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THE EFFECTIVENESS OF INTRAPRENEURIAL WASTE MANAGERS IN THE FUTURE OF SOUTH AFRICA. A CONCEPT PAPER.

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INTRODUCTION

South Africa has a rich and powerful history when it comes to overcoming challenges. One of the major challenges which was overcome was the abolishment of apartheid which, among others, led to the transformation of the public sector to include a service to all. The much-needed transformation included a local municipal structure, as well as how to effectively deal with waste. In the past few decades there has been a steady march towards addressing global warming, pollution and other negative effects on the environment (GreenCape Report, 2020). The importance of dealing with waste management in an effective and efficient manner has become more pressing. We tend to look at the problem of pollution and environmental degradation, and the negative impact it has on society, more holistically (PETCO, 2022). This paper will focus on the waste managers within the public sector and introduce the concept of intrapreneurship and explore the possible effects it could have on municipal waste managers. It will also bring the much-needed background information of how waste management fits into the concepts of global warming. The paper brings clarity on the role of the waste managers within the municipal structures, the laws and regulations that need to considered and the management of various logistical issues that make up the duties of a municipal waste manager. Within this paper we will explore intrapreneurship within the waste management sector and highlight to what extent intrapreneurial freedom is allowed.

BACKGROUND

Waste management and global warming

The age-old question regarding the importance of waste management can be answered easily within the context of global warming and pollution in the 21stcentury. Mother nature itself can be seen as being delicate at best and by adding human beings into the mix, with no respect for mother nature based on their behaviour, leads to the destruction of the planet and all its inhabitants (Godfrey & Oelofse, 2017).

Waste management can be defined as activities and processes necessary to effectively deal with waste from the point of collection to its disposal (Ma & Hipel, 2016). These activities and processes start with the collection of waste through various means, for example, garbage bin collection, waste pickers and recycling drop points. In addition, there is the treatment of waste, based on material composition such as sorting it according to plastics, metals and even precious minerals (Ma & Hipel, 2016).

The waste that is being generated across the world and the ineffectiveness of dealing with that waste is contributing directly to climate change through the increase of carbon particles in the air and on the ground (Onyanta, 2018). The end result is warmer temperatures which in return creates catastrophic greenhouse effects and further effects to the environment.

It is therefore argued, by Godfrey and Oelofse (2017), that proper waste disposal is the responsibility of every organization and government. If waste is not handled and treated in the correct manner it will have a negative impact on the ecosystems across the world and can lead to the death of animals and humans.

The World Bank predicts that 3.4 billion tons of municipal solid waste (MSW) will be produced in the year 2050 (The

World Bank, 2021). Currently Canada's estimated waste generation is 1.3 billion metric tons, with only a population of 36.7 million people (The World Bank, 2021). This is alarming as the annual waste per capita is 36 metric tons.

Based on current behaviour, global warming can never be stopped; however, it can be delayed by reducing the overall waste that is produced by humans which will reduce the negative effects that waste has on mother nature and will also assist in decreasing greenhouse gasses.

Therefore, one can argue that waste management is an important component in the fight against global warming, as literature based on the topic will reveal that more governments and businesses across the world are turning towards more sustainable practices that seeks to decrease their carbon emission footprint in the world (GreenCape Report, 2020).

Waste management in the South African context

During the apartheid regime, only white South Africans benefited from the government in leu of municipal services being delivered. While millions of black South Africans were forced to live in homelands, with no or limited-service delivery taking place within the respective black homelands (Jensen & Zenker, 2018). Waste management was mainly prioritized within white neighborhoods and the services were not implemented for the rest of the country. Since the newly democratic government was elected in 1994 the African National Congress (ANC) was left with the enormous task of reinventing the South African public sector to ensure equal service delivery for all.

The Nation Waste Management Strategy (NWMS) is a mandatory prerequisite of the National Environmental Management (Waste Act No. 89 of 2008) or better known as the "Waste Act" (DEA, 2019). The main goal of NWMS is to meet all the objectives set out in the act to ensure that waste management in the new South Africa is more effective and efficient and available to all its citizens.

In 2008, the National Environment Management (NEM) Waste Act (Act 59 of 2008), was promulgated and made provision for increased detailed regulations to improve waste management. According to NEM (Act 59 of 2008) it defines waste management as being vital to everyday life of South Africans as it seeks to collect, transport and effectively treat waste in a manner that is less harmful to the environment and surrounding communities (Republic of South Africa, 2008).

