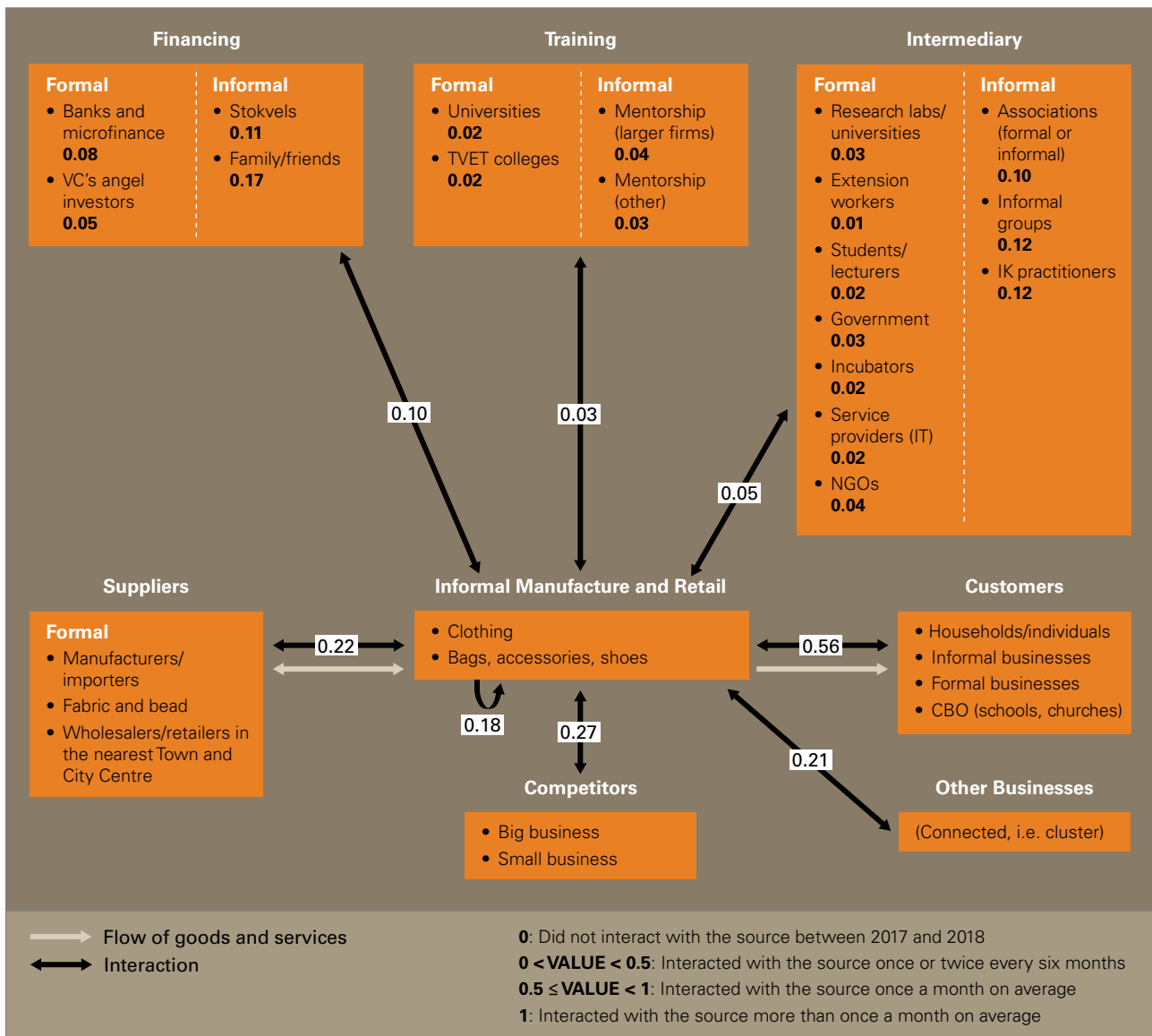
*You know it's very scary to start a business in the beginning, but it was easy to do with her because she had been in the field for a while. We went our separate ways because she thought I was ready to stand on my own. (Interview Informal Business VID509)*

On average, interaction with universities (0.02), TVET colleges (0.02), use of training mechanisms typically found in the informal sector such as informal apprenticeships (0.04), and other informal and formal knowledge actors that typically play a role as intermediaries (0.04) are virtually non-existent. This is expected considering that the innovation activities reported centred on responding to customer demand rather than knowledge or technology-led activity.

Informal sources of financial assistance, including Stokvels (0.11), and family and friends (0.17) were more frequently accessed than formal sources such as banks (0.08).

