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Blighted Properties: Factors Contributing to Vacancy and Underutilised State-Owned Properties in South Africa

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Abstract

A blighted property is a property that has deteriorated, is vacant, has been abandoned, or has been foreclosed. This happens when a property loses value over time due to neglect or damage. The study examined the factors that lead to vacancy and underutilisation of state-owned properties managed by the Department of Public Works and Infrastructure (DPWI). Most of the Department's properties are over 100 years old. Some of the vacant and underutilised properties are at risk of theft, vandalism, vagrancy, and illegal occupation. Moreover, these properties have not been properly maintained. The cost to the State of maintaining vacant buildings without any return on investment, ongoing municipal payments, and security for safekeeping requires a discussion of strategies to address this issue. A survey was conducted with 105 DPWI employees responsible for managing vacant properties and ensuring their well-being. The relative importance of the contributing factors was measured using the relative importance index method, which identified fourteen factors ranking as high-medium. The study identified external factors such as inadequate public sector planning, economic indicators, historical spatial planning, new development patterns, and weak leadership as the main causes of the vacancy problem. Internal factors included excessive regulation, weak policy framework, poor asset management strategies, and ineffective procurement processes.

Keywords: *blighted properties, vacant buildings, public works and infrastructure, maintenance, life cycle asset management, state-owned properties*

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1. Introduction

The public sector owns a wide range of real assets, including land for infrastructure such as roads, water, sewer, sewage treatment plants, landfills, cemeteries and public investment projects, as well as land for residential and commercial development, schools, apartment complexes and business offices. The public sector in South Africa owns a significant number of these assets, with the Department of Public Works and Infrastructure reporting a total of 82,114 properties in its portfolio as of March 2021. Of these, 80,085 government buildings (about 97.7%) are in use by various government departments, while 2,029 (2.3%) are considered unused and vacant (DPWI, 2021). These physical structures, also known as infrastructure, play a crucial role in supporting and providing services for the community or nation (Cantú, 2017; Snieska & Simkunaite, 2009; Prud'-homme, 2004).

Infrastructure is crucial for development as it can hinder economic growth if not properly managed and maintained (Watermeyer and Phillips, 2020). The lack of maintenance of government properties has led to neglect, vacancy and vandalism which have in turn affected the value of the buildings themselves and the surrounding properties. Local authorities continue to bill for services and hire security to protect these vacant buildings, resulting in an increase in office space rentals by the private sector. Many government buildings are over 100 years old, and the number of vacant buildings is growing – resulting in higher maintenance costs without a return on investment. The failure to maintain and commercialise some of the state buildings has therefore led to missed economic opportunities in many parts of South Africa (Holmes, 2020). Additionally, the lack of proactive asset management strategies in the public sector and the failure to maintain existing buildings accelerates their deterioration process ultimately affecting service delivery (Malawi and David, 2016).The little effort to improve the management of public assets – despite the substantial size of its portfolio of assets – has meant that numerous properties have remained vacant. While previous research by Han (2019), Mallach (2006), and Accordino and Johnson (2000) has shown how private residential properties contribute to the vacancy issue, the reasons for the vacancy of state-owned properties are not well understood. This paper examines the factors contributing to the vacancy and underutilisation of state-owned properties and proposes strategies to improve the management of public assets.

2. Literature Review

2.1 Defining Blighted Properties (Vacant and underutilised properties)

The concept of blight within property development is multifaceted and lacks a universal definition (Jones-Farmer and Heorl, 2019; Wagner, 2018). One of the first pioneers to address blight in urban areas was Philip Darling in 1943 who defined urban blight as abandoned or poorly maintained real estate properties that generally include vegetation overgrowth, trash-filled yards and alleys, graffiti and broken windows.. A 2022 study by Ferreira, Spahr, Sunderman, Govindan, and Meidutė-Kavaliauskienė demonstrates that blighted areas also tend to be characterised by limited living areas, poorly maintained properties with deficient lighting and air quality. These signs, according to Schilling and Pinzón (2016), indicate neglect.

