# AN INVESTIGATION INTO SKILLS DEVELOPMENT IN THE MANUFACTURING, ENGINEERING AND RELATED SERVICES SECTOR, IN SOUTH AFRICA

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#### **ABSTRACT**

South Africa's skills shortages are widely regarded as key factors preventing the achievement of the country's targeted six per cent growth rate. These shortages, of professionals and artisans, in particular, need to be seen in relation to a number of issues that arise from the country's past, and the current administration's inability to rectify these historical imbalances (McGarth, 2015). The purpose of this paper is, to report on the skills development initiatives within the Manufacturing, Engineering and Related Services Sector (merSETA). The paper will investigate the reasons associated with the shortage of skills and the factors influencing the rate of skills development within this sector. The researcher was motivated to conduct this study, because he is the Research Chair, at the Tshwane University of Technology, in the faculty of Engineering and the Built Environment, for Skills Development.

The research method employed was a meta-analysis statistical method. The results from a number of recent studies on the status of skills development initiatives with the merSETA were explored, and statistical analysis were used to interpret the data in three of South Africa's provincial regions: Gauteng-North West, Kwa-Zulu Natal, and East Cape (BALMER, 2015), (Solutions, 2013a, 2013b, 2013c),(DHET, 2011),(MerSETA, 2011). The study found that there is a definite shortage of skills within the merSETA.

The research expectation was that the merSETA needed to focus on building capacity so as to overcome the skills shortages being experienced in this sector. This research found that there is a definite shortage of skills within the sector. It also found that there is a great shortage of people with technical skills and a combination of technical and management skills.

The conclusions from this study suggest that the merSETA needs to focus on building capacity so as to overcome the skills shortages being experienced in this sector. These conclusions gave rise to several recommendations.

In the main, the author recommends that the merSETA needs to extend its training initiatives to include sponsorships and bursaries for technical studies, accelerate training and development activities, and facilitate incentives to organisations in the sector, to increase the recruitment of people with technical skills and expertise.

Keywords: Capacity building, skills development, Training and Development, merSETA.

#### INTRODUCTION

The main purpose of this paper is to investigate and analyse the reasons associated with the shortage of skills and the factors influencing the rate of skills development within the Manufacturing, Engineering and Related Services Sector (merSETA), in the Republic of South Africa (RSA). This paper also addresses the role that organisations, within this sector, can play in order to address this skills shortage and improve skills development so as to ensure an on-going availability of key skills for the future, in accordance with the current government's Industrial Policy Action Plan (IPAP) (DTI, 2010).

This is applicable to the merSETA as it tries to implement the current South African government's skills development policies in the merSETA (MerSETA, 2011). This sector is growing rapidly and is one of the key contributors to the country's economic growth and development. Rapid technological advancement and globalisation have created many new opportunities for companies in the merSETA, and these companies offer automotive, new tyre, plastics, and metal products which have to compete in the global markets (MerSETA, 2011, p. 40), (McGarth, 2015), (Janneker, 2006), (Solutions, 2013a), (Solutions, 2013b), (Solutions, 2013c).

This process demands a highly skilled workforce, which this sector seriously lacks. The merSETA has a serious shortage of skilled people who have a combination of technical, business and leadership skills and with newer and advanced technological skills required by the sector (MerSETA, 2011, p. 41). In addition, the rate of skills development in this sector has been inadequate and has not kept up with the industry's rapid growth and technological advancement (MerSETA, 2011, p. 19). The foregoing points show that the shortage of these key skills could seriously hamper and constrain growth in certain parts of this sector. It is, therefore, imperative that organisations within this sector take this issue of skills development seriously in order to become and remain globally competitive. Given this, it is imperative that the merSETA develops robust skills development plans to meet the demands of this important industry and marketplace. Skills development will impact the manner in which the sector attracts, trains, develops and retains highly skilled people and knowledge.

The researcher was motivated to conduct this research enquiry, because he

is currently the Research Chair, at the Tshwane University of Technology, Engineering and the Built Environment, for Skills Development, which is sponsored by the merSETA.

This paper will provide an overview and analysis of the interventions, which the merSETA regional and national offices are implementing in line with the National Skills Development Strategy III Priorities (DHET, 2011). The researcher anticipates that the results of the research will provide insight into skills development issues within the merSETA and will assist organisations, within this sector, to tackle these issues.