Informal intermediary actors such as indigenous knowledge practitioners (0.12), informal groups (0.12), informal associations (0.10) and websites (0.10) were consulted but, on average, this was very seldom. These findings suggest that, in general, the informal apparel businesses in the study area are not making use of the education and training and knowledge resources offered by NGOs and CBOs specifically targeted at financially disadvantaged individuals, aspiring entrepreneurs and informal businesses.

**Figure 8: Map of interaction and flow of goods/services in the informal apparel LIPS**



Data source: CeSTII 2017–18 IIS Survey

## E.1.2 Inward knowledge and learning, a constraint to innovation potential

### E.1.2.1 Main sources of knowledge for innovation

Figure 9 shows the knowledge sources used by the apparel businesses to inform the innovation activities reported above. Confirming the analysis on interaction above, less than a quarter of the apparel businesses reported sourcing knowledge through interacting with other businesses or organisations to inform their product innovations (16.4%) or process innovations (23.3%). Rather than working with other businesses to learn new processes, the apparel businesses often observed and copied the processes of other businesses, and, by themselves, experimented with adopting methods and practices found to be useful (34.3%). The goods produced by other businesses were copied to a lesser extent (20.6%).

**Figure 9: Main knowledge sources for product and process innovations in the apparel businesses (%)**



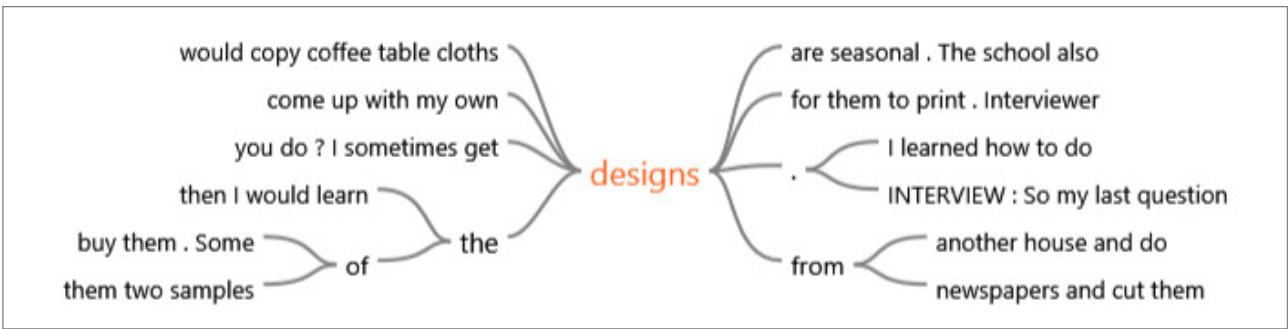
Data source: CeSTII 2017–18 IIS Survey

It is evident from Figure 9 that the high innovation rate and innovation intensity in the apparel businesses is driven by a need to survive rather than for taking up new opportunities for growth or for technological upgrading. The most important knowledge sources tend to be learning while conducting everyday business operations through customer feedback, for example (product innovation = 34.3%; process innovation = 30.1%) and ‘just happened by chance’ (23.3%, 27.4%). A very small proportion (6.9%) reported the use of formal or technical knowledge, or knowledge gained through internet searches or on popular brands (production innovation = 8.2%; process innovation= 5.5%). Few businesses gained knowledge through formal or informal training in the apparel industry: apprenticeships or on-the-job training (product innovation = 17.8%; process innovation = 12.3%), work experience as an employee in formal businesses (1.4%; 4.1%), and traditional or family or ancestral knowledge (19.2%). It may be that many informal business owners considered knowledge passed down through family relations and from others in the community as common knowledge rather than traditional/family/ancestral knowledge. These findings suggest that few business owners had links to the apparel industry through family relations or friends working in the longstanding provincial apparel industry.

A word frequency analysis revealed that one of the main reasons for sourcing information by the apparel businesses was to find suitable ‘designs’ to meet customer needs (see Figure 10). Customers were the main sources of information to inform the design of clothing and shoes, often providing a description of clothing seen elsewhere. The second most important source was family and friends in the neighbourhood who were skilled in dressmaking or tailor-work. Often these were individuals the business owner worked or partnered with to complete contracts. One business owner reported requesting assistance with designs and patternmaking through a short course she was attending. Another business owner that focused on beaded clothing indicated that she also looked out for designs in newspapers and would buy designs when needed. This finding suggests that although beadwork skills tend to be passed down through generations, designs may be “modern”.