The issue of urban blight remains relevant in contemporary society as indicated by recent research (Barão et al., 2021; Ferreira et al., 2018; Brault et al., 2019). Blight has far-reaching socioeconomic, physical and environmental implications which lead to potential real estate market failures, disinvestment and a decline in property values within affected areas. Scholars

have emphasised that urban blight which contributes to the deterioration of properties has a detrimental knock-on effect on surrounding communities (Huang et al., 2019; Lee et al., 2018; Egbelakin et al., 2017). It must be noted that there is a difference between vacant properties and abandoned properties. According to the Vacant Properties Research Network (2015), vacant properties are those that are not occupied but may still have active owners. Abandoned properties on the other hand usually have no active owners and are uninhabitable, structurally unsafe and/or beyond repair. This paper focuses on vacant properties – rather than abandoned – and analyses properties that are vacant and the effect their depreciation over time could have on future use. It therefore considers vacant state-owned properties as falling under the scope of urban blight.

2.2 The problem of vacant properties

Vacant buildings are a widespread issue that affects both developed and developing countries (Crifasi et al., 2022; Buitelaar et al., 2021; Takamura, 2021; Yakubu et. al 2017). There are opportunities as the global economy evolves for innovation and efficient use of company resources which can lead to the adoption of new asset management strategies. For example, the connection between corporate strategy and corporate real estate strategy (CRES) must take into account global factors and the business environment to optimise real estate use and to support organisational performance. According to Wojewnik-Filipkowska, Rymarzak, and Lausberg (2015), a lack of clear strategy leads to a failure to differentiate between strategic and operational management, resulting in fragmented management activities. Failing to leverage best practices from other areas of public management ultimately renders public sector real estate asset management objectives insufficient.

Assets are typically managed in four phases: planning, acquisition, operation and maintenance, and disposal (Crittenden et al., 2018; Keqa, 2016). Campbell et al. (2015) define asset management as a nine-stage process that includes asset strategy, planning, evaluation, design, acquisition, operation, maintenance, modification and disposal. According to Read (2017), asset management also involves ten interrelated functions which are aimed at improving the financial performance of income properties. These activities include acquisition support, business planning, team management, budget preparation, approval of lease/capital expenditures, promotion of operational efficiency, market research, financial analysis, disposition support and reporting/monitoring. All of these scholarly views emphasise the importance of using effective strategies to manage assets throughout their lifecycle. Changing economic landscapes, new developments and the introduction of new technologies in the built environment sector are contributing to the vacancy of state-owned buildings. According to Masterson, Shackleton, Selomane, Van Staden and Venter (2020), vacant state-owned properties are incurring significant costs for the South African Government due to vandalism and neglect. Grabill et al. (2019) argue that vacant state-owned properties are leading to a decline in neighbouring properties and communities, attracting homeless individuals, vagrants and criminals. This has resulted in the loss of market value and environmental cleanliness in highly respectable neighbourhoods and communities. The authors also note that vacant buildings hurt neighbouring housing while the demolition of vacant buildings can result in urban renewal or development, with neighbouring housing potentially increasing in value. Holmes (2020) contributes to this argument, highlighting the substantial loss of economic opportunities which has resulted from the inability to maintain and commercialise state buildings in various parts of South Africa. They suggest that partnerships with the private sector could address and combat this issue.

In general, however, public, private and state negligence of maintenance is a significant factor in the increase and decrease of costs for property users (Crittendon et. al, 2018). The 2008 global financial crisis resulted in a rise in underinvestment in maintenance, as noted by the McKinsey Global Institute (2016). However, challenges in public sector maintenance have been ongoing for many years and predate the financial crisis. For instance, Mackie et al. (1973) argue that numerous government buildings in South Africa were built during the colonial period (roughly between the 19th and 20th centuries). These structures have deteriorated over time due to exposure to the elements and underscore the importance of regular maintenance.

