

## Report 4

### New Career Opportunities in the Wholesale & Retail Sector Resulting from 4IR.



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# CAREERS



## A Career Guidance Perspective

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# Report 4

## New Career Opportunities in the Wholesale & Retail Sector Resulting from 4IR.

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## 1. Introduction

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The discussion around careers 4.0 is a result of the changing world of work. Careers do not exist in isolation to the broader work environment and careers 4.0 are better understood when seen in relation to structural changes in the work environment. There is no denying that the Fourth Industrial Revolution is changing the nature of work. Many of the practices and policies relating to the World of Work stem from the International Labour Organisation (ILO) with many of these practices dating back to its inception in 1919. An opinion piece by the PACE Research Institute (2018)<sup>1</sup> suggested that these policies and practices stifle economic participation in Africa and it might suite Africa better to have more economic participation by people performing shorter job descriptions and working shorter hours.

It appears in recent times that this scenario is playing itself out on a global stage as research into the impact of 4IR on the future of work shows a changing work environment that requires specialised skills, for fewer hours a day, at flexible times<sup>2 & 3</sup>. This has resulted in what is now commonly referred to as the Gig Economy<sup>4</sup>.

Such disruption is likely to require an organisational mind shift with Union support that encourages flexible employment contracts, non-traditional qualification types, and a reimagining of occupational titles which currently also originate from the ILO.

This report makes suggestions as to the type of careers that the Wholesale and Retail sector might need in the short to medium term. The report goes on to suggest both traditional and alternative entry routes as this is fundamental to providing a comprehensive career guidance service.

This report is guided by desktop research and workplace interviews. Despite the huge volume of research available on the Fourth Industrial Revolution and its impact on the world of work, this report is specific to the Wholesale and Retail sector and considers local, regional, and international research. The documents that informed the framework of this research are provided in the reference list whereas the research that informed the 'emerging careers and skills can be found in table 4 and table 5.

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<sup>1</sup> PACE Research Institute. 2018. <https://www.paceinstitute.africa>.

<sup>2</sup> Redflank (2020). Impact of the 4th industrial revolution (4ir) on employment and growth in the Wholesale and retail sector into 4ir. [https://drive.google.com/drive/folders/1S6PlgYk2e82UUQ1rFY6ClmPT\\_w5qc9qK](https://drive.google.com/drive/folders/1S6PlgYk2e82UUQ1rFY6ClmPT_w5qc9qK)

<sup>3</sup> The Consumer Goods Council of South Africa (2020). The New Skills, Training and Qualification Needs Brought About by the 4th Industrial Revolution in the Retail Sector.

[https://drive.google.com/drive/folders/1S6PlgYk2e82UUQ1rFY6ClmPT\\_w5qc9qK](https://drive.google.com/drive/folders/1S6PlgYk2e82UUQ1rFY6ClmPT_w5qc9qK)

<sup>4</sup> RSA (2017). What is the Gig Economy? [https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2017/07/what-is-the-gig-economy?gclid=EAlalQobChMIjeOU4Nv26QIVTbTtCh10rQZ-EAAYAiAAEgluY\\_D\\_BwE](https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2017/07/what-is-the-gig-economy?gclid=EAlalQobChMIjeOU4Nv26QIVTbTtCh10rQZ-EAAYAiAAEgluY_D_BwE).

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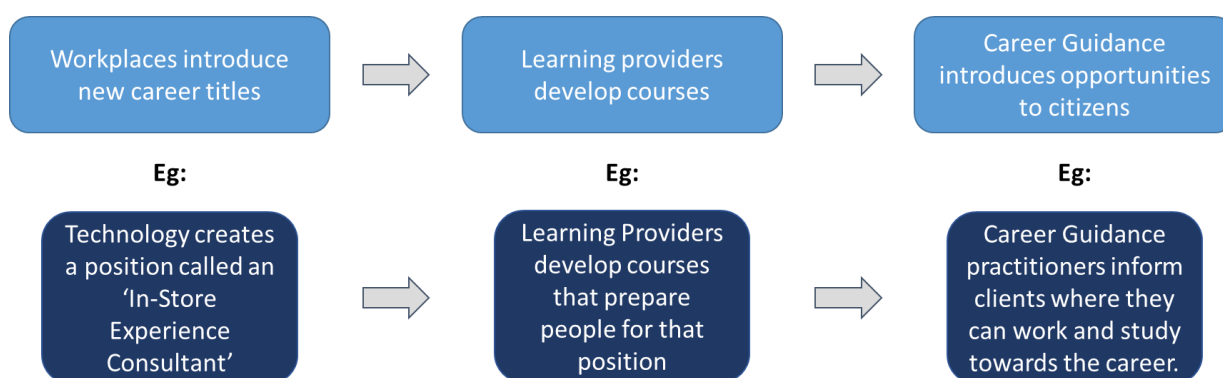
## 2. Guiding assumptions

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This report investigates careers 4.0, from a career guidance perspective. This means that the following elements must be in place:

1. The occupation must have a title: - The nature of the work must have an occupation title or be given a title.
2. The occupation must provide employment opportunities: - There should be evidence that tangible opportunities exist for this occupation.
3. The requisite skills must be attainable: - There must be a place to acquire the skills that relate to the occupation. 4IR skills are knowledge-based and can be acquired through formal (school and post-school education institutions), non-formal (workplace) and informal (spontaneous and observational) learning.

**Flow Diagramme 1:** The Career Guidance and 4IR process



Career guidance requires that a career opportunity does exist (it is being practiced) and that the skills needed to enter that occupation can be acquired. Regarding careers 4.0.; in certain instances, it is a little more difficult to identify where to acquire the skills because study opportunities almost always lag innovation. Nevertheless, the report tries to identify the core skill requirements for each of the careers 4.0., and then provide an example of where these skills can be acquired

There is a large volume of research available on 4IR careers. A lot of this research, however, is very futuristic with no immediate opportunities for employment, similarly, the research is too broad and undefined to enable practical career choices. There is also a tendency for research to emphasise the interpersonal and non-cognitive skills that will be required for 4IR careers. Whilst these skills may be useful they play only a secondary role in the recruitment process as employers look firstly for technical skills before considering interpersonal and non-cognitive skills.

This report provides a pragmatic approach to careers 4.0 in the Wholesale and Retail sector. It identifies 4IR careers (globally) that are in early-stage implementation, the skills that are required to participate in those careers, and the study institutions that teach the prerequisite skills. This report does not presume to be exhaustive. Such a report will require a more in-depth longitudinal study.

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### 3. Framework for this report

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There is an abundance of research that references careers of the future. However, much of this research is not directly beneficial to a career guidance process. As mentioned previously, for career guidance to be beneficial, both career opportunities (albeit in a development stage), and identifiable education opportunities must exist.