**Figure 10: Text search for the word “design” in relation to the main sources of information reported by the apparel businesses**

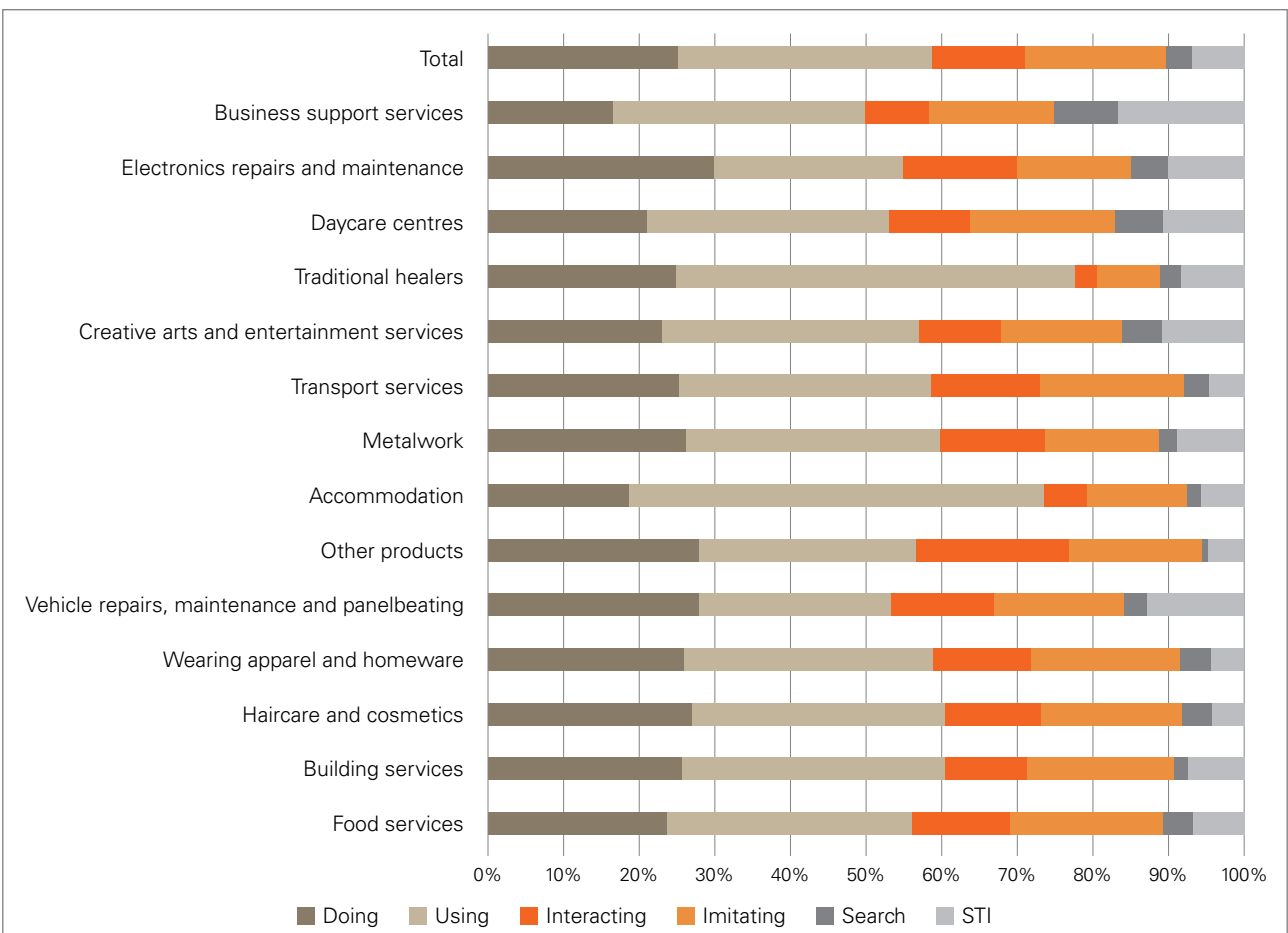


Source: Authors

**E.1.2.2 Main modes of learning and innovation**

In line with the general trend in the study area, experiential modes of learning were favoured, specifically learning by doing (60.0%), using (75.6%), imitating other businesses (45.2%), and to a lesser extent, interacting with other businesses and organisations (29.3%). In comparison to other LIPC groups covered by the 2017–18 IIS Survey, the apparel and homeware businesses appeared among the top five LIPC groups favouring a learning strategy that foregrounds doing, using, imitating and interacting (see Figure 11). Learning strategies involving searching and learning through using scientific and specialised knowledge were used to a lesser extent, by 9.8% of the apparel and homeware businesses. For use of scientific and specialised knowledge (i.e. the STI mode of learning and innovation), the apparel and homeware businesses appeared at the lower end, using these forms of formal knowledge to a lesser extent than businesses offering business support services (33.3%), vehicle repairs, maintenance and panel-beating services (29.4%) and daycare centres (26.3%).

