



University of Pretoria

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

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Declaration

I declare that this research is my own, unaided work, except where otherwise stated. All sources referred to are adequately acknowledged in the text and listed. I accept the rules of assessment of the University of Pretoria, and the consequences of transgressing them. This proposal is being submitted for the Dissertation (EMW890) subject, as partial fulfilment of the requirements for the MSc (Real Estate) degree, at the University of Pretoria. It has not been submitted before for any degree or examination at any other university.



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LIST OF ACRONYMS AND ABBREVIATIONS

- e-commerce- electronic commerce
- e-tailing- electronic retailing
- Fintech- financial technology
- Foot count- number of persons entering a shop/shopping centre over a specified period.
- GDP- Gross Domestic Product
- ICSC- International Council of Shopping Centres
- Proptech- property technology
- Q1:2020 – The quarter within the year in this case the first quarter (Q1) of 2020.
- Retailtainment- retail entertainment
- Retailtech- retail technology
- SACSC- South African Council of Shopping Centres
- SAPOA- South African Property Owners Association
- Shoppertainment- shopper entertainment
- Trading density- total sales divided by total retail space/area

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Abstract

The retail property industry in South Africa represents a trillion Rand in investment, employment, and urban development, all of which would be negatively impacted should it collapse. It, therefore, follows that knowledge about its adaptation to the 4IR and the threats and opportunities that the 4IR represents are vital to the industry's long-term success and South Africa's economy. A literature review has indicated five themes within which digital disruption is experienced in retail property. Within these themes, various challenges, impacts, and coping strategies interact. Just how these themes are experienced across the hierarchy of planned South African shopping centres is currently unknown. This study aimed to investigate how the counteractive strategies to the negative impacts of digital disruption are employed within and across the hierarchy of South African shopping centres. The research approach of this study consisted of an in-depth literature review substantiated by both qualitative and quantitative research, i.e., mixed methods research. The type of mixed methods research conducted was the exploratory sequential method, wherein qualitative research in the form of expert interviews was conducted to substantiate or validate the literature findings. The qualitative findings were then quantitatively tested by using a survey questionnaire developed from the said findings. The survey was administered online, and the results were interpreted by using the lens of qualitatively established facts and theories.

The research question sought to establish how digital disruption in retail property presents itself by establishing what the challenges, the impacts and the contradictory strategies of digital disruption are; and whether they are experienced uniformly or variably across the hierarchy of South African shopping centres. It was found that there are five main themes within which the challenges, impacts and coping strategies of digital disruption interact within the retail property industry. These themes and their corresponding challenges, impacts and strategies present themselves variably across the hierarchy of South African shopping centres. The level of perceived disruption is observable by considering the degree to which survey respondents chose the responses related to either fundamental property-management issues or digital disruption (e-commerce and omnichannel retail) as being of greater importance/impact on their particular shopping centres. The degree of disruption appears to be related to the size and function of the shopping centres, with small format centres experiencing less digital disruption than larger format centres. The COVID-19 pandemic has accelerated digital disruption. This acceleration in digital disruption is likely to have a short-term negative impact on South African shopping centres due to the income inequality that exists in the country. This income inequality leads to a digital divide based on the cost hurdle regarding internet access, which has a limiting impact on the growth of online shopping. The digital divide, coupled with an enduring mall culture and the desire to touch and feel goods exhibited by South African shoppers, means that COVID-19 that has accelerated digital disruption in retail is likely to be short-lived, and a return to slower-paced growth in digital disruption is likely to be post-pandemic.

The study was limited to South African planned shopping centres listed in the South African Shopping Centre Directory of 2019. The qualitative phase research informants were limited to South African retail property experts (Asset Managers and Portfolio Executives) from a leading South African REIT, while the quantitative phase research informants were limited to the property managers of the said planned shopping centres. The findings of this study are of value to the retail property industry stakeholders in that they provide a body of knowledge for the

present survival of shopping centres in South Africa, the futureproofing of existing centres and the fit-for-purpose development of future centres. This is important in ensuring the continued success of the trillion-Rand retail industry and its entire value chain, whose end products and services are delivered from shopping centres. Furthermore, the study provides a new theoretical framework for understanding digital disruption in retail property. And it establishes the need for digital transformation within retail property management. It also establishes how to counteract digital disruption in South African shopping centres in general, and specifically for each class of the shopping centres.

Keywords

Themes, Challenges, Impacts, Strategies, Trading Densities, Vacancy Rates, Merchandise Categories

Chapter 1: Introduction

1.1 Introduction and Background to Study

The fourth industrial revolution (4IR) is the current industrial era which is yet to be fully developed; but it is afoot and driven by the conjunction of information and communication technology advances, such as artificial intelligence (AI), internet of things (IoT) and advances in robotics and automation and 3D printing. According to Veuger (2018), disruption refers to when something new and small penetrates something existing and big in a short space of time. New, relatively small 4IR technologies are penetrating the retail and retail property sectors in a disruptive fashion that calls for rapid adaptation of retail property business and investment decisions (Veuger, 2018). This research paper was written in chronological format covering the study's data collection period from the first quarter of 2020 to the 3rd quarter of 2021. In this chapter, the background of the study and the plan of how the study was conducted is outlined. To do this logically, we began by looking at the market status of retail property in South Africa at the beginning of the study. The market status at the end of the study in the 3rd quarter of 2021 and beyond is referenced in the results and discussion sections of the study.

1.2 Background: South African Retail Property in the First Quarter of 2020 (Q1:2020)

According to Prinsloo (2016), the planned retail property industry in South Africa is structured by size of shopping centres to form a hierarchy of types of shopping centres, namely:

- Convenience Centre with GLA of 500m² – 5000m²
- Neighbourhood Centre with GLA of 5000m² - 12000m²
- Community Centre with GLA of 12000m² - 25000m²
- Small-Regional Centre with GLA of 25000m² - 50000m²
- Regional Centre with GLA of 50000m² - 100000m²
- Super-Regional Centre with GLA of >100000m² (Prinsloo, 2016)

It must be noted that the limitation of the classification by Prinsloo (2016) which was adopted in this study is that it has overlapping sizes as can be seen above but it can be interpreted to mean that shopping centre sizes can be rounded off to the nearest significant figure to distinguish classification.

The number of planned shopping centres in the classes/hierarchy depicted above has increased over the 20 years between 1998 and 2018. The increase was due to an influx of investment by retail property focused real estate investment trusts (REITs) which proliferated over the same period. Retail REITs proliferated due to their financial outperformance over other asset classes on the Johannesburg Stock Exchange (JSE). As a result, they had market and economy-beating returns over the first ten years and continued to outperform until 2017. However, in 2017 there was a collapse in the REIT market due to concerns over crossholdings and corporate governance within the sector converging with a ten-year stagnation in economic growth and extreme competition between centres, especially in urban areas (Prinsloo, 2018).

The South African retail industry represents 15% of the GDP; and it is a significant employer. This industry is housed within the retail properties of the South African shopping centre industry, which has a hierarchy as depicted above. South Africa has the fifth largest number of shopping centres in the world, and it is still growing with significant developments and redevelopments of shopping centres across the country on going (Prinsloo, 2016). Property developers continue to build new shopping malls, despite depressed consumer spending. An example of additional retail space coming on the market is the Fourways Mall in Johannesburg which was launched in 2019 and has become the largest Mall in South Africa at 178,000m². However, the stagnation of economic growth over the last decade, compounded by electricity supply disruption, economic policy uncertainty and political instability and the shrinking tax base of the country, have resulted in the erosion of wealth and household incomes, i.e., a decline in GDP per capita. This has meant declining retail sales and shop closures by struggling retailers (sacommercialpropnews, 2020).

At the beginning of 2020, some of the largest retailers in South Africa that account for large areas of retail floor space were closing shops and retrenching workers. Edcon holdings had entered stakeholder negotiations with government, landlords and labour unions to avert the collapse of the group, a major clothing retailer across Southern Africa. Edgars negotiated rent reductions, freezes and outright free rents with landlords to relieve the pressure on its balance sheet to avert bankruptcy throughout 2019. This, however, still did not avert shop closures and the flagship upmarket 5971m² Edgars store at Eastgate Mall and 150 other underperforming stores, including various Jet, Edgars and CNA stores within the Edcon group. Massmart (A South African subsidiary of Wal-Mart) also announced the proposed retrenchments of 1440 employees and the closure of 34 Dion Wired and Masscash stores for 2020 (sacommercialpropnews, 2020).

In these harsh retail trading conditions, the increase in vacant retail space and subsequent downward pressure on rent levels combined to reduce the market values of retail property. Furthermore, extreme competition for quality tenants between retail property owners further erodes rent levels as a tenant market is produced and proliferated by the oversupply of space in a low-demand space market (Cloete, 2003; SACSC, 2019). With this background, digital disruption due to advancing 4IR technologies was found to exist in South African retail. This has several negative impacts on the retail property sector, such as:

- Decreased demand for space and thus increased vacancy rates
- Lower rental levels and decreasing income
- Lease ambiguity on omnichannel retailing
- Obsolescence of certain Retailers and Shop closures
- Declining Retail property values and flight of capital from the retail property sector to other property sectors (Masebe, 2020).

The technological disruption presents mainly in the form of e-commerce which refers to the trade of goods and services and payment over the internet. In South Africa, the e-commerce market is dominated by Takealot, while USA's Amazon Inc. dominates the e-commerce worldwide. Other international e-commerce giants include Alibaba, eBay and Zalando. By leveraging the internet, these companies have given rise to ubiquitous online retail operations

in which shopping and price comparisons can be made online and deliveries made to the homes or workplaces of consumers. Amazon uses automated packaging and logistics robots and delivery drones, while in South Africa, Takealot uses a mobile phone-enabled network of delivery agents to get goods to consumers quickly. In the USA, the rise of Amazon and its peers has led to a phenomenon called the “death of the mall”, in which many shopping malls have had to close down or have large vacancies. In South Africa, the primary online shoppers are in the millennial and Generation Z age bands due to their technological awareness but still concentrated in the higher LSM groups earning R30 000pm and above. However, the average South African shopper prefers to touch and feel products before purchasing. Thus, omnichannel retail, a mixture of online and in-store retail channels, is the quickest-growing retail channel. Shoppers may search for store locations, goods and services and make price comparisons online before going in-store to touch and feel the products and then make an in-store or online purchase (Masebe, 2020; Prinsloo, 2016).

The poor economic conditions in South Africa and their resultant erosion of consumer spending are, at present, the main threats to retail property, while digital disruption is a secondary threat that exacerbates the situation. Given the advent of the 4IR and increased technological advancements in Proptech, Retailtech, Fintech and other digital technologies and their applications by retailers and consumers, “digital disruption” is a long-term threat to the continued success of “bricks and mortar” retailing. These threats and opportunities occur in a geographically diverse and hierarchically structured shopping centre industry in South Africa. Thus, it is hypothesized that they do not present uniformly across the market (Masebe, 2020).

1.3 Research Problem Statement

The preliminary investigation suggests that digital disruption exists in the retail property industry. This disruption comes with challenges, and it is associated with impacts that threaten the viability of shopping centres. Digital disruption, however, presents opportunities for adaptation that can mitigate or counteract the threats in the form of appropriate strategies. This dissertation seeks 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?

1.4 Research Questions

The research questions associated with the above stated research problem are as follows:

1. What are the challenges and associated impacts of digital disruption that threaten the viability of South African shopping centres?
2. What are the counteractive strategies that can be adopted by the South African shopping centre industry to counteract the threats posed by digital disruption (specific to South Africa)?
3. How are the threats and strategies applicable across the hierarchy of South African shopping centres?

1.5 Research Aim and Objectives

This study aims to determine the strategies that can be adopted to ensure the long-term viability of South African shopping centres within the era of the fourth industrial revolution by counteracting the long-term threat posed by the negative impacts of digital disruption in retail. In short, this research aims to contribute to the body of knowledge regarding strategies that shopping centres in South Africa can adopt to ensure continued viability in the face of digital disruption. This is to be achieved by the following objectives:

1. Establish a framework for the specific challenges, impacts and strategies of digital disruption that are relevant to the South African market.
2. Determine whether the framework for digital disruption in South Africa presents uniformly or variably across the hierarchy of South African shopping centres.

In order to address the research problem effectively, it was hypothesised that:

- The industry will adopt a digitally aware shopping centre management strategy suitable for omnichannel retailing and changing shopper behaviour trends. This is likely to be in the form of increasing experiential shopping, greater data gathering and analysis to inform decision making and digital transformation.
- There will be reduced foot traffic to shopping centres due to online and omnichannel shopping. As shoppers opt for online shopping there is likely to be less need for them to visit shopping centres.
- Rental income and shopping centre values will decrease because of the decreased demand for space by retailers and the increasing vacancies. Retailers adopting omnichannel retailing and those unable to compete with e-commerce are likely to require less and less physical store space over time.
- The strategies to counteract the threats posed by digital disruption may include reinventing leases, leveraging technology, repurposing shopping centres, and generating new revenue streams.
- The threats posed by digital disruption and the counteractive strategies thereof should present variably rather than uniformly across the hierarchy of South African shopping centres. This because of the income inequality in South Africa which implies that areas with higher incomes have greater access to the internet and better civil infrastructure thus likely to experience greater ecommerce penetration than those with lower income. Thus, shopping centres located in more affluent areas are likely to experience greater disruption than those located in less affluent areas.

1.6 Rationale of the research

The retail property industry in South Africa represents a trillion Rand in investment, employment, and urban development, all of which would be negatively impacted should it collapse. It, therefore, follows that knowledge about its adaptation to the 4IR and the threats and opportunities that the 4IR represents are vital to the industry's long-term success and South Africa's economy.

1.7 Importance of the research problem

This research is essential to South Africa given that the retail industry is a significant employer and contributes 15% of GDP, while the retail property industry represents 1 trillion Rand in investments and a significant portion of the Johannesburg Stock Exchange (JSE) listed property shares. It is particularly important to the owners and investors in listed property and the service industries that support them. These industries include the construction industry, small contractors and artisans that maintain the properties, asset and property management firms, soft and hard services facilities management firms, and employees who depend on the viability of shopping centres for their employment/business and remuneration. Most of the current literature on digital disruption has focused on its impact; and only its international rather than on its local impact. As a result, there is a gap in the research regarding South African shopping centres and digital disruption.