There is broad consensus on the importance of non-cognitive skills such as creativity, communication, teamwork, cultural fluidity and the like, but these skills play a secondary role in the recruitment process with hard, technical skills taking precedence. To identify what these technical skills are the researcher adopted the following approach to meet the objectives of this report:

1. The research conducted included both desktop research and interviews with businesses in the W&R sector.
2. Careers 4.0 research in the Wholesale and Retail sector is aligned to the trade categories as stipulated in the Standard Industrial Classification (7<sup>th</sup> edition).
3. The report presents innovations in the Wholesale & Retail sector and through that extrapolates the careers and study options that are becoming increasingly relevant.
4. The report shows places where people can acquire the skills to enter into a particular occupation or career. However, in some cases, these skills are specific-to-company and cannot easily be acquired outside of the organisation structure.

This report will, therefore, frame careers 4.0 in terms of the Standard Industrial Classification (SIC) codes (7<sup>th</sup> edition). The SIC codes are described in the W&RSETA Strategic Plan (2020-2025). The Strategic plan shows that each SIC code relates to a particular 'Trade Category' and this report looks at careers 4.0 within that framework

#### 3.1 The Standard Industrial Classification for the W&R sector

The Standard Industrial Classification (SIC) is a system to categorize the industries that companies belong to, based on their business activities<sup>5</sup>. The clustering of business activities provides a recognised framework for a literature review into careers 4.0. This differentiation between the business activities associated with the wholesale category and the retail category is, however, becoming less distinct as wholesalers increasingly open their facilities to the public either through store access or online. The literature review, therefore, focuses on innovations in the retail categories and the careers that emanate from them.

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<sup>5</sup> Statistics SA. Standard Industrial Classification of all Economic Activities.

[http://www.statssa.gov.za/classifications/codelist/ Web\\_SIC7a/SIC\\_7\\_Final\\_Manual\\_Errata.pdf](http://www.statssa.gov.za/classifications/codelist/ Web_SIC7a/SIC_7_Final_Manual_Errata.pdf)



**Table 1: Standard Industrial Classification 7<sup>th</sup> Edition**

Section G					
Wholesale and retail trade; repair of motor vehicles and motorcycles					
Division	Group	Class	Subclass	Description	
<b>Division 45</b>					
451	4510			<b>Wholesale and retail trade and repair of motor vehicles and motorcycles</b>	
				<b>Sale of motor vehicles</b>	
				Sale of motor vehicles	
			45101	Wholesale of motor vehicles	
			45102	Retail of new motor vehicles	
			45103	Retail sale of used motor vehicles	
	452	4520	45200	<b>Maintenance and repair of motor vehicles</b>	
				Maintenance and repair of motor vehicles	
	453	4530	45300	<b>Sale of motor vehicle parts and accessories</b>	
				Sale of motor vehicle parts and accessories	
454	4540	45400	<b>Sale, maintenance and repair of motorcycles and related parts and accessories</b>		
			Sale, maintenance and repair of motorcycles and related parts and accessories		
455	4550	45500	<b>Retail of automotive fuel in specialized stores</b>		
			Retail of automotive fuel in specialized stores		
<b>Division 46</b>					
461	4610	46100	<b>Wholesale trade, except of motor vehicles and motorcycles</b>		
			<b>Wholesale on a fee or contract basis</b>		
			Wholesale on a fee or contract basis		
	462	4620	46200	<b>Wholesale of agricultural raw materials and live animals</b>	
				Wholesale of agricultural raw materials and live animals	
	463	4630		<b>Wholesale of food, beverages and tobacco</b>	
				Wholesale of food, beverages and tobacco	
				46301	Wholesale trade in foodstuffs
				46302	Wholesale trade in beverages
			46303	Wholesale in tobacco products	
464	4649		<b>Wholesale of household goods</b>		
			Wholesale of other household goods		
			46491	Wholesale trade in household furniture, requisites and appliances	
			46492	Wholesale trade in books and stationery	
			46493	Wholesale trade in pharmaceuticals, toiletries and medical equipment	
			46499	Other wholesale trade in other household goods n.e.c.	
	465	4651	46510	<b>Wholesale of machinery, equipment and supplies</b>	
				Wholesale of computers, computer peripheral equipment and software	
				4652	Wholesale of electronic and telecommunications equipment and parts
				4653	Wholesale of agricultural machinery, equipment and supplies
		4659	46590	Wholesale of other machinery and equipment	
	466	4661	46610	<b>Other specialised wholesale</b>	
				Wholesale of solid, liquid and gaseous fuels and related products	
				Wholesale of metals and metal ores	
				4662	Wholesale of gold
				46629	Other wholesale of metals and metal ores
				4663	Wholesale of construction materials, hardware, plumbing and heating equipment and supplies
				4669	Wholesale of waste and scrap and other products n.e.c.
				46691	Sale of used parts and accessories, including scrapyards
				46692	Wholesale trade in diamonds, pearls and other precious and semi-precious stones
				46699	Other wholesale of waste and scrap and other products n.e.c.
	469	4690	46900	<b>Non-specialised wholesale trade</b>	
Non-specialised wholesale trade					
<b>Division 47</b>					
471	4711	47110	<b>Retail trade, except of motor vehicles and motorcycles</b>		
			<b>Retail sale in non-specialized stores</b>		
			Retail sale in non-specialized stores with food, beverages or tobacco predominating		
	4719	47190	Other retail sale in non-specialized stores		
			<b>Retail sale of food, beverages and tobacco in specialised stores</b>		
			Retail sale of food in specialised stores		
	4721		47211	Retail trade in fresh fruit and vegetables	
			47212	Retail in meat and meat products	
			47213	Retail trade in bakery products	
			47219	Other retail sale in specialised stores	
			4722	Retail sale of beverages in specialised stores	
			47220	Retail sale of tobacco products in specialised stores	
			4723	Retail sale of tobacco products in specialised stores	
	473	4731	47310	<b>Retail sale of information and communications equipment in specialized stores</b>	
				Retail sale of computers, peripheral units, software and telecommunications	
				4732	Retail sale of audio and video equipment in specialised stores
	474	4741	47410	<b>Retail sale of other household equipment in specialized stores</b>	
				Retail sale of textiles in specialized stores	
				4742	Retail sale of hardware, paints and glass in specialized stores
				4743	Retail sale of carpets, rugs, wall and floor coverings in specialized stores
				4749	Retail sale of electrical household appliances, furniture, lighting equipment and other household articles in specialized stores
	475	4751	47510	<b>Retail sale of cultural and recreation goods in specialized stores</b>	
				Retail sale of books, newspapers and stationary in specialized stores	
				4752	Retail sale of music and video recordings in specialized stores
				4753	Retail sale of sporting equipment in specialized stores
				4754	Retail sale of games and toys in specialized stores
	476	4761	47610	<b>Retail sale of other goods in specialized stores</b>	
				Retail sale of clothing, footwear and leather articles in specialized stores	
				4762	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles in specialized stores
		4763		Other retail sale of new goods in specialized stores	
47631				Specialized retail sale of jewellery	
47632				Specialized retail sale of watches and clocks	
47639				Other retail sale of new goods in specialized stores n.e.c.	
4764	47640	Retail sale of second-hand goods			
477	4771	47710	<b>Retail sale via stalls and markets</b>		
			Retail sale via stalls and markets of food, beverages and tobacco products		
			4772	Retail sale via stalls and markets of textiles, clothing and footwear	
			4779	Retail sale via stalls and markets of other goods	
478	4781	47810	<b>Retail trade not in stores, stalls or markets</b>		
			Retail sale via mail order houses or via internet		
			4789	Other retail sale not in stores, stalls or markets	

**Note:** The Standard Industrial Classification list that is shown in the W&RSETA Strategic Plan 2020-2025 refers to the 5th edition (Annex 1). The Standard Industrial Classification 7<sup>th</sup> Edition is however available and the coding system as shown in table 1 above is the latest updated version.

