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Solid waste management for improved tourism business image in Pietermaritzburg central business district

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Abstract

The physical environment in which the tourism industry functions, has a significant impact on the tourism business. Tourism contributes to solid waste generation, and poor waste management has had a detrimental impact on tourism in the Pietermaritzburg (PMB) CBD. This article examines the solid waste management procedure used by the PMB tourism sector, to address perceptions of PMB as "decaying" due to poor solid waste management. The applied theoretical framework focuses on the Waste Management Hierarchy and its contribution to assisting the tourism industry in developing its own waste management procedure. A qualitative research methodology was used where interviews with a sample of tourism business managers, were utilized to collect data. The major themes gleaned from the interview findings suggested that the local government's poor service delivery in terms of inefficient waste collection and management has had a detrimental impact on the tourism industry, and this has affected tourists' perceptions of the city. PMB tourism businesses have an outdated waste management system in which separation is problematic, and they lack basic resources such as waste bins. This study recommends tourism stakeholders and local government should work together by means of tourism forums to address service delivery challenges.

Keywords: Municipal Solid Waste; Solid Waste Management; Tourism Businesses; Pietermaritzburg CBD

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1. Introduction

The disposal and collection of municipal solid waste is a major concern in many developing countries' rural and urban areas (Abdel et al., 2018). Because of South Africa's growing urbanization, expanding population, and economic expansion, adequate waste management standards, programs, and policies must be designed and executed (Khan et al., 2022). Mismanagement of solid waste in areas where tourism businesses operate has a considerable detrimental impact on the tourism industry. Overall South Africa's solid waste management system is incapable of meeting the cities' ever-increasing solid waste management demands (Kubanza and Simatele, 2020). According to Nanda and Berruti (2020), sanitation, cleaning, and waste collection are continuous environmental issues in developing countries. South Africa is dealing with a waste problem that must be handled immediately. South Africans generate around 54.2 million tons of general waste (city, commercial, and industrial) per year. Only 10% of these 54,2 million tons of waste may be recycled or reused, while the remaining 90% is landfilled or otherwise disposed of (McTaggart, 2019).

In terms of volume, industrial and mining waste are the most widespread, but municipal solid waste has a greater impact on daily life of residents (IDP, 2020). In the absence of waste management programs in tourist cities and destinations, the majority of produced solid waste is illegally disposed of, posing a threat to human health, disrupting the environment, and lowering the destination's reputation for recreational activities (Tran et al., 2020). To address the increased visitor demand for environmentally friendly states of relaxation and tourism, it is vital to identify waste concerns in tourist destinations and enhance waste management (Wang et al, 2021). Municipal waste and other related waste, such as hazardous and organic waste, are the most prominent types of solid waste in tourist destinations (Wang et al., 2016). According to Kaza et al. (2018), solid waste management is critical for sustainable, well-being, and inclusive cities and communities, but it is frequently overlooked, particularly in low-income countries. Uncollected waste and carelessly discarded waste are hazardous to one's health and the environment. Dealing with these repercussions usually costs more than creating and executing a basic, effective waste management system (Kaza et al., 2018).

The city of Pietermaritzburg (PMB) is in a decaying state due to a lack of maintenance and poor solid waste management (Ntuli, 2020; Ngcobo,2020; and Sinkins 2020). The capital city of Kwazulu-Natal was labelled as the city built to "fall apart" by then-municipal manager Rob Haswell as early as 2008 (Mgaga, 2008). Dr Zweli Mkhize, the then-Minister of Cooperative Governance and Traditional Affairs (COGTA), stated that solid waste levels in the city should have been a concern for everyone (Magubane, 2019). According to (STATSSA, 2023), South Africa is seeing a decline in the number of inbound tourists, necessitating the need to evaluate the effect of solid waste management as a contributing factor in the image positioning in this study.

This study covers the issue of Pietermaritzburg's unfavourable image positioning as a tourist destination, as well as how solid waste deposited on the streets of Pietermaritzburg CBD has contributed to this problem, which in turn negatively affects the tourism sector in the area. Despite its rich past and economic recreational activities, the city of Pietermaritzburg has struggled to attract both domestic and foreign visitors (Ntuli, 2019), which necessitates the conduct of this study. Studies on waste management in South Africa by researchers such as Naidoo (2009), Kubanza (2010) and Kubanza and Simatele (2020), have focused on how waste is generated and managed in metropolitan cities, as well as how it impacts human health. These studies do not fill the gap on the impact of waste management on tourism, which this study seeks to fill. Tourism's economic importance must be preserved, if not increased, through proper solid waste management (Tran et al., 2020).