Johnson (2020) found that some state-owned buildings are being illegally occupied by refugees and homeless individuals who lack the financial means and municipal rights to maintain these properties. As a result, municipalities are unable to manage these vacant buildings which leads to significant economic losses. Vacant, abandoned, and unoccupied properties all contribute to increased crime rates, health hazards, and public safety risks such as collapsing building components and fires (Degli et al., 2022; Atamewan, 2020; Mallach, 2006). For example, a fire in a five-storey building in Johannesburg in September 2023 resulted in the deaths of over 70 people. This building, referred to as a "hijacked building", was illegally rented out by a crime syndicate and lacked basic amenities such as water, sanitation and electricity (Reuters, 2023). Moguerane (2018) has also noted the direct correlation between increased crime rates with the number of vacant and abandoned buildings.
Arguably, past government policies have also contributed to the issue of vacant properties in addition to general structural conditions. For example, subsidies in the United States for the migration of the middle class from central cities after World War II as well as housing policies that favoured new construction over existing development are seen as contributing factors to urban blight in some states (Gelfand, 1975; Bennett, 1990; Myers, 1991). In South Africa, the transition to democracy and government in 1994 resulted in institutional restructurings. This directly resulted in lower incomes for new immigrants, reduced tax and rate payments, and weakened municipal capacity to deliver necessary services. Ultimately, this resulted in urban blight in many city centres such as Hillbrow in Johannesburg – where the white population left their homes and the area became inhabited by low-income immigrants who could not maintain the high standards of the area – and Central Hill in Port Elizabeth – which was left to decay due to the construction of the Settler's Way Freeway in 1963 (Mzamo, 2018; Wasserman, 2014; Morris, 1994).

When it comes to the private sector, lifecycle asset management – which Crittenden et al. (2008) emphasise the importance of – is a practice that government agencies have been slow to adopt due to heavy regulations and procurement practices. The criteria used to evaluate and award public tenders as well as general regulations have contributed to inefficiencies in asset management (Bolton, 2014). However, while the 2017 preferential procurement regulations issued by the South African National Treasury dictated a specific role for the functionality (quality) criteria, the price criteria seem to take precedence – leading instead to poor performance of contractors. Many countries in general have had difficulty repairing and maintaining their infrastructure even after government agencies' unsuccessful attempts to improve maintenance. On the other hand, Malawi and David (2016) emphasise that the public sector's failure to implement proactive asset management strategies may lead to underutilisation of the portfolio. This is evident in the excessive number of vacant properties that are not being used efficiently, as well as the lack of maintenance of existing buildings, which accelerates their deterioration. The absence of proactive asset management strategies has a direct impact on service delivery, as confirmed by Barret (2004), who notes that governments are under significant pressure to improve public services.

Urban blight, or urban decay, has significant socioeconomic, physical, and environmental implications. From an economic standpoint, it often involves real estate market failure, disinvestment, and declining property values in the surrounding area (Han, 2019; Newman, Park & Lee, 2018; Yakubu et al., 2017; Han, 2014; Gospodini, 2012). Additionally, low property taxes and increasing costs for community service delivery, along with strict regulations on local planning, are common characteristics of urban blight (Cheshire, et al., 2018). The physical and environmental aspects of blight are evident in the lack of maintenance which can lead to fires and building collapses. Additionally, studies of vacant buildings and the theorisation of methods to combat their negative impact must consider what groups are directly impacted the most. The negative effects of foreclosures and vacant buildings are primarily observed in low-income and middle-income census tracts, rather than in high-income census tracts. Azam et al. (2019) contend that imbalances in the property market and overbuilding can destabilise the financial system and pose risks to the broader economy.

The global issue of vacant, abandoned and unoccupied properties has been extensively researched, and the negative impact this problem has on the economy, residents and the environment revealed. Bearing this in mind, this paper's research examined how asset management is affected by various factors at different stages while considering how the significance of these factors will determine the most suitable asset management. This paper ultimately identifies three main categories (asset management, internal factors, and external factors), 22 sub-categories (such as asset strategy, skill sets, maintenance, technology innovation, and policy and regulation), and 70 specific factors that impact the vacancy of state-owned properties. This data will be looked at in further depth in later sections. Understanding the factors that contribute to the vacancy of state-owned properties is arguably the first step in improving asset management, and this paper acknowledges how previous research that identifies numerous factors has focussed primarily on private residential properties rather than those that are state-owned. This paper instead concentrates on the primary factors in the South African public sector that contribute to blight.

3. Research Methodology

The objective of this paper is to examine the internal and external factors that affect the management of state-owned properties in the Department of Public Works and Infrastructure (DPWI). The paper uses both a quantitative approach and utilisation of collected data from primary and secondary sources.

3.1 Data collection

Data was collected using self-administered questionnaires distributed to 165 employees of the Department of Public Works and Infrastructure. The participants included employees at various management levels (middle, senior, and executive management) in Real Estate Investment, Real Estate Management Services, Real Estate Information and Registry Services, Facilities Management and Construction Project Management. Also included were oversight and technical advisory services dealing with asset management such as the Strategic Planning Unit, Monitoring and Evaluation Unit and Internal Audit. The questionnaire was pre-tested with a small group of 5 senior managers before the final version – which contained 117 questions (115 closed-ended and 2 open-ended) – was developed.