### 3.2 Methodology

A combination of both desktop research and telephonic, online and face-to-face interviews formed the research methodology.

- **Telephonic, online and face-to-face interviews:** - A total of 64 interviews were conducted. They were conducted in five provinces namely Eastern Cape, Western Cape, Gauteng, Northern Cape and Limpopo. The bid submission proposed that 10 interviews be conducted; however, the data acquired from 10 interviews was insufficient and the number was increased. Table 2 below provides a high-level overview of the stakeholder engagement. The details of the 64 interviewees can be found in Annex 2: Stakeholder Summary 2.

**Table 2: Stakeholder overview**

Stakeholder
<b>Organised Employers:</b> <b>Mandate:</b> Succession Planning, Career Planning, Career pathing, Career Development, Skills Development, Work Experience.
<b>Organised Labour:</b> <b>Mandate:</b> Career planning, Career pathing, Career Development, Lifelong Learning.
<b>Education &amp; Training Providers:</b> <b>Mandate:</b> Provide access to Education and Skills, Career Education, Career Information, Career Guidance, Subject Choice Guidance, Academic Programme Guidance, and Employability guidance.
<b>Community &amp; Other:</b> <b>Mandate:</b> Social Support, Employability guidance,
<b>Government:</b> <b>Mandate:</b> Policy Support, Access to Beneficiaries, Funding
<b>Internal Stakeholders:</b> <b>Mandate:</b> Ensure the success of the SETA, Advance the sector.

The interviews did not provide any significant information to guide the report on careers 4.0. At the store level, managers and employees were not privy to future plans by head office and those who were, were reticent to share confidential information on plans as this was seen as their competitive advantage. This format

of the interview did, however, provide valuable data for Report 2 (Stakeholder Roles), Report 3 (Skills Matrix), and most importantly Report 5 (Strategic Framework).

- **Desktop Research:** - Online Literature reviews form the bulk of this report. As previously stated the interviews did not offer sufficient data. The literature review considered previous research on 4IR in the W&R sector. Whilst several models were used they did not adequately respond to careers 4.0., from a career guidance perspective. The guiding literature reviewed for this research is shown in table 3 below.

**Table 3: Guiding literature**

Literature Reference	Source
Wholesale & Retail SETA Strategic Plan. 2020-2025.	<a href="#">Link</a>
Wholesale & Retail Leadership Chair (2020). Technology trends & challenges for retail managers in SA, with special emphasis on e-retailing (2019-2027).	<a href="#">Link</a>
Moscow School of Management (2018). Atlas of Emerging Jobs.	<a href="#">Link</a>
The Consumer Goods Council of South Africa (2020). The New Skills, Training and Qualification Needs Brought About by the 4th Industrial Revolution in the Retail Sector.	<a href="#">Link</a>
Redflank (2020). Impact of the 4th industrial revolution (4ir) on employment and growth in the Wholesale and retail sector into 4ir.	<a href="#">Link</a>
Cape Peninsula University of Technology (2017). An e-learning strategy for the W&R Sector: A framework for collaboration and implementation within the South African Retail Sector	<a href="#">Link</a>
National Skills Development Plan: Promulgation of the National Skills Development Plan 2030.	<a href="#">Link</a>
PACE Research Institute (2020). Interviews with Stakeholders as identified in Report 2 of the W&RSETA Integrated Career Guidance Strategy.	<a href="#">Link</a>
McKinsey & Company (2019). The future of work in South Africa: Digitisation, productivity and job creation	<a href="#">Link</a>
KPMG (2017). Roboclypse Now: What the 'Fourth industrial revolution' means for retail	<a href="#">Link</a>

In certain instances, the research documents were too futuristic to serve as a pragmatic career guidance source whilst others were too vague and generic. The research conducted by Grewal et al. (2017)<sup>6</sup> came closest to the format that would suit a career guidance process.

<sup>6</sup> Wholesale & Retail Leadership Chair (2020). Technology trends & challenges for retail managers in SA, with special emphasis on e-retailing (2019-2027). [http://wrlc.org.za/wp-content/uploads/2020/03/2019\\_27-Technology-trends-in-retailing.pdf](http://wrlc.org.za/wp-content/uploads/2020/03/2019_27-Technology-trends-in-retailing.pdf)



It provided a 'Thematic analysis of business publications' and identified themes such as Technology & tools to facilitate decision making, Visual display & merchandise offer decisions, Consumption & engagement, Big data collection & usage, and Analytics & profitability amongst others (Annex 3).

Despite these themes correlating well with a career guidance process, they did not provide specific occupational titles.

To build on this research the authors decided to identify the work processes that were impacting the wholesale and retail sector. These work processes, they hoped, would indicate the type of careers that were emerging in the sector. Naturally, many innovations are happening continually and a framework was therefore required that would guide the research. The Standard Industrial Classification (SIC), was the framework that was identified to conduct this research.

The SIC, however, has its drawbacks:

- The relationship between careers and industrial sector is 1-to-many. This means that the same career can be found in many industries. This is increasingly so in the manufacturing and wholesale sectors for example where manufacturers are also wholesalers. Similarly, these lines are also being blurred between manufacturers and retailers. This report, therefore, uses the "Retail Standard Industrial Categories" as the guiding framework for careers 4.0., in the Wholesale and Retail sector.
- The distinction between certain trade categories in table 1 are not sufficiently differentiated from a career guidance perspective and industry innovations assigned to a particular trade category in table 4 could as easily be assigned to an alternate trade category. The decision to assign a particular industry innovation to a particular category is in many cases simply a matter of choice rather than science.

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## *4. Emerging careers in the Wholesale and Retail sector*

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The accelerated adoption of e-commerce and omnichannel business models is blurring the lines between Manufacturers, Distributors, and Retailers<sup>7</sup>. The implications from a career guidance perspective are that careers that were traditionally housed in one particular sector can now be core in a different sector. The relationship between career and sector is no longer apparent. The underlying result is that crossover between SETA's will become increasingly common and funding agreements between SETA's are likely to become more prevalent. Emerging careers are therefore referenced within this context as career guidance practice encompasses all career opportunities available within a sector and in

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<sup>7</sup> Chainlink Research. (2017). Crossover Businesses: Blurring of the Lines Between Manufacturers, Distributors, and Retailers ... Changes Everything in the Process. <https://www.netsuite.com/portal/assets/pdf/report-chainlink-research-2017-crossover-businesses.pdf>

this case will reference all career opportunities available in the wholesale and retail sector regardless of whether they might be core to another industrial sector.

Emerging careers in the context of this report refer to both careers that are new to the sector and existing careers that are emerging as important within the sector. They are careers that are beginning to play a more central role in advancing the Wholesale & Retail sector. Whilst some of these careers are not necessarily new, the role they are starting to play in the sector is having a noticeable impact on the sector and in many cases are leading to entirely new career types or occupational titles<sup>8</sup>.

