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**Strategies to Manage Digital Disruption across the  
Hierarchy of South African Shopping Centres**

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**Abstract**

This paper investigated the challenges, impacts, and strategies to deal with digital disruption in retail and how these factors manifest across the hierarchy of South African planned shopping centres. This paper sought to answer the following question: what are the counteractive strategies that can be adopted to counteract the threats posed by digital disruption in retail across the hierarchy of South African shopping centres? The researchers applied the exploratory sequential mixed research method that consisted of an in-depth literature review substantiated by both qualitative and quantitative research. It was concluded that data-driven decisions can manage digital disruption. Therefore, it was recommended that shopping centres invest in data analytics.

**Keywords:** *Digital disruption, E-commerce, Merchandise categories, Shopping centres, South Africa, Trading densities, Vacancy rates.*

## **1. Introduction and Background**

Veuger (2018) defined disruption in markets and industries as the rapid penetration of new, smaller entities into established, larger ones. This phenomenon, exemplified by the emergence of Fourth Industrial Revolution (4IR) technologies, reshapes the retail and retail property sectors, necessitating swift adaptation in business and investment strategies (Veuger, 2018). Given that the South African retail industry contributes 15% of the national GDP, it is crucial to comprehend its vulnerability to digital disruption to fortify it against anticipated advancements in disruptive technologies (Prinsloo, 2016).

Over the past two decades, the number of planned shopping centres has surged due to increased investment from retail property-focused real estate investment trusts (REITs). These REITs have outperformed other asset classes on the Johannesburg Stock Exchange (JSE), propelling South Africa to the fifth position globally in terms of shopping centre numbers (Prinsloo, 2016; Prinsloo, 2018). Despite subdued consumer spending amid economic challenges such as electricity supply disruptions, policy uncertainty, and political instability, property developers persist in constructing new shopping malls, resulting in heightened competition for tenants and a subsequent decline in retail property market values (Cloete, 2003; South African Council of Shopping Centres (SACSC), 2019).

Against this backdrop, digital disruption, particularly in the form of e-commerce, is evident in South Africa. Online shopping is prevalent among higher LSM groups earning R30,000 per month, although the average South African shopper still prefers tactile experiences before making purchases. Omnichannel retailing, allowing consumers to browse, compare prices, and locate stores online before purchasing in-store, is the fastest-growing retail format (Masebe et al., 2020; Prinsloo, 2016).

Given the foregoing background, this paper seeks to answer the following research questions: (i) What challenges and associated impacts does digital disruption pose to the sustainability of South African shopping centres? and (ii) What strategies and opportunities can the South African shopping centre industry implement to mitigate the threats presented by digital disruption?

## **2. Literature Review**

Existing studies have noted that technological disruption has changed the landscape in which retail properties operate across the world. For example, Wrigley et al. (2019) described digital disruption as a storm that has caused a drastic swelling of vacancies in retail centres. They pointed out that there is limited literature on digital disruption. It is, therefore, important for more research to be done given the fact that the sustainability of the one thriving retail market is at stake. Innovation is the key to the success of this sector, especially shopping malls.

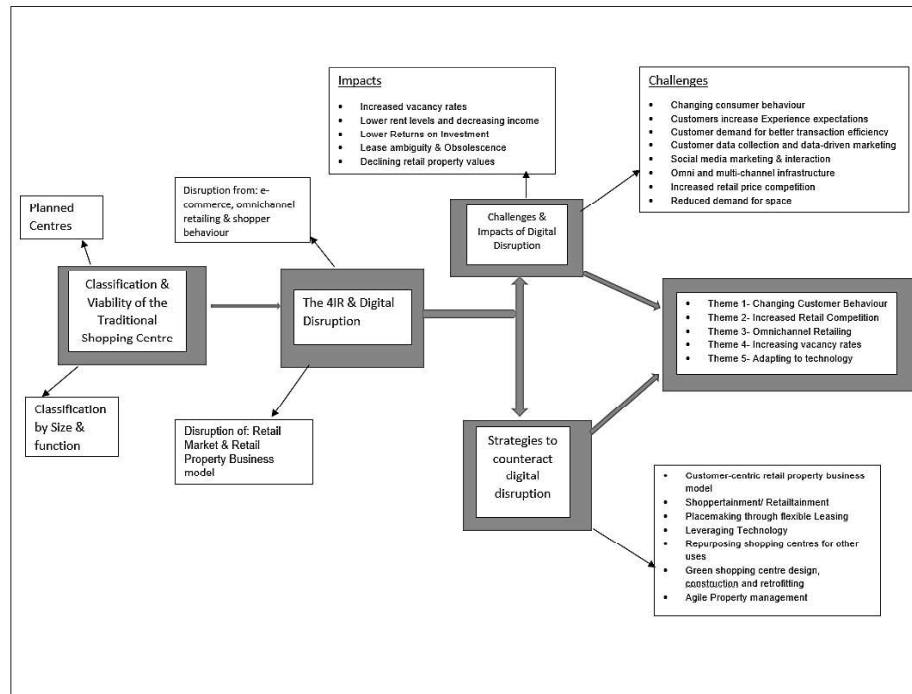
A study by Ding et al. (2022) based on the Chinese context has indicated that digital disruption in the supply chain might be a temporary wave that might not pass the test of time. In their view, e-commerce is riding on efficient transport networks; if transport costs increase, the cost of delivery will also increase. Evidence from Wang and Chi (2021) and Wang and Ng (2020) proved that e-commerce in China decreased between 2011 and 2017 due to an increase in transportation costs.