Waste management in the modern day seeks to promote eco-friendly protocols when dealing with waste so that less air and ground pollution takes place. The National Environment Waste Management Act (Act 59 of 2008) is focused on promoting and ensuring the effective delivery of waste services, treating and safely disposing of waste and lastly, avoiding and minimising the generation of waste (Godfrey & Oelofse, 2017).

Waste management in South Africa is predominantly the responsibility of the public sector. There are two economies within the waste sector namely, the formal sector; where the allocation of tenders and formal business contracts take place and the informal sector; which consists of 60,000–90,000 waste pickers and informal businesses (Godfrey & Oelofse, 2017). The aforementioned is very relevant and impacts waste management, however, it is outside of the scope of this paper.

In 2018 more than 75% of all waste collected in South Africa ended up at the landfills which was mainly due to the slow implementation of the National Waste Management Act strategy resulting into landfills running out of capacity to dispose waste coupled with limited alternatives to utilize when dealing with waste (DEA, 2012).
During 2018 more than 323 478 households were yet to receive refuse removal services resulting in waste being dumped illegally, estimated to be at 4 million tons (Rodseth et al., 2020). Therefore, it shows that when refuse removal does not take place it results in the illegal dumping which causes more environmental damage and costs the state more money and ultimately could cause diseases within the community.

Waste streams generated in South Africa

Municipal waste managers (MWM) in South Africa are required to be in a position where they are able to facilitate the treatment and disposal of more than one type of waste stream. Waste streams can be divided into plastic, organic, paper, cardboard, etc., just to name a few. It is important to note that different waste streams are being generated in South Africa and require effective waste management to deal with the waste accordingly (City of Cape Town, 2021). According to Godfrey and Oelofse (2017) the best-known waste amongst citizens is commercial and domestic waste. Commercial and domestic waste in South Africa has increased drastically as a result of rapid

urbanisation (City of Cape Town, 2021). According to the DEA (2019) general waste such as garden waste, building rubble and household can be taken as waste that does not affect the surrounding environment negatively as it normally gets transported to landfills and recycling centers.

Another waste stream is the waste generated from mining activities and industrial hazardous waste. Mining waste can be defined as waste that is generated during the mining process; this includes tailings, slugs and rocks that cannot be re-used (Republic of South Africa, 2021). Hazardous waste is also generated during mining activities and contains chemicals that are deadly to humans and surrounding environments and must be dealt with great caution. The last form of waste that will be discussed is organic waste. Organic (natural) waste consists of plant waste, foods and some paper-based goods (Republic of South Africa, 2021). The important components of organic waste are that it will decompose into its organic form which will go back to the soil where it came from and this process happens over a period of decomposition.

The role of waste management in South Africa

The former Minister of Environmental Affairs and Tourism, Valli Moosa, said that South Africa must change its national flower to the plastic bag due to the plastics bags polluting our beautiful communities (Staff Reporter, 2003). The tax on plastic bags was implemented which required customers to pay for every plastic bag, hoping that this will deter customers from making use of plastic bags and rather to utilise reusable shopping bags (Staff Reporter, 2003).

Since 5 May 2021 the mandatory Extended Producer Responsibility (EPR) for plastic packaging in South Africa came into effect (PETCO, 2022). EPR came into effect as part of Section 18 of the National Environmental Management Waste Act (NEMWA). EPR seeks to hold both the plastic packaging industry and government accountable, and also seeks to improve transparency in the system. However, waste management suffers from a pervasive under-pricing, which means that the cost of waste management is not fully appreciated by consumers and waste disposal is preferred over other options.

The 3Rs of waste management are reuse, recycle and reduce (The 3Rs initiative, 2022). The 3R seeks to help reduce the amount of waste that South Africans disposes of, and also seeks to reduce landfill space by making use of recycling, re-using and reduction methods. Waste management is being steered towards promoting the reuse and recycling of goods made from glass, paper and metal as this can be melted and be made into new products, and thus reducing the negative impact of waste on our environment (Dukhan, Bourbon-Séclet & Yannic, 2012).

