#### EEMCS-10-2022-0352

Localisation of PPE manufacturing during COVID-19 (Local Manufacturing Partnership and Kingsgate Clothing South Africa)

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## Case summary

**Learning outcomes:** • After working through the case and assignment questions, students will be able to do the following:• Identify the difference between core competencies and dynamic capabilities and how they make a difference in a crisis towards building an agile organisation.• Evaluate the support through a collaborative, temporary, trans-organisational system to local manufacturers to achieve agility and sustainability.• Realise the importance of clear expectations exchange and communication between partners to enhance collaboration, even in temporary structures in increasing agility and sustainability.

Case overview/synopsis: The COVID-19 pandemic and subsequent lockdowns created a crisis for South Africa and the President, Cyril Ramaphosa called for urgent collaboration between business, labour and government to meet the demand for locally produced Personal Protective Equipment (PPE) and medical devices. The case illustrates this response and collaboration between government, labour and business through a temporary newly formed structure, called Business for South Africa (B4SA). Ross Boyd, Head of the innovation work stream of B4SA which housed the local manufacturing partnership (LMP) was considering his dilemma of how to be agile in sustaining their support to the South African manufacturers even though the LMP was a temporary structure. The local manufacturers had to repurpose their production lines to produce local PPE and medical devices. How could the LMP support the South African manufacturers to sustain their agility in building capabilities during COVID-19? At the same time, Ahmed Dhai, the Group Executive of Operations of Kingsgate Clothing, which was benefiting from the support of the LMP, was reflecting on his leadership in taking decisions to repurpose production and increase capacity during COVID-19. Dhai was considering his dilemma of being agile during and beyond the COVID-19 pandemic. The case features several decisions taken by Kingsgate and offers students the opportunity to evaluate these decisions given the fluctuations in supply and demand of PPE and the leadership that Dhai demonstrated in how he communicated and dealt with his staff during the pandemic. Students could also give recommendations to Ross Boyd and Ahmed Dhai on how they could lead their organisations to be more agile during and beyond COVID-19.

**Complexity academic level:** The case study is suitable for MBA or MPhil level on Strategy courses. The case would also find good application in Organisational Behaviour and Leadership courses on Masters level and Executive Education programmes.

**Supplementary material:** Teaching notes are available for educators only.

Subject code: CSS 7: Management Science.

**Keywords:** Case study; Crisis management; Dynamic capabilities; Leadership; Manufacturing; Organizational behaviour

In South Africa, the first positive case of the COVID-19 pandemic was confirmed by the National Institute for Communicable Diseases on 06 March 2020.<sup>1</sup> On 15 March 2020, President Cyril Ramaphosa declared a national state of disaster in South Africa in terms of the Disaster Management Act of 2002 and a hard lockdown of Level 5 from 26 March 2020 for an initial three weeks, which was later extended with another two weeks.<sup>2</sup>. The closure of air travel, retail businesses and tourist accommodation facilities were notable drags on economic activity.<sup>3</sup> Usually much of the Personal Protective Equipment (PPE) would have been imported from China, however, the virus first broke out in China early in November 2019 and therefore their exports had been the first to be affected.<sup>4</sup> The demand for PPE in public and private hospitals showed a surge globally and the disruptions in air and road transport and at port authorities exacerbated this crisis.

Manufacturers in South Africa had to urgently repurpose their production to supply the high demand for PPE and medical equipment in both the public and private sector. However, a coordinated effort was required and President Ramaphosa called for urgent collaboration between business, labour and government. To this end, Business for South Africa (B4SA) was formed as a temporary structure during the COVID-19 pandemic. The aim of B4SA was to support local manufacturers in producing PPE in response to shortage of supplies brought by the lockdown.

By August 2020, the lockdown had moved to level four, yet the movement of goods and services between countries was still limited, leading to a further surge in the demand for PPE and medical devices in the country. During this period, B4SA Innovation Work Stream Manager, Ross Boyd, reflected on his dilemma of how to support South African manufacturers to be more agile and sustain their capabilities built up during the previous months during the COVID-19 pandemic to manufacture local PPE and medical devices. Boyd was reflecting on his leadership over the last couple of months and considering how he could lead this B4SA Innovation Work Stream entity to be more agile: While the structure was formed temporarily during COVID-19 for a specific purpose around PPE, how could they capitalise on their learnings and the collaborative relationships that they built and support a longer-term local manufacturing capability in South Africa to the benefit of the country?