The questionnaire is divided into three main sections. The first section gathered general information about the respondents such as their age group, gender, highest level of education, division or unit at work and number of years in their specific area of expertise. This information provided contextualisation for the data collected in the second and third sections. The second section focussed on the Department's approach to managing its assets and gathered information about the participants' knowledge of asset management. It included a specific focus on the link between corporate strategy and real estate strategy (CRES) as well as the key role players in managing state-owned properties. The third section helped participants identify both internal and external factors that they believe led to vacant and unutilised state-owned properties.

Purposive sampling was used to select participants from the DPWI who work in real estate investment, real estate management services, asset register management, facilities management, as well as oversight and technical advisory units. The participants were chosen for their specialised knowledge and insight into asset management in their roles within the company. Given the bureaucratic nature and sensitivity of the information within the public sector, permission was sought from the accounting officer to conduct the research. This helped to ensure the participants' willingness to participate in the research. The sampling method that was used allowed us to gather information that closely aligns with the research context (Bakkalbasioglu, 2020; Creswell, 2014). The Cronbach Alpha Test was subsequently used to assess the internal consistency and reliability of the data (Amirrudin et al., 2021; Dennick and Tavakol, 2011). According to Taber (2018), the alpha value ranges from 0 to 1, with a higher value indicating greater reliability and consistency of the data. In this study, a Cronbach Alpha value of 0.930 was obtained which indicates excellent internal consistency and reliability of the collected data.

3.2 Data analysis

The Relative Importance Index (RII) was used to rank the criteria based on their relative importance. According to Sakhare and Chougule (2019), the RII is a non-parametric technique widely used by researchers in the built environment – such as construction and facilities management – to analyse data that includes ordinal measurement of attitudes. Dixit et al. (2019) further explain that this is one of the most commonly used methods that provide highly accurate ratings for variables using a questionnaire. In this study, a five-point Likert scale of 1 to 5 was used, where 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree and 5 = strongly disagree. The following formula was used to calculate the relative index:

$$RII = \frac{ZW}{(A*N)} = \frac{5n_5+4n_4+3n_3+2n_2+1n_1}{5N} \quad (1)$$

In the formula above, W is the weighting given to each factor by the respondents, A is the highest weight and N is the total number of respondents. The RII value ranges from 0 to 1 with 0 not inclusive. According to Akadiri (2011), five important levels are transformed from RI values. These values are shown as follows:

Likert Score Interval (Mean)	**RII Score**	**Evaluation Criteria**
4,20 – 5,00	0.8 < RII < 1.0	High (H)
3,40 – 4,19	0.6 < RII < 0.8	High-Medium (H-M)
2,60 – 3,39	0.4 < RII < 0.6	Medium (M)
1,80 – 2,59	0.2 < RII < 0.4	Medium-Low (M-L)

1,00 – 1,79	0.0 < RII < 0.2	Low (L)

Table 1: The evaluation criteria of Likert scale (5-point) questions
Source: Author

4. Results and Discussion

The summary analysis of the RII is presented below in Table 2:

Table 2: Summary analysis of the categories and relative importance index

Category	Sub-Category and Factors	Total Respondents (N)	Average RII per category	Average RII per sub-category (per factor)	Item Mean
2. Asset Management (AM)					
	Total average for the Sub-Category		**0,630**		**3,110**
1	**Management, Skills and Business Processes**	105		**0,609**	**3,047**
2	**Asset Management Strategy**	105		**0,661**	**3,303**
3	**Resource allocation/Investment**	105		**0,623**	**3,116**
4	**Maintenance**	105		**0,595**	**2,973**
5	**Regulation/Framework and Policy**	105		0,664	3,318
3A Internal Factors (INF)					
	Total average for the Sub-Category		**0,598**		**3,042**
1	**Appropriate Organisational structure and vacancies**	105		0,532	2,659
2	**Business Processes/value chain and procurement processes**	105		0,636	3,181
3	**Strategy and Plans and reliability of Asset register information**	105		0,637	3,186
4	**Skills set**	105		0,631	3,155
5	**Maintenance plan**	105		0,623	3,155
6	**Culture and stakeholder relations**	105		0,556	2,778
3B External Factors (EXF)					
	Total average for the Sub-Category		**0,655**		**3,385**
1	**Industry expertise, skills and experience**	105		0,608	3,04
2	**Historical spatial planning and urbanisation patterns**	105		0,725	3,625
3	**Stakeholder Expectations and Confidence**	105		0,572	2,859
4	**Economic indicators and Market forces**	105		0,726	3,629
5	**New development patterns and alternative options**	105		0,698	3,49
6	**Technology and innovation**	105		0,458	2,288