**Figure 11: Modes of innovation by LIPC group**



Data source: CeSTII 2017–18 IIS Survey

Skills development activities in the apparel businesses focused mainly on learning on-the-job through working with new equipment or from working with new raw materials at the workplace (56.2% of the apparel businesses), or through imitating what other businesses are doing (46.6%). About a third (34.3%) of the apparel businesses learned on-the-job through working towards meeting quality standards (both local and international). Very few (15.1%) reported that they worked with employees to develop skills through formal channels.

The analysis of the linkages, knowledge bases, and modes of learning and innovation points to a customer-driven production system with very weak external linkages, particularly with formal knowledge actors.

## Barriers to innovation

The informal business owners reported on the extent to which specific factors hindered their innovation activity, based on a 4-point Likert scale – from ‘no effect’ to ‘high effect’ – which was then normalised. A description of the specific factors and how each was calculated is provided in Table 5 (see also Appendix 1 for a list of the items included in each factor and the reliability tests). The degree of effect of specific barriers to innovation are included in Table 6.

**Table 5: Description of the variables measuring barriers to innovation**

Barriers to innovation	Measure
Political factors	A measure of the extent of how local politics inhibit innovation that ranges from zero to one. Constructed as (Frequent changes in policy and leadership + Protest action or crises inside the community - 2)/6
Economic (financial) factors	A measure of the extent of how economic or financing factors inhibit innovation that ranges from zero to one. Constructed as (Cost of acquiring modern technology and tools + High cost of ensuring quality and complying with national standards + High cost of training + Unavailability of funding from family or friends + Lack of access to finance and credit - 5)/15
Social factors	A measure of the extent of how social factors inhibit innovation that ranges from zero to one. Constructed as (Unwillingness of competitors to work together + Competitors do not share information and knowledge + Lack of collaboration and clusters + Poor interaction between businesses and knowledge institutions - 4)/12
Technological factors	A measure of the extent of how technological factors inhibit innovation that ranges from zero to one. Constructed as (High cost to import modern equipment + Lack of access to modern technology + Poor access to broadband/internet + Poor training/irregular training + Rapid changes in technology - 5)/15
Legal factors	A measure of the extent of how legal factors inhibit innovation that ranges from zero to one. Constructed as (Red tape in registering innovations (patents, copyrights, etc.) + Difficulty in getting loans (for innovation) from commercial banks due to the business not being registered - 2)/6
Environmental factors	A measure of the extent of how business environment factors inhibit innovation that ranges from zero to one. Constructed as (High employee turnover + Lack of access to basic infrastructure and shared facilities + Fierce competition in the industry + Distance from sources of raw materials + Distance from markets + High levels of crime - 6)/30
Owner-manager factors	A measure of the extent of how the owner’s attitudes and abilities inhibit innovation that ranges from zero to one. Constructed as (Lack of skilled people for business management + The owner of the business not open to change + The owner of the business does not see the need to innovate - 3)/15

Source: Jegede and Mustapha (forthcoming)

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.


On average, none of the factors, except those related to economic and financing challenges, were reported to be barriers to innovation in the apparel businesses or, on average, the other informal economic activities covered by the 2017–18 IIS Survey (see Table 6). The lack of ‘real’ barriers to innovation is not surprising as informal sector businesses are constantly seeking ways to improve and diversify in order to survive.

**Table 6: Degree of effect of specific barriers to innovation**

Barriers to innovation	Effect	Wearing apparel			Total (all businesses)		
		N	Mean	Std. Deviation	N	Mean	Std. Deviation
Political factors	No effect	38	0.00	0.00	500	0.03	0.17
Economic (financial) factors	Low effect	21	0.10	0.30	278	0.10	0.30
Social factors	No effect	25	0.00	0.00	319	0.02	0.14
Technological factors	No effect	27	0.04	0.19	391	0.02	0.12
Legal factors	No effect	38	0.03	0.16	543	0.08	0.26
Environmental factors	No effect	14	0.00	0.00	204	0.02	0.16
Owner/manager factors	No effect	29	0.00	0.00	450	0.01	0.09