One of the manufacturers supported by B4SA was Kingsgate Clothing Group (Pty) Ltd, which was led by the Group Executive of Operations, Ahmed Dhai. At the same time as Boyd contemplated his dilemma, Dhai was reflecting on his leadership over the last couple of months. Dhai and his design team had to adapt quickly and he considered the wisdom of decisions that he had to take under huge pressure brought upon by COVID-19 and how he

<sup>&</sup>lt;sup>1</sup> First case of a COVID-19 Coronavirus reported in South Africa. (2020, March, 5). National Institute of Communicable Diseases <a href="https://www.nicd.ac.za/first-case-of-covid-19-coronavirus-reported-in-sa">https://www.nicd.ac.za/first-case-of-covid-19-coronavirus-reported-in-sa</a>

<sup>&</sup>lt;sup>2</sup> Alert Level 5 indicates a high Covid-19 infection incidence, and a low health system readiness, https://www.gov.za/covid-19/about/about-alert-system

<sup>&</sup>lt;sup>3</sup> Statistics South Africa (2020). Steep slump in GDP as COVID-19 takes its toll, Statistics South Africa, posted in 2020, accessed on Nov, 18, 2020 at <a href="http://www.statssa.gov.za/?p=13601">http://www.statssa.gov.za/?p=13601</a>

<sup>&</sup>lt;sup>4</sup> Timeline of WHO's response to COVID-19. (2020, June, 29). World Health Organisation. https://www.who.int/news-room/detail/29-06-2020-covidtimeline

could lead the company to be more agile during and beyond the COVID-19 pandemic, in order to be sustainable and achieve competitive advantage.

#### BACKGROUND TO THE BUSINESS NEED

The South African government implemented urgent measures on various levels of lockdown to reduce contagion of COVID-19 by minimising existing social and economic contact<sup>5</sup>. Although these measures were also taken to reduce the strain on the South African healthcare system, the measures delivered a severe negative shock to the economy, with immediate loss of activity in many areas of business and negative medium and long-term consequences for the economy.

In response to the crisis, the business community in South Africa created an interorganisational collaborative online platform and came together through the temporary entity called B4SA (See <a href="https://www.businessforsa.org">https://www.businessforsa.org</a>). Business for South Africa (B4SA) was primarily made up of existing local business entities, including Business Leadership South Africa (BLSA); Business Unity South Africa (BUSA), the Black Business Council South Africa (BBC) and other formations, including the Manufacturing Circle. It was important to form a new structure to coordinate the existing local business entities, as these entities did not have a history of working together and in stead of one of them leading the others, a new entity brought them together to collaborate for the sake of dealing with the COVID-19 crisis.

B4SA had a number of workstreams organised against various aspects of the pandemic response, one of which was an economic response work stream, and another an innovation work stream, which were all about business responding to the impact of the pandemic and about using local innovation and productive capacity to combat the pandemic and scale up the supply of PPE and Medical Equipment to the local health system. The innovation workstream in B4SA became about leveraging industrial capacity and capability to support local supply of PPE and medical equipment, and this workstream was the platform through which business joined up with the government and other social partners, such as organised labour in the Local Manufacturing Partnership. COVID-19 created a unique situation which offered an opportunity for these elements to have to collaborate to address a common goal during the crisis. The collaborative effort is all the more remarkable when considering the history of South Africa: Several investigate journalists from Forbes<sup>6</sup> and the International Labour Organisation<sup>7</sup> have described complex strained relationships between the South African government, labour and the business community. South Africa's business community faced criticism of having supported and benefited from apartheid and the South Africa's government was criticised for

<sup>&</sup>lt;sup>5</sup> https://www.gov.za/covid-19/about/about-alert-system

<sup>&</sup>lt;sup>6</sup> Forbes (2010). Business-State Relations Shift In South Africa, 12 May 2010, accessed 7 Feb 2023, https://www.forbes.com/2010/05/11/south-africa-conflict-business-oxford-analytica.html?sh=5f83efb7303d