2. Literature review

Tourism has grown in importance as a global economic and leisure activity as a result of its benefits and demand. Therefore, governments undertake a variety of marketing and promotional activities in order to attract more visitors (Lui et al., 2020). The second most essential factor in selecting whether to visit a destination is its appeal. This element is linked to the city/destination's ambience and surroundings, as well as its natural and cultural heritage assets (Tran et al., 2020). People go to cities for a variety of reasons, including visiting friends and family, conducting business, attending exhibitions, cultural attractions, sightseeing, entertainment, shopping, evening activities, sports, and special events (Aylan and Salvarci, 2022). In recent decades, tourism has provided an opportunity for many cities to rejuvenate their fading economies by concentrating their economic structure on service activities, the most notable of which is tourism to accommodate a diverse demand for urban tourism.

Municipal tourism development has been considered a means of creating economies and jobs in the cities since the 1970s (Streimikiene et al., 2021). Tourism is intricately related to other sectors of the economy, making its development as a standalone industry challenging. Therefore, tourism, infrastructure, and superstructure amenities must all be developed together. Furthermore, improved amenities are wanted by both tourists and residents, and improved amenities reflect the country's economic progress (Gazoni and Silva, 2022; Ramukumba, 2019). As with any other service sector in urban regions, the Municipal Solid Waste (MSW) department must satisfy these tourism demands. The negative effects of poor MSW management and the requirement to minimise the volume of this waste stream are major concerns for environmental management in most countries (Torres and De-la-Torre, 2021).

Most countries are concerned about the negative impacts of improper MSW management and the demand to reduce the volume of this waste stream (Torres and De-la-Torre, 2021). This is especially true in developing countries, where poor MSW management leads to poor sanitation, increased public health risks, and other environmental issues with MSW collection, warehousing, transportation, and disposal (Dlamini et al., 2019). A growing amount of literature has chronicled tourism-related enterprises' attempts to decrease pollution and promote organizational sustainability, including specific zero-waste best practices. According to Dlamini et al. (2019), MSW management is one of the most important urban essential managements that influences a city's health and environment (Kubanza and Simatele, 2020). Air pollution, hygiene concerns, waste management expenses, and surface water contamination are just a few of the issues that businesses have faced as a result of MSW mismanagement (Dlamini et al., 2019). Despite these challenges, several scholars have blamed tourism businesses for their efforts in minimizing solid waste within their businesses on the notion that it is costly and time-consuming. Waste management is a governmental responsibility rather than an integrated responsibility (Papamichael and Zorpas, 2022).

2.1. Solid waste generation, process and disposal

Solid waste is a byproduct of all operations that use diverse materials, such as extraction, manufacture, consumption, and waste management. They all contribute to the generation of garbage. The amount and nature of waste generated are heavily influenced by the community setting/environment, development, and economic situation. Industrial waste raises per capita income, but if not managed properly, it harms the environment and human health (Torres and De-la-Torre, 2021).

The development of waste is a result of urbanization and worldwide trade, with material diversity across decades. Tourism is a service industry in which people from all over the world, country, or area come to experience the many services provided by the tourism industry, thereby emphasizing the importance of human and environmental issues in MSW management planning.

In the absence of economically viable alternatives, landfilling is widely accepted across the globe as a practical and safe method of waste disposal. However, in South Africa, there has been a considerable deterioration in the overall quality of landfill management particularly at the municipal level, which has resulted in a domino effect, contributing to the declining capacity and eventual closure of these sites (McTaggart, 2019). Effective MSW management and minimization has proven to be a perplexing task in many nations, requiring adequate organizational capacity, strict compliance to environmental rules and regulations, coordination and collaboration between municipal governments, and greater awareness among members of the community (Dlamini et al., 2017). The process of recycling, Incineration, Composting, Sanitary Landfill, Disposal in Ocean/Sea, and Plasma Gasification are some of the most common waste disposal alternatives, some of which are environmentally acceptable and some of which are not (Compactor Management Company, 2020).

The waste management hierarchy is topped by source reduction, or waste minimization, in the solid waste management process. This is the most fundamental condition for any waste management strategy: less waste should be generated (Pires and Martinho, 2019). Following that, there are a variety of possibilities, including reuse, recycling, composting, waste to energy, incineration without energy recovery, and disposal (Tsydenova et al., 2018).

2.2. Transforming our world: The 2030 agenda for sustainable development

Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable.