Data source: CeSTII 2017–18 IIS Survey

Further analysis of the effect of specific economic and financing related challenges revealed that the cost of acquiring modern technology and tools hindered the product and process innovations of 35.6% of the apparel businesses for at least a year (i.e. medium to high effect). Other challenges that stopped innovation for at least a year include the high cost of ensuring quality and complying with national standards (27.4%), the unavailability of funding from family or friends (37.0%), and the lack of access to finance and credit from banks and other formal organisations (43.8%). Related to the latter is the difficulty in getting loans from commercial banks due to the business not being registered (30.1%), which is considered as a ‘legal factor’. Some environmental factors had a medium to high effect on innovation in over 30% of the apparel businesses: lack of access to basic infrastructure and shared facilities (30.1%), distance from sources of raw materials (32.9%), and high levels of crime (32.9%). Besides the cost of acquiring technology and tools, and difficulty in accessing finance and credit, factors reported as barriers to innovation in the informal sector are different from those commonly reported by formal sector businesses. The findings indicate spaces for policy intervention related to reducing barriers to finance and credit, creating new funding instruments to support innovation in the informal sector, and providing support to provide basic infrastructure and combat crime. These barriers mainly relate to the socio-economic conditions of the local context in which the informal businesses operated. As Cassiolato et al. (2018, 2020) indicate, the socio-economic context influences economic activities in the local area and vice-versa. Therefore, improving local conditions also reduces barriers to innovation and is important for building production capabilities.



# F. DISCUSSION AND CONCLUSION: BUILDING COMPONENTS OF THE LOCAL SYSTEM TOWARDS MORE PROMISING DEVELOPMENT PATHWAYS

In this section, we return to the key questions for the case study: What is the nature of innovation and learning in the informal apparel businesses? How can informal businesses, located in peri-urban local settings such as Mpumaza, use their innovation activities to compete to survive *and grow*? How can linkages across the production value chain and with knowledge and intermediary organisations be built to better harness the potential of innovation to contribute to socio-economic development at the local level?

In line with the general trend in the informal sector, economic activities in the apparel and homeware businesses tended to be driven by necessity, a basic need to engage in some livelihood activity to survive in a context with very high unemployment and poverty, and limited access to basic services. Therefore, by necessity, the rate and intensity of innovation was high but with low degrees of novelty. Innovation tended to be driven by a need to survive rather than for taking up new opportunities for growth or for technological upgrading. The informal apparel and homeware businesses introduced mainly minor adaptations to their existing products and processes in order to better respond to customer demand for designs that fit seasonal trends. The informal businesses did not link into formal value chains in any significant manner. Does this mean that the innovation is insignificant for socio-economic development at the local level? Although the innovations tended to be basic rather than 'close to the innovation frontier' or 'world-leading' (Bell and Figueiredo 2012: 21), they are not necessarily insignificant from an economic, capacity-building or development point of view. As Kraemer-Mbula et al. (2019: 6-7) explain,

*Developing these [technological and organisational] capabilities [to absorb and possibly modify technologies and products first developed elsewhere] depends on skills development and learning and firms are more or less successful in managing these underlying processes. Secondly, the fact that innovation takes the forms of imitation does not make it any less important economically. It may be the necessary condition for the business to maintain a competitive position in the local market. At a more aggregated level it will be central to the capacity of these firms to generate needed employment and contribute to industrial production.*

The findings presented in the case study show the ability of the apparel and homeware businesses to innovate with very few resources, helping them to compete at the local level and sustain their businesses for several years.

However, the basic nature of their innovations and their inward approach to learning restricted their growth potential. Although, on average, the apparel businesses existed for longer than other informal businesses in the study area, they employed fewer people. The majority were single-owner businesses, which tended to partner with other businesses mainly to take up contracts with formal sector actors such as schools in the local area. In general, interaction with actors other than customers was weak.

An advantage for this group of informal businesses, particularly the apparel businesses, is their geographical, social and cultural proximity to the local traditional knowledge required for building niche markets based on traditional African dress and knowledge. Harnessing the value of this 'symbolic knowledge' (Asheim et al. 2011: 882) and the existing 'know-how' (Lundvall 2016) to produce traditional attire requires a shift in the approach to innovation and an ecosystem fostering 'innovation-oriented entrepreneurship' (Hoffecker 2018), specifically innovation that enables the businesses to take up opportunities to build their technological capabilities and enter formal value chains (i.e. opportunity-driven innovation).

We argue that one way for the informal businesses to compete and grow is to leverage their locally-based knowledge and networks to build innovation capabilities that enable shifts in trajectory towards better development pathways. Building the innovation and production system is an important way to do this. The discussion that follows looks at the three key components of an innovation system: actors and networks, infrastructure (physical and knowledge) and institutions. As Hoffecker (2018) indicated, building the components of local innovation systems is a pathway through which informal local-level innovation can contribute most significantly to local development.