<sup>&</sup>lt;sup>7</sup> International Labour Organization (2020). Rapid Country Assessment: South Africa The impacts from a COVID-19 shock to South Africa's economy and labour, Aug 2020, accessed 7 Feb 2023 market. https://www.ilo.org/wcmsp5/groups/public/---ed emp/documents/publication/wcms 754443.pdf

offering labour privileged access to government. Organised labour in its turn, was criticised for frequent strikes with resultant production and financial losses for business.<sup>8</sup>

# The members of the Local Manufacturing Partnership

Ross Boyd explained the entity that he was leading as follows:

"The Medical Devices and PPE Local Manufacturing Partnership (LMP) was a social partnership made up of organised business, organised labour and government together with other institutions such as the Industrial Development Corporation (IDC) and Proudly South Africa. The LMP was initially pulled together by the Department of Trade and Industry and Competition (DTIC), Business (represented by B4SA) and Labour, primarily the Congress of South African Trade Unions (COSATU) and The Southern African Clothing and Textile Workers Union (SACTWU) to rapidly scale up local manufacturing capacity for PPE, testing kits, sanitiser and disinfectants (ventilators were developed and manufactured through a similar but separate partnership platform).

Harald Harvey, who chaired the Local Manufacturing Partnership Governance Panel (Advisor to Minister Patel at the Department of Trade and Industry and Competition (DTIC)) explained:

"All the work of the LMP was done on a collaborative partnership basis, I chaired a governance panel as nominee by Minister Patel, and executed through a Project Management Office (PMO) initially led by Chris Griffith (who volunteered as head of the Local Manufacturing Partnership before Griffith became the new CEO of Gold Fields, a large mining company), followed by Ross Boyd."The LMP was staffed by various individuals from government (mainly the DTIC but also the Department of Science and Innovation and the Department of Health), business (through B4SA) and trade unions (mainly SACTWU) supported by teams from select consulting firms on a pro bono basis. Chris Griffith and Ross Boyd were both deployed from B4SA into these roles in the LMP. Philippa Rodseth, who was the Executive Director of the Manufacturing Circle, and Ashen Chathury (Electric Engineer and at the time Head of Capital Projects Excellence at SASOL), who offered his project management expertise, were also involved in the LMP."

## Localising the manufacturing of PPEs and medical devices through LMP

LMP had eight workstreams in total. The different streams were led by experienced senior executives and sector specialists, some of whom were retired or close to retirement and served on a pro bono basis to move the projects forward. The workstream leads and their teams supported local manufacturers through the various accreditation, testing and funding processes aimed to get these manufacturers procurement ready. Ross Boyd was tasked with localisation during his former role as an executive at General Electric, which included the development of local suppliers. The journey of localisation was therefore familiar to him, and he understood

<sup>8</sup> Affirmative Portfolios (2013). The Effects of strikes on Businesses and Employees, 19 Sep 2013, accessed 7 Feb 2023, https://affirmativeportfolios.co.za/the-affects-of-strikes-on-businesses-and-employees/

the reality and challenges with developing local suppliers to meet world class standards. Boyd shared:

"My mandate was to continue the localisation efforts whilst reviewing with the Partners what had been achieved by the Local Manufacturing Partnership and enable the transition of the developed manufacturers to access ongoing Public and Private sector demand thus making these accomplishments sustainable."

Each workstream was tasked to manufacture the following: face shields, gloves, testing, FFP2 masks (higher quality masks for surgery), textile PPE, sanitiser, Black Enterprise Development, and medical device consumables (like tubes for ventilation and oxygen machines).