1.8 Research Assumptions

- It was assumed that we are already in the 4IR and that this has come with digital disruption in retail.
- It was assumed that this digital disruption of retail has a negative impact on traditional bricks and mortar retailers and, thus, on shopping centres.
- It was assumed that South African retail trends lag developed world trends.

1.9 Research Limitations

- The research is limited to South African planned shopping centres. These are generally professionally managed and likely to be listed in the SACSC Directory.
- The research was limited to those shopping centres appearing in the 2019 SACSC Directory.
- There are various hierarchical classifications for shopping centres but this research study is limited to Prinsloo's core classification hierarchy by size and function of South African shopping centres.

1.10 Research Delimitation

The research is limited to a qualitative analysis/interpretation of both literature (secondary sources) and interviews and survey questionnaires (primary sources).

1.11 The Research Methodology

The research method to be used is a mixed methodology known as Sequential Exploratory research incorporating:

- A literature analysis of the challenges, impacts and available strategies involved in the digital disruption of the retail property.
- Interviews with retail property experts to validate and adjust the outcome of the literature analysis.

- A survey of shopping centre managers to determine the application of the result of the literature review and the interviews across the hierarchy of planned shopping centres in South Africa.

The research approach consisted of a comprehensive literature review with substantiated field research in the form of in-depth expert interviews and a survey of the property managers. The literature review consisted of a review of various written sources, including journal articles, books, reports and papers. The reviewed international literature was analysed, and the results were used to draw a generic framework that summarised the challenges, impacts, and the corresponding responsive strategies present, due to digital disruption in retail property. The literature review results were then validated by using expert interviews of South African retail property experts (REIT Asset Managers and Portfolio Executives). The interviews' results were then tested by using an online survey of South African Retail property managers (shopping centre managers) to understand how the framework presents across the classification hierarchy of south African shopping centres.

In order to allow for visualisation and ease of referencing for the reader, the research methodology is illustrated in the Figure below. Figure 1 illustrates that the research study started with a comprehensive literature review that established the history of shopping centres, the applicable hierarchical classifications, and the current status of digital disruption in the form of e-commerce. In addition, the literature review sought to establish the challenges, impacts and available strategies concerning digital disruption in retail property. The study's second phase involved qualitative validation of the literature findings through in-depth interviews with retail property experts. The qualitative findings were then used to develop a questionnaire for quantitative testing. Penultimately, the results of the quantitative findings were interpreted based on the theoretical and factual findings of the qualitative phase of the study. Finally, the study proposed the frameworks within which digital disruption may apply to different classes

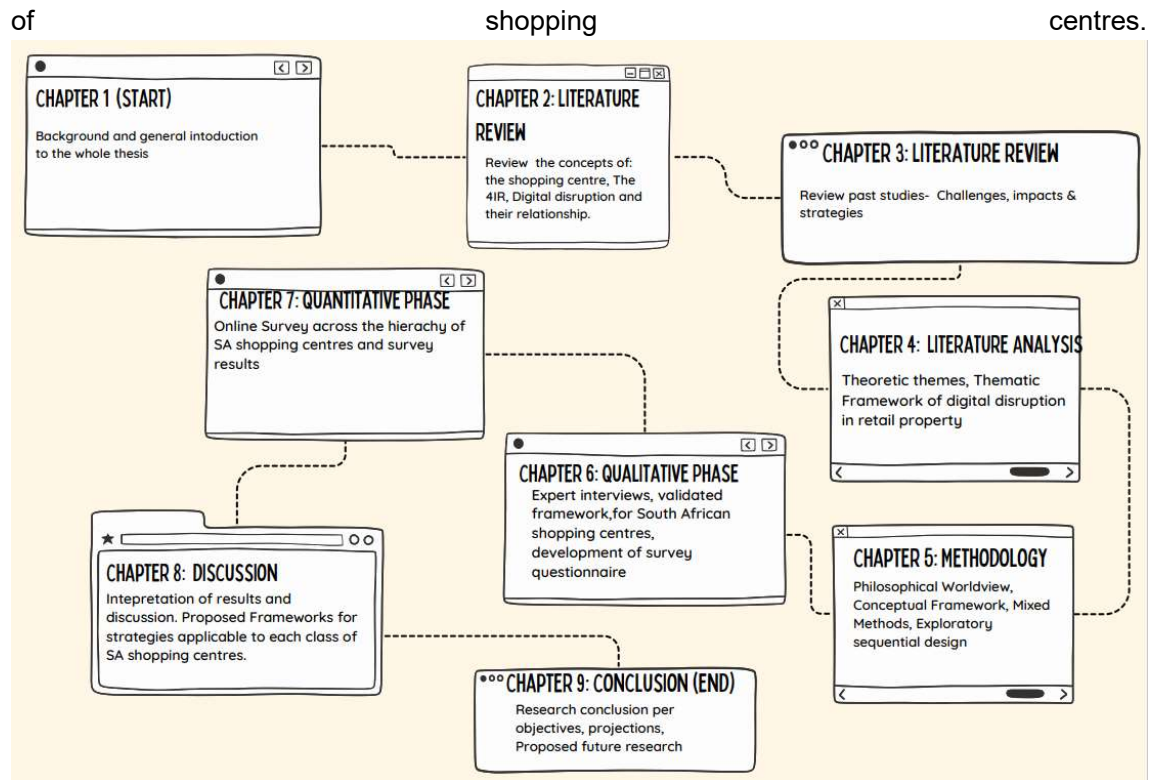


Figure 1: Proposed Research Strategy
Source: Author (2023)

1.12 Conclusion

This study sought to address the knowledge gap concerning the long-term threat posed by the digital disruption of the South African shopping centre industry. The industry, with the retailers it leases space to, is a major contributor to the GDP of the South African economy. South Africa has the fifth largest number of shopping centres in the world. (Prinsloo, 2016). Through investment financing, construction, rates and taxes, property, and the facilities of management services, it also, directly and indirectly, employs a significant portion of the South African labour force. This contribution is significant at a time when unemployment, as measured by StatsSA, stands at over 33%. The stagnation of economic growth in South Africa over the past decade (Loos, 2019) has put pressure on consumers resulting in declining retail sales.

On the other hand, E-commerce sales have been increasing slowly, hindered by the lack of internet and logistics infrastructure and data costs. However, these hindrances to e-commerce

are gradually being overcome as internet infrastructure and mobile technology improve (e.g., 5G rollout). In addition, e-commerce brings price competition to bricks and mortar retailers, which puts a downward pressure on rental levels and the demand for space in shopping centres (Bureau of Market Research, UNISA, 2008). It is, therefore, essential for the country and shopping centre industry stakeholders to understand the key issues regarding digital disruption and how to counteract them to ensure the long-term sustainability and viability of the South African shopping centre industry.

CHAPTER 2: Literature Review- A Review of Key Concepts

2.1 Introduction

In order to study how digital disruption is experienced across the hierarchy of South African shopping centres, it is necessary to study the history and evolution of shopping centres. It is important to define what a shopping centre is in general and more so in the South African context. As the study was limited to planned shopping centres, it is necessary to understand what planned shopping centres are and what criteria can be used to define them and classify them hierarchically. Furthermore, it is necessary to understand the concept of digital disruption and how it applies to the shopping centre industry. The purpose of this chapter is thus to study and present the history and evolution of shopping centres up to their modern-day characteristics; and to select an appropriate hierarchical classification on which to base the research study within the South African context. The problem is to arrive at a classification hierarchy appropriate for the history and evolution of shopping centres and their classifications from a global perspective and to relate all of this to the South African context. Having done so it is then relevant to relate this to the concept of digital disruption.

2.2 The Shopping Centre Concept

Cloete (2003) quotes Mackeever and Griffin (1977) of the Urban Land Institute (ULI) and defines a shopping centre as “a group of architecturally unified commercial establishments built on a site which is planned, developed, owned, and managed as an operating unit related in its location, size and type of shops to the trade area that the unit serves. The unit provides onsite parking in definite relationship to the types and total size of stores.” Similarly, the Cambridge Dictionary defines the shopping centre as “a group of shops with a common area for cars to park” (Cambridge Dictionary, 2022).

This definition differentiates the shopping centre from other built-up areas where shopping takes place, such as town centres, markets, high streets, and central business districts (CBD). It is notably different from a CBD in that a CBD is defined as “a concentration of individually managed shops and/or shopping centres and traditionally originated in the central areas of urban settlements.” With the expansion of urban areas, decentralised business districts were established to create the multiple nuclei form of cities such as Johannesburg (Cloete, 2003).

A shopping centre's central idea is that it offers so-called “one-stop shopping” in that it houses multiple retailers. As the ULI Shopping Centre Development Handbook puts it, “an important point about shopping centres is that they create an image for the unit through single ownership and management and through joint promotional efforts by tenants and owners. Each element in a shopping centre must be adapted to fit the circumstances peculiar to the site and its environs. Innovations, and the various interpretations of the basic features must be considered in planning, developing, and operating a successful shopping centre. To be successful, the centre must be profitable and an asset to the community within which it is located” (Cloete, 2003).

This property asset class, with its impact on investor profits and the community and housing of the trillion-Rand retail industry that contributes about 15% of GDP to the South African economy, developed over time into the shopping-centre concept we have today.

2.3 The Development and Evolution of the Shopping Centre Concept

The modern shopping centre has primarily been a post-World War 2 phenomenon that mushroomed in the USA during the post-war boom years and spread to the rest of the world. There are, however, many important precursors to it from previous centuries. The beginning of the concept of a shopping centre comes from the peculiarly human activity of trading goods and services from the earliest times, whereby buyers and sellers met to exchange goods, services and, with time, money. Farmer's markets, flea markets, village markets, and retail bazaars of early towns and cities developed into central business districts as populations and settlements grew in size, complexity and specialisation (Cloete, 2003). According to (Animesh, 2019), these developments of trade areas go as far back as the ancient Greek marketplace known as the Agora. The Agora was an open square in the centre of ancient Greek cities. In short, shopping centres are the modern adaptation of the historical marketplace and thus have existed in different forms or concepts for more than a thousand years.

Animesh (2019) concurred with Cloete (2003) that the modern shopping centre concept, which includes everything from small suburban strip centres to Super-Regional centres, began in the 1920s. Cloete (2003) further states that in this period, supermarkets began to be developed in the USA and UK (a decade later). Supermarket development led to the development of free-standing stores in the suburbs, which were further scaled up into rows of stores with display windows fronting onto traffic streets with onsite parking for customers at the rear of the strip. Finally, Cloete (2003) and Animesh (2019) concluded that the first shopping mall, i.e., a shopping centre away from a CBD, was developed by JC Nichols of Kansas City, Missouri, as the Country Club Plaza, which opened in 1922.

Though early prototypes were built in the 1900s, there was a modest expansion of the shopping-centre concept until the post-war boom of the 1950s. This modest expansion was due to a combination of the great depression and World War 2. From the 1950s onwards, the impact and increase in the number and size of USA shopping centres was so profound that it was seen as having the same radical effect as the departmental stores had earlier in the 20th century. Most shopping centre developments that pioneered the planned shopping centre industry were anchored by departmental stores, such as the first regional shopping centre, Northgate mall, built in Seattle in the 1950s (Buckley, 2018; Cloete, 2003).

From the early twentieth-century prototypes, shopping centre development in the USA has evolved from shopping centre prototypes between 1900 and 1930, through the first centres developed in the period between 1930 and 1960 to the refinements and permutations starting in the 1960s that have led to the shopping centres we know today as depicted in Figure 2.

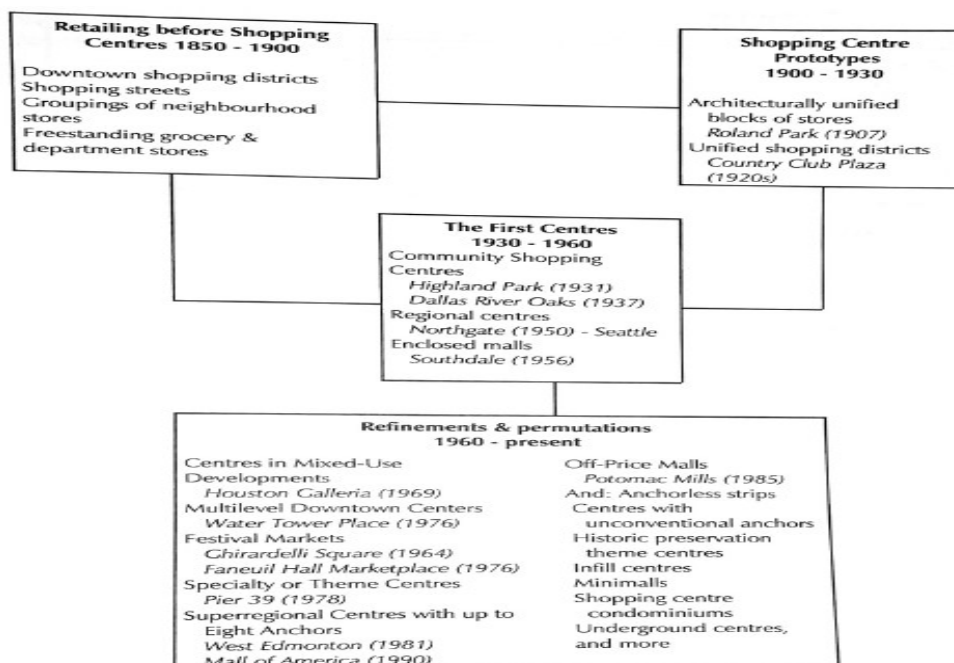


Figure 2: The Evolution of Shopping Centres in the USA (Cloete, 2003:15)

According to Cloete (2003), four phases of refinements and permutations have led to today’s shopping centres, as depicted in Table 1 below. These began with the take-off phase of the 1950s, followed by the rapid expansion of the shopping centre concept in the 1960s, then the golden age of the 1970s and the slow-down (market saturation) of the 1980s that ultimately led to the new trends of 1982 and beyond. Finally, the new trends led to what we know and experience today as the modern shopping centre. It can be argued that the current permutations of the shopping centre concept, due to 4IR-induced digital disruption, represent a fifth phase in the refinements and permutations leading us to a mall of the future.