The research problem of this enquiry is that there is a shortage of skills in merSETA in the Republic of South Africa (RSA), which may retard growth in certain parts of this sector. The study looks at the reasons associated with the shortage of skills, the factors influencing the rate of skills development and what can be done to address the skills shortage within merSETA, in the RSA. The companies selected for this study are based in three provincial regions: Gauteng-North West, Kwa-Zulu Natal, and East Cape, in the Automotive Industry.

#### TRAINING AND DEVELOPMENT

The international literature uses the nomenclature, training and development, in the main, while South Africa literature tends to use, skills development. However, for the purposes of this paper, drawing on the assumptions from Janneker's (Janneker, 2006)<sup>1</sup> research, we subsume that training and development, and skills development are synonymous. Skills development is a priority issue globally, and South Africa is no exception to this phenomenon. Several studies have been conducted into skills development, and its importance to human resources development.

Training must make a real contribution to improving the goal achievement, and the internal efficiency of the organisation. The skills development, and capacity building initiatives should focus on future jobs, and competitive advantage, and the strategies of the organisation. Capacity building, here, refers to the acquisition of new skills, and abilities as an individual's career progresses. Therefore, development pertains to the development opportunities within a job for a specific employee, with reference to that

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<sup>&</sup>lt;sup>1</sup>Janneker - The author would like to thank Ms. Marlene Antoinette Janneker, from whose master's thesis much of the background information in this paper is based.

individual's personal growth and goals. From Potter and Brough (Potter & Brough, 2004, p. 12) we offer an explanation and expectations of capacity building. The next nine, separate but interdependent, components make up the unitary concept of capacity building. These are:

- (i) **Performance capacity**, which refers to the tools, money, equipment, consumables etc. available to do the job. A person, however well trained, without the required equipment will be of limited use.
- (ii) *Personal capacity*, referring to the level of which staff has sufficient knowledge, are skilled and confident to perform properly.
- (iii) Workload capacity, which addresses the question if enough staff with broad enough skills is available to cope with the workload and if their skill mix is appropriate.
- (iv) **Supervisory capacity**, concerning the systems in place to ensure accountability, for example:
  - are there reporting and monitoring systems in place and,
  - are there clear lines of accountability?
- (v) *Facility capacity*, which deals with questions around facilities serving the industry, for example:
  - are training centres big enough,
  - are there testing and verification labs that can test technologies and equipment
  - is the sector supported by adequate research facilities, and
  - are there enough workshops, warehouses and offices to support project implementation.
- (vi) Support service capacity, referring to the availability of service providers and auxiliary services that are required to perform effectively.
- (vii) *Systems capacity*, dealing with the flows of information, money and managerial decisions in a timely and effective manner. It also refers to external links and communication with role players in the sector.
- (viii) *Structural capacity*, referring to decision-making forums where inter-sectoral discussions can be made.
- (ix) **Role capacity**, which applies to teams and individuals and questions if they have been given the authority and responsibility

to make decisions essential to effective performance.

In the South African context, the country has undergone a profound socioeconomic transformation in that old apartheid structures, have been dismantled and have been replaced by egalitarian and democratic structures (DHET, 2011). These changes have brought about changes in the economy of the country. These have migrated from activities based in primary sectors such as agriculture to more knowledge-based activities, which require a high level of skills (DHET, 2011).

# **Identifying and Analysing Training Needs**

The aims of training needs assessment are to investigate and ultimately identify a problem or potential problem areas with regard to human performance, and skills development. A needs assessment also determines the conditions under which the training, and development activities will occur, and the basis for evaluating the effectiveness of the training programme. Brown (Brown, 2002, p. 572), confirms that a thorough needs analysis examines training needs on three levels, which include:

- i) **Organisational Analysis:** This level examines whether training is needed in an organisation, and under what conditions training will be conducted. In addition, it identifies the knowledge, skills, and abilities that employees will need for the future as the organisation, and their jobs change over time [17, p. 572].
- (ii) **Task Analysis:** Brown (Brown, 2002, p. 573), describes task analysis as a process, which begins with the job requirements and compares employee knowledge and skills to determine training needs. Job descriptions and specifications are examined so as to determine information on expected performance and the skills employees need to accomplish their work. Gaps between performance and job requirements indicate a need for training.
- (iii) Individual Analysis: Brown (Brown, 2002, p. 573), states that this analysis considers individual employees, and how they perform in their jobs. Information for such analysis is obtained during employee performance reviews. In cases where the review indicates a deficiency, training can then be designed to meet the expected performance standard. In addition, employees can be interviewed, surveys conducted or tests administered to determine their training needs. Once the needs analysis has been completed, training objectives need to be set in order to address the specific training needs, that have been identified through the