## Actors and networks

*To what extent have the innovation activities contributed to strengthening linkages and bringing in new actors, and building stronger forward and backward linkages across the value chain?*

Although other businesses were reportedly the second most important partner for innovation, the linkages were weak with interaction taking place, on average, once or twice a year. These linkages included interactions with suppliers, competitors and businesses included in clusters. More than half of the businesses sourced their supplies from inside the neighbourhood, from individuals and households. More of the apparel and homeware businesses purchased their supplies from formal retailers located in the nearest town than from other informal businesses in the neighbourhood. The businesses also seldom shared knowledge, and few were involved in clusters. Linkages across the value chain were thus very weak.

Two important ways to promote more and stronger forward and backward linkages between informal businesses in the local area is through promoting clustering (DTI IPAP 2018/19-2020/21; Rogerson 2000) and co-operatives (Palmi 2006). Government co-operative support initiatives have been found to be beneficial in promoting linkages among informal businesses and enabling them to take up opportunities they may not be able to capitalise on by themselves. Access to reliable information and support in putting together a co-operative (co-op) or working within a co-op has been a challenge for informal businesses. The findings of this case study analysis suggest that few informal businesses are involved in clusters and co-ops. One recommendation for government intervention is to make support services easily accessible for informal businesses in peri-urban/rural settings such as Mpumaza to be able to get assistance with setting up or getting involved in these kinds of collaborative arrangements. The role of the informal business chamber could be strengthened to support informal businesses and SMMEs in the local area to set up co-ops, and to facilitate interaction among informal businesses in the local area and with formal businesses, as a way to build the local production value chain.

Another important intervention would be to create opportunities for engagement with formal knowledge producers. In the study, linkages with formal knowledge producers were virtually non-existent. In comparison to other informal businesses in the study area, the apparel and homeware businesses used scientific and specialised knowledge to a lesser extent. The analysis of interaction with education and training organisations showed that, in general, the informal businesses did not make use of the specialist technical training colleges located about 12km away in the nearest town. One example is the School of Fashion Design, which was established in 1965 with the aim of offering skills training for 'marginalised' groups ([www.schooloffashiondesign.co.za/history.htm](http://www.schooloffashiondesign.co.za/history.htm)). There are also other formal education and training organisations in close proximity, including a TVET college and the two KwaZulu-Natal universities that offer qualifications relevant to the CTFL sector and have campuses in Pietermaritzburg. The informal businesses are thus not benefitting from scientific knowledge and know-how. One example is the collaborative project between a work-integrated learning programme at the Durban University of Technology, in collaboration with other organisations including local government, aimed at



assisting traditional rickshaw pullers to renovate their rickshaws to be able to attract more tourists and other customers (Gatfield 2019). Through the project, the informal businesses worked with the university and its partners to upgrade the rickshaws drawing on authentic traditional design and formal design skills.

## Physical and knowledge infrastructure

*How have the innovation activities contributed to building important capabilities at the level of the business, the value chain and in the local area to promote further innovation and development?*

The high rate and intensity of innovation in the apparel and homeware businesses indicate that innovating with very few resources to compete and survive is common practice in the apparel businesses, enabling them to survive for several years. Using mainly common knowledge, learning by doing and imitating other businesses, the businesses have built capabilities to produce mainly 'basic' innovation (Bell and Figueiredo 2012: 21). We found few examples of more sophisticated innovations.

According to Marsili and Salter, the 'inter-firm diversity of innovation' is a key determinant of the evolution of an industry, and the level of novelty of an innovation is determined by the complexity of knowledge and expertise in the business or brought into the business to support innovation (2005: 87, based on Dosi 1988 and Nelson and Winter 1982). Therefore, an important goal for building a LIPS is to improve the diversity of novelty within the system by shifting innovation from basic to intermediary and more advanced levels. The 'intermediate' level typically involves a degree of creative imitation, may involve advanced modifications towards incremental changes (Bell and Figueiredo 2012), and is likely to result in differentiated versions of new products. One important way to do this is through strengthening linkages with knowledge producers to support skills development, and creative combinations that build on the strong 'symbolic knowledge' (Asheim et al. 2011) possessed.