Digital disruption of retail property has been notably prominent in regions characterised by a convergence of high technology penetration and a high concentration of retail properties, exemplified by the retail property market in the USA (Yan, 2018). Ullah, Sepasgozar, and Wang (2018) pointed out several challenges arising from digital disruption, including the shift to online shopping, escalating costs for brick-and-mortar retailers, improvements in last-mile delivery, advancements in stock control technology, reluctance among consumers to visit shopping centres, and the reduced reliance of retail brands on physical stores. Digital disruption induced shorter lease terms in Australia (Australian Property Institute, 2008) and the USA (Ullah, Sepasgozar, & Wang, 2018) and eroded the values of some retail properties.

Studies by Prinsloo (2018) and Weber (2021) concurred with the findings of Wrigley et al. (2019) that there is a steady decline in weekly visits to South Africa's shopping centres due to an increase in digital penetration. This points towards the notion that South African shopping centres are not spared from the wave of digital disruption. Besides digital disruption, the retail market in South Africa is grappling with unique woes like electricity blackouts and technical recession (Ateba & Prinsloo, 2018).

The COVID-19 pandemic significantly altered consumer behaviour, accelerating the adoption of online shopping and reducing foot traffic in shopping centres (Harmse, 2021; Heyns & Kilbourn, 2022). Although shopping malls in South Africa began to recover in 2021 as restrictions eased, the resurgence was short-lived due to global economic uncertainties stemming from events such as the Russia-Ukraine war (Rode and Associates, 2022). According to Harmse (2021), community centres have seen their trading density recover to a level above their pre-COVID-19 level.

The literature highlights general trends regarding the challenges, impacts, and coping strategies associated with digital disruption in the retail property industry, as summarised and illustrated in Figure 1.



**Figure 1: Conceptual framework**

*Source: Designed by the authors (2022)*

### 3. Methodology

Triangulation was employed in this study due to its ability to capitalise on the strengths of different data sources while mitigating their weaknesses (Dawson, 2009). Considering the nature of the research questions, potential data sources, and the intended audience, the researchers identified the study as one with practical implications, thus favouring a methodological triangulation (DuToit, 2010).

This methodological approach follows a three-phase design. Firstly, a literature review was done to explore the research questions and develop a theoretical framework. Subsequently this framework informed the development of interview questions which in turn informed the development of a survey questionnaire. Finally, the survey results were discussed based on the results from the literature review (DuToit, 2010; Creswell & Creswell, 2018).

The structured expert interviews were done to develop a thematic framework suitable for crafting survey questions. To ensure validity, information saturation was deemed adequate with the participation of five

experts. The interviews were conducted with five experts (refer to Figure 1), and their responses were analysed to generate a thematic framework tailored to the South African retail market. The responses of crucial informants were documented and compared against the theoretical framework derived from the literature review. This comparative analysis facilitated the development of a framework for understanding digital disruption within the South African retail property sector.

The framework derived from the interviews served as the basis for creating an online questionnaire survey distributed to South African retail property managers listed in the SASC (2019) directory. An online survey was chosen as the most suitable method for collecting quantitative data due to its wide reach across South Africa and the diverse hierarchy of planned shopping centres. The response rate exceeded the minimum required to meet the statistical parameters set for the study, ensuring a 95% confidence level with a 10% margin of error.

The survey questionnaire comprised nine questions, with the first four aiming to ascertain the class of the shopping centre, the income (LSM) level within its trading area, the geographical location segment (e.g., city suburb), and the location (province) of the centre within South Africa. The subsequent three questions inquired about the challenges, impacts, and counteractive strategies experienced by the shopping centre. The penultimate question asked the respondents to rank the five themes of digital disruption. All the first seven questions were close-ended, with answer choices derived from the findings from key informant interviews. The final question (Question 9) was open-ended, inviting the respondents to provide any additional factors of digital disruption they deemed relevant. The appropriate sample size was calculated based on the population of planned shopping centres in South Africa listed in the SACSC (2019) directory, using the Tara Yamane formula:

$$n = N / (1 + N(e)^2) \text{ where:}$$

- $n$  = sample size.
- $N$  = population under study.
- $e$  = the margin of error.

