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Developing Managerial Framework to Cultivate Critical Skills in The South African Automotive Retail Industry

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Abstract

The purpose of this study is to develop managerial framework that could be utilised to cultivate critical skills in the automotive retail industry. This would be achieved by providing a comprehensive literature overview regarding skills development strategies including life-long learning, apprenticeship, and mentorship programmes. The study utilised a qualitative research methodology. Data are collected through face-to-face interviews using an interrogation technique. Data collection process was done in participants' natural settings, enabling the researcher to develop new knowledge, and understanding of strategic tools that can be utilised to promote skills development of technicians for the automotive retail industry. The findings reveal a strong collaboration between non-technical and technical high schools as well as technical colleges is essential to ensure the quality of skills development in the automotive retail industry is improved, and thereby improve the market pool of skilled young technicians.

***Keywords*:** skills development; education; life-long learning; apprenticeship; mentorship

1. Introduction

The automotive industry is considered as one of the most technologically advanced industries in South Africa (Alfaro et al., 2012) and a focal point for innovation and job creation (Mateus et al., 2014). The South African automotive industry has thus motivated global motor vehicle manufacturers to grant production contracts to South African factories (Sturgeon & Van Biesebroeck, 2011). As a result, this global investment has made the South African automotive industry one of the greatest contributors to the country's GDP.

The automotive retail sector has been one of the best performing industries within the South African automotive industry, and since 1995, the value added by automotive retail grew at an average of 5% per annum (Ambe & Badenhorst-Weiss, 2013). Since this industry is such an important part of the South African economy, any challenges such as the skills development of a young workforce for sustainable future succession planning, which has a potential to disrupt its growth, innovation and advancement, require attention.

Skills development in South Africa is at the heart of government policy and facilitated by government departments (Skinner, 2018) such as the Departments of Labour (DoL) and Education (DoE) (Balwanz & Ngcwangu, 2016). Hence, Vettori (2018) argues that although the DoL has clearly outlined its objectives for skills development, there are still certain challenges that are faced by the South African industries including the automotive retail industry, and the nature of work that require high quality lifelong learning programmes, remain unchanged (Barchiesi, 2019; Vettori, 2018). Therefore, this study sought to make a positive contribution by ultimately providing strategic managerial tools that can be used to resolve these challenges.

2. Problem Investigated

Skills development is described by Taylor (2016) as the process of identifying a skills gap and developing strategies to fill in the skills gap using formal, non-formal and informal modes of skills development. As Daniels (2007) reveals, one of the challenges facing the automotive industry in South Africa is the shortage of critical skills in the field of engineering such as electrical and mechanical technicians and the shortage of these skills gives an idea that the demand for certain critical skills exceeds supply. Mori and Stroud (2021) add that skills shortages are because of the challenges that are faced by the available skills programmes such as vocational education and training (VET) and sector education training authorities (SETAs). These skills programmes struggle to set new training requirements that will fit the current skills demand with the advancement of new technology. Wolfs, Hargreaves and Saha (2007), as well as Daniels (2007) identify the gaps in the area of engineering for electrical and mechanical technicians as some of the critical skills requirements in the automotive retail industry. In addition, the fourth industrial revolution (4IR) has set the bar high with innovation and advancement of technology in vehicles, and this in turn has led to higher demands for critical skills in the automotive industry (Ilesanmi et al., 2019). Therefore, to remain competitive and meet market demands, organisations must attract the right people with relevant skills that are aligned with the 4IR (Simon & Ferhatovic, 2016). Against this background, the question guiding this study is: *What strategic managerial tools that could be utilised by automotive retail sector to assist cultivate critical skills?*

3. Literature Review

3.1. Skills Development Strategies

South Africa is the biggest and most advanced developing country in Africa in technology and innovation in the automotive industry (Chigbu & Nekhwevha, 2020). Skills development is at the core of the South African automotive industry to assist in developing and equipping young people with critical skills that can contribute to the industry's growth and sustainability (Mendes & Machado, 2015). Particularly, Sector Education and Training Authorities such as the Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA), have played a major role in developing and equipping employees in the automotive industry (Kraak, 2008).