The LMP created qualification criteria for the vetting process of choosing which manufacturers to support by the workstream's functions which include product as well as operational and legal compliance. These manufacturers had to sign off on the following: There had to be no conflict of interest; no criminal history; no gift or money offered related to the work; no influence exercised to gain support; no breaches of corruption legislation; no business with sanctioned entities; no breach of agreements with stated parties; and no breach of loan agreements. These criteria were important to guard against the background of allegations of large scale public procurement corruption in South Africa.<sup>9</sup>

The different teams at LMP each played their unique role in supporting the initiative. For example, Ashen Chathury related that the team from organised Labour had a good understanding and had a good sense of which companies could pivot their existing operations to produce PPE. Simon Eppel from the Clothing and Textile Workers Union (SACTWU) in his turn, was impressed with the level of project management skills that the business representatives brought to the table. The government team had a good sense of accreditation levels that had to be reached. The business teams brought the rigour in terms of project management and analytical support. They offered a speedy response in clarifying what the medical standards entail, what needed to happen to capacitate the identified manufacturers to produce the products, how to get these products tested, and then accredited and to be ready to serve. About eighty manufacturers were identified all over the country, for instance the Western Cape had several companies which were in the textile industry.

## LMP support to local manufacturers

The LMP assisted local manufacturing companies to navigate complex regulatory terrains given the multiple accreditation standards authorities and different standards for different grades of PPE depending on the clinical setting. For instance, the LMP worked with the South African Health Products Regulatory Authority (SAHPRA) to amend standards and requirements to be fit-for-purpose for this global emergency. The LMP assisted in eliminating unnecessary hurdles to making PPE available.

<sup>&</sup>lt;sup>9</sup> Corruption Watch (2015). Understanding Corruption in Tenders, June 2015, accessed 7 Feb 2023, https://www.corruptionwatch.org.za/wp-content/uploads/2015/06/Corruption-Watch-Understanding-tender-corruption.pdf

The LMP created a view of South Africa's overall supply readiness and categorised the products in terms of where the biggest risk was. For example, see Exhibit 1 where the boot covers and scrub suits in both the public and private healthcare and in non-health environments were a huge concern, whereas aprons had been adequate, and the gown posed a medium risk. The local manufacturers which had been identified by the workstream were categorised into (1) those which did not require any intervention; (2) existing suppliers with minimal intervention required and (3) those which required significant intervention. Of the eighty manufacturers, there was only one supplier which did not require any intervention; 19 suppliers had a minimum intervention required, whereas 60 suppliers required significant intervention to be ready to supply PPE.

The LMP also assisted the local manufacturers with funding applications to the Industrial Development Corporation (IDC), Project Last Mile (PLM) and the Solidarity Fund. Another service was to assist these local manufacturers with vetting of their companies and their products, using independent sources, to ensure their legitimacy.

#### Ross Boyd shared:

"We helped the local manufacturers in getting procurement ready and encouraging the nation to procure locally from trusted suppliers. The ramping up of manufacturing capability of various local manufacturers was important to the partnership. Our accomplishments of the LMP included 54 local manufacturers which were accredited as Category one suppliers. This meant that they passed for supplying medical grade equipment and PPE. Our workstreams initially identified and assisted over 100 local manufacturers. The LMP procurement team facilitated procurement through the Motsepe Foundation for some of these local manufacturers, including Kingsgate Clothing."

## BACKGROUND TO KINGSGATE CLOTHING

Kingsgate Clothing Group was a South African business to business (B2B) clothing manufacturing company already established in 1955. Kingsgate's core competency was the design, development, supply chain management and quality standards behind its products. The company manufactured clothing for men, women, and kids, as well as school wear across the African continent. Kingsgate had about a thousand direct employees. The group was made of up three sites (1) the manufacturing, and (2) the administration, and (3) the warehousing. The manufacturing plant employed about 110 employees and was outsourcing manufacturing to cater for capacity in the business. The entire Kingsgate's supply chain (administrative and warehousing) to Africa consisted of about 890 employees involved in the value chain.

In March 2020, when COVID-19 forced countries into level five lockdown to curb the spread of the virus, Kingsgate clothing repurposed their operations. To avoid shutting down completely, the company pivoted to manufacturing face cloth masks and isolation gowns as those were perceived as essential services. Therefore, during lockdown level five, all sites were

closed except for a small contingent of staff at the manufacturing site that was working as essential workers on manufacturing cloth face masks.