A 10% margin of error was deemed acceptable to maintain a 95% confidence level. The formula above translated into a required sample size of approximately 93 responses. Although the response rate was initially

slow, the survey was conducted over three months, ultimately yielding 100 responses, exceeding the required sample size.

### 3.1. Data Analysis

Thematic analysis was employed, resulting in the identification of five themes derived from the literature review. The responses to each question were quantified and ranked. Specifically, the frequency of the respondents selecting a particular answer per type of shopping centre was tallied. Consequently, the more respondents choose a specific response for each type of shopping centre, the higher the ranking assigned to that particular response.

By employing this approach, the responses were systematically ranked for each class of shopping centres. This enabled the researchers to discern variations in the results across the hierarchy of shopping centres, facilitating the interpretation and analysis of the findings.

## 4. Research Results

### 4.1 Key Informant Interviews

The characteristics of the interviewees who participated in this study are presented in Figure 2.

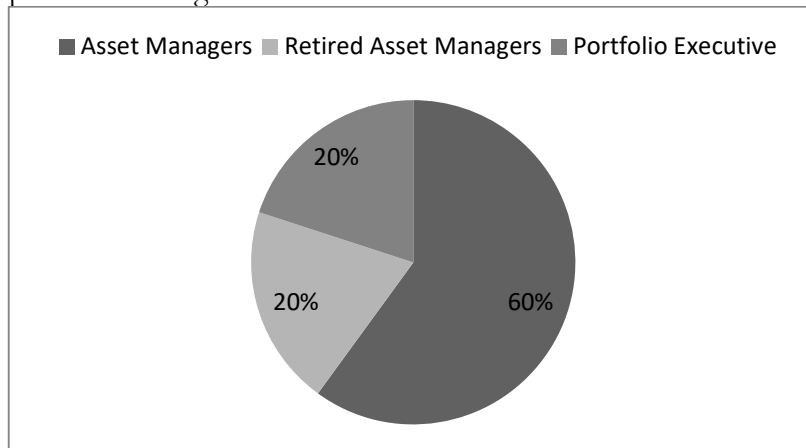


Figure 2: Characterisation of research interview participants

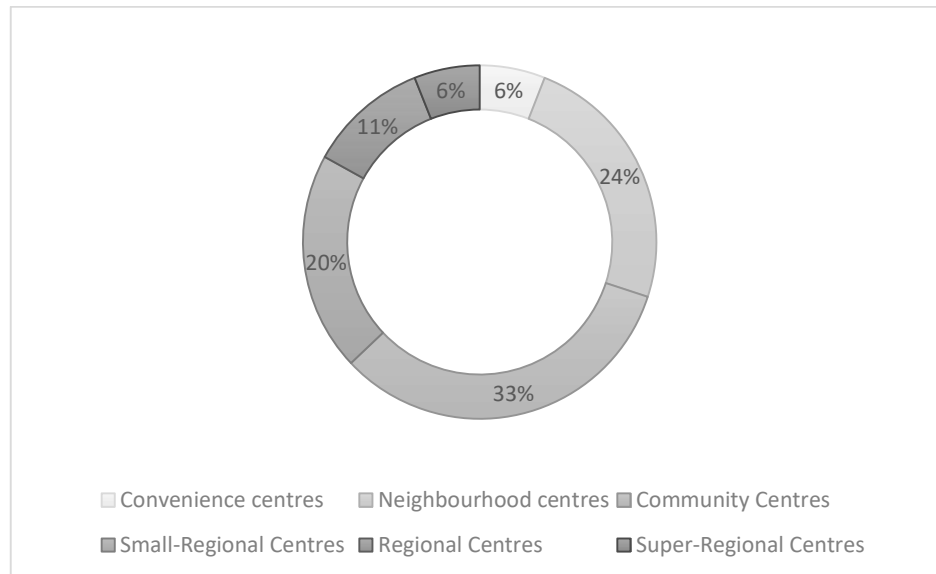
Source: Created by the authors based on research findings

As shown in Figure 2, most interviewees were asset managers, comprising 60% of the total. Retired asset managers and portfolio executives each represented 20% of the interviewees, making up the remaining 40%.

The research interviews revealed that digital disruption is happening, causing an evolution rather than a collapse of shopping centres in South Africa. Retailers and shopping centres had to accelerate their digital transformation due to the changes forced upon the market by the COVID-19 pandemic and the government's regulatory response. The disruptive impact of the pandemic accelerated e-commerce and omnichannel retailing, which pose a long-term challenge to shopping centres. However, the shopping centre industry is already adopting counter-strategies to counteract any negative impacts of digital disruption.