- needs analysis process. The setting of training objectives is outside the scope of this paper.
- (iv) **Managing the Training Process:** Buckberry, (Buckberry, 2005, p. 18), sets out certain guidelines, which facilitate the management of the training process, and reduce the risk of making a mess of training and skills development:
  - (a) understand the skills and knowledge requirement of your organisation. In addition, determine what learning means for the organisation, and identify the issues that could result in the failure of training,
  - (b) understand the various methods through which knowledge, and skills can be created and delivered. In so doing consider the advantages and disadvantages of each method as well as the costs and benefits of each,
  - (c) look at what other organisations have done, obtain advice, and reduce your risks on the back of others' learning. In addition, consider joining interest groups where problems, and experiences can be shared, read magazines, and case studies, analyse what has been done and assess the relevance to your organisation,
  - (d) plan the training process in detail from the development phase to the delivery of training and finally the assessment of the training results,
  - (e) obtain the appropriate buy-in, commitment and investment, and
  - (f) ensure effective communication so that people understand what to expect, why they are learning, how they will learn and what support is available to them.

A well-managed training process ensures that the necessary commitment and investments are available for training. Communicating the training plan, and process to people involved in the training is an important step in managing the training process. It is also essential to follow a systematic approach in order to determine the kind of skills, and knowledge required by the organisation, how the training could boost the results of the business or how the lack of training would impact on the business. It is also beneficial to understand the various training interventions available, and source information from leaders in the field.

#### SKILLS DEVELOPMENT

The literature reported that there is a general perception that there is a skills shortage within management and technical disciplines in South Africa. The two main reasons reported include:

- the education system does not produce technically qualified people, and
- many skilled people have left the country due to reasons such as increasing crime rates and better-earning potential in other countries.

A skills shortage is defined as a situation in which employers are unable to fill or experience difficulty in filling vacancies in a specific occupation or specialisation, due to insufficient number of available workers with the required qualifications and experience. Such shortages are defined by determining the supply of skills relative to the demand for workers with such skills.

# **Background to Skills Development in Relation to Employment Equity**

The historical imbalances of the past have constrained skills development amongst the majority of the population. The apartheid legacy in South Africa created a racial segmentation of the labour market in respect of access to higher-level technological skills (Horwitz, Browning, Jain, & Steenkamp, 2002, p. 1105). Black access to trades and skilled work was legislatively prohibited by job reservation in favour of white employees, such as Section 66 of the then Industrial Conciliation Act (1956) and the Mines and Works Act. These Acts were repealed in 1980, however, Black progress into skilled and managerial work has been slow (Horwitz, Browning, Jain, & Steenkamp, 2002, p. 1107). According to the (DHET, 2011, p. 9), a study conducted within the manufacturing sector showed that 80% of managers were white with Africans concentrated in the lower skilled occupations such as operators and labourers, which indicated a representation of 70% and 74% respectively.

# **Understanding Employment Equity and Affirmative Action**

The literature describes employment equity as the employment of people in a fair and equitable manner compared to the approach of the past in South Africa. This means that all people should have a fair chance of being selected for positions and should receive training, development, support and be remunerated according to the job requirements and not on race, religion or gender.

This approach focuses on giving people from previously disadvantaged groups preferential treatment so that in time an equitable employment situation can be achieved. Nel et. al (Nel, Van Dyk, & Haasbroek, 2004, p. 178), further maintain that affirmative action is a concept closely related to employment equity and the two related concepts have now been formulated as law in the form of the Employment Equity Act No.55 of 1998. They point out that affirmative action is viewed as a transitional method to redress the imbalances created by domination.

Nel et. al (Nel et al., 2004, p. 179), argue that the Department of Labour presents the need for employment equity based on the following factors:

- disparities exist in the labour market in employment, occupation and income,
- pronounced disadvantages exist for certain categories of people, and
- repealing of discriminatory law is not enough to redress the disadvantages which exist.

Employment equity is an intervention to deal with the disparities which exist from blacks having been historically disadvantaged. Employment equity mainly deals with the disparities that may exist in the job market and workplace.