It is noteworthy that a certain degree of 'creative licence' has been used in assigning names to careers that are not listed on the Organising Framework for Occupations<sup>9</sup> (OFO). It will be necessary at some point soon, to submit a list of these new occupational titles to the DHET to include on the OFO. This is necessary to unlock funding for future learnerships.

Table 4 below provides a template of the emerging careers that are becoming increasingly prominent in the Wholesale and retail sector. The template is by no means exhaustive as the range and scope of careers that are emerging in the sector are many. More in-depth research into this topic from a career guidance perspective will be beneficial to promoting career opportunities in the sector. The methodology adopted to populate the template was as follows:

1. Identify current innovations in the retail space. The retail space was identified as the focal point as it is where many manufacture, wholesale and retail business processes merge<sup>10</sup>.
2. Assign occupational titles that best describe the nature of the work to implement a particular innovation. These are not exhaustive and a think tank with course providers would offer a more comprehensive list of titles.
3. Reference each innovation in the template with a link to the source of the information.
4. Occupational titles common to all categories such as computer programmers are excluded in Table 4 but are referenced in Table 5 as emerging skills requirements.

Table 4 will form a baseline for career education in the wholesale and retail sector. The career education process is however conditional on local organisations adopting the technologies that are reflected in the research. The supplementary supporting research referred to in point 2 above must include organisations as they are the providers of employment and it would be irresponsible to promote careers in the sector where opportunities do not exist. Having said this, however, entrepreneurs with access to the information provided in Table 4 might take the opportunity to innovate and transform the sector.

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<sup>8</sup> King. E. and Davis-Taylor. L. (2019). Highstreet. Webinar. <https://highstreetx.com/radar-success-download/>

<sup>9</sup> Organising Framework for Occupations (2019). <http://www.etdpseta.org.za/education/ofo-codes>

<sup>10</sup> Chainlink Research. (2017). Crossover Businesses: Blurring of the Lines Between Manufacturers, Distributors, and Retailers ... Changes Everything in the Process. <https://www.netsuite.com/portal/assets/pdf/report-chainlink-research-2017-crossover-businesses.pdf>

**Table 4: Emerging careers in the Wholesale and Retail sector**

**Note:** <sup>1</sup> The 'career opportunities' column in table 3 below excludes careers such as Computer Programmers, Data Scientists, Algorithm Engineers, Machine Learning specialists, User Experience Designers, and related technology careers that are inherent to careers 4.0., and would in most cases be repeated for all trade categories. They are however included in Table 4: 4IR Occupations and Study Courses.

SIC CODE	TRADE CATEGORY	Industry initiatives	SOURCE	Emerging Occupational Titles
47110	Retail trade in non-specialised stores with food, beverages and tobacco dominating	Smart inventory replenishment	<a href="https://www.youtube.com/watch?v=YTXJplq_ufc">https://www.youtube.com/watch?v=YTXJplq_ufc</a>	<ul style="list-style-type: none"> <li>• Smart shelf installers</li> <li>• Sensor technicians</li> <li>• Data managers</li> </ul>
47190	Other retail trade non-specialised stores	Augmented Reality	<a href="https://www.youtube.com/watch?v=5TZmQPdhpak">https://www.youtube.com/watch?v=5TZmQPdhpak</a> or <a href="https://www.youtube.com/watch?v=Nrj6DGg14Fc">https://www.youtube.com/watch?v=Nrj6DGg14Fc</a>	<ul style="list-style-type: none"> <li>• In-Store Experience Consultant</li> <li>• AR Installers</li> </ul>
47211	Retail trade in fresh fruit and vegetables	Frictionless stores	<a href="https://www.youtube.com/watch?v=NrmMk1Myrxc">https://www.youtube.com/watch?v=NrmMk1Myrxc</a>	<ul style="list-style-type: none"> <li>• Sensor technicians</li> <li>• Camera Installers</li> </ul>
47212	Retail trade in meat and meat products	Cellular Agriculture (3D printed meat).	<a href="https://www.forbes.com">https://www.forbes.com</a> and <a href="https://www.youtube.com/watch?v=x1Q2oLxEOf8">https://www.youtube.com/watch?v=x1Q2oLxEOf8</a>	<ul style="list-style-type: none"> <li>• 3D printer technician</li> <li>• Food scientists</li> <li>• Plant scientists</li> </ul>
47213	Retail trade in bakery products	Retail Brewers from leftover bread	<a href="https://www.toastale.com/">https://www.toastale.com/</a>	<ul style="list-style-type: none"> <li>• Chemists</li> <li>• Microbiologist</li> <li>• Micro-Brewer / Brewer</li> <li>• Brewery installers</li> </ul>
47220	Retail trade in beverages (bottle stores)	Virtual Sommelier	<a href="https://www.napatechnology.com/winestation-news/virtual-sommelier/">https://www.napatechnology.com/winestation-news/virtual-sommelier/</a>	<ul style="list-style-type: none"> <li>• Researchers</li> <li>• Bloggers</li> <li>• Data managers</li> </ul>

47230	Retail sale of tobacco products in specialised stores	Cashless Vending Machine	<a href="https://www.youtube.com/watch?v=RoBHhwebkjY">https://www.youtube.com/watch?v=RoBHhwebkjY</a>	<ul style="list-style-type: none"> <li>• Importer</li> </ul>
47310	Retail sale of computers, peripheral units, software and telecommunications	Smart Window Merchandisers (Intelligent Displays)	<a href="https://www.youtube.com/watch?v=Bu9XxMFJ-Y">https://www.youtube.com/watch?v=Bu9XxMFJ-Y</a>	<ul style="list-style-type: none"> <li>• Smart window installers</li> <li>• Smart window Technicians</li> </ul>
47320	Retail sale of audio and video equipment in specialised stores	In-Store experience consultants	<a href="https://www.zebra.com">https://www.zebra.com</a>	<ul style="list-style-type: none"> <li>• Sensor technicians</li> <li>• RFID inventory controllers</li> <li>• Customer tracking specialists.</li> </ul>
47410	Retail sale of textiles in specialized stores	Cultured leather (Cellular leather and Biofabrication).	<a href="https://www.youtube.com">https://www.youtube.com</a> or <a href="https://www.ted.com">https://www.ted.com</a>	<ul style="list-style-type: none"> <li>• Biochemists</li> <li>• Biologists</li> <li>• Bio fabricator</li> </ul>
47420	Retail trade in hardware, paints and glass	Motion Analytics	<a href="https://www.weforum.org">https://www.weforum.org</a>	<ul style="list-style-type: none"> <li>• Sensor technicians</li> <li>• Camera Installers</li> </ul>
47430	Retail sale of carpets, rugs, wall and floor coverings in specialized stores	VR Stores	<a href="https://highstreetx.com/radar-success-download/">https://highstreetx.com/radar-success-download/</a> (minute 34:54)	<ul style="list-style-type: none"> <li>• In-store Customer experience specialist</li> </ul>
47490	Retail sale of electrical household appliances, furniture, lighting and other household articles in specialized stores	IoT communications technician	<a href="http://www.cstaricalcutta.gov.in">http://www.cstaricalcutta.gov.in</a>	<ul style="list-style-type: none"> <li>• IoT installation &amp; configuration Technician</li> </ul>
47510	Retail sale of books, newspapers and stationery in specialized stores	Smart sites based on user behaviour	<a href="https://www.youtube.com/watch?v=9HpcRo1g2Og">https://www.youtube.com/watch?v=9HpcRo1g2Og</a> or <a href="https://www.boxed.com/">https://www.boxed.com/</a>	<ul style="list-style-type: none"> <li>• Sensor technicians</li> <li>• Camera Installers</li> <li>• Data Analyst</li> </ul>
47520	Retail sale of music and video recordings in specialized stores	Streaming & Downloading	<a href="https://www.youtube.com/watch?v=-YPpj7D2TPc">https://www.youtube.com/watch?v=-YPpj7D2TPc</a>	<ul style="list-style-type: none"> <li>• Data manager</li> <li>• Data capturer</li> </ul>
47530	Retail sale of sporting equipment in specialized stores	Smart sport Retailer	<a href="https://www.alliedmarketresearch.com">https://www.alliedmarketresearch.com</a>	<ul style="list-style-type: none"> <li>• Sport IOT technician</li> <li>• Sport IOT data specialist</li> </ul>
47540	Retail sale of games and toys in specialized stores	Drone Delivery Services	<a href="https://www.amazon.com">https://www.amazon.com</a>	<ul style="list-style-type: none"> <li>• Drone Pilot</li> <li>• Product Pickers</li> <li>• Logistics planners</li> </ul>