Table 1: The 4 Phases in the development of Shopping centres in the USA

Phases	Period	Title	Approx. Years	Characteristics	Elements
1	1950s	Take-off	1957-1964	Beginnings of first shopping centres	Economic growth, suburban development, private car ownership
2	1960s	Rapid growth	1965-1971	Explosive growth of new shopping centres	Continuing industrial development and economic growth (affluence)
3	1970s	Golden Age	1972-1977	Peak in number and size of shopping centres constructed	Further population growth and economic expansion
4a	1980s	Slow-down	1978-1981	Reduction in growth and number of shopping centres constructed	Decline in affluence, recessionary conditions, but upwards trends continue; suburban trends continue
4b	1980s	New trends	1982+	Shift in emphasis	Consolidation of suburbanisation, centre innovation, renovations and conversions of older centres

Source: Cloete (2003:16)

In summary, the core drivers of the development of shopping centres in the USA were:

- Population explosion
- Increase in urbanisation
- The centrifugal expansion of suburbs
- Rising standards of living and disposable income of the general population
- Changes in shopping patterns as a result of greater mobility (private vehicle/car ownership)
- A shortened working week
- Increased traffic pressures in the CBDs
- Demographic/ethnic shifts in the population (Cloete, 2003).

Meanwhile, the modern shopping centre concept that began in the USA spread to other parts of the world. In the UK, between 1950-1980, planned shopping centres emerged and evolved into modern forms. While USA departmental stores were in the vanguard of shopping centre development, UK departmental stores continued to operate from the town-centre high streets until the 1970s. In the 1950s UK, new developments were restricted by post-war reconstruction regulations that focused on rebuilding town centres to their pre-war look and feel. The continuation of wartime licences restricted new building until 1954. Land for new buildings continued to be scarce and difficult to acquire in large quantities. This was coupled with a highly restrictive planning framework that prioritised the maintenance of the status core, thus further hindering the rapid development of the shopping-centre industry in the post-war UK (Buckley, 2018).

As a result of the preceding circumstances, the UK's first major planned shopping centres were the Bull Ring, Birmingham (1964) and the Elephant and Castle, London (1965). These new developments struggled to succeed and were described in The Financial Times newspaper as "White Elephants", desolate and untenanted, that could not attract either retailers or housewives. A case in point was that by 1973 the Elephant and Castle had a 50% vacancy rate. However, from 1972 onwards, the shopping centre industry in the UK took off in earnest, albeit throttled by the socio-economic pressures of the 1970s energy crisis. Once departmental stores began to locate in planned shopping centres, the centres became accepted and successful. UK shopping centres are, however, primarily town-centre developments as opposed to suburban USA malls (Buckley, 2018).

From the architectural point of view, shopping centres (malls) in the UK developed from the market hall concept of the Victorian (1800s) era. In the 20th century, successfully branded market stalls in market halls, such as Marks and Spencer and Woolworths, outgrew their stalls and developed into high-street department stores in city/town centres (Guy, 1998). In the meantime, the popularity and success of Market halls began to wane, and declining urban populations precipitated their demise during the aerial bombardment that the UK suffered during the second world war (1938-1945). After the war, city-centre populations continued to decline, and market halls were demolished and replaced by shopping malls/centres, such as St John's in Liverpool, which took the name and the 0.8ha site of the 1800s market hall. As the mall concept developed and reached critical self-sustaining mass, department stores were lured into shopping centres as anchor tenants. As motor- vehicle ownership and suburban

residential development increased, car-parking spaces in city centres became inadequate. In the 1980s, malls began to locate out of town to large sites well connected to transport links. Thus, through these developments, the modern shopping centre architectural concept was arrived at in the UK (Kaye, 2008).

In the rest of Europe, the twin catalysts of mall development, i.e., urban growth and economic growth, did not pass the critical point to sustain mass consumption until the 1960s. Post-war reconstruction of bombed cities was the initial catalyst for European shopping-centre development. South Africa and Australia were in an intermediate situation in the 1960s, while most of Asia, Latin America and Africa only had the self-sustaining process of shopping centre development begun in the 1970s. Most areas of the formerly colonised world followed the shopping centre development patterns of their exiting or former colonial masters, such that evidence of French influence is found in francophone Africa, and that of British influence is found in anglophone Africa, for example. In South Africa, which is the focus of this paper, shopping centre development exhibited many characteristics of developments in the USA. Shops existed in larger towns, while ox-drawn wagons supplied outlying areas in the 18th century. Monthly church fetes and bazaars were important up to the 1950s. Mineral wealth led to rapid development and industrialisation of the interior from 1871 (Kimberly diamonds) and 1886 (Johannesburg gold). Large departmental stores such as Greatermans, OK Bazaars, and Ackermann's developed and dominated the retail scene from the middle decades of the 1800s to the 1960s. Suburban growth, catalysed by post-war economic growth and increased motor vehicle ownership in the 1960s, led to transport infrastructure developments. such as freeways in the 1970s which all combined to create opportunities for regional shopping centres and hypermarket developments (Cloete, 2003).

South African shopping centres have developed and evolved by fine-tuning the science of shopping centres through the following chronological steps observed over time:

- Aesthetic appeal- greater emphasis and attention started to be given to interior design, natural lighting, internal planting and water features.
- Customer convenience- driven by consumer demands for flexibility in trading hours and better quality and quantity of parking.
- Tenant Mixes with more comprehensive tenant mixes informed by differences between food shopping and comparative shopping, a need for more attractive shopfronts and creative retailer merchandising.
- Satellite industries that developed alongside the shopping-centre industry and have an influence on it, such as market research firms, promotions and marketing practices, customised display manufacturers, customer service advisers, architectural design consultants and specialised retail-focused property-management-and-service companies (Cloete, 2003).

The history presented above brings us to the modern shopping centre concept that began at different times and developed at different rates of evolution across the world. This concept is the same one defined in section 2.2 above. The modern shopping centre is characterised by the following:

- Unified architectural structures reflecting a particular image
- Aggressive marketing of the centre
- Professional management of services in the centre
- Tenant-mix control
- Control of shop sizes
- Controlled environment in the centre
- Targeting of merchandise to specific segments of the trade area
- The centre being integrated with and a focal point of its trade community
- Linking into road systems and public transport routes (Cloete, 2003).

The physically built environments called shopping centres differ in shape, format, size, and markets. This means that understanding their classification is required, in order to understand shopping centres and the digital disruption occurring across the industry.

2.4 The Classification of Modern Shopping Centres

Shopping centres are classified through various methodologies depending on geographical region and country, largely indicating the development and evolution of the shopping-centre concept in the country or region. Two schools of thought developed in retail geography over the years regarding the definition of the shopping centres:

- First, that a shopping centre is any group of shops, whether old or new, planned or unplanned, purpose-built or converted.
- Second, that a shopping centre is a planned, purpose-built retail development.

The second school of thought aligns with the definition of a shopping centre introduced above, and this study was confined to that definition, i.e., planned shopping centres. Both non-hierarchical and hierarchical classification methods exist (Guy, 1998); however, this study was confined to the more widely used hierarchical methods commonly adopted within the shopping centre industry. According to Guy (1998), understanding the classification of retail locations is required to understand and apply the hierarchical methods. The classification of retail locations is useful for categorising retail property and in analysing locational decisions of developers and retailers. Location is a crucial aspect of retail development. And it is subject to very specialised research by developers (Cloete, 2003). Each location represents the unique relationship between the shopping centre and the local residential community, as well as the competitive position of the centre relative to other retailing in the area (Guy, 1998). It is also wrong to consider centres of the same size as similar; thus, geographic segmentation is necessary (Prinsloo, 2016).

Guy (1998) proposes a locational classification framework based on the physical location where a specific type of shopping centre is likely to be located, in the UK, as shown below in Table 2.

Table 2: UK Retail Classifications by Locations

Type of Centre	TC	ETC	ORA	OU	NRA	ET
Free-standing store		X		X	X	X
Focused centre			X		X	X
Retail Park				X		X
Shopping mall	X			X		X
Regional Centre				X		X
Speciality centre	X	X		X		
Factory outlet centre				X		X

Source: Guy (1998:262)

The abbreviated column headings in Table 2 above are defined as follows:

- TC- town centre
- ETC- edge of town centre
- ORA- other retail centres
- OU- other urban, e.g., industrial waterfront
- NRA- new residential area
- ET- edge of town (Guy, 1998)

This formation of retail locations\

categories is appropriate for the UK and perhaps many European countries with similar urban development patterns, but it cannot be applied globally. Each region or country should have its own retail locational classification suitable for its specific settlement patterns. In the case of South Africa, Prinsloo (2016), taking a similar approach to that of Guy (1998), classifies shopping centre locations through geographic segmentation. This study adopts Prinsloo's geographical segmentation method to classify shopping centre locations. These geographic location segments are:

- Metropolitan CBD
- Metropolitan Suburb
- Metropolitan township
- City CBD
- City suburban
- City township
- Town centre
- Town suburbs
- Townships
- Rural areas (Prinsloo, 2016).

Planned shopping centres can thus be classified relative to these location/geographic segments and their locational attributes in terms of demography, population size and income levels. According to Guy (1998), planned shopping centres are classified by the following methods:

- By physical form

- By centre ownership and tenancy arrangements
- By retail offer or trip purpose
- By size and function

Each method has its own merits and demerits (Guy, 1998).

2.4.1 Classification by Physical Form

This approach classifies shopping centres by their physical characteristics such as appearance, tenant mix and size. Its advantage lies in the fact that it uses some of the criteria that developers employ in making shopping-centre development decisions and those that consumers use to identify and choose between shopping destinations. Based on this classification approach, the main descriptions used in Europe and North America are:

- **The Focused Centre** is the same as Local centres, District centres or Neighbourhood centres in different places around the world. They contain an anchor supermarket and small line stores focusing on convenience shopping for the immediate residential area.
- **The Retail Park**- these are generally built outside town centres and consist of several large stores selling a wide range of bulky “household goods” such as furniture and hardware stores. Some retail parks include clothing, other fashion and leisure (e.g., cinemas) offerings. The stores in a retail park may be separated or joined or a mixture of separated and joined buildings.
- **The Shopping Mall** – this refers to one large building housing many retail stores under one roof, although it may have open internal areas such as courtyards. It may have one or more anchor stores and several smaller comparable stores.
 - The tenant mix often caters to a variety of goods and services.
- **The Regional Shopping Centre**- is a large shopping mall built in a free-standing position and it is not part of an existing central business area. Its lower limit in terms of size is usually 30,000m². Immense regional centres of over 100000m² are also known as Super-Regional Centres and are built with more than one level/storey.
- **The Factory outlet Centre**- is like a small shopping mall; but it has no anchor store. Instead, the stores sell discounted goods and are usually managed by manufacturers or wholesalers. Its purpose is the sale of surplus goods such as out-of-season fashions.
- **The Specialty Centre**- may resemble a modern shopping mall or be converted from one or more old buildings. It has no anchor store, and the retail outlets tend to specialise in either one type of good or goods designed for a visitor/tourist market (Guy, 1998).

Figure 3 below depicts this classification using two main criteria – physical (one building or more) and composition of the centre in terms of the number of buildings or occupiers. Guy (1998) explains the illustrated typology as follows: “The physical composition of a centre reflects the centre’s main type of appeal for shoppers. A centre which consists of separate buildings, or a simple row of stores connected by an open walkway, is relatively cheap to construct; but it lacks visual appeal and character. This type of centre is often intended to emphasise low prices and convenience for the shopper. Typical centres of this type are Neighbourhood and Community centres, which are generally destinations for convenience shopping, and retail parks and factory outlet centres, which are destinations for household and

comparison shopping. On the other hand, shopping malls emphasising quality, luxury, and atmosphere, especially if climate controlled. They are destinations for personal/fashion shopping trips made for enjoyment rather than for purchasing essential items. The epitome in this respect is the north American Super-Regional centre or the tourist-oriented multi-level shopping ‘complex’ or ‘emporium’ found in large cities in South-East Asia” (Guy, 1998:261).

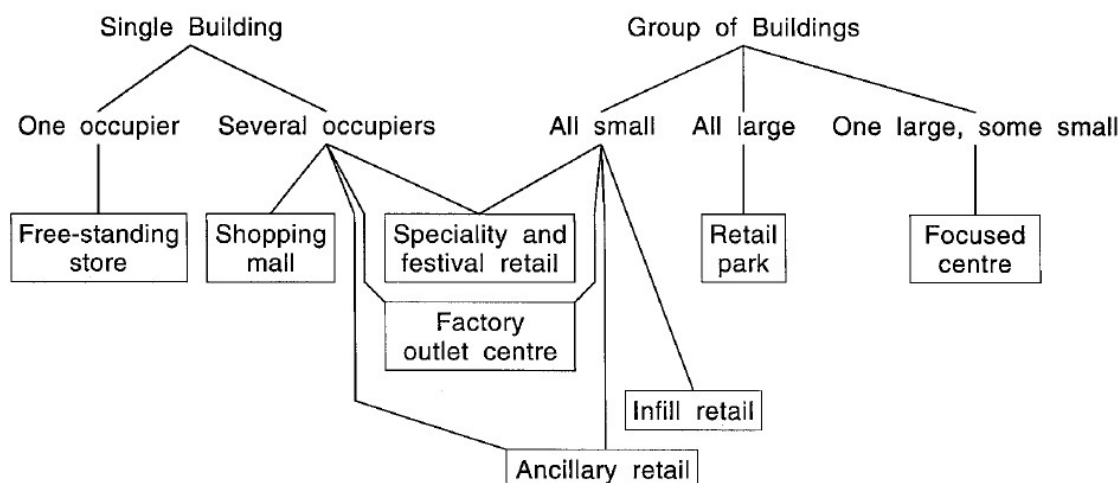


Figure 3: Retail Property Classification by Physical Characteristics (Guy, 1998:261)

2.4.2 Classification by Centre Ownership and Tenancy Arrangements

This approach to shopping centre classification spreads the classification of shopping centres from wholly owned by the retailer on one end (e.g., hypermarket) to owned and leased to retailers by a property-investment company on the other end (e.g., Regional Mall). The anchor tenants (important large stores usually with a national or international footprint that can generate traffic to the centre) tend to obtain space on rentals of lower rates per m² and longer leases than smaller units. The ownership and tenancy arrangements spread out between that of the freestanding hypermarket and the Super-Regional centre are as follows:

- Free-standing hypermarket- owner occupied by retailer.
- The Focused Centre- often but not always owned by the hypermarket anchor
- The Retail Park and Factory Outlet Centre- are typically owned by a property company and tenants with similar leases, as none of the tenants is powerful enough to have anchor status and preferential terms (Guy, 1998).