# REGIONAL SKILLS DEVELOPMENT INITIATIVES IN GAUTENG, KZN AND THE EASTERN CAPE

# Skills Development in the merSETA at the National Level

Manufacturing is known as a pivotal industry in any economy, and an engine for growth and industrial development. The manufacturing sector is vital to economic development because of its immense linkages with other sectors of the economy (Solutions, 2013b, p. 44).

The manufacturing sectors are considered as the engine of growth in the South African economy, these sectors were identified in the IPAP 2 (Department of Trade and Industry, 2010), as having a significant potential to change Gauteng's growth path. The merSETA consists of five subsectors known as (MerSETA, 2011, p. 44):

- (i) auto manufacturing
- (ii) metal and engineering
- (iii) motor retail and components manufacture

- (iv) new tyre manufacture
- (v) plastics

The total number of companies within the merSETA sector is 26 698 with most companies concentrated in Gauteng (40%), Western Cape (15%), Kwa-Zulu Natal (22%) and Eastern Cape (8%) (MerSETA, 2011, p. 45).

# **Overview of Skills Development Issues**

Rapid technological advancement and globalisation have created many new opportunities for companies operating in the merSETA, who can supply competitive metal products (MerSETA, 2011, p. 19).. It is acknowledged by merSETA that this process requires a highly skilled workforce, which this sector lacks. However, they accept that globalisation will impact on skills development, retention and mobilisation of employee resources. (MerSETA, 2011, p. 19). According to the merSETA (MerSETA, 2011, p. 19), the rate of skills development within the merSETA has been very slow and has not kept up with the sector's rapid growth and technological advancement. The main reason for the inadequate skills development is the fact that 85% of this sector is comprised of small and medium organisations who do not have enough capital to conduct training (MerSETA, 2011, p. 19)

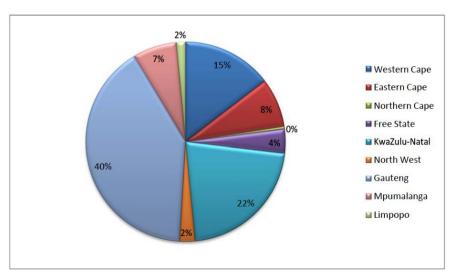


Figure 1 Regional distribution of Manufacturing Sector activity in South Africa.

Source: Statistics South Africa. Census 2012.

This sector battles to attract and retain young highly skilled people. The

skills shortage promotes a highly mobile workforce and encourages employees to move from one employer to the other so as to seek better opportunities and remuneration (MerSETA, 2011, p. 19). The main reasons attributed to the sector battling to attract and retain young, skilled people include:

- limited opportunities for career growth,
- the sector does not have attractive work conditions and benefits,
- poor remuneration and poor management style (MerSETA, 2011, p. 19).

According to merSETA (MerSETA, 2011, p. 19), a large portion of this sector's workforce will retire in a few years' time and organisations within this sector will experience difficulty in filling technical, specialist and management vacancies as there is insufficient supply of such skills compared to the increasing demand. Vacancies are difficult to fill as applicants do not meet the minimum entry requirements in terms of educational qualifications and experience. Secondly, there is a limited skills pool of qualified and experienced black candidates and the employment equity legislation has placed pressure on organisations to increase the representation of employees from designated groups within their organisations. Lastly, the cost of scarce skills is very high in that applicants whose skills are in demand, often demand high salaries and benefits. Many smaller organisations are financially unable to compete for these skilled people (MerSETA, 2011, p. 19).

The demand for skills within the merSETA is influenced by the following factors:

- rising competitive pressure,
- the pace and sophistication of technological change, and
- new work organisation and job requirements.

The supply of skills within the merSETA is influenced by the following factors:

- the inability to effectively apply skills,
- the inability to effectively apply skills,
- a lack of skills pool,
- reduced training, and
- the lack of qualified and experienced candidates, particularly people from designated groups.

The merSETA has the greatest shortage of skills in the technical and management disciplines. According to the merSETA (MerSETA, 2011, p. 19), the technical disciplines have skills shortages in the following job

### categories:

- engineers, such as mechanical, electrical, chemical civil, process and materials,
- technicians, such as draughtsman, instrumentation and control and electronic repair and maintenance,
- trades, such as welders, fitters, electricians and millwrights, and
- management, such as production managers, information technology mangers and project managers.