Goal 11 of the United Nations' 17 Sustainable Development Goals addresses the issue in this study, stating that by 2030, there should be a reduction in environmental impact generated per population in cities, including air quality, municipal, and waste management (Opoku, 2016). Goal 11 is relevant to the study because tourism is in decline in the city of Pietermaritzburg, where environmental impact and social norms, as well as mismanagement of public resources, have contributed to this catastrophic situation. To maintain a positive destination image, the tourism industry is heavily reliant on the public government for service delivery. When solid waste accumulates in public locations without being properly collected or swept, it creates a negative image for visitors or tourists. Goal 11 underlines the importance of strengthening support for national and regional planning for long-term economic, social, and environmental development (UN, 2015). This goal is intimately linked to the objectives of this study, where issues of policies and implementation guidelines are crucial for sustainable tourism development and feasible service delivery to people in areas where economies are predicted to peak. According to the United Nations (2015), waste management affects all businesses, particularly tourism, which can never be grown as a standalone industry.

2.3. Theoretical framework - the waste management hierarchy

The waste management hierarchy is a global and national approach to ranking waste management solutions in order to get the best environmental results feasible. It describes the ideal order of waste management

procedures, from most desirable to least desirable. The waste hierarchy strives to maximize value while producing as little waste as possible. When used correctly, the waste hierarchy can provide numerous benefits. It can aid in the creation of jobs, the reduction of pollution, the reduction of greenhouse gas emissions, energy conservation, resource preservation, and the development of green technologies (Pires and Martinho, 2019; DEA, 2017). The waste management hierarchy is a systematic, all-encompassing approach to waste management that includes safe disposal as a last resort as well as waste reduction, avoidance, reuse, recovery, treatment, and recycling throughout the waste life cycle (Pires and Marinho, 2019; DEA, 2012; DEA, 2011). The Waste Act's aims are organized around the waste management hierarchy, the overall framework that controls waste management in South Africa (DEA, 2011). The waste management hierarchy, as stated above, is depicted in Figure 1.

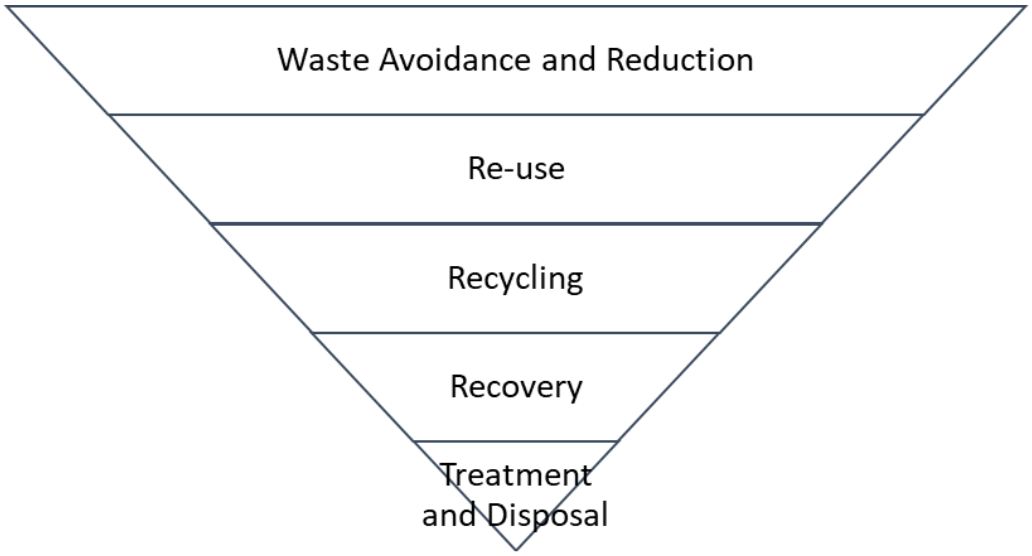


Figure 1. Waste Management Hierarchy (Source: Van Jaarsveldt, 2016:16)

The hierarchy has a lengthy history, particularly in the context of business. Rather than focusing on concerns (such as energy and waste), sustainability goals should encompass complex interconnections across systems (economic, social, and physical systems) and their consequences. New product policy trends and ideas, such as life-cycle evaluation, corporate development, eco-efficiency, and eco-innovation, are also emerging at a quick pace. Commercial composting and gasification are two examples of these (Kubanza and Simatele, 2019).

2.4. Implementation of the waste management hierarchy in South African cities

The core components of the waste hierarchy, which provides the basic waste management plan, inform, and affect South African waste policy (DEA, 2012; Seabi, 2022). To implement the concepts of the waste management hierarchy in South Africa, the National Environmental Management: Waste Act (No. 59 of 2008) (NEMWA) has been revised to incorporate additional obligations such as waste recycling and minimization (GreenCape, 2016; Daniels, 2022; Seabi, 2022).