47610	Retail sale of clothing, footwear and leather articles in specialized stores	On-demand clothing within hours.	<a href="https://www.shapeways.com">https://www.shapeways.com</a>	<ul style="list-style-type: none"> <li>3D Knitting Designer</li> <li>3D Knitting Technician</li> <li>Fashion Designer</li> </ul>
47620	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles in specialized stores	Smart sites based on user behaviour	<a href="https://www.youtube.com/watch?v=9HpcRo1g2Oq">https://www.youtube.com/watch?v=9HpcRo1g2Oq</a> or <a href="https://www.boxed.com/">https://www.boxed.com/</a>	<ul style="list-style-type: none"> <li>Data analysts (not referring to Data Scientists)</li> <li>Product consultants</li> </ul>
47631	Specialized retail sale of jewellery	Jewellery payment systems	<a href="https://www.thalesgroup.com">https://www.thalesgroup.com</a>	<ul style="list-style-type: none"> <li>Smart tag jewellery designers</li> </ul>
47632	Specialized retail sale of watches and clocks	Pop-up shops	<a href="https://www.youtube.com">https://www.youtube.com</a> or <a href="https://www.appearhere.co.uk/">https://www.appearhere.co.uk/</a>	<ul style="list-style-type: none"> <li>Temporary Interior Store Designer/Installer</li> </ul>
47640	Retail sale of second-hand goods	Smart Glasses Sales Assistant	<a href="https://www.youtube.com/watch?v=RbocQwgwXcI">https://www.youtube.com/watch?v=RbocQwgwXcI</a>	<ul style="list-style-type: none"> <li>Smart Glasses product specialist</li> </ul>
47700	Retail sale via stalls and markets	Nano-Stores	<a href="https://highstreetx.com/radar-success-download/">https://highstreetx.com/radar-success-download/</a> (minute 26:44)	<ul style="list-style-type: none"> <li>Nano-store installers</li> </ul>
47800	Retail trade not in stores, stalls or markets	Vision devices Pickings	<a href="https://www.youtube.com/watch?v=gnUK-HTn4ZA">https://www.youtube.com/watch?v=gnUK-HTn4ZA</a>	<ul style="list-style-type: none"> <li>Vision picker</li> </ul>
45100	Sale of motor vehicles	Vehicle Telematics Retail and fitment	<a href="https://www.technavio.com">https://www.technavio.com</a> or <a href="https://www.wbs.ac.uk">https://www.wbs.ac.uk</a>	<ul style="list-style-type: none"> <li>3d Parts producer/retailer</li> <li>VR showroom specialist</li> </ul>
45300	Sale of motor vehicle parts and accessories	Tyre hire (sensor tread based technology)	<a href="https://www.bridgestone.co.za">https://www.bridgestone.co.za</a>	<ul style="list-style-type: none"> <li>Tyre Sensor Technologist</li> <li>Tyre broker</li> </ul>
45400	Sale, maintenance and repair of motorcycles and related parts and accessories	3d Part Printing	<a href="https://www.youtube.com/watch?v=FV2BxVwSJDY">https://www.youtube.com/watch?v=FV2BxVwSJDY</a>	<ul style="list-style-type: none"> <li>AutoCAD Designer</li> <li>3D Printing Technician</li> </ul>
45500	Retail of automotive fuel in specialized stores	Biometric Payment Systems	<a href="https://www.nngroup.com">https://www.nngroup.com</a> Or <a href="https://www.biometricupdate.com">https://www.biometricupdate.com</a>	<ul style="list-style-type: none"> <li>Biometric System Installer</li> <li>Biometrician</li> </ul>



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## 5. Emerging skill requirements in the W&R sector

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It was previously discussed that career guidance practice requires that an occupation exists, it must be employable, and that the requisite skills must be attainable. Table 5 considers the emerging occupational titles referred to in table three and has attempted to identify courses that individuals can follow to enter those career opportunities. It is understood that many emerging careers do not have a registered OFO code<sup>11</sup>. It is worth noting however that table 4 attempts to link 4IR occupational titles to an existing OFO code. This has been done to facilitate learnership funding in the interim should an organisation wish to establish a position and develop staff members.

It requires mentioning that courses that are referred to in Table 5 are not necessarily accredited with the South African Qualifications Authority (SAQA). This is understandable considering that this report is looking at future occupations in the sector. The list of identified courses are singular examples only and should not be considered as exhaustive. Supplementary research as referred to above must also consider the ideal content that academic programmes should include, so that course development can begin.

Career guidance practice accepts that individuals differ in personality, abilities, and interest. This understanding is important because it is unrealistic to expect that all people are artistic or musical or good at mathematics. Mathematics is a gatekeeper subject for many post-school courses and yet many individuals do not possess a mathematical aptitude. Many school learners feel concerned for their future because they are not good at mathematics and from a career guidance perspective it is important that learners are shown options that cater for people of varying personality, interests and aptitude. Table 5, therefore, indicates the occupations that may or may not necessarily need a Higher Order Mathematical Aptitude (HOMA).

It is especially important to note that the fourth industrial revolution has changed how people work quite significantly. One of these changes shows an increase in collaboration between disciplines<sup>12</sup>. This is especially important to note because the 4IR has increased the need for people with different aptitudes to work together. This need to collaborate will increase over time as careers become increasingly specialised. An example is where the design of an online retail website might require system architects, computer programmers, UX designers, consumer psychologists, data capturers, and security specialists.