#### 4.2 Questionnaire Survey

A total of 100 survey responses were received and of these, 98 were valid responses, and they were distributed as illustrated in Figure 3:

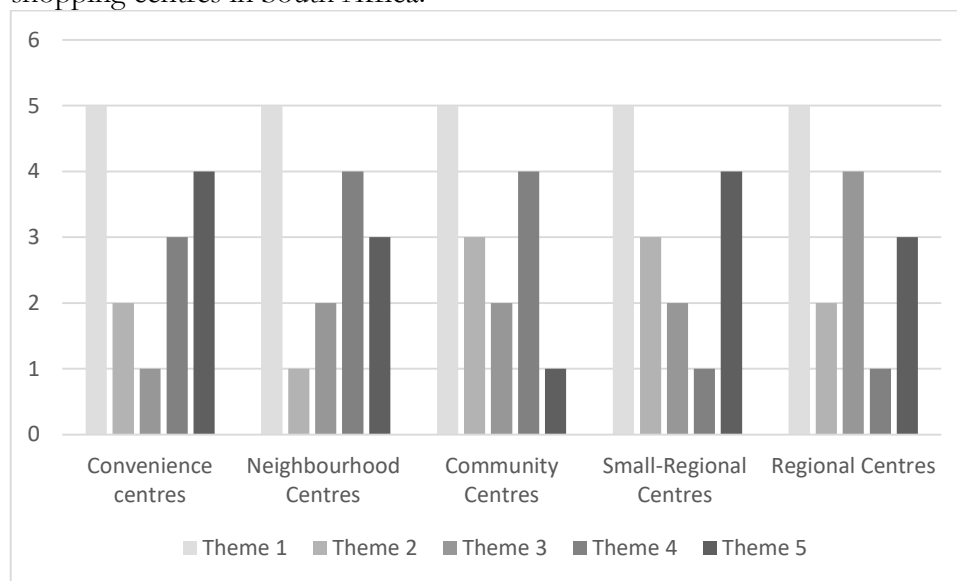


**Figure 3:** Distribution of survey responses  
*Source:* Created by the authors based on research findings

The survey responses were assessed and ranked for each class of shopping centres, with rankings determined by the proportion of the respondents selecting a specific response to each question. These rankings were

compared across different categories of shopping centres, revealing deviations from the aggregate ranking and each other. This disparity in rankings provides evidence of the variation in digital disruption across the hierarchy of South African shopping centres.

Figure 4 illustrates the ranking of themes of digital disruption in retail across the hierarchy of shopping centres, as determined by the survey responses. This ranking offers insights into the relative significance and impact of different aspects of digital disruption across various types of shopping centres in South Africa.



**Figure 4:** Digital disruption themes ranked across the hierarchy of shopping centre  
**Source:** Created by the authors based on research findings

Out of the 98 responses received, only 17 included additional insights regarding the research questions provided in response to the open-ended question in the survey questionnaire. However, upon analysis, it was found that these additional opinions did not unveil any new information or findings beyond what had been previously addressed in the literature review and qualitative findings.

Most of these additional responses tended to echo the findings from the literature and qualitative research, thus reinforcing existing insights. Meanwhile, a minority of the respondents raised social and operational issues that fell outside the specific scope of the study.

Overall, while the inclusion of additional responses provided some supplementary perspectives, they did not significantly contribute to new

understandings or insights beyond what had already been established through the literature review and qualitative analysis.

## 5. Interpretation and Discussion

The study has confirmed the findings of previous studies (Prinsloo, 2018; Masebe et al., 2020; Weber, 2021) about the challenges posed by digital disruption in South Africa’s shopping centres. It also supported the strategies postulated by Masebe et al. (2020), but it also revealed that the application of these strategies varied across the hierarchy of shopping centres in South Africa as shall be discussed in the following sections.

### 5.1 Convenience Centres

Table 1 summarises the strategies that can be adopted to manage digital disruption in convenience centres.