The top five countries generating the most amount of waste is Canada, Bulgaria, United States, Estonia and Finland. Currently Canada's estimated waste generation is 1.3 billion metric tons with only a population of 36.7 million people (The World Bank, 2021). This is alarming as the annual waste per capita is 36 metric tons. During 2018 more than 12 million households in South Africa received refuse removal and the overall domestic waste that was generated by South African households was more than 12 million tons (Stats SA, 2018). Thus, South African households, according to this data, will generate 1 ton of waste per household over the period of a year. Whether the figures can be compared depends on a few factors, such as if the sample had similar characteristics, and also whether the income was comparable, etc.

Waste management is important as it seeks to move away from the traditional ways of dealing with waste, such as landfilling. This is done by taking a new direction of encouraging citizens to recycle their waste at home and if not recycling, then to rather separate waste at source (at home). For example, some suburbs in South Africa received a recycling bin that is dedicated solely to recycling waste (Waste Plan, 2022). This new way of dealing with waste is centred around waste education and how each citizen can do their part in keeping our environment clean and safe for future generations. Waste Plan has an educational program tailored for the public to educate citizens on how to recycle their waste correctly by using various colour bins dedicated to specific materials (Waste Plan, 2022).

Municipal Waste Managers (MWM)

According to the NEWM (Act 59 of 2008) a municipal waste manager can be defined as the person that is appointed by the local municipality to coordinate and deliver waste management service as per the Municipal Structures Act (Act 117 of 1998) (South African Government, 2021).

In accordance with the Act, municipalities are responsible for appointing a Municipal Waste Manager (MWM) to coordinate waste management activities within the municipalities' jurisdiction and also needs to submit performance based annual reports to provincial and national departments.

Saleh and Rahman (2018) argue that MWM must ensure that the effective coordination of waste activities takes place within the local municipality. This includes the treatment of household waste and other supporting services, in order to adhere to the National Waste Management Strategy as stipulated in the Gazette. However, municipalities and MWM are allowed to exercise their own discretion with regards to the standard set for local waste services; for example, waste separation and disposal must still be in line with the standards of provincial and national government (Republic of South Africa, 2021).

Waste managers work primarily (in the scope of this article) for the State, as it is the State's responsibility to effectively deal with waste management.

Minimum criteria to be appointed as municipal waste managers (MWM)

It is important to note that the minimum criteria required to be appointed as municipal waste manager falls within the framework of the NEWM (Act 59 of 2008) as the Act seeks to provide the necessary direction when appointing municipal managers. According to the recent job vacancy advertised, for a municipal waste manager within the Swellendam Municipal region, the following specific criteria were used (Swellendam Local Municipality, 2021):

- The necessary academic qualifications that are needed to fulfil this position is a degree or diploma in waste management, which is preferred; however, other related degrees related to project management, mechanical engineering and public administration will also be considered.
- MWM must be registered with the Integrated Waste Management of South Africa (IWMSA).
- For MWM to be appointed they need to have at least 5 years' relevant work experience as MWM.
- MWM must also be capable to demonstrate their advanced computer literacy skills (Windows, MS Word, Excel and PowerPoint).

Role and responsibilities of MWM

The role and responsibilities of MWM outlined by the Swellendam Municipality can be summarised as being the following (Swellendam Local Municipality, 2021):

- MWM need to conduct investigative and productivity reports that are directly related to waste management which includes areas such as recycling, methods of waste management and lastly, minimizing waste.
- MWM are also required to draw up and interpret the annual waste management infrastructure budget.
- It is the responsibility of the MWM to monitor and evaluate the performance of waste management against the annual financial budget and identifying any deviations and handle it accordingly.

Identifying where does waste managers fit into waste management

Waste managers can be found in all three spheres of the South African government namely, at national, provincial and local governmental levels. The table below tabulates the three spheres of government and the functions that are performed within those spheres.

Table 1: Summary of waste managers within the three spheres of government

Three spheres of government	Functions within the spheres
National government	• The Department of Environmental Affairs (DEA) reports back at national level regarding waste management. • The DEA main responsibilities that can be highlighted are the overseeing and the implementation of the Waste Management Act. • The waste manager officer (WMO) reports feedback on agreed goals and targets.
Provincial government	• Activities and programs related to waste management. • Provincial waste manager director. • Provincial government must also compile annual reports that speak to the effectiveness of the waste management programs and overall performance. • Reports directly to the minister.
Local government	• Appoint a local municipal waste management officer (WMO). • WMO must oversee solid waste and refuse removal for their communities. • WMO maintain refuse dumps in a sustainable manner. • Provide the necessary space to store the collected waste that was collected and to dispose the waste using different methods. • Financial planning and management