At management level there is also a great lack of managers who posses the combination of business, technical and people management skills (MerSETA, 2011, p. 19). Qualified and experienced black candidates with technical and management skills are very scarce and those with the available skills are very difficult to retain (MerSETA, 2011, p. 19).

The level of skills scarity in the five chambers of merSETA is illustrated in Fig 2. The job designation of the organising framework for occupation (OFO) code of concern are also

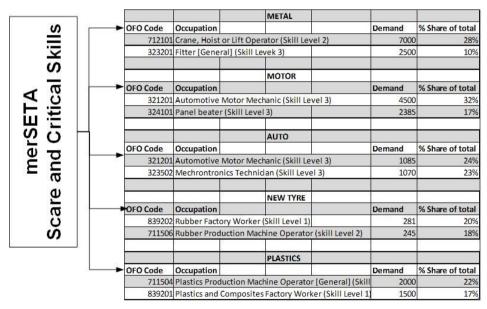


Figure 2 Overview of merSETA Scarce Skills by chamber, 2011 - 2016

Source: merSETA SSP 2011 - 2016.

#### Overview of the merSETA Sectors

The merSETA Metal Chamber is the largest in respect of both the number of firms and the number of employees. All chambers, with the exception

of the Auto Chamber contain a cross section of both large and small firms. The merSETA database used had a total of 53,150 companies and the majority of these were from the metal and motor chambers as shown in Figure 3, below. The majority of merSETA companies are in Gauteng, accounting for more than 40% of the companies in merSETA. North West accounts for 3% of the companies on the database. An analysis of the companies in the Gauteng-North West region shows that the majority are in the metal and motor chambers. See Figure 3.

# Skills Needs of the merSETA Sector in Gauteng

There is a critical shortage of Setters in the plastics industry. This shortage is exacerbated by the fact that they are no FET colleges that train for plastic related trades. There are also no universities or universities of technology that offer undergraduates studies in plastics.

As an industry the sector has relied on skills programmes and learnerships to build up their current employees. The skills shortages experienced by the industry are largely due nature of the industry in that it is SME dominated. These are mostly (about 80%) small business and if they don't get funding from merSETA they will not train their people. In recent years there has been more and more focus on apprenticeships. They will much rather poach someone that is already skilled, that another company has spent money on than developing the people from within. For the plastics industry they only have learnership and skills programmes available to them for skills unique to their industry.

# Lack of interest among young people for engineering related trades

It was noted amongst the respondents that there seems to be a lack of interest and awareness amongst young people for manufacturing related career paths. There was some fear amongst respondents that there are not enough young people coming into the industry in the face of a perceived aging workforce.

# No accredited Training Provider in North West

Employers in North West are forced to send the apprentices to Gauteng because there is no accredited training provider in North West. This makes it very expensive to train as they have to cover accommodation and travel expenses for the apprentice "It becomes costly because they must pay for transport and accommodation for a long duration and companies end up

18729 20000 18381 18000 16000 13084 14000 12000 10000 8000 6000 4000 2632 2000 256 68 0 Motor Metals Plastics Unknown Auto New Tyre ■ Total (n=53150)

saying they cannot pay 10 000 Rands accommodation for a person who will be attending a course worth 5 000 Rands."

Figure 3 Distribution of merSETA companies by chamber, 2012 (Source: merSETA Database 2013)

### **Scare and Critical Skills**

Scarce skills are defined as "those occupations in which there is a shortage of qualified and experienced people, currently or anticipated in the future" These 3 occupations comprised 77% of the skills needs in the sector in the 2009/2010 period. Other occupational categories which are on demand for the sector are engineering production system workers, welders, toolmakers and metal engineering process workers. According to merSETA, the Auto Chamber's skills needs by OFO category indicates considerable demand in the Technicians and Trades Workers category, followed by Professionals and then Managers. There is dominance for demand of management skills within the Motor chamber. Sector specific technical skills include panel beaters, automotive auto mechanic and motor cycle/scooter mechanics.

The rubber production machine operator occupation is the main category of scarce skills on demand in the new tyre sector. Skills which are in high demand within this occupation are tyre builders, steel & fabric calendaring and rubber moulding machine operators. Other important occupations in the sector are; fitters, electricians, product examiners, sales representatives and mechanical engineering technologists in plastics. Demand for

operators of plastics production machinery surpasses other occupational categories in the sector.