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<sup>11</sup> Organising Framework for Occupations (2019). <http://www.etdpseta.org.za/education/ofo-codes>

<sup>12</sup> Penprase, Bryan. (2018). The Fourth Industrial Revolution and Higher Education. [https://www.researchgate.net/publication/325899393\\_The\\_Fourth\\_Industrial\\_Revolution\\_and\\_Higher\\_Education/citation/download](https://www.researchgate.net/publication/325899393_The_Fourth_Industrial_Revolution_and_Higher_Education/citation/download)

**Table 5: Emerging occupations and study courses**

Skill ID	4IR Occupation	OFO Linkages	Example of courses	HOMA Yes	HOMA No
1	Electronic Payment System Developer	721201	<a href="#">Link</a>	✓	
2	Mobile Application Designer	251401	<a href="#">Link</a>	✓	
3	Online Security Specialist	252901	<a href="#">Link</a>	✓	
4	Computer Programmer	251203	<a href="#">Link</a>	✓	
5	Data Scientist	251102	<a href="#">Link</a>	✓	
6	Machine Learning Modeller	212102	<a href="#">Link</a>	✓	
7	Algorithms Engineer	251102	<a href="#">Link</a>	✓	
8	System Architect (ERP & System Integration Specialist).	251101	<a href="#">Link</a>	✓	
9	Logistics Analyst	216402	<a href="#">Link</a>	✓	
10	Biometrician (Biometrics Engineer)	212103	<a href="#">Link</a>	✓	
11	Tyre Broker (manufacture and hire)	714101	<a href="#">Link</a>	✓	
12	Face Recognition System Installer	352102	<a href="#">Link</a>		✓
13	Sensor Installation and Repair Technician	311401	<a href="#">Link</a>		✓
14	Customer Care Consultant	122105	<a href="#">Link</a>		✓
15	Digital Marketer (Social media experts)	251301	<a href="#">Link</a>		✓
16	Motion Analyst	242102	<a href="#">Link</a>		✓
17	In-Store Experience Consultant	343201	<a href="#">Link</a>		✓
18	In-House Brewer	716117	<a href="#">Link</a>		✓
19	Store-Based Data Capturer, Data Analyst, and Data Manager	13310	<a href="#">Link</a>		✓
20	Personal In-House Style Consultant	422201	<a href="#">Link</a>		✓
21	In-Store 3D Knitting Designer	715204	<a href="#">Link</a>		✓
22	RFID Security Installer	311401	<a href="#">Link</a>		✓
23	RFID Inventory Specialist	133103	<a href="#">Link</a>		✓
24	Smart Window Merchandiser	661501	<a href="#">Link</a>		✓
25	Vehicle Telematics Technician	541402	<a href="#">Link</a>		✓
26	UX Designer	216604	<a href="#">Link</a>		✓
27	Customer Experience Specialist	122201	<a href="#">Link</a>		✓
28	VR/AR Designer	216603	<a href="#">Link</a>		✓
29	AR Installer	343201	<a href="#">Link</a>		✓
30	Photographers & Videographer	343101	<a href="#">Link</a>		✓

31	Content Managers and Content Capturer	413201	<a href="#">Link</a>		✓
32	IOT Installation Technician	311401	<a href="#">Link</a>		✓
33	Product Specialist (dedicated career path)	264103	<a href="#">Link</a>		✓
34	Bicycle Delivery Agent	732102	<a href="#">Link</a>		✓
35	Bicycle Mechanic	653401	<a href="#">Link</a>		✓
36	Consumer Psychologist	263403	<a href="#">Link</a>		✓
37	Market Researcher	243102	<a href="#">Link</a>		✓
38	Smart Sport Technician	342204	<a href="#">Link</a>		✓
39	Smart Shelf Installer	641501	<a href="#">Link</a>		✓
40	Cashless Vending Machine Installer	862302	<a href="#">Link</a>		✓
41	Laser Technologist	718905	<a href="#">Link</a>		✓
42	Over-The-Top (OTT) Platform Developer	352101	<a href="#">Link</a>		✓
43	Biometric Payment Installer	215202	<a href="#">Link</a>		✓
44	AutoCAD Designer	311801	<a href="#">Link</a>		✓
45	3D Printing Technician	662217	<a href="#">Link</a>		✓

The type of occupational titles described in Table 5 reflects a new taxonomy of career titles where the title describes the work and allows the employee to build their work identity around the title. This seems to be supported by the McKinsey & Company research (2019) which suggested a new taxonomy of certified skills to enable workers to 'brand' themselves for specific capabilities. This would help training providers rise to the challenge of large-scale reskilling, the plan could define a clear accreditation framework and recommend new quality-assurance processes that focus on the application of skills rather than theoretical understanding<sup>13</sup>.

It appears that the entry-level retail jobs which in many instances were open to school drop-outs will soon evolve towards greater digitisation and will require job applicants to show their abilities to manage those digital processes. The school-level at which those digital processes are 'pegged' falls outside the scope of this report by according to McKinsey & Company (2019) an increasing percentage of jobs are however expected to require a diploma and higher educational levels, with a decline in opportunities for those with high school education or less. The W&RSETA might consider a micro-credentialing pilot study to better understand this trend.

<sup>13</sup> McKinsey & Company. (2019). The future of work in South Africa Digitisation, productivity and job creation. <https://www.mckinsey.com/~media/mckinsey/featured%20insights/middle%20east%20and%20africa/the%20future%20of%20work%20in%20south%20africa%20digitisation%20productivity%20and%20job%20creation/he-future-of-work-in-south-africa.ashx>

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## 6. Non-Cognitive skills

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Non-cognitive skills may be broadly defined as personality traits or “patterns of thought, feelings, and behaviour<sup>14</sup>”. They tend to develop over a lifetime but seem to peak in late adulthood. Research suggests<sup>15</sup> that Industry 4.0 will place specific demands for particular non-cognitive skills. According to a World Economic Forum report titled, “The Future of Jobs”, there are the 10 skills that one will need for the Fourth Industrial Revolution.

- Complex Problem Solving
- Critical Thinking
- Creativity
- People Management
- Coordinating with Others
- Emotional Intelligence
- Judgement and Decision Making
- Service Orientation
- Negotiation
- Cognitive Flexibility

The importance of analytical skills and alternative thinking skills are becoming increasingly important in the digital era.

Whilst non-cognitive skills do not ‘get a person an interview’ they do help to ‘get the job’. In an entrepreneurial context there is a likely relationship between non-cognitive skills and concept origination (innovation), and whilst many entrepreneurs may not necessarily possess adequate STEM skills they can conceptualise ideas and bring together the necessary skills to achieve the envisioned outcome.

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## 7. Conclusion & Recommendations

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This report is in many ways dissimilar to existing literature studies on careers 4.0 in that it approaches the topic from a career guidance perspective. A career guidance approach provides a fresh perspective on the careers 4.0 debate in that the careers (or roles) identified in this report do exist. Many, however, remain undefined in terms of occupational titles because of the emerging nature of technology which underpins the career. This report has therefore followed an approach that investigates current innovative practices in the retail sector to avoid speculation so that career-decisions based on this information is actual.