Establishing the current situation in practice regarding waste management officials (WMOs)

To understand the performance of waste management within South Africa it is important to take a closer look at what is already happening in practice. In research conducted by the Local Government Sector Education and Training Authority (LGSETA) several questions were asked and the results or answers to the questions are documented in Table 2 below. The results reflect that 41% of the respondents lack the necessary qualifications required to fill the position. 38% of the respondents do not have the necessary work experience, and only 49% indicated that they are able to write an annual performance report. There were 38% of respondents who claimed that WMOs are not required to engage bylaws and related policies. Furthermore, 36% respondents indicated that they have intrapreneurial freedom to implement their own ideas within the workplace. Lastly, 38% of the respondents indicated that they did not know how to develop a waste management services budget and other subsidies for the municipality. It is clear from these figures that there are incumbents in these positions who do not know how to function in these roles and this has a major effect on service delivery to communities at large. The ripple effect is also felt throughout the waste economy and the environment.

Table 2: Research questions asked by Local Government Sector Education & Training Authority (LGSETA) to MWOs regarding skills and qualifications

Questions	WMOs
Do you possess the necessary academic qualifications?	41% lack the necessary qualifications
Do you have previous work experience related to waste management?	38% indicated that they do not possesses the necessary work experience
Are you comfortable with Integrated Waste Management Planning and Reporting?	49% WMOs indicated they are able to write annual performance reports during the implementation phase of the IWMP
Do you as a WMO need to engage with bylaws and related policies?	38% of WMOs indicated that this does not form part of their job
Does the workplace allow for intrapreneurial freedom?	36% of WMO indicated that there is some intrapreneurial freedom within the workplace.
Are you comfortable with developing waste management services budgets and other subsidies/ tariffs for the municipality?	38% of WMOs also indicated that they do not know how to develop a waste management services budget and other subsidies/tariffs for the municipality

Source: (Local Government Sector Education & Training Authority, 2020)

Challenges faced by waste management officials (WMOs)

WMOs are faced with a variety of challenges on a day-to-day basis. The Municipal Demarcation Board (MDB) highlighted some of the key challenges in their national report. These challenges impact the effectiveness and efficiency of WMOs.

The first major challenge that WMOs face is financial challenges (MDB, 2018). It is important to note that waste management can be seen as being one of the major budget components for municipalities ranging from 50% to 90% of the annual budget of a municipality. Due to the global pandemic (Covid-19) it resulted in thousands of households and businesses not being in a financial position to pay for waste collections hence the non-payment of these household and businesses has majorly impacted municipalities' ability to provide these services (Dukhan et al., 2012). For example, the average expenditure for waste management for the financial year of 2017/18 was between R50 million and R108 million (MDB, 2018). Covid-19 had a negative impact not only on the financial budget of WMOs but also the effectiveness of service delivery that was hampered by the different levels of lock down (South African Government, 2022).

The second major challenge being faced by WMOs is due to planning and management related issues. LGSETA states that the rapid increase of the urban population and growth in the overall population directly impacted municipal waste collection services, which resulted in a backlog of two months and more (LGSETA, 2020). WMOs are losing the battle when it comes to managing landfills in South Africa due to the lack of funding and the lack of knowledge on the importance of waste management in the country (DEA, 2018). Currently the Stellenbosch local municipality being one of the bigger municipalities in South Africa ran out of airspace at the local landfill (GreenCape Report, 2020). The only municipalities that still have enough landfill space for the next five years are

the Overstand district municipalities and the Swartland district municipalities (GreenCape Report, 2020). This is indicative of the lack of planning which could have prevented this from happening.

The third challenge that WMOs are facing is the issue of illegal dumping. Illegal dumping of waste has seen a drastic increase over the last few years due to the global pandemic impacting homeowners and businesses' monthly income, and thus affecting their ability to pay to dump their waste legally (LGSETA, 2020). WMOs are tasked with preventing illegal dumping since the clean-up of illegal dump sites can cost up to 30 times more in expenses rather than dumping waste legally at landfills or recycling centres (Abel, 2018). Currently there is a strong drive from the Department of Forestry, Fishery and Environment (DEFF) and the Department of Environmental Affairs to reduce the amount of illegal dumping within South Africa (DEFF, 2022). By joining forces these two departments have implemented different initiatives, for example, the working on waste initiative(DEFF, 2022).