The Local Government Sector Education and Training Authority (LGSETA) is one of the country's 21 SETAs, which are responsible for facilitating skills development in their respective industries in compliance with the rules as set by the Skills Development Act of 1998 (Van Den Heever et al.,

2021). However, when the key characteristics of South Africa's post-school skills development system are examined against the Covid-19 pandemic and the fourth industrial revolution (4IR), it appears that the system is failing to equip the workforce for the new world of work (Van Den Heever et al., 2021). The system for example, is still preparing students for the market that prevailed fifty years ago (Malik & Venkatraman, 2017). This is one of the challenges that is addressed by skills development strategies such as those of the merSETA although lack of funding to support skills development initiatives remains the biggest challenge in South Africa.

Competition in a global market, is difficult and countries require not only superior technical and vocational capabilities (Khojasteh Pour, 2018), but also a flexible workforce capable of adapting to quick demand shifts (Fragapane et al., 2022). Globally, businesses that lack supply of quality and trained workers, experience a fundamental impediment to their expansion (Johari & Jha, 2019). Therefore, employers all over the world are require new workers to possess both technical and soft skills. Hence, education systems must be geared toward developing young people with strong basic as well as job-specific skills (Maisiri, Darwish & Van Dyk, 2019). Similar to Europe, there are three forms of education in South Africa: namely, formal, non-formal and informal education (Grajcevci & Shala, 2016).

3.1.1. Formal Education

Formal education has been and still utilised as a strategy to contribute to skills development of young people around the globe (Erim & Caferoglu, 2017). Rogers (2019) states that formal education is closely linked to schools and training institutions. Online assessment training modules aim to develop and support graduates in developing a technological mindset that can stimulate knowledge, practical experience, and innovation in the 4IR (Radville et al., 2022), are part of the modern formal education offered by both public and private institutions. According to Markowitsch and Helfler (2019) a robust automotive industry in Europe is built on a regulatory environment that is both supportive and enabling, as well as the foundations of a highly qualified workforce through formal education. Vocational Education and Training (VET) and universities which form part of a formal education strategy, update their programmes by often collaborating with the European automotive industry to better prepare young graduates with critical skills (Li & Pilz, 2023). Therefore, formal education seems to be a traditional strategy for skills development, and it remains amongst the most powerful tools to upskill and equip young people for the automotive industry.

Despite the lack of sufficiently critically skilled workers, vocational schools, colleges, academic and industry cooperation are all still the essential strategies for competence to assist the automotive industry to find better qualified and skilled workers (Oviawe et al., 2017). However, the most common strategies to develop and equip young people with critical skills in any industry are on-the-job training and outsourcing training from universities and research institutes to engineering consultancy companies (Grugulis et al., 2019). Furthermore, automotive manufacturers and retailers have their own internal academic and training centres as part of their skills development strategies for the entire internal workforce including young people who aspire to work in the automotive industry (Krzywdzinski, 2017). Internal training activities, ranging from on-the-job training to mentoring and internal courses, are organised by more than two-thirds of mid to larger organisations (including at least half of SMEs) (Becker & Bish, 2017). Therefore, collaboration between VET and universities and the automotive industry is key to developing skills that can be aligned with the changes in the automotive industry.