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<sup>14</sup> John Hopkins School Education. What Do We Know About Developing Students’ Non-cognitive Skills? <https://edpolicy.education.jhu.edu/wp-content/uploads/2016/06/NoncognitiveskillsmastheadFINAL.pdf>

<sup>15</sup> World Economic Forum (2016). The Future of Jobs Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution. [http://www3.weforum.org/docs/WEF\\_FOJ\\_Executive\\_Summary\\_Jobs.pdf](http://www3.weforum.org/docs/WEF_FOJ_Executive_Summary_Jobs.pdf)

The report highlights a merging of industrial sectors where the line between manufacture, wholesale and retail are becoming increasingly blurred as 4IR technology blends manufacture, wholesale and retail practices. Advances in technology have resulted in factory processes becoming increasingly automated. This opens up digital manufacturing opportunities that can be sold directly to the consumer. Additionally, e-commerce and omnichannel business models have, in many instances, combined the warehousing and retailing environments. Advances such as these result in relationship shifts between manufacturers and customers which results in new career opportunities.

As these sectors co-join the significance of analytical skills and alternative thinking skills (a subset of creative skills) must not be undervalued. Multi-disciplinary environments create opportunities for entrepreneurs and this report provides a start to some of the career opportunities that are becoming increasingly available in the wholesale and retail sector.

As new technologies are integrated into the workplace the need for related specialised skills will become apparent and businesses will begin to recruit for these positions. This recruitment of Careers 4.0 is already becoming apparent as businesses are increasingly looking for individuals with specialised social media skills (as opposed to general marketing) or specialised machine learning skills (as opposed to computer programming), for example. The academic impact is that institutions will begin to develop programmes that can address these needs and so, from a career guidance perspective the elements required to offer career guidance are in place.

The vastness of the W&RSETA warrants the welcoming of the Fifth-generation (5G) mobile technologies inception into the African Markets to facilitate quick and efficient service provision. "5G technologies are expected to yield significant consumer benefits (e.g., assisting the disabled, enabling telemedicine), industrial benefits (e.g., automated processes, increased operational efficiencies, data analytics), and economic benefits (e.g., new revenues, new jobs)<sup>16</sup>", thus opening new career pathways.

The W&RSETA has a leadership role to play regarding the recommendations from this report. Industry regularly talks of a mismatch between the courses that tertiary institutions are teaching and the skills or knowledge that employers are looking for. This mismatch becomes more pronounced during times of innovation as tertiary institutions have difficulty in pinpointing exactly what they should be teaching and what courses they should be developing and offering. The recommendation is that the W&RSETA establish an ad hoc Think Tank (comprising business and education providers) that considers this report as a departure point to agree on the relevance of the occupations in Table 2, assign appropriate naming conventions to new W&R occupations agreed upon for OFO classification, and rank-order the skills required over the medium term to enter these new occupational titles so that tertiary institutions can develop recognised qualifications and micro-credentials that can be taught.



<sup>16</sup> Congressional Research Services (2019). Fifth-Generation (5G) Telecommunications Technologies: Issues for Congress. <https://fas.org/sgp/crs/misc/R45485.pdf>



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## Annex 1: Standard Industrial Classification (SIC) codes (5<sup>th</sup> Edition) as per the W&RSETA Strategic Plan 2020-2025.

**Note:** Edition 5 of the SIC Codes as presented in the W&RSETA Strategic Plan 2020-2025 is dated. The most recent SIC Edition 7 is used for this report.

WHOLESALE TRADE CATEGORIES	
61000	Wholesale and commission trade
61100	Wholesale trade on a fee or contract basis
61220	Wholesale trade in food, beverages and tobacco
61310	Wholesale trade in textiles, clothing and footwear
61391	Wholesale trade in household furniture requisites and appliances
61392	Wholesale trade in books and stationery
61393	Wholesale trade in precious stones, jewellery and silverware
61394	Wholesale trade in pharmaceuticals, toiletries and medical equipment
61420	Wholesale trade in metal and metal ores
61430	Wholesale trade in construction materials, hardware, plumbing and heating equipment
61501	Office machinery and equipment, including computers
61509	Other machinery
61901	General wholesale trade
61909	Other wholesale trade not elsewhere classified (NEC)
RETAIL TRADE CATEGORIES	
62000	Retail trade, except for motor vehicles and motorcycles; repair of personal and household goods
62110	Retail trade in non-specialised stores with food, beverages and tobacco dominating
62190	Other retail trade non-specialised stores
62201	Retail trade in fresh fruit and vegetables
62202	Retail trade in meat and meat products
62203	Retail trade in bakery products
62204	Retail trade in beverages (bottle stores)
62209	Other retail trade in food, beverages and tobacco (NEC)
62311	Retail of non-prescribed medicine and pharmaceutical products other than by pharmacists
62321/	Retail trade in clothing
62323	Retail trade by general outfitters and by dealers in piece goods, textiles, leather and travel accessories
62324	Retail trade in shoes
62330	Retail trade in household furniture appliances, articles and equipment
62340	Retail trade in hardware, paints and glass
62391	Retail trade in reading matter and stationery
62392	Retail trade in jewellery, watches and clocks
62393	Retail trade in sports goods and entertainment requisites
62399	Retail trade by other specified stores
62400	Retail trade in second-hand goods in stores
63122	Retail sale of used motor vehicles
63311	Sale of tyres
63500	Retail sale of automotive fuel

## Annex 2: Stakeholder Engagement Summary

Stakeholder Engagement Summary			
W&RSETA Board			
Constituency	Interviewee	Organisation	Contact
Business	Sebe Rasebitse	The Fochini Group	seber@tfg.co.za
Sector	Zinhle Tyikwe	CGCSA	zinhlet@cgcsa.co.za
Labour	Lucas Ramatlhodi	SACCAWU	ramaluc0812@gmail.com
Labour	Ross Rayners	SACTWU	rossr@sactwu.org.za
Organised Labour			
Organisation	Interviewee	Contact	
SACCAWU	Lucas Ramatlhodi	ramaluc0812@gmail.com	
SACTWU	Ross Rayners	rossr@sactwu.org.za	
Education and Training Providers			
Training Provider	Interviewee	Position	Contact
Braun Training	Judy Braun	Owner	837779858
Oracle Digital: Netsuite	Mark Wade	Country Director	Mark.wade@oracle.co.za
Community & Other			
Organisation	Interviewee	Position	Contact
South African Unemployed Graduates Association	Matsawela Khunwane	Founder & CEO	khunwanematsawela@gmail.com
South African Graduate Employers Association	Cathy Sims	Executive Director	cathy.sims@sagea.org.za
Ledaine Trading	Richard McLellan	E-Commerce Specialist	richard.mclennan@gmail.com
Government			
Department	Interviewee	Position	Contact
Department of Employment & Labour	Sagren Govender	Chief Director: Work Seeker Services & Technical Support	sagren.govender@labour.gov.za
Department of Basic Education	Charity Kanyane	Chief Director: Career Guidance.	Kanyane.C@dbe.gov.za
Department of Higher Education & Training	Letshego Mokeki	Director: Career Development Services	Mokeki.L@dhet.gov.za
	Maliviwe Lumka	Chief Director: SETA Coordination	Lumka.M@dhet.gov.za
	Nozuko Mfenyana	Director: Policy and Research	Mfenyana.N@dhet.gov.za
Internal Stakeholders			
W&RSETA	Interviewee	Position	Contact
Bursaries Unit	Tsakani Mabasa	Executive Manager	tmabasa@wrseta.org.za