Following the establishment of NEMWA in 2008, all government businesses in South Africa were compelled to conform to the waste management hierarchy's goals (Daniels, 2022). A National Waste Management Strategy (NWMS) was developed in 2011 to meet the criteria of the National Environmental Management: Waste Act 2008 (Act 59 of 2008) and to establish a framework for debating waste management issues in South Africa (Van Jaarsveldt, 2016). South Africa's National Waste Management Strategy has embraced the waste management hierarchy to provide the best service delivery as the economy grows due to increased company development and employment creation (GreenCape, 2016; IWMSA, 2017; and Seabi 2022).

The Environmental Protection Agency (EPA) created the Waste Management Hierarchy as a framework for selecting waste management strategies that will have the least harmful impact on the environment. South Africa has laid the framework for collaboration with other countries to address the world's waste management challenges (IWMSA, 2017).

The waste management hierarchy contains waste management choices for the whole waste life cycle. The waste management hierarchy must be followed by all parties involved in the waste management process (Seabi, 2022). The Waste Act mandates waste containers to avoid waste whenever possible and, if that is not possible, to decrease the amount and harmful waste generated (Nyika and Dinka, 2023). They must then recycle, reuse, or retrieve the waste. Among the measures in the Act that impose this duty of care are integrated waste management plans, waste management standards and recommendations, prioritized waste, and extended producer responsibility. Industry and the government will collaborate to establish a waste minimization program that specifies the numerous restrictions and categorizes the items and services that are subject to them (Daniels, 2022). Creating integrated waste management plans (IWMPs) is one strategy for accomplishing the NWMS and NEMWA objectives (DEA, 2012; Nyika and Dinka, 2023). IWMPs caused a paradigm change by ensuring that waste management in the municipality follows the waste management hierarchy (DEA, 2012; Nyika and Dinka, 2023).

In an ideal world, waste management would prioritize source reduction; if less waste is produced, less waste should be disposed of. "Reducing waste at the source at the beginning of a product's life cycle" (IWMSA, 2017:2). Recyclability, improved material selection, reusability, and biodegradability all boost production accountability by putting pressure on the manufacturer. EPR is a controlling mechanism in the National Environmental Management: Waste Act (59 of 2008), and it is employed as a controlling mechanism in that Act (59 of 2008) (NEMWA). It is critical that we follow such laws that require the first two phases of the waste management hierarchy (IWMSA, 2017). Materials that have already been discarded in the South African economy are worth less since they have been disposed of as waste. Understanding the value and relevance of resources lost to the South African economy allows organizations (both private and public) to have an informed conversation about the financial benefits of rising up the ladder (Department of Science and Technology, 2014; Seabi, 2022). The waste hierarchy is fundamental to both the NEMWA and the NMWS. All integrated waste management strategies must incorporate the entire waste hierarchy. Integrated policy on waste management for tourism in Pietermaritzburg is essential when the hierarchy is used.

The legislative framework, local municipal service delivery, a decline of tourism destinations, implications for sustainable development, policy development for improved service delivery, business loss, market disposition, and infrastructure development are some of the factors that affect the tourism business. This has an impact on waste management processes used in tourism destinations, such as waste management hierarchy

and integrated solid waste management system, which determines a tourism business's tourist destinations' image positioning and, as a result, influences improved tourism destination attractiveness.

2.5. Implications for urban planning and policy making

SWM is a complex technical and administrative process that requires careful planning, design and execution, and assessment to ensure proper waste management (Arteaga et al., 2023). Currently, 2.01 billion t/year of waste is generated worldwide, with 33% being inadequately managed. This is a critical situation in developing nations like South Africa where waste reduction targets do not align with the UN Sustainable Development Goals. (Arteaga et al., 2023). Urban areas have high amounts of SW from domestic to business waste, with municipalities struggling to meet daily demands of waste collection and dumping. Effective solid waste management requires a comprehensive approach that includes urban planning and policy from the start (Yadav and Karmakar, 2020). This includes incorporating waste management concerns into land use and transportation infrastructure design, encouraging sustainable urban forms to reduce waste generation, and enacting strong policy tools. These tools include clear legislation and standards, economic incentives to encourage appropriate waste management methods, and public education campaigns to increase awareness of waste reduction and separation. Furthermore, successful implementation requires teamwork and stakeholder engagement, with government agencies, commercial sector players, and individuals working together to achieve sustainable waste management goals (Yadav and Karmakar, 2020).