The classification under this approach may be illustrated according to Figure 4 below, which visually illustrates the differences and similarities between the retailer ownership and the property-company ownership classification as outlined above.

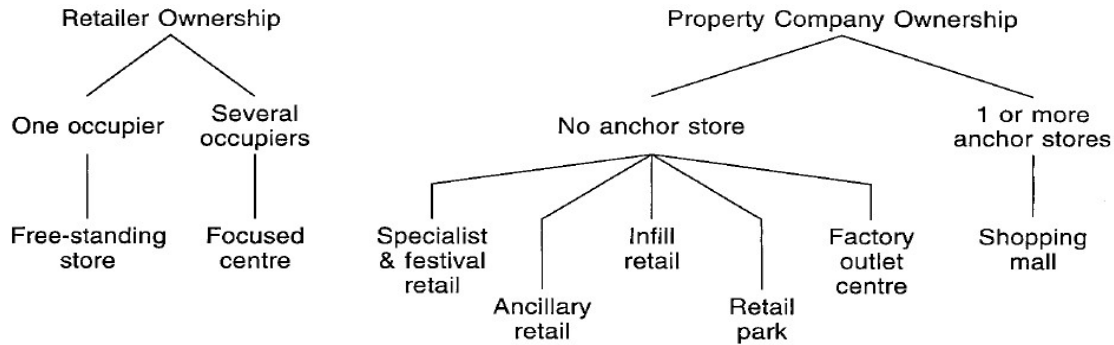


Figure 4: Retail Property classification by Ownership Characteristics (Guy, 1998:262)

2.4.3 Classification by Retail Offer or Trip Purpose

According to Guy (1998), this approach to shopping centre classification is based on consumer behaviour. It helps to complete the picture and give a reason for different types of shopping centres and their different tenant mixes. The consumer/shopper's trip purpose is attracted to a matching retail offering. Therefore, there is a different choice of shopping-centre destination for different trip purposes as different classes of shopping centre have different offerings and tenant mixes. This observation presents itself as follows:

- Convenience shopping trips- are related to centres anchored by supermarkets or food stores such as the focussed or Neighbourhood centre, hypermarkets, or big box stores (North America).
- Household shopping trips- are related to retail parks,
- Personal/fashion shopping trips- are related to town centres, CBDs, shopping malls (Regionals and Super-Regionals), and to some extent, off-centre department stores and retail parks offering personal goods. This is because personal shopping trips exhibit greater amounts of window-shopping and comparison behaviour and thus requires a concentrated variety of merchandise offerings. In order to attract consumers.
- Recreational/Leisure shopping trips- are related to specialist shopping centres that encourage leisure shopping, such as factory outlets and festival marketplaces.
- Commuter/Traveller shopping trips- are usually for convenience items required at home or items needed on a journey and represent what is known as "incidental shopping". These shopping trips are thus associated with ancillary shops, which range from kiosks at railway stations to shopping malls at airports and road transport stations (Guy, 1998).

2.4.4 Classification by Size and Function

Classification by size and function is the methodology adopted by the International Council of Shopping Centres (ICSC). It is primarily applied with criteria that include most of the above classifications for each size class of shopping centre. Cloete (2003) lists the classes based on size as being:

- Local centre (Convenience centre)
- Neighbourhood centre

- Community centre
- Regional centre

Guy (1998) states that the classification model is more typical of planned shopping centres. Regarding planned shopping centres, Neighbourhood and Community centres serve local populations. They mainly feature convenience shops, while regional centres feature a more comprehensive array of goods and services; and they are located in proximity to major road intersections to serve a larger trading area.

The ICSC (2020) recognises that shopping centres were developed according to differing circumstances, periods, markets, populations, countries, and cultures over the second half of the 20th century. and that the general size and functional classification have variations across different countries and regions. The most prominent of these regional variations in classification by size and function include the USA, Europe and Asia, and these are illustrated in the Tables: 3, 4 and 5, while Prinsloo (2016) suggests a similar size and functional hierarchy for South African shopping centres (Table 6).

Table 3 (USA) shows similar terminology to the classification proposed by Prinsloo (2016) for South Africa (Table 6). This terminology (Neighbourhood, Community and Regional Centres) is also used in Asia (Table 5), but Europe (Table 4) refers to centres of similar characteristics (size and function) by size descriptors such as small, large, very large in contrast to those in other regions of the world.

The classification of shopping centres by size and function is the most widely recognised in South Africa; and it is the classification applied in this research study.

Table 3: USA Retail Property Classification

U.S. Shopping-Centre Classification and Typical Characteristics*									
Typical GLA Range Type of Shopping Centre	# of	% Anchor Concept	(Sq. Ft.)	Acres	Anchors	GLA	Typical Number of Tenants	Trade	Typical Type of Anchors Area Size
General-Purpose Centres									
Super-Regional Mall	Similar in concept to regional malls, but offering more variety and assortment.		800,000+	60-120	3+	50-70%	N/A	Full-line department store, mass merchant, discount department store, fashion apparel store, mini-anchor, cineplex or other large-scale entertainment attraction, and food-and-beverage service cluster.	5-25 miles
Regional Mall	General merchandise or fashion-oriented offerings. Typically enclosed with inward-facing stores connected by a common walkway. Parking surrounds the outside perimeter.		400,000-800,000	40-100	2+	50-70%	40-80 stores	Full-line department store, mass merchant, discount department store, fashion apparel store, mini-anchor, cineplex or other large-scale entertainment attraction, and food-and-beverage service cluster.	5-15 miles
Community Centre ("Large Neighbourhood Centre")	General merchandise or convenience-oriented offerings. Wider range of apparel and other soft goods offerings than Neighbourhood centres. The centre is usually configured in a straight line as a strip, or may be laid out in an L or U shape, depending on the site and design.		125,000-400,000	10-40	2+	40-60%	15-40 stores	Discount store, supermarket, drug, large-specialty discount (Toys, books, electronics, home improvement/furnishings or sporting goods, etc.)	3-6 miles
Neighbourhood Centre	Convenience-oriented.		30,000-125,000	3-5	1+	30-50%	5-20 stores	Supermarket	3 miles
Strip/Convenience	Attached row of stores or service outlets managed as a coherent retail entity, with on-site parking usually located in front of the stores. Open canopies may connect the storefronts, but a strip centre does not have enclosed walkways linking the stores. A strip centre may be configured in a straight line or have an "L" or "U" shape. A convenience centre is among the smallest of the centres, whose tenants provide a narrow mix of goods and personal services to a very limited trade area.		< 30,000	<3	Anchor-less or a small convenience e-store anchor.	N/A	N/A	Convenience store, such as a mini-mart.	<1 mile
Specialized-Purpose Centres									
Power Centre	Category-dominant anchors, including discount department stores, off-price stores, wholesale clubs, with only a few small tenants.		250,000-600,000	25-80	3+	70-90%	N/A	Category killers, such as home improvement, discount department, warehouse club and off-price stores	5-10 miles
Lifestyle	Upscale national-chain specialty stores with dining and entertainment in an outdoor setting.		150,000-500,000	10-40	0-2	0-50%	N/A	Large-format upscale specialty	8-12 miles
Factory Outlet	Manufacturers' and retailers' outlet stores selling brand-name goods at a discount.		50,000-400,000	10-50	N/A	N/A	N/A	Manufacturers' and retailers' outlets	25-75 miles
Theme/Festival	Leisure, tourist, retail and service-oriented offerings with entertainment as a unifying theme. Often in urban areas, they may be adapted from older—sometimes historic—buildings and part of a mixed-use project.		80,000-250,000	5-20	Unspecified	N/A	N/A	Restaurants, entertainment	25-75 miles
Limited-Purpose Property									
Airport Retail	Consolidation of retail stores located within a commercial airport		75,000-300,000	N/A	N/A	N/A	N/A	No anchors; retail includes specialty retail and restaurants	N/A

Source: ICSC (2020:1)

Table 4: European Retail Property Classifications

Europe Shopping-Centre Classification and Typical Characteristics*											
Type of Shopping Centre	Typical		% Anchor Tenants	Number of Concept	Range (Sq. M.)		Acres	Typical Type of Anchors	Trade Area Size		
	Typical GLA	# of Anchors			GLA						
Traditional Shopping Centre											
Very Large	An all-purpose scheme that can be either enclosed or open-air and is classified by size.			80,000+	NA	NA	NA	NA	Supermarket(s), department stores, hypermarket, general merchandise store, cinema, major entertainment/leisure	NA	
Large	An all-purpose scheme that can be either enclosed or open-air and is classified by size.			40,000-79,999	NA	NA	NA	NA	Supermarket(s), department stores, hypermarket, general merchandise store, cinema, major entertainment/leisure	NA	
Medium	An all-purpose scheme that can be either enclosed or open-air and is classified by size.			20,000-39,999	NA	NA	NA	NA	Supermarket(s), hypermarket, general merchandise store, small department store, discount department stores	NA	
Small	<i>Comparison-Based</i> - Centres include retailers typically selling fashion apparel and shoes, home furnishings, electronics, general merchandise, toys, luxury goods, gifts and other discretionary goods. These centres are often part of a larger retail area, most likely found in city centres.			5,000-19,999	NA	NA	NA	NA	Not usually anchored.	NA	
	<i>Convenience-Based</i> - Centres include retailers that sell essential goods (those items consumers buy on a regular basis) and are typically located at the edge or out of town.			5,000-19,999	NA	NA	NA	NA	Typically anchored by a grocery store (supermarket or hypermarket). Additional stores usually include chemists, convenience stores and retailers selling household goods, basic apparel, flowers and pet supplies.	NA	
Specialty Shopping Centre											
Retail Park	Also known as a "power centre." A consistently designed, planned and managed open-air scheme that comprises mainly medium- and large-scale specialists retailers ("big boxes" or "power stores") that are mostly freestanding (unconnected). As with other open-air centres, ample on-site paved parking is located in front of the stores and around the site at the ground level.			Large: 20,000+	NA	NA	NA	NA	Usually anchored by discount department stores, warehouse clubs, off-price stores or other "Category killers," i.e., stores that offer a vast selection in related merchandise categories at very competitive retail prices.	NA	
				Medium: 10,000-19,999	NA	NA	NA	NA		NA	NA
				Small: 5,000-9,999	NA	NA	NA	NA		NA	NA
Factory Outlet	Open-air and/or enclosed centre that comprises manufacturers' and retailers' outlet stores selling brand name goods at a discount-usually selling surplus stock, prior-season or slow-selling merchandise and especially designed merchandise.			5,000+	NA	NA	NA	NA	Generally not anchored, although certain brand-name stores may serve as "magnet" tenants	NA	
Theme-Oriented Centre	<i>Leisure-Based</i> - A consistently designed, planned and managed scheme that includes some retail units and typically concentrates on a narrow but deep selection of merchandise within a specific retail category. A leisure-based centre is usually anchored by a multiplex cinema and includes restaurants and bars with any combination of bowling, health and fitness and other leisure-concept uses.			5,000+	NA	NA	NA	NA	Usually anchored by a multiplex cinema	NA	
	<i>Non-Leisure-Based</i> - A consistently designed, planned and managed scheme that includes some retail units and typically concentrates on a narrow but deep selection of merchandise within a specific retail category. A non-leisure-based centre concentrates on a niche market for fashion/apparel or home furnishings or can target specific customers such as passengers at airports.			5,000+	NA	NA	NA	NA	NA	NA	

Source: ICSC (2020:1)

Table 5: Asian Retail Property Classifications

Asia Shopping-Centre Classification and Typical Characteristics*									
Typical NLA # of Anchor	Type of Shopping Centre	Concept Range (Sq. Ft.)	Acres	GLA	Typical Number of Tenants	Typical Type of Anchors	Trade Area Size		
Mega-Mall	Larger-scale version of a Super-Regional centre. Greater variety of fashion and entertainment/leisure.	>1,5 million+	NA	3+	NA	NA	NA	Supermarket(s), department stores, hypermarket, general merchandise store, cinema, major entertainment/leisure	NA
Super-Regional	Larger-scale version of a regional centre. Greater variety of fashion and entertainment/leisure.	800,000-1,499,999	NA	3+	NA	NA	NA	Supermarket(s), department stores, hypermarket, general merchandise store, cinema, major entertainment/leisure	NA
Regional	General merchandise and/or fashion-oriented offerings. Main focus is on non-discretionary retail and entertainment/leisure. Draws from a broad catchment.	500,000-800,000	NA	2+	NA	NA	NA	Supermarket(s), department store(s), hypermarket, general merchandise store, discount department stores, cinema	NA
Sub-Regional	General merchandise and/or convenience-oriented offerings. Wider range of apparel and other discretionary products, as well as other non-discretionary food and groceries.	200,000-500,000	NA	0-3	NA	NA	NA	Supermarket(s), hypermarket, general merchandise store, small department store, discount department stores	NA
Neighbourhood	Small, convenience-oriented centre with a heavy focus on food and groceries, and other non-discretionary products. May include a hypermarket mall, as long as they satisfy the shopping centre definition. In particular, it must include multi-branded rental units and common areas.	<200,000-200,000	NA	0-2	NA	NA	NA	Supermarket(s), hypermarket, general merchandise store	NA
Specialty Centre	Dominated by specialty shops and mini major tenants, these centres are typically located within or near to central business districts (CBDs) or large mixed-use developments. Defined as shopping centres that have no anchor tenants. Excludes centres otherwise defined as leisure/entertainment centres, major transport hub centres, outlet centres, power centres, or single-category centres.	<500,000	NA	None	NA	NA	NA	NA	NA
Leisure/Entertainment	Predominantly specialty stores with leisure tourist, retail or food and beverage (FandB) offering with leisure/entertainment as a unifying theme. May be indoor or outdoor. Excludes centres defined as major transport hub centres. Must have >50% FandB or entertainment tenants.	<500,000	NA	0+	NA	NA	NA	Chain-store mini-majors: electronics (e.g., Apple), fast-fashion, sports. Well-known restaurants	NA
Power Centre	Category-dominant anchors, including large "big-box" stores and wholesale clubs. Must have 90% of floorspace allocated to anchor or mini-anchor size tenancies.	>50,000 (no maximum size)	NA	NA	90	NA	NA	NA	NA
Outlet Centre	Manufacturers' and retailers' outlet stores selling brand name goods at a discount. Must have 80% of non-FandB floorspace or NLA size dedicated to outlet tenancies.	No maximum size	NA	None	NA	NA	NA	NA	NA
Single-Category Centre	Dominated by specialty shops that cater to a single, tightly defined niche. Excludes malls that focus on food and groceries, FandB and fashion. Excludes centres otherwise defined as leisure/entertainment centres, outlet centres, specialty centres, major transport hub centres or power centres. Must have 80% of floorspace or NLA dedicated to: information technology ("IT Mall"), homewares/furniture ("Homemaker Mall"), any other single product type ("Other Mall"). This category excludes malls that focus on FandB, which are classified as leisure/entertainment malls, as well as food and groceries and fashion, which come under general mall classifications.	<500,000	NA	0+	NA	NA	NA	Any related to a single category	NA
Major Transport Hub Centre	Must be located within an airport, an intercity railway station (not subway or metro station) or intercity bus station. The retail offer must be directly connected to the transport hub. Includes airside retail at an airport.	>50,000	NA	0+	NA	NA	NA	NA	NA
Department Store	Retail establishment with a variety of goods organised into separate departments/brands. Defined attributes include stand-alone buildings - physically separated from a neighbouring retail offer (i.e., not directly anchoring a mall); single owner - separate ownership from surrounding retail (again, not being used to anchor a mall); 90% of space under centralised payment system; less than 10% of space subleased to tenants other than the department store retailer; 90% of staff employed centrally. If the above definition is not satisfied, then the establishment should be defined as a different format of shopping centre, or it may be considered a department store tenant within a shopping centre.	>20,000	NA	NA	NA	NA	NA	NA	NA