The final major challenges that WMOs have to deal with on a daily basis are the laws and legislation that govern waste management. For example, the Gauteng province has not been awarded a single new landfill license in the past 26 years (AWARD, 2019). The reality is that very few remaining landfill sites have capacity and are filling up at an alarming rate which means that WMOs are not acting fast enough to open up new landfills or build more recycling centers and other alternative centers to dealing with the waste problem (AWARD, 2019). The opening of more landfill sites will only prolong the problem that we are currently facing; therefore, in the opinion of the authors, looking for alternative measures such as the 3R principle is vital in combatting pollution as a result of waste disposal.

Thus, WMOs need to be entrepreneurial in their thinking when considering innovative ways to combat the status quo and opening up new landfills is not the answer to this problem. This is one of the main reasons that this research paper highlights the need for intrapreneurial WMOs.

Understanding the true form of Intrapreneurship and its traits

Intrapreneurship was first introduced by Gifford and Pinchot in the early 1980's. Gifford (1985) defined intrapreneurship as an individual who works within a set company to develop an innovative idea that will increase the performance of the company. Intrapreneurs make use of organizational resources whereas entrepreneurs simply make use of their own personal resources (Zahra, 1991). According to Zahara (1991) intrapreneurship consists of a multiple layered structure and its often-tested intrapreneurial factors such as the ability to take risk, promoting innovation, and identifying the competition which sets intrapreneurs apart from the rest of the organization. According to Allen (2021) intrapreneurship can be seen as being the dynamic process to creating wealth while using innovative ideas to create something of value, not only for the intrapreneur but also for its serving organisation.

It is important to note that intrapreneurship can be seen as being the vehicle to creating an innovative environment by allowing its employees to utilize their own skill which will profit the organization and the intrapreneurs (Allen, 2021). Intrapreneurship creates the necessary platform for employees within an existing organization to experiment with new ideas in solving existing problems or to apply their insight to help grow the organization (Allen, 2021).

Some of the intrapreneurial traits that can be identified are as follows:

- Intrapreneurs are passionate about their idea/innovation as this will serve as the internal motivation for intrapreneurs to help achieve the goals that was set (Majumber, 2017).
- Intrapreneurs display great determination to succeed and acknowledge that there will be obstacles and other challenges which need to be resolved first (Majumber, 2017).
- Intrapreneurs have a sense to be adaptable and obtain goals and objectives irrespective of the environment (Majumber, 2017).
- Autonomy is a key driving force of intrapreneurs (Soltanifar, Hughes & Göcke, 2020).

Influence of intrapreneurship on waste management

In this section the focus will be on the impact of intrapreneurial thinking and how it could influence MWOs and its municipalities. This is through ensuring that the necessary innovation will contribute to the overall readiness of MWOs, and to overcome its competition by being proactive through taking a more robust approach in identifying potential problem areas, instead of waiting for problems first to take place (Soltanifar, Hughes & Göcke, 2020). One of the major issues, when considering waste management, is the delivery of services. MWOs have been issuing contracts for waste collection on a municipal jurisdiction basis which is a large area, however, the MWOs need

to consider the collection of waste from a residential area's perspective. This could have an impact on improving service delivery in that particular area and create an opportunity for small business to be established in the value chain, resulting in employment opportunities within the communities.

Innovation within this context implies to the overall tendency of an organization to take part in more creative processes that allow for the development and testing of new ideas. The freedom of MWOs to explore innovative ideas and testing can later then be adopted by municipalities to improve service delivery within South Africa. Multiple empirical studies have confirmed that innovation does not negatively impact the performance of an organization (Soltanifar, Hughes & Göcke, 2020).

As mentioned earlier, autonomy is a key driving force in intrapreneurs and a key factor in achieving results (Soltanifar, Hughes & Göcke, 2020). In waste management however, it is no different as the waste portfolio needs to be championed through achieving success and the MWO (the mandated official), thereby fulfilling the set mandate. Performance is heavily impacted by the autonomy of the intrapreneurs which effects the overall profitability and increases the innovation of MWOs (Jensen & Zenker, 2018).