Taking advantage of niche market opportunities and entering these value chains requires a complex mix of knowledge, particularly know-how and 'know-who' (Lundvall 2016). For niche markets based on authentic traditional attire and Zulu culture, 'symbolic knowledge' (Asheim et al. 2011) and 'traditional' know-how passed down through generations becomes important. However, considering the resource constraints of the informal businesses, it is difficult to harness the value of their local knowledge without external support. As Salinger et al. (1999) show, businesses that have been able to take advantage of such opportunities tend to be larger businesses with the resources to acquire information about niche markets and access to useful networks such as manufacturers with the relevant capabilities. Partnerships with formal businesses have been found to be successful. This is shown by the success of models based on partnerships between well-established large businesses and local communities. The success of Tsonga Shoes is a notable example that also has potential to attract tourists to the area (Box 1). There are also emerging partnerships between well-established fashion designers and artists and local communities.

### Box 1: The Story of Tsonga Shoes

The journey began in the late 1990s when cheap imported footwear flooded the South African market, forcing many shoe manufacturers to close their doors. Tsonga's founder, Peter Maree, who at the time already had two decades of experience in the industry, embraced the challenge. He saw an opportunity for a niche market in high-quality leather footwear with a uniquely African style and the comfort that only hand-stitching can provide. With a team of top international designers and skilled technicians already in place, Peter set out to find the unique hand-stitching skills that would be the signature of Tsonga Footwear for years to come. "I wanted to create a range of shoes and handbags, inspired by Africa. The hand-stitching skills of the women of the village of Lidgetton, close to my home in South Africa, are renowned. I thought that together we could create something quite unique and wonderful!"

Today, in the heart of the kingdom of the Zulu in South Africa, there are inspiring stories of success to be told. Transformed from an old abandoned school building, The Thread of Hope farm became the training centre where

### Box 1: The Story of Tsonga Shoes *(continued)*

many from the local rural community were given the opportunity to learn skills in the manufacture of leather footwear. For many years, it was a place where women gathered and conversation flowed to the rhythm of the work.

We invite you to visit and witness the transformation of some of the world's finest leathers into a collection of handbags and accessories worthy of the shelves of the finest boutiques.

Source: Tsonga Shoes' website (<https://www.tsonga.com/pages/about-us>)

An advantage of initiatives like the Thread of Hope farm is the potential contribution to building not only the knowledge infrastructure, but the physical infrastructure as well. Besides catalysing infrastructure development such as building roads and improving access to basic services, initiatives such as the Tsonga Shoes Thread of Hope farm may create community centres as skills development centres, equipped with the necessary equipment that informal apparel and homeware businesses in the community could use. One informal business owner in our sample reported that the community used to have such a centre, but it closed.

Government support for building local capabilities across the value chain and improving the inclusion of informal business could have greater reach and impact if based on similar models implemented in partnership with well-established formal businesses and community-based actors.

Another specific way for government to intervene is to promote opportunities that create accessible market spaces where informal businesses could trade and link with other businesses and organisations.

The cost of accessing the Internet was a challenge to marketing and innovation. It is crucial that Internet access via free WIFI hotspots in the neighbourhood, such as the library where some informal businesses sourced information to inform their innovation activities, be made easily accessible and that the equipment and services are updated.

## Institutions

*How have the innovation activities contributed to building a 'culture' of innovation-oriented entrepreneurship, towards more promising local development pathways?*

In informal local settings such as Mpumuza, shifting deep-rooted norms, values and practices associated with necessity-driven entrepreneurship (BER 2016) is an important part of building local capabilities and can be as important as building physical infrastructure (cf. Hoffecker 2018). A major constraint to harnessing the potential of innovation in the informal apparel and homeware businesses is the approach to innovation, which tended to be 'necessity-driven' rather than 'opportunity-driven' (BER 2016). The modes of innovation thus tended to be experiential and focused inward. The informal businesses saw themselves as 'small' with limited resources, and business was uncertain with there being no customers or income some months. Collective learning, which is crucial in this kind of context, was missing.

NGOs and CBOs have played a key role in promoting development, including providing basic skills training such as sewing skills for unemployed rural women. These initiatives tend to have limited impact if not targeted at individuals with industry work experience or basic competence in business management skills. Programmes aimed at providing skills training opportunities for unemployed, unskilled individuals would have greater impact by facilitating mentorship and coaching by formal or informal businesses in the same industry. This way, participants in such programmes could benefit from having a "role-model," gaining the necessary know-how as well as an understanding of the required norms and practices. These factors have been found to be important in the CTFL sector.

Another way to bring about a change in institutions is to include mentorship and coaching as part of government co-operative programmes. It would be useful to include formal mentorship and "co-op shadowing" that involves informal

businesses meeting regularly with well-established formal or informal apparel and homeware businesses that are part of successful co-ops in order to gain skills in business management and operating a successful co-op.