**Table 1:** Digital disruption framework for convenience centres

Challenges imposed by digital disruption	Impacts of digital disruption challenges	Strategies that can be adopted
<p>Changing consumer behaviour.</p> <p>Online shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity.</p>	<p>Reduced foot counts &amp; trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates.</p>	<p>Customer &amp; community-centric retail property business model.</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Flexible leasing and leases</p>
<p>Adapting to technology</p>	<p>Increased pressure to invest in ICT systems and digital infrastructure, e.g., mall WIFI, capable and digital property management and proptech systems.</p>	<p>Leveraging technology through investment in ITC systems, especially proptech, property &amp; facility management software and data capturing &amp; analytics capabilities.</p>

<p>Reduced retailer floor spaces and demand for space.</p>	<p>Decreased demand for space and thus increased vacancy rates.</p> <p>Increasing operating and utility costs.</p> <p>Obsolescence of certain Retailers or Merchandise category demise due to e-commerce price competition.</p>	<p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Repurposing excess retail space and increasing non-GLA income.</p>
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*Source: Created by the authors based on research findings*

For convenience centres, the primary challenge identified was the changing customer behaviour exacerbated by the COVID-19 pandemic. This shift was reflected in reduced foot traffic, decreased demand for retail space, and a rise in vacancy rates, and this supports the findings of previous studies (Prinsloo, 2018; Yan, 2018; Wrigley et al., 2019; Weber, 2021).

The next significant challenge was adapting to technology, particularly as the pandemic accelerated digital disruption through online and omnichannel shopping. The pandemic-induced changes in customer behaviour, coupled with restrictions on retailer operations, also led to challenges related to reduced floor space sizes and demand for retail space. Although adapting to technology, implying digital transformation within convenience centres, ranked second as a theme, the most notable impacts were observed in terms of space demand and vacancy rates.

Consequently, the focus of convenience centres shifted towards managing vacancy rates, retaining tenants, and increasing shopper visits to mitigate the effects of digital disruption exacerbated by the COVID-19 pandemic. These strategies are primarily people-centred and grounded in retail property management fundamentals. While leveraging technology for enhanced data collection and data-driven management is acknowledged as important in adapting to technology (digital transformation), it is recognised as a more long-term solution to addressing digital disruption within the retail property industry.

### **5.2 Neighbourhood Centre Framework**

The research results show the challenges, impacts, and coping strategies of digital disruption in retail interact, in South African neighbourhood centres, as illustrated in Table 2.

**Table 2:** Digital disruption framework for neighbourhood

<b>Challenges imposed by digital disruption</b>	<b>Impacts of digital disruptions</b>	<b>Strategies that can be adopted</b>
<p>Changing consumer behaviour</p> <p>Online shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity.</p> <p>Social media influences on customer behaviour.</p>	<p>Reduced foot counts &amp; trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates.</p> <p>Negative social media interactions &amp; a need for social media presence and modern communication skills.</p>	<p>Customer &amp; community-centric retail property business model.</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Flexible leasing and leases.</p>
<p>Reduced retailer floor spaces and demand for space.</p>	<p>Decreased demand for space and thus increased vacancy rates.</p> <p>Increasing operating and utility costs.</p> <p>Changing space configurations and demand for retail space leading to declining rent levels and property values.</p> <p>Obsolescence of certain retailers or merchandise category demise due to e-commerce price competition.</p>	<p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Repurposing excess retail space and increasing non-GLA income.</p> <p>Curating tenant mixes; space reconfigurations.</p>
<p>Adapting to technology</p>	<p>Increased pressure to invest in ICT systems and digital infrastructure, e.g., mall WIFI, capable and digital property management and proptech systems.</p>	<p>Leveraging technology through investment in ITC systems, especially proptech, property &amp; facility management software and data capturing &amp; analytics capabilities.</p>

**Source:** *Created by the authors based on research findings*

According to Table 2, neighbourhood centres primarily aim to address declining shopper visits and rising vacancy rates, noted by Harmse (2021) and Heyns and Kilbourn (2022). Despite the perceived importance of adapting to technology, utilising technology as a strategy isn't considered crucial in the short term. This paradox likely stems from the predominant technological disruptions in neighbourhood centres, such as the surge in food delivery services like UberEATS, necessitating operational adaptations like providing parking for delivery vehicles rather than extensive technological investments. Unlike convenience centres, neighbourhood centres faced unique challenges in changing customer behaviour, including managing social media interactions and marketing

impacts. This underscores the importance of establishing a social media presence and customer-centric interactions to handle or prevent negative publicity in neighbourhood centres. Additionally, neighbourhood centres tend to curate tenant mixes to combat the obsolescence of specific retail categories and address declining demand for retail space.

### **5.3 Community Centre Framework**

Community centres emerged as the top performers in trading density growth during the study period (Q1:2020 to Q3:2021), gaining market share from larger centres. These findings align with Harmse's findings (2021). Between Q3:2020 and Q3:2021, community centre trading densities surged by 18.8% annually. These centres, predominantly food-anchored and located in residential areas, benefited from the rise in remote work due to COVID-19 restrictions. While food services initially faced trade restrictions, they capitalised on the early shift to e-commerce after the March-April 2020 lockdown. Proximity to residential areas enhanced community centres' advantage over larger formats, leading to market share gains.