#### **Plastics Sector**

The industry is characterised by small to medium enterprises of whom most do not have the capacity or resources to prioritise training and development of the workforce. This has led to a lot of poaching in the industry and all the good skills just rotate the companies that can afford them. Plastics welders/fabricators will now also be required in the construction industry due to the changes in the industry of replacing steel with plastics. It is therefore important that the nation prioritises the training of this skill.

# **Challenges in the Plastics Sector**

- No FET colleges offering plastic related trades
- No universities offering undergraduate programmes in plastics.
- The recent mandatory grant regulations changes might greatly reduce the amount of training occurring in the sector as the industry is SME dominated.
- The merSETA's emphasis on apprenticeship greatly disadvantages their sector. For the plastics sector skills development is primarily achieved through skills development and learnerships but accessing funding for that is difficult since apprenticeships are given priority.
- Lack of urgency in implementing the Setter trade which would immediately address the most pressing concern for the plastic sector

#### **Metal Sector**

The demand for skills in the metal sector is highly dependent on the economic climate as the industry is very cyclical. The current big projects specifically Khusile and Medupi has increased the demand for boiler making and welding. An employer in the industry stated that the outlook for the industry looks good up to 2017 as they are major infrastructure projects lasting till then. Big infrastructure projects should be put in place to sustain the industry after 2017. The metal industry was affected by the recent recession. The increase in training in recent years by the merSETA has helped to address the skills shortages that were plaguing the sector.

#### **Challenges in the Metal sector**

- Poaching is rife in the sector especially at senior management and professional levels. BEE requirements have made competent black professionals highly sought after and because of their scarcity they move jobs easily
- A perceived work ethic problem amongst South African employees and the highly unionised nature of the workforce has led to some companies in the industry hiring foreign labour e.g. from Thailand. The Thailand workers are considered more productive than their South African counterparts
- Quality of training from both private and FET colleges is problematic. Institutional training needs to be aligned with technological innovations in industry. Learners are not competent enough practically when they are recruited from FET colleges and companies have to spend additional money to train them
- Some trades are difficult to recruit for e.g. Patternmaking because they are not adequately advertised in the skills development arena and in schools.
- Mechanical and Electrical trades are now oversupplied with learners. Students should be made aware of the other trades in the industry so that there is a balance supply
- Quality of secondary education with regards to mathematics is very poor.

# **New Tyre Sector**

The big companies in the sector have their own training centres and make use of their own facilities. As with the other sectors there is a shortage of practical skills but an oversupply of people with theoretical knowledge only. An employer highlighted the difficulty of recruiting in this sector; due to the high unemployment rate they get thousands of applications from completely unsuitable people desperate for jobs.

#### Skills Needs of the merSETA Sector in Kwa-Zulu Natal (KZN)

The composition of the merSETA is similar to that of the other provinces, with the same five chambers. The total number of companies within the merSETA in KZN is 4427, which represents 17% of the companies nationally, which employ 50 or more people. The vast majority of companies in this sector are small (employ less than 50 people). According to the merSETA (MerSETA, 2011, p. 19), sub-sectors with the largest representation are plastics (20%), motor retail and component manufacture

(17%) and metals and engineering (16%).

# **Skills Development Issues in KZN:**

During the research it was discovered that there is a lack of information available with regard to skills development issues by province. Therefore, very limited information was obtained with regard to the skills development issues in KZN. The only available information on skills development in KZN indicates that of the 4427 member companies in KZN, 1036 (23.4%) claimed skills grants (MerSETA, 2011, p. 19). [7, p. 7]. According to Babb [20, 32], in order to claim skills grants an organisation must be actively involved in skills development by having implemented the following [9]:

- (i) appointed a skills development facilitator to facilitate the implementation and management of the Workplace Skills Plan,
- (ii) the employer must prepare and submit a Workplace Skills Plan,
- (iii) progress must be shown towards the implementation of the Workplace Skills Plan, and
- (iv) efforts must be made to address specific skills shortages.

The percentage (23.4%) of companies claiming skills grants in KZN seems low given the fact that the objective is to have 100% of companies claiming skills grants. However, there could be companies that are carrying out training but are not claiming skills grants. Due to the absence of information on skills development issues in KZN and the fact that the national skills development issues were compiled from skills development issues at provincial levels, the researcher would then infer that the skills development issues indicated nationally are indicative of the skills development issues within KZN.