3.1.2. Non-formal Education

Non-formal education is related to community and various organisations (Grajcevci & Shala, 2016) and has become a popular strategy for skills development (Pavlinek, 2020). According to Harris and Wihak (2018), non-formal education is adaptable in terms of curricula and methods, however, learning in these environments is not random, rather, it is planned and managed. Harris and Wihak (2018) as well as Grajcevci and Shala (2016) further maintain that during non-formal education, the needs and interests of the students are prioritised through this skills development strategy, and there is no time limit. Additionally, Norqvist and Leffler (2017) point out that there is substantially less contact between students and trainers, and most of the learning occurs outside of class and institutions with practical learning experience. This implies that non-formal education is based on practical training and therefore quick to respond to the changes of the working environment in terms of skills requirements from various industries including the automotive industry (Wochowska, 2015). Therefore, non-formal education helps young unemployed people seeking their first job in the automotive industry or other industries, or those with minimal professional experience, demonstrate and sell their skills and competencies obtained in diverse contexts. Hille (2016) affirms that non-formal education remains the instrumental strategy for skills development. Therefore, the utilisation of non-formal education remains the instrument for practical experience rather than theoretical knowledge.

3.1.3. Informal Education

According to Boykov and Goceva (2019), informal education refers to the process of obtaining skills and knowledge anywhere and with anybody; including at home; on the road; with peers; with children; while watching television; listening to the radio; talking with friends and engaging with co-workers from various departments, hence it is casual, unexpected, supplementary, incidental education to some level (Grajcevci & Shala, 2016), while Gross and Rutland (2017) assert that it is also experiential learning that is not planned and structured in terms of training goals and time. Thus, self-learning and its personal impact on informal education, enters the picture as a significant player. This means paying particular attention to the rapid changes in the knowledge society and the challenge of traditional academic courses to accommodate these changes (Chankseliani et al., 2016). There are numerous options to introduce informal education as a skills development strategy in a straightforward manner, more as a tool than as explicit curricula content for the purpose of upskilling workers and young people aspiring to work in the automotive industry (Diamond et al., 2016). Learning by doing is one of the ways that for acquiring various skills needed for the automotive industry (Van Poeck et al., 2020). This implies that engaging with colleagues and friends who have excellent skills in the automotive industry in a practical manner, can upskill one's skillset. This implies that informal education is a key strategic tool in acquiring and equipping employees with new critical skills that can be incorporated with the development of new technology and innovation for the automotive industry.

Structural changes in the European automotive, for example, industry brought awareness of an informal education strategy for other industries such as information, communication and technology (ICT) industries (Grodzicki & Skrzypek, 2020; Stolfa et al., 2020). This was especially true during the time of Covid-19 where most people utilised an informal education strategy to equip, reskill, upskill themselves in a casual manner that is not systematically planned. This trend was evident for automotive industry technicians who have been utilising the informal education strategy as a continuous way of training and transfer of knowledge and experience to young people who aspire to work as technicians in the automotive industry (Rymer et al., 2018). Although the informal education strategy involves informal and unplanned learning experiences, it made a massive difference during Covid-19 where several people

utilised this strategy to upskill themselves. Against this background, informal education could be utilised as a strategy for skills development in the automotive retail sector.

3.2. Life-long Learning, Apprenticeship and Mentorship Programmes

Ates and Alsal (2012) highlight that the best way to keep the quantity and quality of an active labour force, is to establish life-long learning systems starting from primary level, that has a potential to improve strategic skills development initiatives for the automotive retail industry, which ultimately increases the quantity and quality of critical technical skills in the labour market. However, to achieve this, there is a need for government intervention, such as ensuring the modification of merSETA policies (Petersen et al., 2016) that will be in line with strategic automotive skills development initiatives, whereby policy makers ensure that automotive retailers collaborate with schools starting from primary level.