Category	Sub-Category and Factors	Total Respondents (N)	Average RII per category	Average RII per sub-category (per factor)	Item Mean
7	**Public Sector-wide Planning and Policy**	105		0,728	3,642
8	**Leadership (political interference)**	105		0,693	3,467

Source: Author

Section 1 of the questionnaire provides participant details. Out of 165 participants, 105 responded to the questionnaire with a resulting 64% response rate which can be considered useful for analysis. General statistics are as follows: all participants are over 18 years old, with 44% female and 56% male; 68% work at the head office and 32% in regional offices; 51% hold lower to middle management positions, 40% are in senior management, and 9% are in other roles; 35% have junior degrees, and 65% are post-graduates; in terms of experience, 36% have less than 5 years, 23% have 6-10 years, 28% have 10-20 years, and 13% have over 20 years of experience; 64% have a Master's or Honours degree, and 28% have a bachelor's degree.

Section 2 provides details on Asset Management (item 2 in Table 2), while Sections 3A and 3B cover Internal and External Factors respectively. These sections are labelled as AM for asset management (including the value chain), INF for internal factors, and EXF for external factors. According to their responses, all participants (100% - 105 out of 105) confirm that the Department manages a significantly large portfolio of assets, indicating that the public sector owns a substantial number of assets.

4.1 Factors contributing to vacancy and underutilisation of state-owned properties

The RII results show that most variables have high to medium scores which range from 0.728 to 0.608 which indicate a strong likelihood of the factors mentioned above contributing to vacancy. Public Sector-wide Planning and Policy has the highest RII of 0.728 (as shown in Table 2). 61% of participants believe that planning in the public sector is generally poor and possibly due to a lack of skills and stringent regulations. Regulation-wise, 65% agree that zoning regulations have affected the allocation of assets to user departments while 6% disagree. The heavily regulated public sector, characterised by bureaucratic inertia, tends to compromise service delivery as shown by a high to medium RII of 0.636 in business and procurement processes. Over 62% of participants believe that the functionality criteria are not considered as leading criteria for awarding bidders. This corroborates with the findings of Bolton's study (2014) which argues that functionality criteria stipulated in the preferential procurement regulations have been highly constrained.

The questionnaire asked respondents whether the government has a strategy in place to manage its portfolio of assets. 46% reported that government has no strategy while 21% disagreed and 33% were uncertain. These findings strongly suggest that the Department has not implemented strategies effectively and has overlooked the impact of these factors in real estate planning. They also reflect the failure of the public sector to adopt strategies practised by the private sector, as has been suggested by Crittenden et. al. (2018). Inefficient strategies may be compounded by poor leadership and, at times, political interference in the operations of the Department. While 47% of the participants reported a leadership crisis, another 11% believed that leadership is not a significant factor in vacancy. In terms of the RII, leadership is rated high-medium (0.693) and ranks as the fifth overall contributing factor to vacancy. Malawi and David (2016) have emphasised the public sector's failure to implement proactive asset management. Additionally, Wojewnik-Filipkowska et.al (2015) highlighted the lack of a clearly defined strategy for managing assets.

The maintenance strategy for the state's extensive portfolio of assets is crucial. About 80% of survey participants feel that certain state-owned properties have been neglected over time, resulting in poor conditions. The majority of respondents (84%) believe that vacant and unused state-owned properties are in poor condition, suggesting a lack of proper maintenance. Without a maintenance strategy, the cost of maintenance may not be known. 54% of respondents

indicate that the cost of maintenance is unknown, while only 19% state that the actual cost of maintenance is known. The neglect of infrastructure operation and maintenance was highlighted by SAICE (2011) and strongly emphasised by Watermeyer and Phillips (2020).