3. Research methodology

A descriptive case study design was used for this study since the researcher is focusing on a single central business district (CBD) and primarily tourism businesses to gather in-depth information and investigate the characteristics of the sample group. According to Remeyi (2022), case studies are a method of gathering data by interviewing or delivering a questionnaire to a predetermined sample of people. This study used a qualitative research strategy. The constructivist research paradigm was used for this study, which may be defined as interventions and interactions and their effects in many contexts, as well as understanding from an insider's perspective (Burns et al., 2022). A qualitative study approach was utilized to better understand the reasons for the municipality's poor waste management and how this has impacted the tourism business. This study employs a qualitative research approach, which influences the study collection techniques as well as the likely research results. Individual one-on-one interviews were used to obtain primary qualitative data from participants, who in this case were tourism business personnel chosen by the organizations.

3.1. Target population and sample

The population size for this study is thirty-five tourism enterprises in Pietermaritzburg. The sample size comprised five tourism establishments in the Pietermaritzburg CBD. From each of the five establishments, the researchers purposefully selected two participants, who represent both managerial and non-managerial personnel to participate in the sample (n-10), since they have varied interactions with tourists in their organization. The sample for this study is purposefully selected because the selected attractions have

comparable features and are in the tourism business, and they are all located over various parts of the Pietermaritzburg CBD.

3.2. Data collection method

In this study, semi-structured in-depth interviews were used. This type of interview is intended to dive further into the respondent's personal perceptions and recollections. This method is used when there is little knowledge and a full understanding is required (Hennink and Kaiser, 2022). To obtain primary data for this study, the Microsoft Teams app and an interview schedule were employed.

3.3. Inclusion and exclusion criteria

The participants were chosen based on their work roles and responsibilities as part of the requirements for inclusion and exclusion. A tour guide must have at least three years of working experience for the company, and executive staff must have worked in a position that allows them to interact with tourists, such as Public Relations and Marketing Officer, Interpretation Officer, and others. Ten participants were recruited through email and asked to participate in the study, after which they received a letter of information and the study proposal to familiarize themselves with the study and prepare for the interviews.

3.4. Limitations to the study

The research study design was qualitative, and the sample was purposefully chosen, therefore findings cannot be generalized based on the population; thus, the study results cannot be generalized. Hennink and Kaiser (2022) state that qualitative research designs provide context for the human experience of a specific situation. The sample size was limited to 14 respondents, two of whom had their organizations close in 2021 and two who were unwilling to participate, leaving the study sample at 10 study respondents who were interviewed. Purposeful sampling was chosen since it was precise and readily available to suit all of the study's important needs. It was critical for this study's findings in section five to recognize that the reported conclusions are based on only ten respondents. Microsoft Teams was used for data gathering, which hampered the personal feel of interviews and limited the researcher's ability to take photographs of each visited tourism business that would be significant to this study. Finally, due to unexpected occurrences and demands in tourism, the researcher had to adjust data collection plans to accommodate the next available appointments for respondents, with other participants being interviewed after their working hours.

3.5. Permissions needed

Permission was acquired from each of the selected tourism establishments where data was collected to perform this study. A gatekeeper’s letter was issued to the interviewer to grant permission to collect data from five selected tourism businesses. Study participants were recruited by email after receipt of the gatekeeper’s letters were received. All participants were given a cover letter stating that their participation in the study was entirely voluntary and were asked to sign a consent form.

4. Findings and discussion

Research is conducted to provide scientifically proven solutions to queries or to cover knowledge gaps. According to Johnson and Christensen (2024), data analysis does not offer all of the solutions to research problems; rather, it is a description of the findings that clearly outlines the achievement of objectives and provides answers to research questions. This subsection discusses the analysis and interpretation of data gathered from various tourist experts and practitioners in the chosen study area.

4.1. Data presentation and interpretation

The interviews covered questions that were transformed into the five subheadings below, which were used to convey data gathered from respondents.

4.1.1. Theme 1: Effectiveness of waste management system used in tourism business

Understanding how waste is managed throughout all tourism businesses in PMB(CBD) is important because literature identifies tourism as a major contributor to waste, with the hospitality sector accounting for the majority of the industry's carbon footprint. In 2030, the hospitality industry is expected to cut its carbon footprint by 66% (United Nations, 2018). As a result, it was critical to question the businesses how they controlled their waste and how efficient their waste management system has been in ensuring that waste is minimized and avoided where feasible.