In conclusion, a key goal for promoting innovation in a context like Mpumuza that 'is becoming more of a forgotten space in terms of development from both a public and private investment point of view' (Pietermaritzburg Integrated Development Plan 2019/20), is to build capabilities to produce innovations of differing degrees of novelty. The capabilities to produce basic level innovations is an important foundation enabling informal businesses to survive, as the analysis of the wearing apparel and homeware businesses shows. For innovation to unlock growth potential and open new pathways for development in these kinds of local settings, stronger linkages with education and training organisations and financial support providers are required, as well as linkages with well-established formal businesses that facilitate participation in formal value chains. As the successes of niche markets based on traditional African attire and knowledge show, 'symbolic knowledge' (Asheim et al. 2011) and know-how passed down through generations are valuable and can lead to more sophisticated forms of innovation when combined with other forms of know-how and scientific knowledge (Lundvall 2016). Since these forms of local knowledge are place specific (Asheim et al. 2011), staying close to the local origin is crucial for exploiting such niche markets. The importance of the informal sector in building these niche markets in the CTFL sector is recognised in policy but has not been prioritised. Doing so will require a coordinated approach involving different levels of government: national, provincial and local.



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# APPENDICES

Appendix 1: Barriers to innovation variables, results of the tests of reliability

Barrier	Item	$\bar{c}_j$	$\alpha_j$
<b>Political factors</b>	Frequent changes in the policies and leadership of government departments		
	Protest action, crises inside the community		
	Test scale	0,2	<b>0,4</b>
<b>Economic (financial) factors</b>	Cost of acquiring modern technologies and tools	0,7	0,8
	High cost of ensuring quality and complying to national standards	0,7	0,8
	High cost of training of workers to acquire new skills on how to use modern technology	0,8	0,8
	Unavailability of funding from family or friends	0,7	0,8
	Unwillingness on the part of commercial banks and other financial/credit institutions to fund businesses with low turnover	0,7	0,8
	Test scale	0,7	<b>0,8</b>
<b>Social factors</b>	Unwillingness of competitors to work together	0,4	0,7
	Competitors don't share information and knowledge	0,4	0,7
	Having too many businesses standalone; and don't come together in clusters	0,4	0,6
	Poor interaction between businesses and knowledge institutions (e.g. NGOS, universities, incubators)	0,8	0,8
	Test scale	0,5	<b>0,8</b>
<b>Technological factors</b>	High cost to import modern equipment	0,4	0,8
	Lack of access to modern technology	0,4	0,7
	Poor access to broadband/internet	0,5	0,8
	Poor training/irregular training on new tools and ways of doing business	0,5	0,8
	Rapid changes in technology	0,5	0,8
	Test scale	0,5	<b>0,8</b>
<b>Legal factors</b>	Red tape in registering innovations (patents, copyrights, etc.)		
	Difficulty in getting loans (for innovation) from commercial banks due to business not being registered		
	Test scale	0,5	<b>0,6</b>

Continues overleaf...

Barrier	Item	$\bar{c}_j$	$\alpha_j$
<b>Environmental factors</b>	High employee turnover (loss of employees to larger business or to formal sector)	0,5	0,8
	Lack of access to basic infrastructure and shared facilities such as good buildings, roads, electricity, potable water, energy, health, toilets	0,4	0,7
	Fierce competition in the industry	0,5	0,7
	Distance of business to sources of raw materials	0,4	0,7
	Distance between where the goods and services are produced and where it is sold	0,4	0,7
	High levels of crime	0,6	0,8
	Test scale	0,5	<b>0,8</b>
<b>Owner/manager factors</b>	Lack of people who can manage workers adequately	0,5	0,9
	The owner of the business does not like to change the business	0,3	0,5
	The owner of the business doesn't see the need to innovate since sales are good and customers loyal	0,3	0,6
	Test scale	0,3	<b>0,8</b>

# Innovation in the Informal Sector – A Case Study of Informal Apparel Businesses in KwaZulu-Natal, South Africa

Little is known about the link between informal sector innovation and development, but research on innovation in developing countries suggests that the outcomes and process of innovation are both important. Since innovation in the informal sector takes the form of “everyday” activities in “everyday” settings, the significance of informal sector innovation is often questioned. Our research found that innovation is imperative for informal enterprise resilience and growth. How then can innovation be harnessed to promote development at the local level? Based on a novel mixed methods case study of informal apparel enterprises in peri-urban KwaZulu-Natal, the Human Sciences Research Council’s, Centre for Science, Technology and Innovation Indicators (CeSTII) explores the importance of strengthening local ecosystems for ‘innovation-oriented entrepreneurship’ (Hoffecker 2018) to boost socio-economic development at the local level.