By offering programs in vocational and technical education and training that give individuals industry-relevant skills and improve their employability, TVET colleges play a significant role in the development of people's skill sets. TVET colleges focus on practical, hands-on learning, preparing students for various careers and addressing the demand for skilled workers in specific sectors, thus contributing to economic growth and reducing unemployment (Mohamedbhai, 2015). To ensure continued support and the success of the collaborative project, the SETA's resource provider and consultant functions are emphasised in terms of the 1998 Skills Development Act (Maririmba, 2017; Petersen et al., 2016). SETAs such as the merSETA, are responsible for identifying and articulating skills requirements, introducing necessary education and training programmes, providing quality control and accreditation services and managing revenues from the skills development levy for the automotive industry (Nagalingam, 2017). Petersen et al. (2016) for example, state that, to address the shortage of recognised private education and training organisations in rural regions, the merSETA facilitates a collaborative arrangement between a local public TVET institution and a private training provider to manage an accredited trade test centre that produces critical skills for young technicians, mechanical and electrical engineers for South African automotive retailers.

Organisations require a young skilled workforce, and opportunities should be presented to young people for development (Cinque, 2016), which could be achieved through apprenticeship. According to Hanks, McGrew and Zessoules (2018), apprenticeship programmes provide on-the-job training together with classroom instructions. In this study, apprenticeship programmes refer to on-the-job apprentices who completed their studies at technical high school level and have interest in becoming qualified technicians in the automotive retail industry. Shola et al. (2019) assert that TVETs are in a better position to assist in the areas of skills enhancement. As a result, TVET colleges and technical high schools are acknowledged as a potential solution to improve the quality of skills development of technicians for the automotive retail industry.

4. Research Design and Methodology

4.1. Research Design Approach

This study adopted a qualitative research approach, while the logical approach was the deductive reasoning. The case study was chosen as the research methodology since it is both exploratory and descriptive. Face-to-face interviews were performed to collect data, which is done using an interrogation technique. Data collection process was done in participants' natural settings, enabling the researcher to develop new knowledge and understanding of strategic tools that can be utilised to promote skills development of technicians for the automotive retail industry.

4.2. Population, Sampling and Measuring Instrument

In this study, the population included 14 automotive retailers operating in the Nelson Mandela Bay area, Eastern Cape Province, South Africa. Participants were principal dealers and service department managers of the selected automotive retailers. Purposive sampling was performed, which is a non-probability strategy based on the researcher's assessment. Because a qualitative sample size is usually small, criterion sampling was used, and the researcher was able to find, pick and fine-tuned information-rich examples linked to the phenomenon under enquiry.

4.3. Data Collection and Analysis

Semi-structured interviews were used to collect data from a sample of 10 principal dealers and service department managers. The empirical data collected was analysed utilising six phases of reflexive thematic analysis as recommended by Campbell *et al*. (2021) because it is theoretically flexible interpretive technique to qualitative data analysis that makes it easier to find and analyse patterns or themes in a set of data. Trustworthiness was tested to ensure the quality of data interpretation, where credibility, transferability and confirmability were among the criteria used. Conducting interviews with the principal dealers and service department managers of these automotive retailers provided a holistic view of the managerial guidelines that could be developed to cultivate critical skills in the automotive retail sector. For ethical reasons, anonymity was exercised to protest the identity of the participants and were give identification code of A to J.

5. Empirical Findings

5.1. Skills Development Strategies and Initiatives

There are two themes that were developed regarding skills development strategies and initiatives. These themes include strategic initiatives, and factors informed initiatives. They are presented and discussed with their codes in Table 1. below.

TABLE 1. SKILLS DEVELOPMENT STRATEGIES AND INITIATIVES

Themes	Codes
Strategic initiatives	• *Apprenticeship programmes*: According to Hanks et al (2018), apprenticeship programmes provide on-the-job training together with classroom instructions. In this study, apprenticeship programmes refer to on-the-job apprentices who completed their studies at technical high school level and have huge interest in becoming qualified technicians in the automotive retail industry. • *Bursary programme*: In the current study, the bursary programme is similar to an apprenticeship except that it is offered to employees who would like to further their studies at university or college while working for automotive retailers. • *Online training modules*: Online assessment training modules aim to develop and support graduates in developing a technological mindset that can stimulate knowledge, practical experience, and innovation in the fourth industrial revolution (Radville et al., 2022). In the current study, employees complete online module assessments every week to continuously develop new knowledge and skills that will stimulate innovation. • *Technical high schools*: Technical high schools make provision for the application of knowledge rather than theory.