Ahmed Dhai, Group Operations executive of Kingsgate Clothing Group, was leading the repurposing project. It was Dhai's first experience to manufacture both face cloth masks and isolation gowns. He researched on the internet and made contact with companies in the USA on how to go about manufacturing these items. Dhai shared, "

"I realised that we had a responsibility to support the country by leveraging our cocompetencies to scale. I relooked at our current products, inputs, and process and end results and I saw an alignment. I had to go back to things I did 20 years ago when I first entered the industry such as making patterns and understanding fit dynamics. It actually felt like a refresher course to me."

He realised that they required the technical knowledge, the same machinery, their existing experience and understanding of how to apply these in their day-to-day business. He did not need to learn new skills and not even new equipment was required to start manufacturing local PPE. On 27 March, when the country went into lockdown, Kingsgate had already completed their first level of prototyping of face cloth masks, using their twenty years of experience to put together their first masks with only four to five people. The level five lockdown was a month long. When the President of South Africa moved the lockdown to level four, and businesses started operating, Kingsgate also re-opened. They only brought back the staff in phases, starting with the 30% complement of staff to manufacture the cloth face masks.

Staff were brought in on a rotational basis and on an average staff were out of work 25/35 days. By mid-April Kingsgate had managed to bring back a small production team and they started producing localised isolation gowns. Strict compliance to the gazetted social distancing requirements of 1.5-meter social distancing were observed. All staff were issued with two sets of cloth face masks, and temperatures were taken three times a day. Dhai recalled:

"The factory had to be adjusted to adhere to social distancing, sanitizers were made available at all workstations and entry and exit points. Sanitizing of workspaces floor area and toilets was done hourly. Staff that were going on tea and lunch breaks were staggered to ensure social distancing was adhered to. Kingsgate Clothing provided transport for staff from and to places of residence."

Adhering to these requirements of COVID-19 required agility with a constant adoption of new rules and regulations and to motivate staff to adapt to the changing working conditions. Dhai and his executive team had to set an example for staff and ensure that they themselves were adhering to safety protocols. As leaders of the organisation, Dhai and his executive team also had to show that they care about their staff members, for example, all employees were paid their full salaries from the months of April to June at cost to company.

At the time of the President's announcement of the lockdown, measures that government would take to support staff compensation were not clear. The President had mentioned a support programme through the Temporary Employment Relief Scheme (TERS), but it was not yet clear how this TERS would be administered. TERS payments started to flow in around the

month of June. Once the TERS was introduced all amounts were paid by the TERS. That is, employers like Kingsgate Clothing funded wages and salaries and claimed amounts back from the government scheme later.

## Kingsgate's dealing with COVID-19 cases

Dhai reflected on how difficult the COVID-19 pandemic made the work environment:

"Kingsgate had their first positive case of COVID-19 around June 2020. We moved from one case to 26 cases within two weeks. We had to pull pack, reassess, shut down, and fumigating the plant. To manage COVID-19 cases, we had to work backwards and realised that the challenge was not at the organisation, but it was the manner in which staff were travelling in their lift clubs."

Dhai made an interesting observation that during holidays such as Father's Day and June 16<sup>th</sup> there were an increase of infections. People tended to relax during these days and socialised freely without precautions, especially on weekends. Communication with staff was crucial during this time and Dhai sent constant reminder messages to staff to socialise responsibly. He explained the negative impact of irresponsible socialising to the workplace. By end July, staff had bought into the idea of responsible socialising, leading to a reduction in positive COVID-19 cases. The South African profile of COVID-19 positive cases varied and increased exponentially during certain times, as Dhai and his team too experienced at Kingsgate. (See Exhibit 1 for a graph on the research of Johns Hopkins University on the growth of South Africa's confirmed COVID-19 cases).

## **Support from the LMP**

There was a massive need in the public and private health care sectors for isolation gowns. Isolation gown standards were regulated and there were detailed specifications that required external testing. The isolation gowns were under supplied and a huge demand existed at the beginning of the pandemic and therefore Kingsgate wanted to meet this need. (See Exhibit 2 for the statistics from the LMP on the variation in supply and demand of the isolation gowns). Dhai and his team needed guidance on how to comply, what the testing methods were and who could link them to someone in the government who could assist. Dhai had an existing relationship with Simon Eppel, a member of SACTWU, and he who introduced Dhai to the LMP. Simon Eppel was a liaison between Kingsgate and the LMP. He linked Kingsgate to the PPE manufacturing supply chain including testing companies.