Source: ICSC (2020:1)

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

Table 6: Hierarchy of Planned Shopping Centres in South Africa

Core Classification									
TYPE OF CENTRE	SIZE OF CENTRE (M ²) (GLA)	TRADE AREA	ROLE AND FUNCTION	GEOGRAPHIC SEGMENTATION	NO. OF HOUSEHOLDS	SOCIO-ECONOMIC SEGMENTS	TRADE AREA AVE RADIUS (KM)	MEDIAN TRAVEL TIME (MINS)	MAIN TENANTS
Small free standing and convenience centre	500 – 5 000 5-25 stores	Serves part of a suburb	Offers express convenience	Part of metros and city suburbs	LSM 1-5, <10 000 LSM 6-9, <5 000 LSM 10-10+ <2 000	All LSM groups	1 – 1,5	<5	<ul style="list-style-type: none"> small grocery stores low convenience stores
Neighbourhood centre	±5 000-±12 000 25-50 stores	Generally located for a group of suburbs	Convenience and express convenience role	Part of metropolitan and city suburbs and townships	LSM 1-5, (20 000-47 000) LSM 6-9, (9 000-20 000) LSM 10-10+ (4 000-8 500)	All LSM 6-10	2	6-9	<ul style="list-style-type: none"> supermarkets convenience some small specialised stores
Community centre	±12 000- ±25 000 50-100 stores	Strategically located to serve a suburban community	Larger variety of convenience products to more households	Metros, cities, large towns and rural areas	LSM 1-5, (44 000-102 000) LSM 6-9, (15 000-44 000) LSM 10-10+ (5 000-12 000)	All (LSM 6-10)	3	6-14	<ul style="list-style-type: none"> large supermarket(s) convenience small national clothing restaurants & takeaways services
Small regional/ Large community centre	±25 000-±50 000 75-150 stores	Specific sub region of city (can be large self contained community, i.e. Chaswanth)	Larger community and much wider tenant mix. More a community than regional role	Metros, cities, large towns and rural areas	LSM 1-5, (90 000-209 000) LSM 6-9, (40 000-90 000) LSM 10-10+ (14 000-37 000)	All (LSM 6-10)	3-5	10-14	<ul style="list-style-type: none"> large supermarket(s) 1 or 2 large clothing anchors strong national tenants comparison goods component boutiques restaurants entertainment services
Regional centre	±50 000- ±100 000 150-250 stores	Large region of city or whole city/rural towns	Large primary and secondary trade areas. Also supports from tertiary trade area. Part of a business node	Metros, large cities and metro township areas	LSM 1-5, (180 000-420 000) LSM 6-9, (80 000-185 000) LSM 10-10+ (33 000-74 000)	All (LSM 6-10)	5-8	16-20	<ul style="list-style-type: none"> large supermarkets (level 2) or hyper 3 or more large clothing stores small clothing stores and boutiques international brands entertainment, restaurants services convenience
Super regional centre	>100 000 >250 stores	Large region in city and surrounding areas/ tourists	Serves whole metro, region, national and international visitors offering wide tenant mix	Metropolitan suburban	LSM 6-9, (104 000-250 000) LSM 10-10+ (44 000-101 000)	Above average LSM 5-10	10+	26-30	<ul style="list-style-type: none"> Same as regional but more emphasis on entertainment and variety

Source: Prinsloo (2016:53-54)

2.5 Classification by size and function in South Africa

Africa has had limited development of the shopping centre industry due to its being composed mainly of countries with low-income economies. On the other hand, South Africa has more shopping centres than the rest of the continent combined. Several recent developments have been initiated by South African Retail-focused REITs, among other international players, entering the African retail property market. Cloete (2002) states that the South African planned shopping centre classification and hierarchy are closest to those of the USA. Prinsloo (2016), in his Major Retail types, Classification, and the Hierarchy of Retail Facilities in South Africa, incorporates aspects of all the preceding approaches and adapts them to the South African retail structure and circumstances in order to produce a South African-specific model. Prinsloo (2016) achieved this by incorporating the ICSC best-practice model with the hierarchical model developed by Professor Kahn (1988) and updating and adjusting said model with an understanding of the retail market in South Africa. The resulting model incorporates aspects such as:

- The difference in income levels by using the Living-Standards measure (LSM) classification.
- The level of transport mobility by considering motor vehicle ownership and the availability of minibus taxi transport.
- Determining how many households of a specific LSM group are required to support shopping centres across the hierarchy by considering different threshold values for different product categories.
- Retail is continuously changing with changes in circumstances from national to local levels in terms of socio-economics, changing aspirations, increasing mobility and technological changes.

The hierarchy of shopping centres consists of different levels and tiers of representation, which are dependent on population size and available disposable income. Therefore, Metropolitan areas have all the hierarchies, while small rural villages may have only a small local Neighbourhood centre. It follows that different-sized settlements have different tiers of shopping centre classes, starting from 1st tier Convenience centres to highest tier level Super-Regional centres in direct proportion to increasing settlement, population, and income levels (Prinsloo, 2016). This observation is illustrated diagrammatically in Figure 5, where it can be noted that as settlement population size and income levels increase, so do the number and size of shopping centres (Prinsloo, 2016).

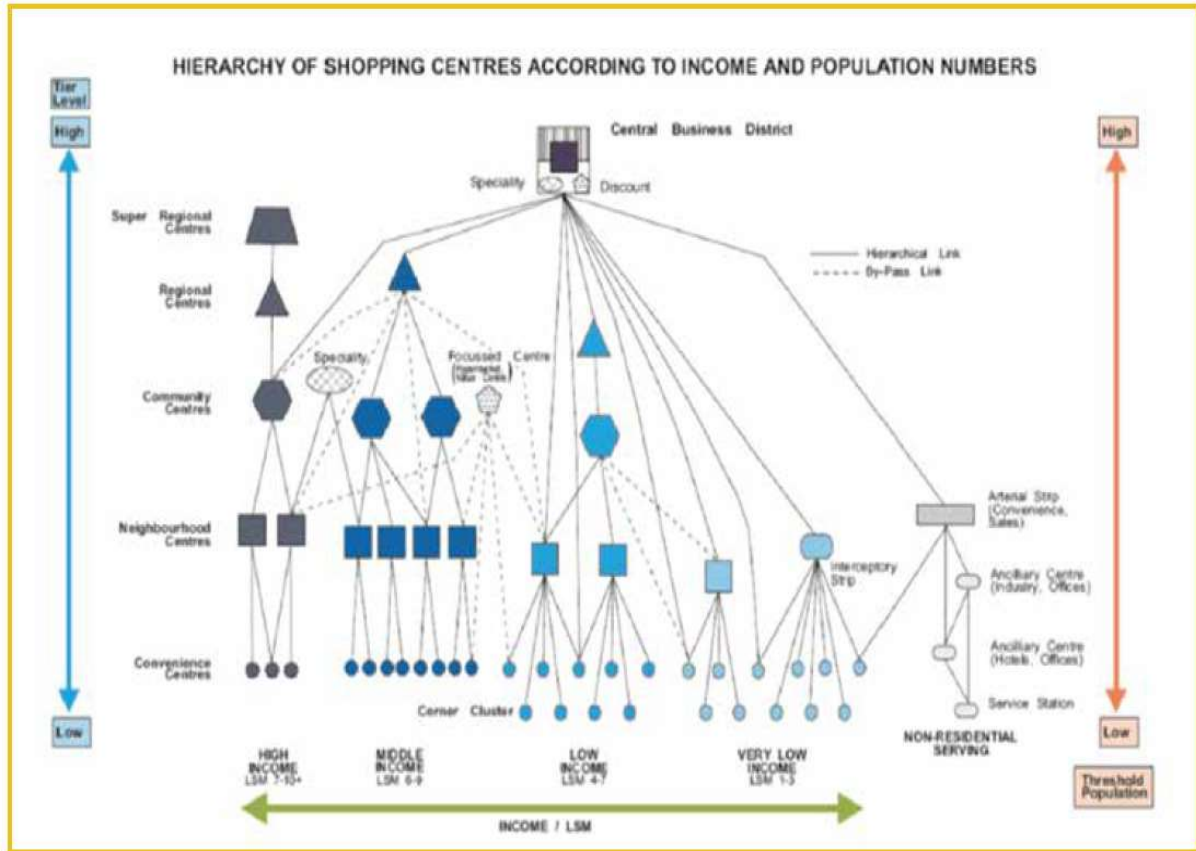


Figure 5: Hierarchy of South African Shopping Centres according to Income and Population Numbers (Prinsloo, 2016:6)

The supply of shopping centres in South Africa is shown to thus vary across the classification hierarchy of shopping centres and geographic/location segment sizes as follows:

- The Village- represents a one-tier retail hierarchy with small stores offering food, clothing, and service facilities.
- Rural Towns- include one- and two-tier retail hierarchy depending on their size.
- Cities- represent three and four-tier retail hierarchy depending on their size.
- Metropolitan areas- represent a five-tier retail hierarchy having all sizes of retail centres, from small strip centres to Super-Regional malls (Prinsloo, 2016).

A closer diagrammatic illustration of the hierarchical relationship between settlement size (geographic segmentations) is shown below in Figure 6. Figure 6 illustrates that when South African settlements are classified by tiers based on population size and income levels, from tier one small rural villages to small cities, there is an increase in the tiers (classes of centres within the size and function hierarchy) of shopping centres as well as the number of shopping centres.

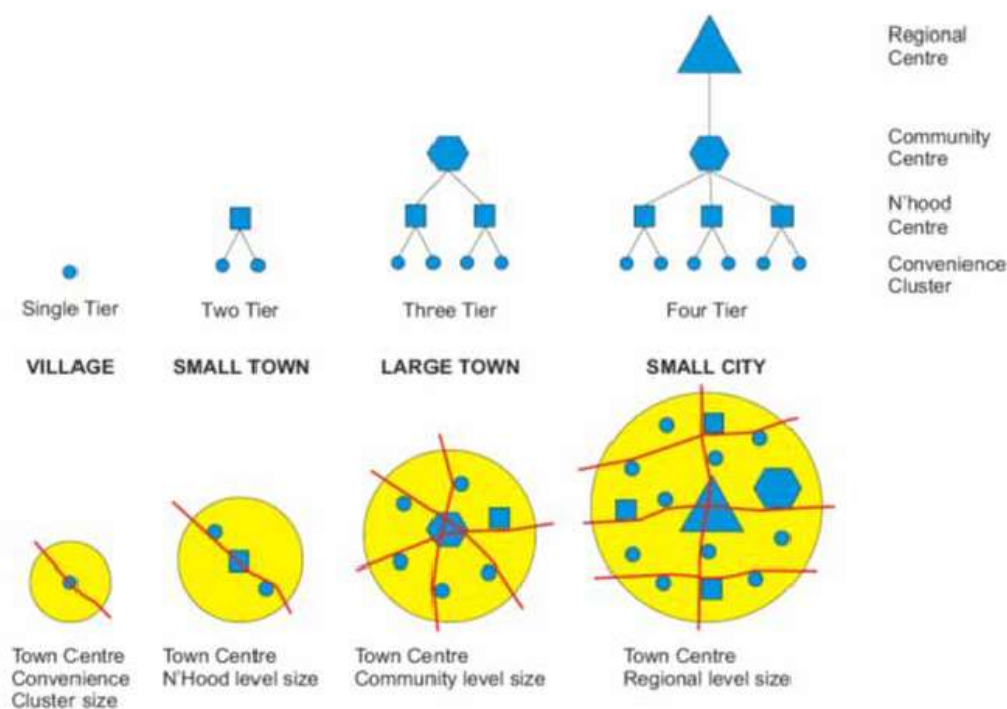


Figure 6: Retail Hierarchy Across Settlement Tiers in South Africa (Prinsloo,2016:7)

The preceding illustrations depict the core size and functional classification of planned shopping centres in South Africa and relate them to the human settlements where they can be expected to be found. This study focused on planned shopping centres; thus, these need to be differentiated from unplanned shopping centres. Prinsloo (2016) differentiates between planned and unplanned retail property in South Africa, as summarised in the Table 7 below:

Table 7: Planned vs Unplanned Shopping Centres in South Africa

Planned		Unplanned	Rural
<p><u>Core Classification</u></p> <ul style="list-style-type: none"> • Small free standing and convenience • Neighbourhood • Community • Small regional/ large community • Regional • Super Regional 	<p><u>Specialist</u></p> <ul style="list-style-type: none"> • Big Box Retailers • Entertainment/casinos • Lifestyle • Value • Hyper • Motor showrooms and related facilities • Filling station stores • Airport retail • Centres at railway/ commuter stations • Organised flea markets 	<ul style="list-style-type: none"> • CBD/Town Centre • Taxi rank retail/ commuter centre • Informal Traders • Spaza shops • Fresh produce markets • Morning/daily food markets 	<ul style="list-style-type: none"> • Rural retail taxi orientated • Town centres • Informal trade • Spaza shops • Planned shopping centres

Source: Prinsloo (2016:5)

Within the planned centre category, this study focuses on the core classifications of planned retail centres in South Africa. This core classification of planned shopping centres is based on the size and characteristics determined by using the following criteria:

- Role and function
- Description of centre characteristics
- Location criteria
- Market characteristics and threshold values
- Tenant mix (Prinsloo, 2016).