Quality Assurance	Aphia Serumula	Programme Manager	aserumula@wrseta.org.za
Rural Development Unit	Joyce Mpongoshe	Programme Manager	jmpongoshe@wrseta.org.za
SME Unit	Sindiso Malaku	Programme Manager	smalaku@wrseta.org.za
Disabilities Unit	Pearl Makhudu	Programme Manager	pmakhudu@wrseta.org.za
Skills Planning & Research	Mxolisi Maphakela	Coordinator	mmaphakela@wrseta.org.za
HR Department	Moshawa Modise	Manager	mmodise@wrseta.org.za

### Organised Employers

Organisation	Interviewee	Position	Contact	Size	Sector
Ackermans (Victoria West)	Sinethemba Vuma	Manager	632190321	Medium	Clothing
American Swiss	Dudu	Store Manager	118785532	Franchise	Jewellery
American Swiss Jewellery	Anelisa Dyalom	Assistant Manager	736031688	Small	Jewellery
BP Express Negota Motors	Fhedzisani	Garage Manager	127023745	Medium	Fuel , Pick 'n Pay and Wild Bean Cafe
Build It	Dean Moldenhouer	HR Manager	768435503	Medium	Hardware
Cash Build Hardware	Emelda Rasiwela	Store Manager	155567103	Franchise	Hardware
Cash Crusaders	Vernon Galp	Store Owner	827750600	Large	Franchise General
Clicks (Amalinda)	Khanya Mkosana	Assistant Manager	658819449	Medium	Pharmaceuticals, toiletries
East Cape Motors	Caroline Newey	HR Manager	437044000	Medium	Auto
Eastern Cape Motors (East London)	Caroline Newey	HR Manager	437044000	Large	Motor Fuel and Groceries
Engen Garage (Ekurhuleni)	Elvis	Garage Manager	113826020	Large	Motor Fuel and Groceries
Enjoy	James Fay	Sales Manager	731642772	SMME	Clothing Lifestyle
Foschini	Ferozah	Store Manager	437099500	Medium	Clothing
FurnMart Furnitures	F. Viviers	Store Manager	155165575	Medium	Furniture
House and Home Furniture	Dumisani	Store Manager	113451700	Franchise	Furniture
Incredible Connection	John Phillips & Done Davids	Assistant Manager	437075000	Medium	computers
Incredible Connection	Ablonia	Admin Manager	118239900	Franchise	Technology Store
Lara Fay Activewear	Lara Fay	Owner	835249564	SMME	Clothing Fashion
Le Creuset	Gill McGregor	PR and Events Manager	835564423	Large	Cookware
Midas Autospares	Lawrence Speedy	Owner	216743017	Franchise	Autospares
Mr Price (Kenilworth)	Shane Miller	Visual Merchandiser	216836779	Medium	Clothing
Mr Price Home (Savanah Mall)	Naume Matlaba	Assistant Manager	159600020	Medium	Furniture
O'Briens Jewellers	Patrick O'Brien	Owner	835566682	Small	Jeweller
P & L Hardware	Given	Store Manager	155907792	Franchise	Hardware
Pick 'n Pay (Rosmead)	Lethu Mthembu	Store Manager	216716221	Large	Food



Pick 'n Pay Home Shopper	Allan Rodriguez	Online Shopping Clerk	216854001	Large	Food
Pimp My Books	Mpodumo Doubada	Owner	0216863161	Medium	Used Books
Playboy Sports	Mohamed Adam	Store Manager	155165869	Medium	Clothing
Premjees FMCG Wholesalers & Retailers	Viral	Store Manager	155165194	Large	Wholesalers
Russells Furnitures	Linda	Store Manager	155165181	Large	Furniture
Shoprite Supermarket (Sibasa)	Benedict Radzilani	Branch Manager	159609700	Large	Supermarkets
Solly's Supermarkets	Solly	Owner	155160351	SMME	Supermarkets
Spar (Amalinda)	Chris	Store Manager	437414000	Large	Food
Spar (Mdantsane)	Dean Moldenhouer	HR Manager	768435503	Medium	Food
Spar (Victoria West)	Gareth Burton-More	Manager	53621037	medium	Food
Spar Supermarkets (Nzhelele)	Tshepo Ramushavha	Floor Manager	159704557	Large	Supermarkets
Surat Computer Sales & Repairs	B.M.Patel	Owner	155163936	SMME	Computers
Takealot Collection Point (Wynberg)	Shaun	Collection Centre Franchise Owner	873628000	Medium	General
Truworths	Lesley-Ann Roman	Specialist Manager: Skills Development	748358953	Large	Fashion retail
USave (Victoria West)	Siyabulela Mfazwe	Assistant Manager	536210024	Small	Food
Waltons	Phumeza Mbedle	Branch Manager	437262392	Small	Stationery
Woolworths (East Rand Mall)	Ilze	Divisional Manager	118428609	Large	Department store supermarkets
Woolworths (Savanah Mall)	Mrs.Molebatsi	Financial Manager	152969400	Large	Supermarkets

### Annex 3: Thematic analysis of business publications

<b>Grewal et al, 2017: Summary of themes from literature below</b>	<b>Frequency</b>
Technology & tools to facilitate decision making	14
Visual display & merchandise offer decisions	3
Consumption & engagement	31
Big data collection & usage	7
Analytics & profitability	4
<b>Adhi, 2019</b>	
RFID, WiFi, Check out	
Machine learning replenishment	
<b>Kalis, 2019</b>	
Next gen flagship stores	
Fast retail	
Omnichannel	
Frictionless retail (Pain points)	
Artificial intelligence	
Communication / personalisation	
Pricing optimisation	
Inventory	
Discovering new ways to engage with consumers	
Partner with start-ups	
Responsive supply chains	
Conscious consumption	
Smart retail	
Inclusivity	
<b>Smith, 2019.</b>	
Human experience	
Frictionless shopping	
New business models	
Take care of logistics	
Take store to customer	
Turn phone into buy button	
Voice assistants (Chatbots)	
<b>Askew, 2019</b>	
Online	
Omnichannel	
In-store guidance system	
Personalised experiences	
Social commerce	
Supply chain technology	
Traceability & data	
<b>Broll Property Intel, 2019</b>	
Omnichannel	
Influencer marketing	
Experiential stores	
Cashless systems	
<b>Esterhuizen, 2018.</b>	
AI Technologies	
Augmented reality	

Virtual reality
AI/VR/VA partnerships
Big data
<b>Frazer, 2019</b>
AI
IoT
Big data
Omnichannel
Meaningful relationships
<b>Achille et al, 2018.</b>
Customer experience
New business models
Future disruption. (Lifestyle)
<b>Naigon, 2017</b>
VR
Omnichannel
Big data
AI
<b>Goldman, 2017</b>
SS check outs
Sales personnel
Chatbots
IoT