Benefits of intrapreneurial training and development

In the early 1980's Gifford predicted that the future will be more intrapreneurial orientated (Gifford, 1985). We can see that the prediction has come full circle as more businesses rely on the innovation of its employers to grow and develop, for example, there are companies which have incentive schemes for the implementation of innovative ideas. In our view the public sector is no different as there is an increased competitive threat from the private sector to deliver services at a cost. Intrapreneurial training and development would allow MWOs to compete, in creative solutions, with those competitors in the private sector. Intrapreneurial training will allow MWOs to apply their ideas within the workplace since WMOs would know best as to what needs to be done to improve service delivery (GreenCape Report, 2020). By promoting the importance of intrapreneurial training this will create an environment for WMOs to share their ideas with other WMOs and ultimately contributing to the body of knowledge when it comes to waste management (GreenCape Report, 2020).

A benefit of intrapreneurial development is an increase in employee morale (Aparicio, Turro & Noguera, 2020) which highlights that when employees seem to be contributing to the organisation it adds to their wellbeing since they feel they are making a difference. Woodward et al. (2019) mentions that intrapreneurship increases the sense of pride in the work being produced which relates to a boost in confidence. Needless to say, having employees who believe in their skills and strategies will have a positive effect on the employees and in turn, the employers. Currently, MWO's are not self-confident and as a profession it is not seen as being a high-value job within society (DEA, 2020). We can refer to Table 2 above which depicts the incumbents of MWO posts within the municipality.

Woodward et al. (2019) adds that intrapreneurship training and development gives rise to improved financial decision making. Good financial decision-making ability is vital when working with a budget, especially a budget that is under pressure due to the 'perceived significance' of the portfolio. By allowing MWOs the freedom to think innovatively and creatively, within the prescribed policy, will give rise to more efficient and effective waste management processes and increase levels of service delivery which impacts budgets and allows for effective utilisation of resources (Lee, 2018).

Recommendation for future studies

Intrapreneurship provides the necessary and much needed platform to engage with employees within the work environment and identify key challenges that employees face with regards to doing their day-to-day activities (Iglesia, 2019). The impact that intrapreneurial thinking will have on public sector management will be immeasurable as it will not be seen as only a job that needs to be done or just a form of income to the incumbent. The importance of intrapreneurship can visibly be seen by allowing the necessary decisions to be taken by employees by using their own innovativeness and creativity through a process when applying their focus towards the task at hand (Lee, 2018). One can argue, that intrapreneurs are individuals that are hardworking and specifically take pride in their work. Currently the unemployment rate is 34.9% which is the highest rate of unemployment in the history of the South Africa economy (StatsSA, 2021). Hence, the need for sustainable job creation is the solution in the fight against unemployment (Foley, 2020). Potential jobs will be created by the construction and operation of newly developed recycling plants across the country as the demand for recycling in the country has drastically increased in the past 10 years (Foley, 2020).

Due to the global COVID pandemic this had a drastic impact on the South African GDP which currently stands at $320 billion (Stats SA,2021). Hence, intrapreneurship can be seen as a tool to help grow the South African economy and reduce fiscal spending by making use of new methodologies and strategies when dealing with waste. Due to the spate of corruption, which gained unprecedented momentum in the Jacob Zuma era, and the onset of the COVID pandemic over the past two years, coupled with more corruption during the various tendering processes, has left the country almost crippled. With the majority of municipalities being bankrupted and service delivery being non-existent in the municipalities there is little or no hope of surviving the devastating impact of waste on the environment and society at large.

We recommend that research be conducted in the form of a skills audit of all those currently in waste management positions within municipalities; not to get rid of the managers but rather assess and equip them with the necessary intrapreneurial skills required to make a success of the portfolio. It is important to conduct a bench marking exercise between the private and public sectors to determine the roles, responsibilities, expertise and strategy implementation within each sector as both incumbents operate in the same sector. The role of a waste manager in most municipalities is seen as a "necessary evil" that needs to be filled, and does not necessarily have the same prestige as other positions within the municipality. We are also aware and are mindful of the impact of political appointments within municipalities which have a bearing on the performance of various portfolios due to some appointments being under-qualified or not qualified at all.

CONCLUSION

South Africa has a colourful history when looking at the different challenges that South Africa has faced in the past. One of the current major challenges that South Africa is facing now is how to effectively deal with waste management and how WMOs can assist in the fight against waste. Within this paper the focus was placed on waste managers within local municipalities and their respective roles. In addition, the challenges that WMOs are facing were highlighted and unpacked. The concept of intrapreneurship was introduced as a tool to assist WMOs in dealing with these challenges and how intrapreneurship can lead to more effectiveness and efficiency within waste management. The problem of waste management within South Africa is in need of an African solution and intrapreneurship is the vehicle that needs to be used.

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