According to Prinsloo (2016), these criteria present themselves across the hierarchy of South African shopping centres as outlined in sections 2.5.1 to 2.5.6 below.

2.5.1 Small Free-standing Convenience Centres

- Role and Function- express convenience, such as daily milk and bread purchases.
- Description of centre characteristics- GLA of 500-5000m² with 5-25 stores in a single building or several buildings close to one another built on a 0.15-1.5-hectare site and catering for one or two adjoining suburbs. They can consist of one tenant or several small tenants.
- Location criteria – usually on collector streets in the suburbs and within walking distance of most local households. The average radius of the primary trade area is 1-1.5km with a median driving time to the centre of 2-3min. Convenience centres are mainly located in metropolitan, city, town and rural suburbs, with a smaller proportion present in township areas.
- Market characteristics and threshold values- are illustrated in the Table below.

Table 8: Market Threshold Values for Small Freestanding Centres

LSM Groups	No. of Households
LSM 1- 5	<10 000
LSM 6 - 9	<5 000
LSM 10 - 10+	<2 000

Source: Prinsloo (2016:9)

- Tenant mix- usually anchored by a small food store of less than 1000m² and convenience line tenants such as a pharmacy, butchery, hairdresser, liquor store and hardware store. Where location attributes allow, small fast-food outlets are also accommodated.

2.5.2 Neighbourhood Centres

- Role and function- play a convenience and express convenience role by providing a well-known food anchor (supermarket), sufficient parking and a solid micro-location easily accessible for households in the surrounding suburbs.
- Description of centre characteristics- GLA of 5000 – 12000m² with 15 – 50 stores built on 15 – 3.6 hectares of land, catering for surrounding suburbs within a 2km radius and intercepting passing traffic to other suburbs.
- Location criteria- usually on major suburban or township collector roads with high visibility and accessibility to passing traffic. Other location attributes are illustrated below:

Table 9: Travel Times for Neighbourhood Centres

Average Radius of Primary trade area	Median travel time to the centre	Access requirements
1.5 - 2km	4 - 9min	Major collector road

Source: Prinsloo (2016:10)

- Market characteristics and threshold values- for the different LSM groups are illustrated below:

Table 10: Market Threshold values for Neighbourhood Centres

LSM Groups	No. of Households
LSM 1- 5	20 000 – 47 000
LSM 6 - 9	9 000 – 20 000
LSM 10 - 10+	3 600 – 8 500

Source: Prinsloo (2016:11)

- Tenant mix – Usually anchored by one or two large food stores greater than 1 400m² supported by convenience-retail offerings such as a pharmacy, butchery, dry cleaners, liquor store and hardware store. Other tenants may include specialised stores, restaurants, take-aways, small clothing stores and services such as medical, dentistry and banking.

2.5.3 Community Centres

- Role and Function- to offer a large variety of convenience products with greater merchandise options. Its definition is often imprecise; and it overlaps with that of large Neighbourhoods and Small-Regional shopping centres. However, Community centres fulfil a significant role in township areas, especially when located next to taxi-oriented facilities (taxi ranks) and within walking distance of a large population that lacks private transport.
- Description and central characteristics- GLA of 12 000 – 25 000m² with 50 – 100 stores, built on a 3.6 – 7.5hectare piece of land and catering to a larger catchment area than small centres but less than regional centres.
- Location Criteria- located on main arterial roads accessible to several suburbs in the area and with high visibility to passing traffic. Other locational attributes are stated in Table 11 below.

Table 11: Travel Times for Community Centres

Average Radius of Primary trade area	Median travel time to the centre	Access requirements
2.5 - 3km	6 - 14min	Major arterial road

Source: Prinsloo (2016:14)

- Market characteristics and threshold values are shown in Table 12 below.

Table 12: Market Threshold Values for Community Centres

LSM Groups	No. of Households
LSM 1- 5	44 000 – 102 000
LSM 6 - 9	15 000 – 45 000
LSM 10 - 10+	5 000 – 12 000

Source: Prinsloo (2016:14)

- Tenant mix- usually anchored by one or two large supermarkets bigger than 2 500m² supported by convenience retailers
- such as a pharmacy, butchery, hair salon, laundromat, liquor store, hardware store, national clothing stores (to a limited extent), comparative shopping, restaurants, services like medical, banking and some office space. A few also have cinemas.

2.5.4 Small-Regional Centres

- Role and Function- to cater for a broader community and offer a better tenant mix than community centres. Many Small-Regional centres do not fulfil a regional role in the truest sense of the word except in more rural areas where they have strong regional attraction.
- Description and central characteristics- GLA of 25 000 – 50 000m², 75 – 150 stores, built on a 7.5 – 15hectare piece of land. It has many characteristics of a large Community centre. However, due to its role and function in the catchment area, it could be regarded as a Small-Regional centre, especially in rural areas.
- Location Criteria- These centres are mainly located in metropolitan and city suburbs, townships, and large towns. They are generally sited on major arterial roads which have regional accessibility and offer high visibility to households in the community or region, with trade area and travel time characteristics as depicted below.

Table 13: Travel times for Small-Regional Centres

Average Radius of Primary trade area	Median travel time to the centre	Access requirements
3 - 5km	10 - 16min	Major arterial road

Source: Prinsloo (2016:18)

- Market characteristics and threshold values- are shown below.

Table 14: Market Threshold Values for Small-Regional Centres (Prinsloo, 2016:18)

LSM Groups	No. of Households
LSM 1- 5	89 000 – 208 000
LSM 6 - 9	39 000 – 92 000
LSM 10 - 10+	16 000 – 37 000

Source: Prinsloo (2016:18)

- Tenant mix - the focus of the tenant mix of Small-Regional shopping centres is comparative shopping. They are usually anchored by two to three supermarkets/food

stores bigger than 4000m² supported by convenience retailers, national clothing anchor stores, restaurants and takeaways, entertainment such as cinemas, services, and limited office space.

2.5.5 Regional Centres

- Role and Function-to cater for the needs of a large primary and a secondary catchment area. The primary catchment area contributes 60-70% of the regular customers, and the rest come from the secondary catchment area. Additional trade may come from a tertiary area that can contribute 8-10% of trade volume. Regional centres have a greater entertainment offering that attracts evening trade and children during school holidays and often act as catalysts for the development of mixed-use nodes (precincts) around them.
- Description and central characteristics- extensive retail facilities with various merchandise offerings, adequate parking facilities and a significant entertainment component. They have a GLA of 50 000 – 100 000m², built on a 15-hectare (or more) tract of land.
- Location Criteria- Regional centres are in metropolitan areas, metropolitan townships and large cities on provincial roads linked to a national road with high accessibility and visibility and presenting the following locational attributes.

Table 15: Travel Times for Regional Centres

Average Radius of Primary trade area	Median travel time to the centre	Access requirements
5 - 8km	14 - 20min	Major arterial road, usually a provincial road linking to a national road

Source: Prinsloo (2016:21)

- Market characteristics and threshold values- are shown below.

Table 16: Market Threshold Values for Regional Centres

LSM Groups	No. of Households
LSM 1- 5	180 000 – 417 000
LSM 6 - 9	80 000 – 185 000
LSM 10 - 10+	33 000 – 76 000

Source: Prinsloo (2016:22)

- Tenant mix- The tenant mix focuses on destination and comparative shopping. Regional centres are usually anchored by two supermarkets larger than 5 000m² or one supermarket, 8 000 – 12 000m² in size and clothing anchor stores. In addition, the line stores are tenanted by boutiques and shoe stores, restaurants and food court areas, homeware and décor stores, entertainment such as cinemas and game arcades, services such as medical, banking, mobile phone, post offices and community services.

2.5.6 Super-Regional Centres

- Role and Function- to supply retail facilities to metropolitan areas or large regions and national and international tourists for comparative and specialist shopping. Their catchment area usually encompasses that of most Small-Regional centres.
- Description and central characteristics- large retail facility with the greatest possible range of stores and variety, an appealing atmosphere, extensive entertainment offering and international brands. They have a GLA greater than 100 000m² and have more than 250 stores.
- Location Criteria - usually on a major arterial road such as a provincial road linked to a national road with high accessibility and visibility and adequate provision for vehicle stacking space from the highway to prevent traffic queuing. Other locational attributes are shown below.

Table 17: Travel times for Super-Regional Centres

Average Radius of Primary trade area	Median travel time to the centre	Access requirements
10+ km	24 - 30min	Major arterial road, usually a provincial road linking to a national road

Source: Prinsloo (2016:25)

- Market characteristics and threshold values- are shown below”

Table 18: Market Threshold Values for Super-Regional Centres (Prinsloo, 2016:26)

LSM Groups	No. of Households
LSM 6 - 9	106 000 – 250 000
LSM 10 - 10+	44 000 – 101 000

Source: Prinsloo (2016:26)

- Tenant Mix- Super-Regional centres have the broadest possible tenant mix with at least seven anchor tenants, such as groceries, clothing (all the national and latest international brands), household goods, entertainment, banks and other services, including health and beauty or personal-care stores. They normally pioneer and test new retail formats, and most international brands open their first branches in Super-Regional centres.

Other planned but specialised centres within the size characteristics of the above listed core classifications but outside the other criteria, such as role and functional and tenant mix exist in South Africa. These include:

- Entertainment/casino centres
- Lifestyle centres
- Value centres
- Hyper centres
- Motor showrooms and related facilities
- Filling (Fuel Service) station stores
- Airport retail

The core classification of the planned shopping centre hierarchy by size and function in South Africa, described in sections 2.5.1 to 2.5.6 above, is illustrated in Table 6, found in the preceding section 2.4.4 (Prinsloo, 2016).

Having established the shopping centre concept and the applicable hierarchical classification of shopping centres, in South Africa, in the preceding paragraphs, it is necessary to move on to investigate the disruption of the modern shopping centre by digital transformation. This disruption is currently ongoing in what is known as the fourth industrial revolution (4IR). First, it is necessary to establish whether disruption is occurring within the retail property industry and how it presents itself.

2.6 The 4th Industrial Revolution (4IR) Concept

From the year 2000 onwards, the world has changed radically due to the rapid development of ubiquitous information communication technology (ICT). Social networks, mobile platforms, advanced analytics, big data, the internet of things (IoT), cloud computing, nanotechnology and miniaturisation, smartphones, smart buildings and factories, smart grids, smart cities, artificial intelligence (AI) and robotics are all advancing at a rapid pace and disrupting the way human beings behave and interact with one another, products and services. As a result, significant alterations are occurring relatively quickly; thus, the development can be termed a revolution, the fourth industrial revolution (4IR) (Bloem, 2014).

The industrial revolution began with a transition from industrious humans to human-industrial activity regarding the production of goods. The industrial revolution began in 1784 and can be distinguished into four stages culminating in the current (4th) stage. There are differing views as to the start and end dates of each stage of the industrial revolution in the literature; however, it can be summarised according to Blom (2014), as follows:

- The 1st industrial revolution of the 18th century was driven by water and steam-powered mechanical production.
- The 2nd industrial revolution of the early 20th century was driven by electricity-powered conveyor belts and mass production.
- The 3rd industrial revolution of the later 20th century was driven by digital automation and information technology.
- The 4th industrial revolution is currently afoot and driven by cyber-physical systems (Blom, 2014).

From the previous paragraph, it can be deduced that the 1st and 2nd industrial revolutions were driven by physical systems (mechanical and electrical). In contrast, the 3rd was driven by cyber systems (electronics), and the 4th industrial revolution is driven by an intersection of cyber and physical systems. This is illustrated visually in Figure 7.



Figure 7: The Chronological Evolution of the Industrial Revolution (Blom; 2014:11)

The 4IR developed through the advances in internet technology, and thus it is driven mainly by the internet of things and services, giving rise to a new phase of linked physical and virtual worlds, robotics and artificial intelligence. The evolution of information communication technology in the form of the internet has developed from connected documents, then connected companies, connected people and currently by connected business models that allow for the delivery of business services online/virtually, i.e., the connection of the cyber and physical systems (Blom, 2014). This is visually illustrated in Figure 8 below.

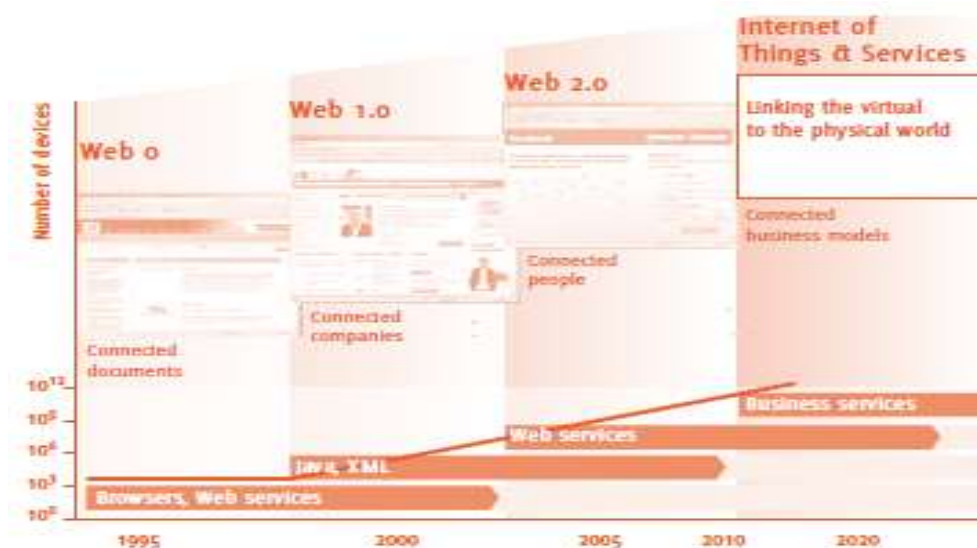


Figure 8: The Evolution of ICT from the Internet to the Internet of Things (Blom, 2014:13)

The intersection of cyber and physical systems results in a “smart world” composed of smart technology products, smart homes and buildings, which are the building blocks of smart cities and smart government. Moreover, everything and everyone become interconnected via the internet (Bloem,2014). See Figure 9 below.