Nine out of ten respondents believed their internal waste management system was greatly beneficial for their organizations. Because they have dedicated personnel who are responsible for overall waste collection and separation at the back areas, they made the process easier. They also ensure that all employees within the organization are responsible when it comes to separating waste and that they practice the ethos of their organization. These respondents also stated that their educational programs are intended to empower students by ensuring that they practice the same waste management concepts at home and teach their elders. 10% (n=1) of respondents stated that, while a similar approach is implemented in his company, they still struggle due to the magnitude of their business and a lack of resources, and the majority of their waste still ends up in landfills if vagrants do not come to collect recyclable waste. He said they are doing their best, but there is always space for improvement.

> *First respondent: "...Our waste management system, yes, it has been effective. It minimizes the quantity of waste discarded through our standard waste system, which consists of bins put in the backyard. It's managed more regularly than simply waiting for the waste removal truck to come and collect it, so we don't wind up with too much waste in the rear…"*
>
> *Second respondent: "... it's working right now since we haven't reached a point where we couldn't display some kind of flaw. But I believe the area I'm mentioning is one where we as an organization should improve..."*

Tourism businesses in PMB (CBD) have implemented waste management methods that are effective for business aesthetics and premises maintenance. Internal waste management is critical because municipal waste

collection is a governmental service provided to businesses. All internal collection and separation must occur prior to MSW collection at the disposal site.

4.1.2. Theme 2: Effect of Pietermaritzburg's image on the tourism business

The attractiveness of a tourist destination encourages visitors to travel to that location and spend time there. The attractiveness is perception-driven and is dependent on consumer cues (Reitsamer and Brunner-Sperdin), and research has produced empirical evidence on visitor behaviour, destination perception, and destination choice. In a word, the intended destination image is what attracts tourists to various locations.

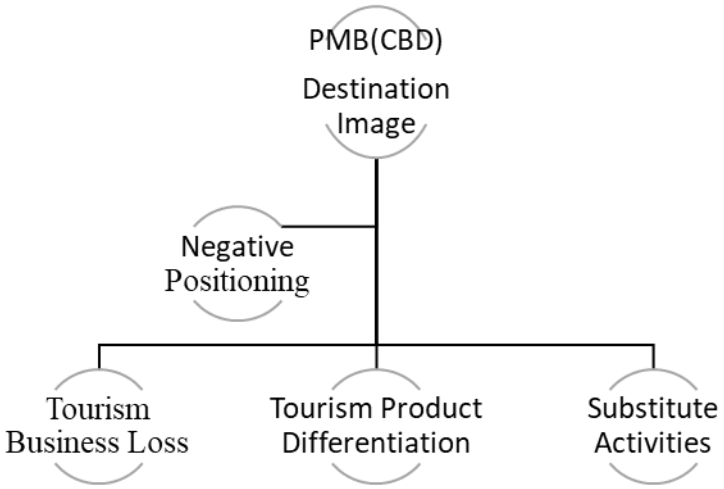


Figure 2. Effect of Negative Positioning of Pietermaritzburg (CBD)

Figure 2 depicts how PMB(CBD) is considered adversely by tourism businesses. The respondents believed that the CBD's current image was costing them business because high-spending tourists were no longer interested in what tourism businesses had to offer them. They emphasized that tourists who would come to their organization were lost to substitute activities outside the CBD, implying that they no longer saw value in the tourism attractions surrounding the CBD. The most expensive expenditure that respondents had to mention was the investment in Tourism Product differentiation to appeal to visitors, which is one ad hoc strategy. PMB(CBD) is recognized for its stunning Victorian-style architecture, significant statues like as Gandhi's, and its contribution to Apartheid history and heritage. Poor care of these structures and sites has mostly diminished their value as tourist attractions.

Respondents spoke extensively about the image of PMB(CBD), and here are some of their thoughts.

> *Third respondent: "...Definitely, the image of Pietermaritzburg is a very bleak one, to put it very crudely, the amount of fault that there is. As a Pietermaritzburg resident, that is quite deplorable. It's only gotten worse over the years, and in terms of business, we make a serious effort to keep the environment around us as neat and clean as possible. However, we have no control over how the rest of our surroundings appear..."*

Fourth respondent: "... People are exposed to various levels of waste, filth, and decay, and our guests are very vocal about it, both online and in person...."

Fifth respondent: " ...Dirt, dump, litter, and stench that people are exposed to all add to the feeling of being insecure, of not feeling like they are in a safe and secure environment, which has an impact on tourism..."

4.1.3. Theme 3: PMB(CBD) positioning and its effect on visitor numbers and annual business turnover

This section interprets sub-themes that emerged during interviews when respondents were asked how the bad positioning of PMB(CBD) has especially harmed their visitor numbers and business annual turnover. Figure 3 depicts some of the most often used terms by respondents to emphasize the impact of PMB(CBD)'s unfavourable posture.