Approximately 44% of respondents reported a lack of skills and expertise in property maintenance, while 37% reported a lack of skills in property portfolio management. The skill set is ranked 9th with a high-medium level RII of 0.631. While 65% of the respondents have post-graduate qualifications, the skill set of the respondents tells a different story: 44% lack skills in property maintenance and 37% lack skills in property portfolio management. This raises concerns about the correlation between qualifications and the practical skills required to manage state properties. Unskilled project managers are more likely to have a limited ability to oversee and manage maintenance activities in the Departments which leads to higher maintenance costs. There is an overall deficiency in the skill set required to manage real estate and property maintenance. The lack of private sector skills and expertise is a major concern in markets where the private sector is required to provide a service. 40% of the respondents reported this issue, while only 5% reported the presence of private sector skills. This conflict may be due to procurement processes that prioritise price over functionality, which could explain why most of the state buildings are in a state of disrepair (Pinzón and Schilling, 2016).

60% of the respondents have reported an increased interest and demand for privately owned assets and properties. This is supported by 76% of the respondents who prefer new developments, with 50% believing that the department fails to provide quality buildings and services when considering how most of the department's properties are over 100 years old. To address this issue, 72% of the respondents support public-private partnerships as a method of managing state assets and properties which may potentially create economic opportunities (Holmes, 2020). However, the growing interest in privately owned properties is countered by 44% of the respondents who believe that privately owned properties are not cheaper to secure than state-owned properties. Illegal occupation of state-owned properties poses a significant challenge to effective property management. According to 70% of respondents, the issue of illegal occupation of vacant properties is widespread, while 6% disagree and 2% strongly disagree. This situation complicates property management and results in municipalities losing out on tax revenue that could otherwise be used for renovations and maintenance. Johnson (2020) discovered that the illegal occupation of properties by refugees and homeless individuals hampers the public sector's ability to manage vacant properties. For example, Herbert (2018) points out that a combination of a declining real estate market and an abundance of vacant properties – alongside challenging economic and political conditions – has led to many low-income residents in the United States of America (USA) taking advantage of the opportunity to illegally use or occupy properties.

Table 3: The descending order of the factors most influencing vacancy of state properties

Category	Sub-Category and Factors	Average RII per category and sub-category	Ranking per category and sub-category	Importance level
External	Public Sector-wide Planning and Policy	0,728	**1**	H-M
External	Economic indicators and Market forces	0,726	**2**	H-M
External	Historical spatial planning and urbanisation patterns	0,725	**3**	H-M

External	New development patterns and alternative options	0,698	**4**	H-M
External	Leadership (political interference)	0,693	**5**	H-M
Asset Management	Regulation/Framework and Policy	0,664	**6**	H-M
Asset Management	Asset Management Strategy	0,661	**7**	H-M
Internal	Strategy and Plans and reliability of Asset register information	0,633	**8**	H-M
Internal	Skills set	0,626	**9**	H-M
Asset Management	Resource allocation/Investment	0,623	**10**	H-M
Internal	Business Processes/value chain and procurement processes	0,621	**11**	H-M
Internal	Maintenance plan	0,617	**12**	H-M
Asset Management	Management, Skills and Business Processes	0,609	**13**	H-M
External	Industry expertise, skills and experience	0,608	**14**	H-M
Asset Management	Maintenance	0,595	**15**	M
External	Stakeholder Expectations and Confidence	0,572	**16**	M
Internal	Culture and stakeholder relations	0,556	**17**	M
Internal	Appropriate Organisational structure and vacancies	0,535	**18**	M
External	Technology and innovation	0,458	**19**	M

Source: Author

Table 3 presents nineteen factors with results that show how external factors have the most influence on the vacancy of state-owned properties (42% or 9 out of 19). Internal factors are next at 32% (6 out of 19) and asset management factors are the lowest at 26% (5 out of 19). Fourteen factors are ranked in Table 3 at a High-Medium level and the remaining five at a Medium-Level.