Moreover, community centres that supermarkets anchor were deemed essential during the peak of the COVID-19-induced lockdowns. Hence, they remained operational. This gave them a competitive advantage compounded by their diverse tenant mixes. This diversity attracted shoppers seeking variety and value, further boosting community centres' appeal.

Despite experiencing accelerated digital disruption akin to neighbourhood centres, community centres implemented similar coping strategies with superior outcomes. However, their vacancy rate remained high at 6.9% in Q3:2021, surpassing pre-pandemic levels, primarily due to the obsolescence of certain retail categories driving vacancies.

Community centres seemed less susceptible to social media-related impacts, likely due to established online presence. Yet, rising operating costs, particularly hygiene and COVID-19 responses, posed challenges. Landlords mitigated disruptions by offering rental concessions to affected tenants, stabilising the occupancy cost by Q3:2021.

While community centres acknowledge the importance of adapting to technology, they prioritise addressing challenges associated with customer behaviour and vacancy rates. These centres focus on retail management fundamentals to navigate disruptions, emphasising place-making, customer experience, and landlord services. See Table 3 for the framework depicting digital disruption in community centres.

**Table 3:** Digital disruption framework for community centres

Challenges imposed by digital disruption	Impacts of digital disruptions	Strategies that can be adopted
<p>Changing consumer behaviour.</p> <p>Online shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity.</p>	<p>Reduced foot counts &amp; trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates.</p>	<p>Flexible leasing and leases.</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Customer &amp; community-centric retail property business model</p>
<p>Reduced retailer floor spaces and demand for space.</p>	<p>Decreased demand for space and thus increased vacancy rates.</p> <p>Changing space configurations and demand for retail space leading to declining rent levels and property values.</p> <p>Obsolescence of certain retailers or merchandise category demise due to e-commerce price competition.</p>	<p>Curating tenant mixes; space reconfigurations.</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Repurposing excess retail space and increasing non-GLA income.</p>
<p>Adapting to technology</p>	<p>Increased pressure to invest in ICT systems and digital infrastructure, e.g., mall WIFI, capable and digital property management and proptech systems.</p>	<p>Leveraging technology through investment in ITC systems, especially proptech, property &amp; facility management software and data capturing &amp; analytics capabilities.</p>

*Source:* Created by the authors based on research findings

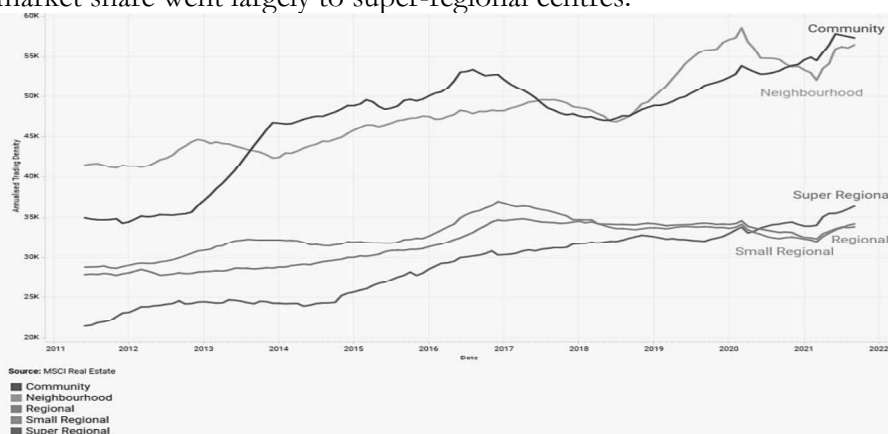
### **5.4 Small-Regional Centre Framework**

Small-regional centres experienced a 10% growth in trading densities between Q1:2020 and Q3:2021, from the lows of the hard lockdown to the time of the research survey. However, trading densities were still 3.44% below pre-pandemic levels in Q3:2021. This is because the pandemic and

its acceleration of digital disruption had a more significant impact on small-regional centres than on smaller centres.

Small-regional centres cater to a larger catchment area than all the smaller format centres. The tenant mix in these centres generally comprises two to three large food retailers, convenience retailers, and national clothing outlets. The food and clothing merchandise categories lost market share to smaller format centres, especially community centres located within residential neighbourhoods, as explained in section 5.3 above.

The COVID-19 pandemic lockdown restrictions limited shoppers' ability to visit shopping centres outside their immediate residential areas. At the same time, the work-from-home regulations meant more people stayed at home during working hours and shopped closest to home. Moreover, small-regional centres are located on the major arterial roads to and from residential areas as they are designed to capture shoppers on their way home from work. Thus, potential shoppers being forced to work from home represented a loss of potential foot traffic. A further aggravating factor (on trading densities) is that, according to Harmse (2021), shoppers preferred super-regional centres when they intended to spend more. This combination of shopper behaviour and circumstances meant small-regional centres may have lost market share to smaller and larger centres, especially regarding the food retail merchandise category. This observation is borne out by Figure 5 below, which depicts that the market share, represented by trading density growth for community and neighbourhood centres, has grown and that among the large format centres, the remaining market share went largely to super-regional centres.