	• *TVET colleges:* By offering programs in vocational and technical education and training that give individuals industry-relevant skills and improve their employability, TVET colleges play a significant role in the development of people's skill sets. TVET colleges focus on practical, hands-on learning, preparing students for various careers and addressing the demand for skilled workers in specific sectors, thus contributing to economic growth and reducing unemployment (Mohamedbhai, 2015). • *Universities:* Universities are essential for the development of talents because they offer a thorough education that blends theoretical learning with hands-on training, giving students the abilities required for their desired careers. • *Mentorship programmes:* The development of leadership abilities for those in positions of authority is greatly aided by supervisory and management training, which gives them the tools and information they need to lead teams and accomplish organizational objectives.
Factors informed initiatives	• *Scarcity of available relevant technical skills in the market*: Industries and organizations are significantly impacted by the lack of marketable appropriate technical skills, which limits their capacity to innovate and adjust to technological changes. • *Technology advancement in new vehicle models*: The automotive industry is rapidly changing because of technological developments in new vehicle models, necessitating the constant updating of technicians' skills and expertise to efficiently diagnose and repair these intricate systems.

Source: First author's own construction

The themes and codes presented in Table 1. above are based on strategic initiatives that are currently employed by automotive retailers. Strategic initiatives are described by Grigorievna et al. (2021) as well-thought-out organisational strategies that are tailored to achieve high-level sustainability and competitiveness. The factors that informed the development of these strategic initiatives are also presented in Table 1. above.

The reasons for the implementation of the above strategic initiatives are because of the scarcity of available relevant technical skills in the market and continuous technological improvement in new vehicle models every year. The participants stated that strong collaboration with local technical high schools and TVET colleges is encouraged to produce a sufficient pool of technical skills in the market. Furthermore, the participants highlighted that while the strategic initiatives are currently in place, there is still a need to improve these strategies to ensure the quality of skills development in the automotive retail industry. Below are some of the answers provided by the participants C and E:

"There is definitely a shortage of diagnostic technicians specifically that's on the electrical side. Another fact is shortage of African diagnostic technicians. So, from an employment equity point of view and market demand, there's definitely a lack of availability" (Participant C).

"*So, what we do is we we've got a programme where we identify, we go to schools, we go to technical colleges, we introduce ourselves, and we then get guys to come in for interviews, we then place them within our apprenticeship programme, but the partnership or call it collaboration is not as strong as we would like it to be. I think the high schools and colleges do not encourage their students enough and that makes it difficult for us to get the relevant skills in the market" (Participant E).*

The participants in the current study demonstrated an understanding of the skills development strategic initiatives that are currently in place in the automotive retail industry. Most of the participants were concerned that young people from technical high schools do not have much interest in becoming technicians; moreover, they regard it as a career that gets one dirty:

"*We need technical high schools to get more involved and try to encourage students to join the automotive retailers. We are really struggling the to get the young ones because they actually regard technician career as dirty job" (Participant E).*

"With the number of interviews that I've been in, people are not always wanting to just work as a mechanic as we call it or technician, they want to do a nice office job. So, technical skills are quite scarce in the market" (Participant I).