Figure 3. Wordle of responses on this subsection

The majority of respondents stated that their marketing efforts had paid off in terms of getting people to their company. They did, however, capitalize primarily on segmenting their various markets and were proactive in inviting visitors to their various attractions. The respondents did not have clear data regarding how many visits they lost or gained, and how this benefited or hurt the firm. It is critical to structure the visitor segments based on the responses.

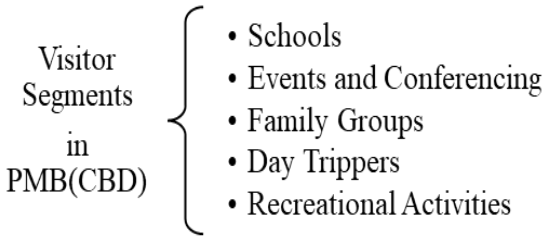


Figure 4. Visitor Segments in PMB(CBD) Tourism Business

Schools, as indicated in Figure 4. are a significant and sustainable component in these tourism businesses; all respondents stated that their participation with schools through educational programs has had a significant impact in ensuring that their doors are constantly open. However, 60% of respondents stated that their organizations are partially subsidized by the government, such as staff salaries, which are paid by the provincial government, the Department of Art and Culture, and the Department of Environmental Affairs. Another respondent stated that if they were only reliant on "tourism," day trippers, and family groups, their doors would have long since closed. The provincial government subsidy was a significant help to ensuring they had staff and can pay some business expenses.

The respondents extensively discussed the lack of parking spaces, accommodation facilities (with one of the major and oldest accommodations proposed for the sample of this study closed down in 2021), a collaboration between tourism and local government, synergy amongst tourism businesses, signage, and debilitating infrastructure, all of which contributed significantly to their visitor numbers and, as a result, their annual turnover.

> *Second respondent: "...It's difficult, but we tend to take on a more engaging role when it comes to talking to visitors about their options. The physical area in the city is limited, which also led to the idea of looking for a new site for the museum, so the long-term aim is to relocate the museum, which will fix the parking issue...."*

Lack of local government support has ramifications for tourist growth in any location or region, with PMB requiring the most assistance. It is of great worry for the future of tourism in PMB for tourist businesses to be overly reliant on a single market niche.

4.1.4. Theme 4: Approaches to customer retention and repeat visits to sustain tourism business

The respondents were asked what strategies their company used to retain current clients and assure repeat visits from their various market categories, as covered in theme 4 and illustrated in Figure 4.

Figure 5 depicts the emergent themes that were shared by all respondents. Each tourism business, according to all respondents, has a distinctive offering to its clients. A museum, travel agency, garden, or art gallery all have unique features and attractions that entice people to return and enjoy the many offerings. They also stated that their on-site service excellence was what visitors and repeat customers kept coming back. According to Morgan (2019), the level of customer care received by visitors will impact whether they return for another visit or advise others not to visit the attractions. It was critical for this study to discover what these tourism businesses needed to keep customers coming back.

Respondents also stated that they have additional value that is unique to their organization and that they capitalize on this to keep customers coming back and by exposing customers to their business through outreach programs and environmental educational programs. These also add value that clients want when they visit a business. According to the literature, the infrastructure and facilities determine the value of tourism. Shen (2016) defines perceived value as six factors that result in either a positive or bad visitor experience and can influence whether or not a visitor recommends your business.

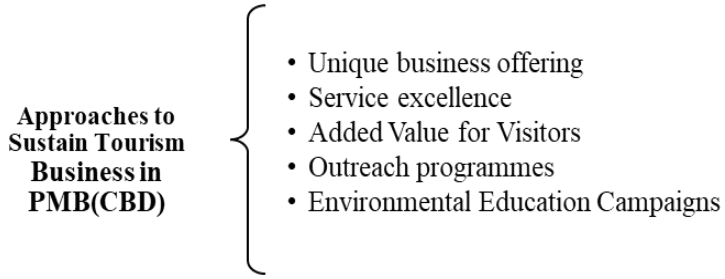


Figure 5. Approaches to Sustain Tourism Business in PMB(CBD)

Respondents said the following regarding the value they sell to clients to ensure customer retention and repeat visits:

> *First respondent: "...I think we definitely have something unique to offer, and schools and visitors see the value in that. We work very hard to ensure that everything we offer is valuable and that it is a bundle that people desire. So, despite the city's conditions, we have worked extremely hard to overcome them by providing extra value in everything we do. So, even if we couldn't accommodate a school, we'd go to a school..."*
>
> *Eighth respondent: "...Remember, before you start selling, you have to know whom you're competing with, and then we start selling, it's not the price that we sell, but the value that we sell…"*
>
> *Third respondent: "... And we discovered that the entire neighbourhood is simply not suitable for those activities because it is unclean and plagued by vagrants. We now take people to Howick so they may view the Midlands meander and Howick Falls..."*

According to the stated responses, they believe in providing all perceived values for tourism experiences in their business, which is what has kept them in business for so long and has retained visitors for continuous return trips. However, it is unclear if respondents completely understand these supposed values, or if they are just packaged as what they believe they give tourists.

4.2. Summary of findings

Because of the bad visitor positioning of the PMB(CBD) as a destination, the tourism industry loses revenue and bears the costs of differentiating their products and service offerings to meet customer needs, and similarly, consumers pick replacement activities and places other than going to PMB.

The respondents identified visitor safety concerns as the primary factor driving visitors away from the PMB(CBD) tourism industry. Health, vagrancy, criminality, waste contamination, old decaying structures, timber-raised buildings, and exposed electrical lines are among them. The lack of accountability from the government in terms of providing public services and infrastructure development has also had a significant impact on how the tourism industry operates, forcing them to rely on outreach programs as their primary tourism product and service offering, and having one major sustainable customer segment being schools,

which includes the issue of signage and parking, which affects the tourism industry. This has also contributed to the closure of several tourism businesses, the loss of employment for tourism personnel, the loss of money in the CBD, the loss of the city's history and tradition (due to inadequate infrastructure maintenance), and the relocation of businesses.

This section examined and interpreted interview data that provided answers to the study's questions. To exhibit the data set in an easy-to-read and comprehended manner, graphics, tables, photos, and the Wordle approach were utilized to present data themes and results. The data themes were evaluated, and respondents were quoted to emphasize certain points. The following sections of this study will give suggestions based on data analysis and interpretation from this investigation.

5. Recommendations

- NWMS should include provisions for tourism services, which can be established by the provincial government and implemented in IWMP by local municipal governments. To increase the socioeconomic benefits of PMB(CBD), waste management ordinances must respond to the needs of tourism businesses. Tourism should be everyone's business, whether or not they directly gain from it, especially local governments.
- Tourism waste collection plans should be considered differently from domestic waste collection plans due to the inflow of activities that occur in tourism locations. This would help to ensure that the aesthetics of tourism zones are friendly and pleasant. This will also address the visitor safety issues raised in the preceding findings.
- The local authority should also improve security visibility in tourist zones in order to safeguard visitors and locals from criminality. Property owners should be encouraged to renovate their decaying and timber-lifted buildings to ensure visitor safety and the socioeconomic benefits of tourism businesses.
- Where waste prevention is not feasible, separation at source should be employed to reduce the quantity of waste that is disposed of in landfills, so achieving the MSWMS's primary purpose.
- Tourism practitioners should take the initiative to attend IDP planning sessions and voice their concerns so that tourism does not appear to be a lone business.
- Major corporations such as banks, supermarkets, and hospitals should provide bins because many people visit the CBD for their services as well. This would lessen the amount of solid waste accumulated on PMB(CBD) streets and pavements.
- Using virtual and augmented reality to lure tourists to visit the attractions could assist to revitalize tourism in the area. They might make it to international markets (where they are already widely utilized).

6. Conclusion

This study’s conclusion gives a concise and comprehensive explanation of the research study, as well as varied opinions on the importance of the findings. To bring this study to a close, the researcher matches the study and

objectives with the data findings. As a result, the study conclusions, recommendations, limits, original contribution, and areas for further research are presented. Section one introduced the study by noting the study objectives and problem Subsection two analysed secondary data on the effects of solid waste management, citing prior studies, and focusing on the PMB(CBD) as the subject area. Waste is specifically defined as an unavoidable problem brought about by society. Developing countries cannot meet waste demands because it requires large financial investments as well as space where landfilling is feasible, and waste treatment is complex. This is critical in PMB (CBD) because there are insufficient funds to even hire the right personnel for key positions in the Waste Management Business Unit (IWMP,2014). The study findings confirm that there is a solid waste management problem, which has negatively impacted the tourism industry in PMB (CBD). These findings and recommendations are presented in this study to assist tourist businesses and the government in providing essential public services to the people. It also provides the study's original contribution while noting the study's shortcomings. Future research fields are offered in accordance with what this study could not cover, however, there is still a need for scholars to investigate these areas.

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