**Figure 5:** Food retail trading density trends Q1:2020 to Q3:2021

*Source:* Harmse (2021:9)

The survey results show the increased importance of digital disruption (e-commerce) within this format of shopping centres in that, for the first time in the shopping centre hierarchy analysed thus far, Theme 2 (increased retail price competition from online retail) makes it into the top three themes within which a category of shopping centres experiences digital disruption.

The focus is on the shoppers and enticing them to the shopping centre through experiences that they cannot experience online. The framework for digital disruption within small-regional shopping centres in South Africa is illustrated in Table 4.

**Table 4:** Digital disruption framework for small-regional centres

Challenges imposed by digital disruption	Impacts of digital disruptions	Strategies that can be adopted
<p>Changing consumer behaviour.</p> <p>Online shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity.</p>	<p>Reduced foot counts &amp; trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates.</p>	<p>Flexible leasing and leases.</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Customer &amp; community-centric retail property business model.</p>
<p>Reduced retailer floor spaces and demand for space</p>	<p>Decreased demand for space and thus increased vacancy rates.</p> <p>Changing space configurations and demand for retail space leading to declining rent levels and property values.</p> <p>Obsolescence of certain retailers or merchandise category demise due to e-commerce price competition.</p>	<p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p> <p>Curating tenant mixes; space reconfigurations; repurposing excess retail space and increasing non-GLA income.</p>
<p>Increased retail price competition</p>	<p>Obsolescence of certain retailers or merchandise category demise due to e-commerce price competition.</p>	<p>Curating tenant mixes; space reconfigurations.</p> <p>Repurposing excess retail space and increasing non-GLA income.</p>

*Source:* Created by the authors based on research findings

### 5.5 Regional Centre Framework

Regional centres in South Africa fill the regional role across various locations and income levels. They offer variety and value and are often seen as destinations coupled with convenience. Like small-regional centres, they have been more significantly impacted by the COVID-19 pandemic and accelerated digital disruption in e-commerce for essentially the same

reasons as those outlined for small-regional centres. These reasons can be more briefly summarised as follows:

- Loss of food and convenience market share to smaller format centres in residential areas.
- Loss of remaining food market share to super-regional centres.
- Increased competition from e-commerce and adapting to the switch to omnichannel retailing by major tenants (retailers).
- Declining foot traffic and sales resulted in negative gross rental growth in a period of increasing operating costs (municipal charges, COVID-19 compliance costs), thus putting downward pressure on net operating income and asset values.

The strategies adopted by regional centres focus on shoppers, tenants/retailers, and property management staff skills. This focus implies a greater emphasis on tenant retention and shopper attraction in contrast to the emphasis on reducing vacancy rates that small format centres adopt. Regional centres had the lowest vacancy rate at 5% as of Q3:2021. Hence, the survey results show less concern with a reduction in space demand (increasing vacancy rates) even though said vacancy rates are still greater than pre-pandemic (2019) vacancy rates. The proposed framework for digital disruption in regional centres in South Africa is illustrated in Table 5.

**Table 5:** Digital disruption framework for regional centre

Challenges imposed by digital disruption	Impacts of digital disruptions	Strategies that can be adopted
<p>Changing consumer behaviour.</p> <p>Online shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity.</p>	<p>Reduced foot counts &amp; trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates.</p>	<p>Customer &amp; community-centric retail property business model.</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p>
<p>Adapting to technology.</p>	<p>Increased pressure to invest in ICT systems and digital infrastructure, e.g., mall WIFI, capable and digital</p>	<p>Hiring &amp; training for retail property capabilities, especially at asset &amp; property/centre management levels and</p>

*Source: Created by the authors based on research findings*

	property management and proptech systems.	<p>upskilling property managers for the digital age.</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property &amp; facility management software and data capturing &amp; analytics capabilities.</p>
Increased retail price competition.	Obsolescence of certain retailers or merchandise category demise due to e-commerce price competition.	<p>Curating tenant mixes; space reconfigurations.</p> <p>Repurposing excess retail space and increasing non-GLA income.</p>

### 5.6 Super-Regional Centre Framework

The research has shown that the perceived impact of digital disruption on shopping centres is directly proportional to the size of the shopping centre. The larger the centre, the greater the level of digital disruption and the need to counteract it.

In South Africa, super-regional centres fulfil the destination shopping centre role in the truest sense. Therefore, they are under more significant pressure to attract shoppers, have appropriate tenant mixes, and provide experiences.