The most significant external factor contributing to vacancy is arguably public sector-wide planning and policy (RII = 0.728), followed by economic indicators and market forces (0.726). Other factors related to urban planning include historical spatial planning and urbanisation patterns (0.725) as well as the emergence of new development patterns which often present alternative options (0.698) to existing properties. These factors have also been highlighted by Ferreira et.al (2022) and Cheshire et.al (2018). It is also clear that the public sector is not exempt from these factors. External factors have been shown to be the most influential in contributing to vacancy and underutilised state-owned properties in South Africa as a whole. The various factors shown in Table 3 are categorised as second (H-M) and third (M) levels of importance. These factors include a lack of strategy and plans, ineffective business processes and procedures, burden of regulations limited resources and inadequate skill sets – all of which contribute to the vacancy. External factors include market forces influenced by the economic landscape, historical spatial planning, urbanisation patterns and new development patterns that present alternative options for clients.

Economic indicators, such as consumption patterns, infrastructure investment and government spending, play a crucial role in strategic planning to improve asset management. The private sector's new development patterns also have a significant impact, particularly when they are

located away from the central business district (CBD). These patterns can ultimately limit or reduce the required services within the CBD. This in turn can lead to government relocation to areas where services are needed, leaving properties in the CBD vacant. These factors are therefore represented by a high-medium RII (0.726 and 0.698, respectively).

5. Conclusion and Recommendations

This paper ultimately focuses on factors that contribute to vacant and underutilised state-owned properties managed by the DPWI. It implemented the results of a questionnaire designed for the purposes of a specific analysis which revealed that it is predominantly external factors that play a significant role in property vacancy. The top five factors contributing to this vacancy are as follows: inadequate public sector planning and policy; economic indicators and market forces; historical spatial planning and urbanisation patterns; new development patterns and accommodation options; and weak leadership. The study concluded that assessing and understanding these external factors contributing to the vacancy of state-owned properties provides asset managers with valuable insights to consider when developing asset management policies and strategies. This understanding can also help in exploring innovative ways to improve asset management practices and potentially eliminate blight.

External factors therefore have a direct impact on policy. Policy implementation occurs in an environment where various actors are involved, and their interactions affect the process of policy implementation. Collaboration with the public and private sectors and their property developers and investors can help address vacancy issues, while infrastructure renovations and rehabilitation projects can in turn be funded through Public-Private Partnerships (PPP). In this arrangement, the private sector should agree to renovate, operate and later transfer (ROT) the asset back to the public sector – bearing in mind how the transfer typically occurs once the contractor has recouped its investment or after an agreed-upon period of time. The renovated properties can as a result be used for economically viable purposes, such as creating businesses that could provide employment for the youth and therefore make a significant economic contribution to the South African economy.

This partnership approach can serve as a model for other developing countries dealing with property vacancy issues in how they should thoroughly assess their policies impact state property and service delivery. It must be considered that factors that contribute to vacancy include migration policies, urban renewal programs, new developments, especially outside city centres, and criminal syndicates taking over buildings. Furthermore, developing countries in the early stages of democracy must consider how the transition and institutional arrangements affect the management of state property.

The results from the data analysis lead to a recommendation that the Department of Public Works and Infrastructure should implement professional development programs to address the skills gap, especially in the context of new asset management strategies and models. The conclusion of this paper's analysis suggests that the Department collaborate with other government departments to improve public sector planning, coordination and policy alignment as part of the inter-governmental relations framework. This will ensure that the planning of public asset use for service provision takes into account urbanisation patterns, socio-economic changes and environmental factors. An integrated planning approach with all levels of government will also aid in determining asset management and maintenance strategies, alongside informing decisions on when to dispose of certain properties. This is important as

the disposal of assets in the market can generate revenue which can be reinvested in maintaining other government assets.

The public sector needs to completely revamp the current policy framework for managing state property by removing political influence and interference in the management processes and asset management value chain. Additionally, the sector should prioritise efficiency and functionality over the lowest price when implementing a procurement system, ensuring that contractors have the necessary experience and track record for the job. This will improve the overall procurement system and reduce the potential for corruption, ultimately addressing the vacancy problem. Close analysis via the implementation of questionnaires and data analysis ultimately shows that external factors such as economic and environmental conditions have a bigger influence on blighted properties than internal factors. This highlights the importance of reassessing current asset management strategies and exploring new principles and models. Key priorities to address the vacancy problem should include the implementation of an appropriate asset management model, maintenance plans, skills assessment, an infrastructure-driven procurement regime as well as stakeholder management. Further research is needed to identify suitable strategies for the state to adopt that take into account the constantly changing external factors and limited financial resources.

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