Dhai related their experience with LMP as follows:

"Kingsgate did not have a ready market for our final product. We worked on the perception that once our prototype has been approved via the relevant accreditation authorities with the support of the LMP, we would have access to government supply. The team utilised their many years of institutional knowledge in developing the highest standards in these products. We conducted prototyping and testing of isolation gowns.

We sent five product samples to the laboratory at our own costs. Unfortunately, all five failed the test to huge disappointment to me personally and my team."

However, Dhai realised that the development of a suitable raw material could materialise anytime, and the next stage would be the development of a suitable supply chain. (Exhibit 5 shows how Kingsgate had to accelerate their product development for COVID-19). To be prepared, Kingsgate was considering the establishment of their manufacturing capacity. Commitment to the capacity entailed the organisation of labour and resources. (See Exhibit 6 how Kingsgate had to increase their manufacturing staff during COVID-19). To ensure that the capacity did not sit idle, Kingsgate would have to ensure there was sufficient raw material available to offer input into production. The issue was however, how to increase the market size of their PPE products to ensure sustainable orders. (See Exhibit 7 as a summary of the events along a timeline during COVID-19).

Dhai then realised that textiles were still being developed in South Africa for the manufacturing of isolation gowns. He wanted to be proactive and he contacted their supply chain in China to order suitable textiles that met the local standards. They used the imported textiles to kickstart the supply chain for isolations gowns. Around July 2020 a local company based in Hammanskraal, near Johannesburg, developed the textiles required for the isolation gown. Dhai and his team were delighted that the product finally passed the test and met all the requirements.

Kingsgate brought 100% locally manufactured product (isolation gowns) to market at a rate of R45 (\$3,27), then later at an even lower price to R38 (\$2,76). They had planned that once they were able to bring efficiency to their supply chain, they would bring the amount even further down. Dhai reflected:

"While we were collaborating with LMP work streams on isolation gowns in finding the suitable raw material, we had not had the opportunity to market and develop the supply chain. We submitted bids for the government tenders amounting to millions of rands for the manufacturing of isolation gowns and face cloth masks. We unfortunately did not win the government tender. Luckily, the LMP assisted us to secure one order (from the Motsepe foundation) to manufacture 200 000 isolation gowns. Beyond this order, we had to find our own market for the face masks and the isolation gowns."

Dhai and his team of designers again wanted to be agile and to avoid shutting down, they launched their first online store within one week, to cater for businesses to buy online. They generated a couple of sales on their new online platform. The online platform thus performed better as was expected.

Kingsgate approached corporate South Africa and introduced their new offerings (face cloth masks and isolation gowns). Corporate South Africa was very receptive and started placing orders from the month of May. Kingsgate manufactured face cloth masks for three of the biggest retailers in South Africa during the months of May to July. They also supplied masks to one of their client's charity initiatives and manufactured scrub suits for nursing homes as

part of one of the largest South African Bank's initiatives, see Exhibit 3 for volume of face cloth masks.

#### **Moving Forward**

Localisation had been highlighted by the government as a key policy aim during the recovery of the economy from the COVID-19 crisis. BLSA and BUSA sponsored a study by Intellidex (2021) on whether localisation was realistic and the support from government that was required to enable localisation. B4SA illustrated how government, business and labour could work together during COVID-19.

During August 2020 it became clear that there was a transition period, where the volunteers working at B4SA were rolling back into their existing organisations which had been mandated to deliver this service. They had to support so that these local manufacturers had opportunities in the market going forward. Different aspects included technical support and demand support. It was important to transition these work streams to longer term homes, whether that was sitting within government or within business, but they had to make sure that what had been built over the last 6 months could continue to be supported.

While manufacturers such as Kingsgate, were able to source material, apply and get accreditation and produced PPE and medical devices for the local market over very short period of time during the pandemic, the questions remained, how could B4SA through LMP continue to support local manufacturers beyond the pandemic, and how sustainable could it be when the experts go back to their respective roles in their home organisations?