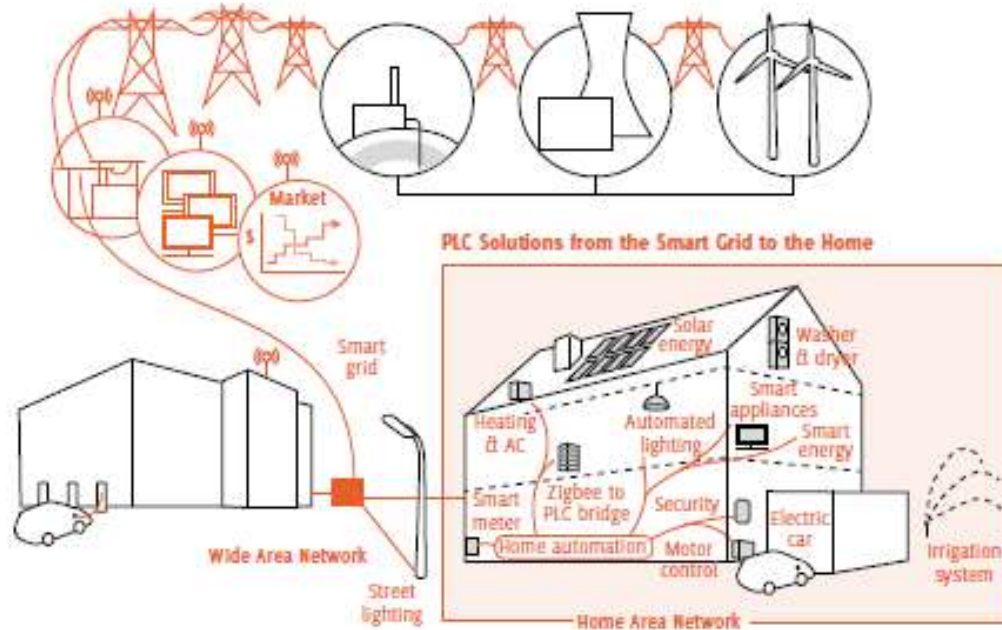


Figure 9: Smart World- a cyber-physical world (Blom, 2014:18)

Figure 9 illustrates the internet-based connection of cyber and physical systems culminating in a smart world where utilities and services are automated by utilising connected sensors. In Figure 9 above, the electricity production is connected to end users (businesses and homes) through a smart grid; and the electricity demand is directly linked to production and distribution. Electricity is allocated over the smart grid automatically to meet demand changes detected by home and business premise sensors that communicate with the grid over the internet (Blom,2014).

According to a study by Pethuru Raj and Jenn-Wei Lin (2020) regarding this new “smart world” implied by Blom (2014), the process of moving from the data to information and knowledge is maturing quickly. The implementation technologies, data-driven insights, and insight-driven decisions will become the new normal. The maturing of these technologies implies disruption and transformation of how things are done, particularly business operations and services. The 4IR technological ecosystem may look as illustrated in Figure 10 below. Figure 10 illustrates that physical devices, sensors and systems coupled with cyber systems (social sites) will provide the data that will result in data streams when integrated. The data streams can be analysed or processed to produce information that drives decision-making (dashboards, reports etc.) and automation (smart cities, smart homes etc.), an ecosystem driven by internet connectivity (Raj, 2020).

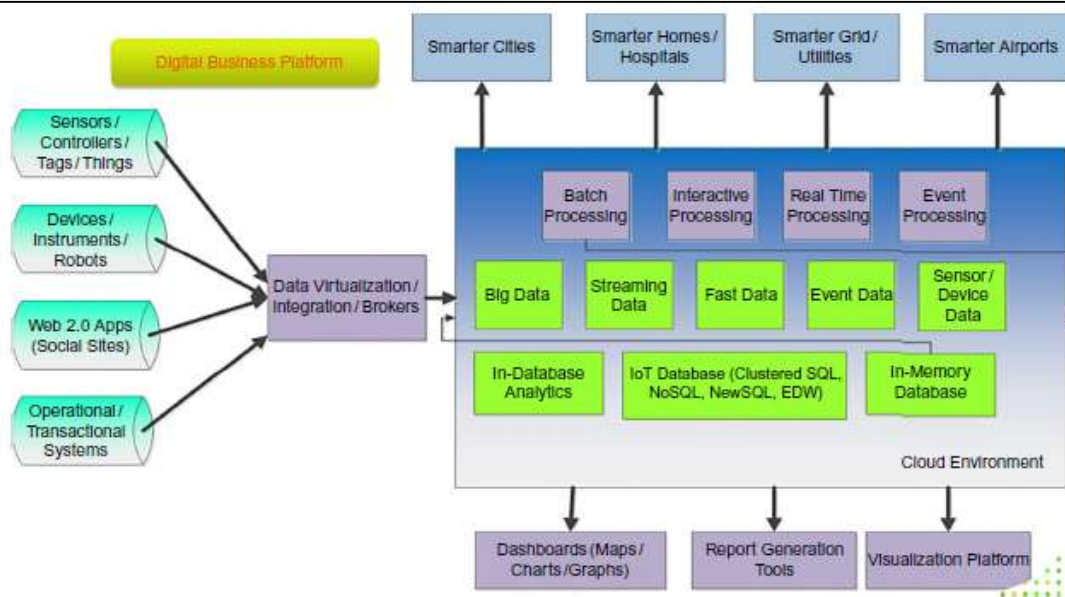


Figure 10: The 4IR Technology Ecosystem (Raj, 2020:27)

The development of the above-illustrated ecosystem and smart cyber-physical world leads to changes in human behaviour that call for changes to how businesses, in this case, retail and retail property, operate. This implies that current retail and retail property operations face disruption, that is, digital disruption.

2.7 The Digital Disruption Concept - a model of disruption and application

James McQuivey is credited as stating that “Digital disruption is a mindset that ultimately leads to a way of behaving” (Ancora, 2016:4). In other words, digital disruption is the transformation caused by behavioural changes that begin in the minds of people in response to emerging digital technology and business models. Innovative technologies and business models can impact the value of existing technologies, products, and services, thus “disrupting” the current market (Ancora, 2016; Oxford College of Marketing, 2016).

Kaplan and Haenlein (2019) define digital transformation as “the integration of digital technology into all areas of society, and the changes that result from this integration. Simply stated, digital transformation represents the novel use of digital technology to solve traditional problems. Digital transformation can lead to disruptive innovation, including the creation of new markets and value networks, but this is not always the case” (Kaplan, 2019:679).

Digital disruption in retail property should therefore present as something new, emerging from the periphery of the retail market and growing rapidly, resulting in disruption of the traditional business model of retail property. Owners or users of the new digital technology should see rapid growth and take market share from traditional players that do not own or use the new technology and business models. With the preceding in mind, it becomes necessary to evaluate whether digital disruption is occurring in the retail property industry, with particular emphasis on the South African shopping-centre industry.

2.8 Digital Disruption in Retail Property

2.8.1 Digital Disruption: Retail Property Market

According to Prinsloo (2018), the number of weekly visits to shopping centres in South Africa has declined steadily over the 20 years (1998-2018), resulting in a rise in competition in the large city and metropolitan, suburban areas. Innovative developers have also invested in the peri-urban, township and rural town areas, where there were previously no formal shopping centres. These rural and township-shopping centres operate in areas where their main competitors are informal traders, and online retailers, which have low to no e-commerce activity. Most online retailing is via the omnichannel activities of national retailers, offering both online and in-store sales (Bureau of Market Research, UNISA, 2008).

Digital disruption of retail property has been most prevalent in geographical regions where there is a convergence of high technology penetration and large numbers of retail properties. The USA retail property market represents this convergence best, and it is here that ubiquitous platform-based retailers like Amazon and the rapid uptake of online shopping have led to “the death of the mall” (Yan, 2018).

Online retail, cloud kitchens, co-working spaces, and flexible warehousing are rapidly changing different real estate classes to the point where real estate, as an asset class, looks unpredictable to investors. Companies are limiting planning to 2-year horizons, as they grapple with 4IR disruption, thus demanding shorter lease terms. Commercial real estate derives value from its ability to generate income, represented and secured by lease contracts; thus, shorter leases combined with lower rentals result in lower values (Australian Property Institute, 2008). The erosion of values has been cataclysmic for shopping malls, especially in the developed world. The combined impact of various 4IR challenges congruously impacting the sector erodes values and investor confidence in the asset class. Some of these challenges include (Rael, 2020):

- The shift to online shopping, rising costs for retailers who run brick-and-mortar stores,
- Improved last-mile delivery.
- Stock control technology.
- A reluctance among consumers to shop in shopping centres has led to financial difficulties at national retail chains, hitting the very heart of the retail real-estate business model.
- Retail brands no longer rely on physical stores as the only platform from which to get their products to their customers (Rael, 2020).

In the first quarter of 2020 (Q1:2020), when the study began, the retail environment in South Africa was under pressure from two fronts, namely consumer spending, which is constrained and structural transformation of the industry, due to digital disruption. In addition, many issues from load shedding (electricity blackouts), a technical recession in South Africa, and the coronavirus outbreak were adding to retail woes worldwide (Planting, 2020).

The coronavirus and subsequent lockdowns saw a massive decline in retail activity and shopper visits to malls throughout 2020, while also causing an acceleration in online shopping.

The COVID-19-driven acceleration in online shopping, coupled with various restrictions on gatherings and commerce, affected shopper behaviour, resulting in lower foot counts across all types of malls. In 2021, with a decline in severe restrictions, the shopping malls began to recover, together with the general economy. By Q3:2021, when the data-gathering phase of the study was completed, shopping centres were headed back towards their pre-pandemic (2019) performance metrics. Enthusiasm and adaptation to a new normal picked up in Q4:2021 and Q1:2022. However, it was petering off by Q2:2022 because of the poor global economic outlook and the fears of a global recession caused by the Russia-Ukraine war that started in February 2022. The war has fuelled energy price increases that, in turn, have resulted in steep increases in inflation worldwide and increasing interest rates. These have put pressure on consumers' disposable income, and thereby negatively impacting retailers and shopping centres (Rode and Associates, 2022; StatsSA, 2021; Harmse, 2021; SARB, 2022).

2.8.2 Digital Disruption: The Retail Property Business Model

In the USA, shopping mall values have declined by 30% from their peak values (Rael, 2020). A sustained erosion of value leads to financial and functional obsolescence in which shopping centres stop achieving the highest-best use (HBU) of a property or land (Ghyoot, 2015). In such a case, new uses that achieve the highest potential and, therefore, the highest market value of a piece of land or property become valid, thus supporting not only the closure but also the demolition or repurposing of shopping centres.

As outlined above, the disruption of the retail business model has left staggering vacancies in USA shopping malls, described as being in a "death spiral by real estate consultants Green Street. Vacancies have been created by shop closures, numbering over 9000 in 2019, up from 5800 in 2018 and already 1250 in 2020 to date (February 2020). The closures have included major retailers, such as Macy's, Sears, Bed Bath and Beyond, CVS and Walgreens, Bose, Victoria's Secret, Gap, Forever 21, Office Depot, Kmart, Topshop and Hallmark Cards. The disruption has been largely due to changing consumer behaviour brought about by digital disruption and the generational differences in technology use and adaptation (Rael, 2020).

Rael (2020) states that South Africa is not immune to global trends, but slower in responding to market changes by closing businesses down. However, the change is coming, as seen by American-owned Massmart (Walmart) announcing the closures of 34 Dion Wired and Masscash outlets. In this environment, South African Mall owners are set for intense rental negotiations likely to revise rent levels downwards from major retailers. Reliable and long-term rental incomes can no longer be relied upon by investors and financiers; as tenancies become shorter, escalation clauses are increasingly questioned, and mall values decline. Major anchor tenants, such as Edcon and Massmart were previously the most reliable tenancies; but they are now the most significant risk for shopping centres. "Real estate is shifting away from being an industry governed by low-touch financial managers that thrive on well-run assets to an industry governed by high-touch operators that thrive on well-run businesses.... many buildings are becoming less like fixed-income products, and more like an operating business" (Rael, 2020).

2.8.3 Digital Disruption: e-Commerce

In South Africa, online retail is growing annually; but it has not taken off as previously anticipated, and only 43% of shoppers were shopping online in the pre-pandemic period (before Q1:2020). The online shopping trend has also focused on specific merchandise categories, such as DVDs, books and electronic goods (Prinsloo, 2016). However, it is growing well enough to cause price competition to traditional retailers in these categories, as seen by the demise of Video-rental stores and the shutdown of several Dion-Wired stores in 2020. In addition, the increased online competition in product categories already under strain from low consumer spending, such as consumer electronics, puts bricks and mortar retailers in these categories of business under strain. As a result, shopping centres have increased vacancies and tenant-mix dilemmas (sacommercialpropnews, 2020).

The impact of e-commerce is influenced by demography and income levels across shopping-centre locations. Township locations, such as Tembisa and Soweto, have traditionally been under-serviced in planned shopping centres due to infrastructural constraints, low-income shopper base, perceived higher risk by investors and the legacy of apartheid spatial planning. Low LSM shoppers mean centres require larger volumes of shoppers from their trading areas, in order to break even (Prinsloo, 2016). Since 1994 however, the growing lower middle classes have chosen to settle in the townships they grew up in, where housing has been traditionally cheaper. In the last decade of economic stagnation and property market declines, the housing markets in Soweto have ballooned, outperforming all other housing sectors to the point that Soweto is being termed the Sandton of the South. Retail centres located in townships and correctly sized and offering adequate national retailer support and convenience have thus performed relatively well and have been least affected by online retail (Property24, 2020).