# Skills Needs of the merSETA Sector in the Eastern Cape.

The composition of the merSETA in the Eastern Cape is similar to that of the other provinces, with the same five chambers. However, here, we will only be reviewing two chambers: motor, and new tyre.

The Eastern Cape is one of the least developed regions in South Africa with economic activities largely geared around metropolitan areas such as East London and Port Elizabeth (Solutions, 2013a).

#### **Motor & Auto sector**

The Eastern Cape motor sector is a major contributor to the regional economic output mainly focused on the after sales and the maintenance and repair market. Some major companies in the region's motor sector (in no particular order) are McCarthy, Imperial and Barloworld. Technological advancements in the motor and auto sector have resulted in

an increased need for a workforce skilled in a combination of electrical, mechanical and computer engineering. Increased emphasis in training and development people to occupy supervisory and management roles needs to be done in the Eastern Cape (Solutions, 2013a).

# **New Tyre**

South Africa's tyre manufacturing sector is part of the automotive assembly and component manufacturing (AACM) industry. The AACM industry accounted for 6.8% of the country's 2011 GDP of R2964 billion. South African tyre manufacturers contributed 4% of the automotive assembly and component industry's output in 2011 with a total turnover of approximately R8.3 billion (Solutions, 2013a).

The tyre industry employs around 6,000 people between four multinational-owned corporations that operate six factories within South Africa: Apollo (formally Dunlop), Bridgestone, Continental and Goodyear. Eastern Cape has the highest concentration of the manufacturing facilities; Bridgestone, Continental and Goodyear have facilities in Port Elizabeth and Uitenhage. Apollo operates facilities out of Kwazulu-Natal (Durban and Ladysmith), Bridgestone also has a plant in Brits in the Northwest Province (Solutions, 2013a).

The lower level elementary occupations are mainly filled by younger workers compared to the more senior occupations. There is need to increase the drive for the younger generation to begin occupying supervisory and management roles (Solutions, 2013a).

In the New Tyre sector the main occupation category on demand is in the elementary occupations. There is a growing need for individuals who have practical and theoretical experience to function within the supervisory roles in the sector (Solutions, 2013a).

#### **CONCLUSION**

Here we present a few concluding statements and recommendations arising from them. The research found that organisations within the merSETA can play a more active role in skills development, than they are currently doing, in order to address the skills shortages and improve skills development so as to ensure an ongoing availability of key skills for the future. It is realised that skills development is a process, which takes time to show results but the aim is to create fertile ground so as to facilitate and accelerate the skill development within this sector.

In the three provinces of concern, a number of structural constraints were identified from the industry specific literature, regarding skills

development in the merSETA sector. The absence of an accredited training centre in North West is a major constraint to training and development. The importance of qualified Skills Development Facilitators is crucial for accurate and effective skills planning in the region. Across chambers, employers are of the view that not enough young people are interested in trades and this can become a concern in future years as the current workforce ages.

It is important that career guidance, orientation and awareness be done in schools regarding careers in the manufacturing industry. It was also emphasised that the curriculum and training be kept up to date with technological innovations to ensure competent artisans and employees are produced. It is important that industry and educational institutions work closely together to ensure that the quality of learning meets industry standards.

For the plastics sector the major concern was the lack of FET colleges and training providers training for the sector, which has led to a critical shortage of Setters. The analysis of the scarce and priority skills in the Eastern Cape, in the merSETA chambers, is expected to assist stakeholders in formulating strategies for the region for the short, medium and long term. Changes in the social, technological, legislative and environmental landscape have a large bearing on the skills needs and the education, training and development needs of the region. Stakeholders need therefore to be kept abreast of these changes.

The researcher now makes the following recommendations.

- The plastics sector should be treated differently from the other manufacturing sectors that already have apprenticeships running in their sectors. The funding should be cognisant of the fact that the skills required and critical to the sector are made available through skills programmes and learnerships and not apprenticeships.
- It is important that career guidance, orientation and awareness be done in schools regarding careers in the manufacturing industry.
- It is important that industry and educational institutions work closely together to ensure that quality of learning meets industry standards.
- Prioritise skills development of professional skills and not just artisans and technicians. Ensure practical implementation of programmes geared towards up-skilling current employees for career progression.

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