Dhai realised that the demand for normal shirts, or formal trousers for office wear were a thing of the past. Being the main supplier of school wear to the leading school wear retailers in South Africa, Dhai also realised that school wear was also not selling, since schools had been closed due to the pandemic. There was a huge shift to lounge wear and sleep wear. Customers were buying clothes that they could wear at home, sleep with, and go to the supermarket with. School wear demand was replaced by kids' wear demand, see Exhibit 4 for the shift of formal wear for the soft casual wear. He took the advantage of this new trend and aligned their products accordingly. This new trend also directly supported government's impending industry strategy, called the Master Plan<sup>10</sup> as retailers took the advantage of localisation and increasing their local purchases which would provide future benefits as envisaged in the Master Plan. How could Kingsgate continue to be agile beyond the pandemic? How could Dhai and the team manage the challenge of being agile during their day-to-day business of manufacturing clothes?

<sup>&</sup>lt;sup>10</sup> The South African Government's Department of Trade, Industry and Competition initiated industry specific plans to create jobs, called "Master Plans", <a href="http://www.thedtic.gov.za/media-room/master-plans/">http://www.thedtic.gov.za/media-room/master-plans/</a>

#### References

Business Leadership South Africa (BLSA) is an independent association whose members include the leaders of some of South Africa's biggest and most well-known businesses. <a href="https://www.blsa.org.za/">https://www.blsa.org.za/</a> accessed 18 Aug 2021

Business Unity South Africa (BUSA) plays a constructive role in the country's economic growth, development and transformation, <a href="https://www.busa.org.za/about-busa/how-busa-works/">https://www.busa.org.za/about-busa/how-busa-works/</a> accessed 18 Aug 2021

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SACTWU is a duly registered trade union, registered in terms of the relevant provisions of the Labour Relations Act in South Africa. The organization has 99,697 members, making it the dominant union in the fashion manufacturing industry.

https://www.sactwu.org.za/files/Mr%20Daniels.pdf

The Black Business Council (BBC) is an independent membership based organisation representing professional, business associations and chambers to assist in the long-term growth and success of black business. <a href="https://blackbusinesscouncil.africa/About\_BBC.html">https://blackbusinesscouncil.africa/About\_BBC.html</a> accessed 18 Aug 2021.

The South African National Accreditation System (SANAS) is the only national body responsible for carrying out accreditations in respect of conformity assessment, <a href="https://www.sanas.co.za/Pages/index.aspx">https://www.sanas.co.za/Pages/index.aspx</a>

The SABS core functions encompass the development of standards, certification of systems and products, and the provision of testing, training, inspection and verification services.

https://www.sabs.co.za/

Kingsgate Clothing (Pty) Ltd, <a href="https://www.kingsgate.co.za/about.html">https://www.kingsgate.co.za/about.html</a> Websites accessed 10 June 2021:

https://uifecc.labour.gov.za/covid19/covid19

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https://uifecc.labour.gov.za/covid19/covid19

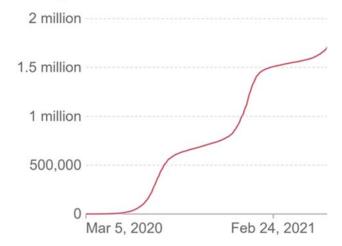
 $\underline{https://www.bowmanslaw.com/insights/employment/covid-19-south-african-ters-benefit-what-you-need-to-know/}$ 

Exhibit 1 LMP Local PPE workstream's view on South Africa's overall supply readiness

		June		July		August		
Product		Demand	Production	Demand	Production	Demand	Production	Supply risk
Boot Covers	Public Health Public non-health	2,309,472	1,470,000	2,117,698	1,488,750	2,117,698	1,488,750	
	Private Health Private non-health	1,234,133		1,439,592		1,439,592		
Aprons	Public Health Public non-health	4,489,578	9,781,500	5,838,493	9,844,000	4,129,001	9,844,000	
	Private Health Private non-health	1,859,672		1,960,7982		2,164,072		
Gowns	Public Health Public non-health	5,715,512	6,888,400	7,475,439	6,947,150	5,206,696	6,947,150	
	Private Health Private non-health	1,298,503		1,371,367		1,505,022		
		Red text	Figures under rev	riew 💮 High	risk of shortage	Medium risk o	of shortage 💮 Lie	mited risk of shortag
	June		July		August			
roduct		Demand	Production	Demand	Production	Demand	Production	Supply risk
crub suits	Public Health Public non-health	64,009	2,348,400	79,988	2,354,650	55,984	2,354,650	
	Private Health Private non-health	25,975		27,436		30,102		