The participants also understand that there are university graduates with higher qualifications, but no practical skill. The requirement is not only having qualifications; it is about the desire and ability to do work. This view is supported by Participant D who stated that:

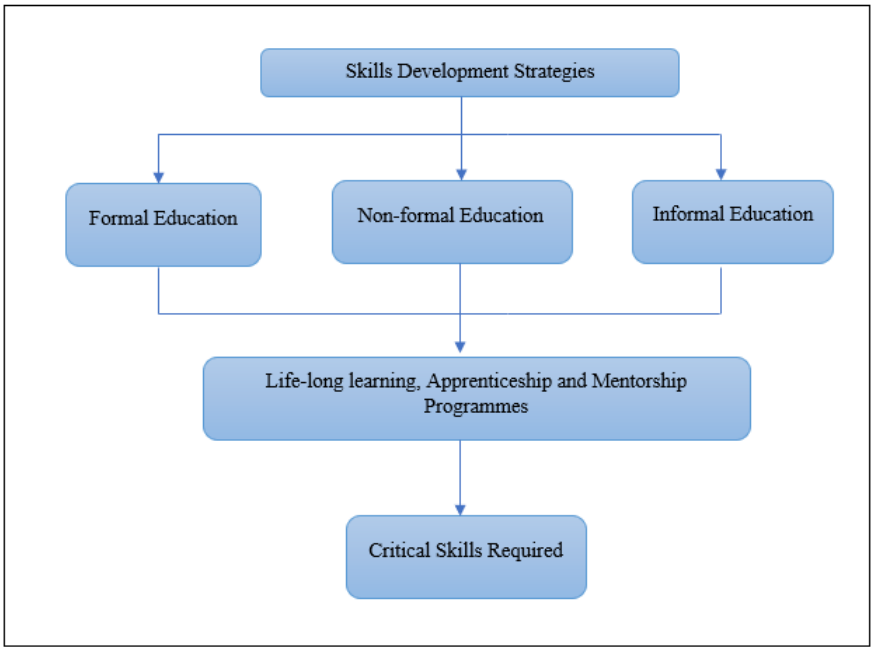
"*We need the entry level guide, the apprentice, the school, the guy that's interested in becoming a technician, and interested in having practical skills. In other words, somebody that hasn't just had a piece of paper. It one thing to have theory, but you have got to have the ability as well" (Participant E).*

The research participants also mentioned that skills development does not end at being a qualified technician; rather the development continues up to the supervisory and managerial level. They stated that even the experienced and qualified technicians are often sent to supervisory and management training every year to prepare them for managerial positions. Notably, Participants A and D stated that:

"*We go above and beyond the development of only being a qualified technician because I believe that development does not end. In other word, I mean, it is a continuous process. That is why we often send our experienced employees to supervisory and management training every year and I think so far, we have been getting positive feedback from the facilitators.*"

In summary, the study findings indicated that strong collaboration between non-technical and technical high schools as well as technical colleges is encouraged to ensure the quality of skills development in the automotive retail industry is improved, and thereby improve the market pool of skilled young technicians. This is supported by the work of Shola et al. (2019), who assert that TVETs are in a better position to assist in the areas of skills enhancement. As a result, TVET colleges and technical high schools are acknowledged as a potential solution to improve the quality of skills development of technicians for the automotive retail industry.

FIGURE 1. SUMMARY OF THE MANAGERIAL FRAMEWORK TO PROMOTE CRITICAL SKILLS DEVELOPMENT INITIATIVES



Source: First author's own construction

6. Discussion and Conclusion

The automotive retail industry should promote skills development by offering continuous training opportunities and workshops; these should focus on transferability of knowledge, transformation, and modern managerial styles. Skill development is a multifaceted concept that requires innovation; therefore, the automotive retail industry must not only rely on formal education but devise strategic alternatives to improve the quality of skills development by implementing both non-formal and informal education initiatives. These strategic alternatives could also include life-long learning programmes, apprenticeship, mentorship as well as collaboration with local non-technical and technical colleges and technical high schools. Therefore, government and the automotive retail industry should continuously work closely to monitor skills development across the sector. This could lead to a larger pool of young people showing interest in joining the automotive retail industry to become qualified technicians. Hence the study findings reveal how skills development strategies could improve a long-term transferability of knowledge which could result to the improvement of critical skills development in the South African automotive retail industry.

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