The focus of counteractive strategies for super-regional centres is on countering digital disruption in retail and its consequent impact on shopper behaviour. Super-regional centres have the highest market values, most variation in merchandise offerings, and largest catchment areas. This implies that, though vacancy rates in Q3:2021 were 6.8%, the operators of these malls are somewhat more concerned with tenant retention and shopper attraction. By nature, these malls also tend to attract new entrants into the South African retail market, seeking maximum exposure. They, therefore, tend to have a greater variety in tenant mixes and generally do not suffer from an inability to attract tenants (retailers).

The entire framework for digital disruption in South African retail is relevant for super-regional centres to a greater or lesser degree, depending on location. However, the most pertinent framework based on the top three themes is illustrated in Table 6.

**Table 6:** Digital disruption framework for super-regional centres

<b>Challenges imposed by digital disruption</b>	<b>Impacts of digital disruptions</b>	<b>Strategies that can be adopted</b>
<p>Changing consumer behaviour.</p> <p>Online Shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity.</p> <p>Social Media Influences upon customer behaviour.</p>	<p>Reduced foot counts &amp; trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates.</p> <p>Negative social media interactions &amp; a need for social media presence and modern communication skills.</p>	<p>Customer &amp; community-centric retail property business model.</p> <p>Curating tenant mixes &amp; space reconfigurations.</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand.</p>
Omnichannel retailing	<p>Lease ambiguity on omnichannels.</p> <p>Reduced foot counts &amp; trading densities in physical stores.</p> <p>Changing space configurations and demand for retail space leading to declining rent levels and property values.</p>	<p>Flexible Leasing and leases.</p> <p>Repurposing excess retail space and increasing non-GLA income (e.g., Exhibitions, residential).</p>
Adapting Technology to	<p>Increased pressure to invest in ICT systems and digital infrastructure, e.g., mall WIFI, capable and digital property management and proptech systems.</p>	<p>Hiring &amp; training for retail property capabilities, especially at Asset &amp; Property/Centre Management levels and upskilling property managers for the digital age.</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property &amp; facility management software and data capturing &amp; analytics capabilities.</p>

**Source:** Created by the authors based on research findings

Whether digital disruption in South Africa's shopping centres will stand the test of time, especially post-COVID-19 pandemic remains to be seen. Currently, South Africa faces a plethora of challenges, chief among them power blackouts, as noted by Ateba and Prinsloo (2018). The availability of reliable electricity anchors the success of technology. However, there is no clear plan to find a lasting solution to an erratic power supply. This

aligns with the argument of Ding et al. (2022) that the hype about technological disruption might be nothing but a passing tornado.

South Africa has been grappling with higher than normal inflation levels, eroding people's disposable income. The cost of fuel and the Internet are not spared from this inflationary environment. Therefore, as the cost of fuel increases, transportation costs are likely to rise, impacting the profitability and sustainability of e-commerce. Similarly, the cost of the Internet is increasing in line with inflation levels. One is justified in questioning whether this will have detrimental effects on digital disruption in retail properties.

The twin effects of erratic power supply and the high cost of the Internet are likely to derail the sustainability of digital disruption in South Africa's shopping centres and favour traditional shopping methods. However, it must be underscored that the findings of this study cannot be ignored. There is ample evidence that COVID-19 has created a conducive environment for digital disruption in the retail property sector of South Africa. Moreover, the reviewed literature indicates that digital disruption has established itself as a permanent phenomenon in the international retail market.

## **6. Research Conclusion**

In conclusion, the themes of digital disruption in retail, as discovered in this study, vary in importance across the hierarchy of South African shopping centres. It can be concluded that for the period of the study (Q1:2020 to Q3:2021), the COVID-19 pandemic and its associated acceleration of digital disruption had the most significant impact on customer behaviour. The larger the format of shopping centres, the greater the perceived susceptibility to digital disruption in the form of e-commerce. However, this correlation between size and susceptibility to digital disruption does not spell doom for large format malls, as the array of strategies and opportunities they can adopt to counteract digital disruption is proportionally more extensive than those for small format centres. All formats of shopping centres and the various stakeholders that own and operate/manage them will need to adopt digital transformation in the long term. More focus on customers/shoppers and their experiences calls for more significant investment in data analytics infrastructure and shopping centre management teams' analytics capabilities for data-driven decision-making and planning.

This research creates a basis for future-proofing retail property in South Africa. South Africa has Africa's largest supply of retail property, but this supply is concentrated in suburban areas. Thus, there are opportunities for additional supply in underserviced rural and low-income townships outside of significant metropolises and cities. Further, the digital divide and cost of access to the Internet mean that large swathes of the population, primarily located in rural and low-income townships, will still maintain demand for physical shopping.

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