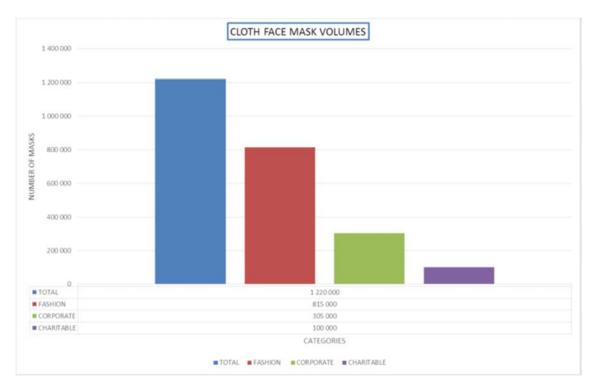
Source: With permission from The Local Manufacturing Partnership

Exhibit 2 Data on South Africa confirmed COVID-19 cases over a year period from Johns Hopkins University



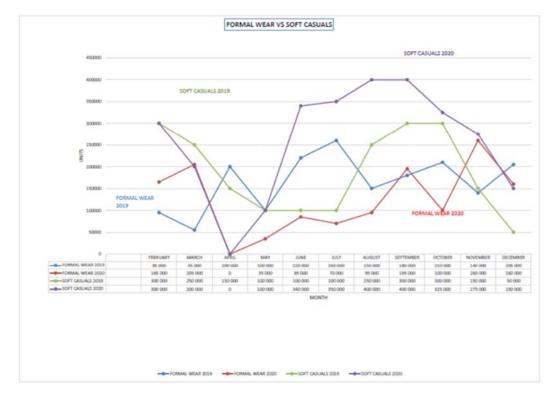
Source: Johns Hopkins University CSSE COVID-19 data, Our World In Data, <a href="https://ourworldindata.org/coronavirus/country/south-africa">https://ourworldindata.org/coronavirus/country/south-africa</a>, accessed 7 Feb 2023

**Exhibit 3: Cloth face mask volume** 



Source: With permission from Kingsgate Clothing company documents

**Exhibit 4: Formal wear vs soft casual wear** 



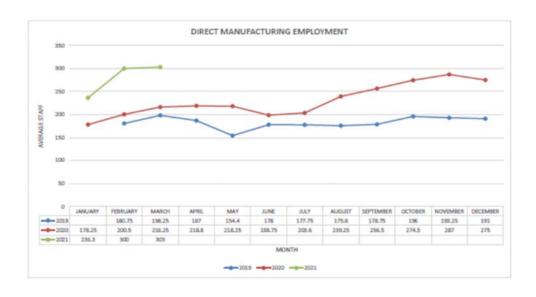
Source: With permission from Kingsgate Clothing company documents

**Exhibit 5: Product development timeline** 



Source: With permission from Kingsgate Clothing company documents

Exhibit 6: Average staff employed by Kingsgate Clothing



Source: With permission from Kingsgate Clothing company documents

Manufacturing Launch online closed Identify new fashion trends Kingsgate use dynamic capabilities to stay in business Develop & send Partner with prototype for Approach Complete first Corporate SA B4SA testing level of and secure prototyping of order face cloth masks Manufacturing Prototype opens with 30% approved complement of staff Secure order from Motsepe foundation Only 4-5 Manufacture people Manufacturing working on Face masks for opens with 75% the Corporate SA complement of prototype staff 12 27 10 May Aug Subsequent Mar Jun Apr 2020 2020 2020 lockdown 2020 2020 Pre-COVID-19 and Post and lockdown During COVID-19 COVID-19

Exhibit 7: Timeline to illustrate the events at Kingsgate Clothing during COVID-19

Source: Researchers' own compilation from interview data

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