Online shoppers in South Africa are an example of the digital divide wherein internet and technological access have favoured those with the educational and financial resources to access them. By 2016, online shoppers in South Africa were mainly composed of the 25-49year old age group, LSM 10 and earning more than R30 000 per month, who were computer literate and owned smartphones. Millennials and Generation Z, who grew up in the age of smartphones, are expected to drive online shopping even more. However, it should be noted that South Africans have a distinct preference for multi-channel shopping. Most South Africans do a mix of online and in-store shopping. Thus, driving omnichannel retail adoption by purely online and purely store retailers. Takealot, an online retailer, demonstrates this and has opened collection hubs/stores, while Mr Price and Woolworths (bricks and mortar retailers) are growing their own online shopping platforms (Prinsloo, 2016).

The growth of e-commerce and its increase is projected to take as much as 20% in the short term, and an ever-increasing long-term share of retail sales. This is a challenge with impacts that constitute a long-term threat to the survival and viability of shopping centres. However, the same technologies that disrupt the traditional bricks and mortar retail model can also be leveraged to counteract and adapt to digital disruption (Masebe, 2020).

2.8.4 Digital Disruption: Omnichannel Retailing

Bricks-and-mortar retailers are transitioning to omnichannel retail in response to consumer preferences and behavioural changes. Omnichannel retail also allows retailers to leverage new technology, in order to cut operational costs and provide greater flexibility in how consumers shop. Technology also gives retailers access to greater degrees of data and information that can be used to pass on process and operational improvements to their suppliers, thereby allowing them to compete with online retailers with a lower-cost operational model (Brent McKenzie, 2018).

2.8.5 Digital Disruption: Changing Shopper Behaviour

Changing demographics, including increased population and urbanisation, have led to a greater need for public open spaces for socialising and congregating. As these spaces can often be unsafe (or be perceived as such) in large urban centre. This presents an opportunity for malls to be treated as places to socialise and congregate, which is indeed the trend that has been growing. Furthermore, consumers no longer visit malls merely to shop; but they now visit them for experiences. Malls are thus having to change in response to the changes brought about by changing consumer behaviour, due to 4IR technology, such as social-media, concerns over sustainability and desire for entertainment and constant engagement of interests. Sustainability concerns also drive a preference for mixed-use developments, where one can work-play-live (which includes shopping) in the same location (Roberto Fantoni, 2018).

2.9 Conclusion

The research investigated the digital disruption within the core classification of planned shopping centres in South Africa. The history and development of shopping centres vary across the globe due to regional, cultural, and country-specific socio-economic factors. Settlement patterns, population demographics, economics and local culture have also influenced how and why shopping centres have developed around the world. For example, the South African shopping-centre industry has been influenced by the country's former apartheid spatial development patterns in terms of location and by a thriving mall culture in terms of growth and expansion. There are several ways to characterise shopping centres, but in South African terms, and for this study, the classification by size and function is the most practical. The characteristics of each category or type of shopping centre within this hierarchy allow for studying the differences across the hierarchy; and they are useful in applying the exploratory sequential research method to answer the research questions. Furthermore, in this Chapter the concept of the fourth industrial revolution (the period within which digital disruption occurs) and digital disruption have been reviewed and it can be concluded that the retail property industry globally and in South Africa is currently being digitally disrupted and that this disruption presents itself through the disruptive changes in:

- The retail property market
- The retail property business model
- e-Commerce
- Omnichannel retailing

-
- Shopper behaviour

In order to understand how digital disruption in the South African retail property industry can be counteracted, it is important first to understand what that disruption entails in the form of the challenges, impacts and strategies it presents to traditional “bricks and mortar” retailing. The next chapter thus reviews past studies with regards to the challenges, impacts and strategies of digital disruption in retail property.

Chapter 3: Literature Review- A Review of Past Studies

3.1 Introduction

In this chapter a review of past studies is conducted and the key challenges, impacts and counteractive strategies with regards to digital disruption in the retail property industry are presented. The starting point are the challenges then their corresponding impacts and finally the available counteractive strategies.

3.2 The Challenges posed by Digital Disruption in Shopping Centres

Baen (2000) found that as internet usage increased at the turn of the century, the mall concept was coming under fire from technology. As a result, the way shopping centres were built, tenanted and invested in would be increasingly disrupted by the adoption of technology by retailers (tenants), consumers (shoppers) and the centre-management industry (retail property managers). Baen (2000) summarised his findings in the illustration depicted in Figure 11 below.

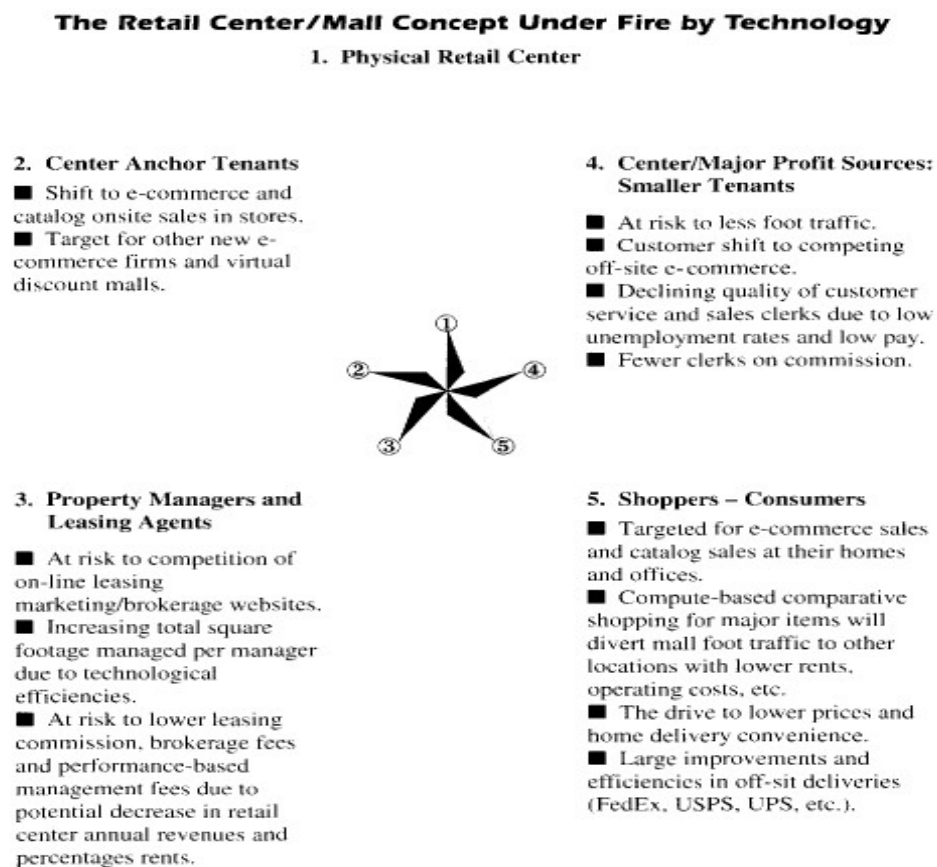


Figure 11: The Mall Concept Under Fire by Technology (Baen, 2000:187)

Masebe et al. (2019) found that the key challenges paused by digital disruption to South African shopping centres are:

- Changing consumer behaviour.

-
- Customers increased experience expectations- mall visits for experiences, as opposed to purchasing.
 - Customer demand for better transaction efficiency
 - Increased retail price competition
 - Increased channels of delivery by retailers in addition to physical store locations
 - Reduced retailer floor spaces and demand for space.
 - Customer data collection and data-driven marketing
 - Online web presence and social media-marketing and interaction.
 - Need for investment in Omni and multi-channel infrastructure.

3.2.1 Changing Consumer Behaviour

Consumer behaviour can be viewed as the actions consumers/customers take in their shopping journey. The shopper journey, as a consolidation of Lemon and Verhoef (2016) and Shankar (2016) models, can be summarised as having three distinct stages i.e.

- pre-transaction/purchase,
- transaction/purchase, and
- post-transaction/purchase (Hoyer, et al., 2020).

Customer behaviour in these stages has been impacted by technology; and it is changing with a resultant disruptive impact on the bricks and mortar retail model.

a. Pre-transaction/purchase behaviour

Traditionally, shoppers tended to react to marketing and promotional campaigns and advertising of malls and retailers by visiting the mall/shop and touching, feeling, viewing and trying out products and services. Besides physical interaction with products and services, shoppers can now compare prices across retailers online by using their computers and mobile smartphones. They can further research products and product reviews by other customers on social media; and they are increasingly susceptible to social media influence, when making shopping decisions. This means that shoppers are more knowledgeable about exactly what they want; and it also reduces shopping centre foot counts as mall visits for “window shopping” or investigative visits are being replaced by online browsing (Hoyer, et al., 2020).

b. Transaction/Purchase Behaviour

According to Hoyer et al. (2020), shoppers having already decided on purchases, either purchase items online or visit physical stores to “touch and feel” products, which they either purchase in-store or online. Whether to purchase in-store or online can be influenced by price, delivery, returns policy and customer experience. Hoyer et al. (2020) quote Meyer and Schweger (2007) and refer to Customer experience as the “internal and subjective consumer responses when in contact with a company”; and Heskett et al. (2008) conclude that excellent customer service should result in a good customer experience.

The proliferation of smart technology and its adoption by customers through smartphones, tablets and personal computers (Foroudi, 2018) means that customers can compare prices

between competing stores, even while in-store. Furthermore, they can access online product and store reviews and customer complaints or feedback, thereby influencing their purchase decision (Watling, 2019).

The types of products purchased online, and in-store also influence the purchasing decisions in South Africa. For example, South African shoppers have been observed to purchase consumer electronics, books, and CDs online; while preferring to purchase furniture and clothing instore (Prinsloo, 2016).

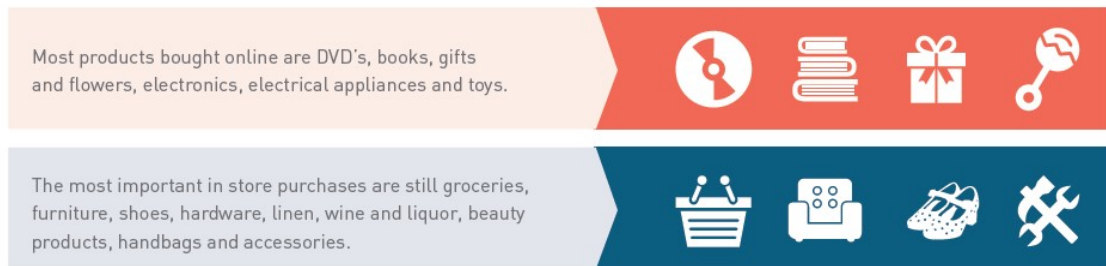


Figure 12: Online vs Instore Product Purchase Preferences in South Africa (Prinsloo, 2016:6)
 The preferences for online versus in-store shopping are also influenced by income, as measured by the LSM. With high LSM (8-10) households are more likely to shop online, which may be attributed to being more highly educated, able to afford smartphones and having access to more online services in metropolitan and city suburbs, as opposed to lower-income areas and households. If income level is a determinant of preference for online shopping, it should also manifest along racial lines, given the unequal distribution of wealth across the races in South Africa. Figure 13 below summarises the characteristics of the online shopper in South Africa (Prinsloo, 2016).

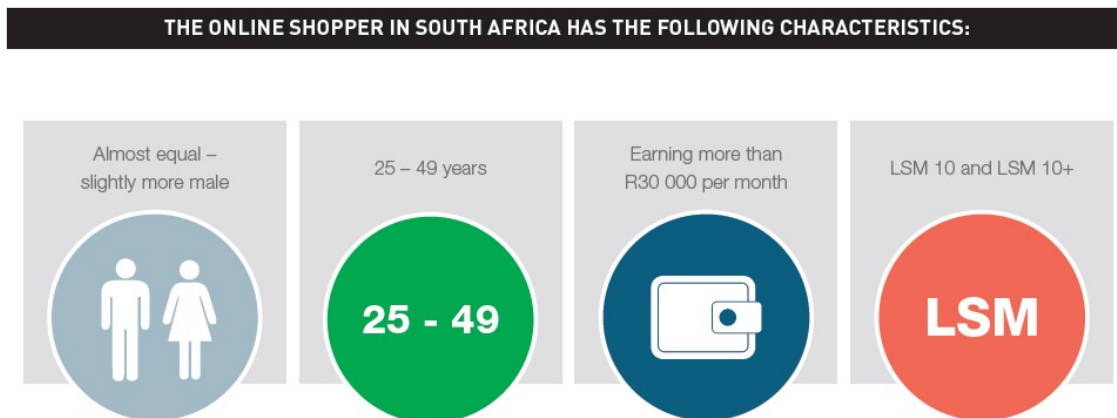


Figure 13: Characteristics of the South African Online Shopper (Prinsloo, 2016:3)

The foregoing discussion on the factors influencing the preferences for online versus in-store shopping is because South Africa also has a bearing on the level of impact of e-commerce or digital disruption across the hierarchy and geographic segmentation of South African shopping centres (Prinsloo, 2016). It can be expected that low-income township malls are less negatively impacted by e-commerce than suburban malls; or they are impacted differently, thus calling for different responses to digital disruption (Masebe, 2020).

c. Post Transaction/Purchase Behaviour

As online shoppers increase in number due to increasing acceptance of the online channel for shopping in direct proportion to the increasing use of smartphones by consumers and smart retail technology (Retailtech) by retailers (Foroudi, 2018), a new type of shopper behaviour referred to as the “non-stop shopper” has emerged.

The non-stop shopper is a shopper who is never done evaluating their options even after purchase; and he is constantly visiting store and manufacturer websites. These shoppers also constantly refer to the social media, in order to see what others say about products, services and customer experiences to influence their vendor choice and purchase decisions. In South Africa, 56% of online shoppers say that the social media influence their purchasing decisions. This type of constant re-evaluation is quite different from previous shopper behaviour, which could be influenced by loyalty programmes that encouraged repeat purchases and discouraged by re-evaluation. The new focus of digitally savvy shoppers is evaluation, rather than purchases, illustrated in Figure 14 below. This translates to shoppers who are enabled by digital technology to decide which provider to purchase from in the moment, i.e., those most relevant required to their personal needs at that point in time; and this disrupts the entire premise of loyalty programmes, such as store and mall loyalty cards (Watling, 2019).

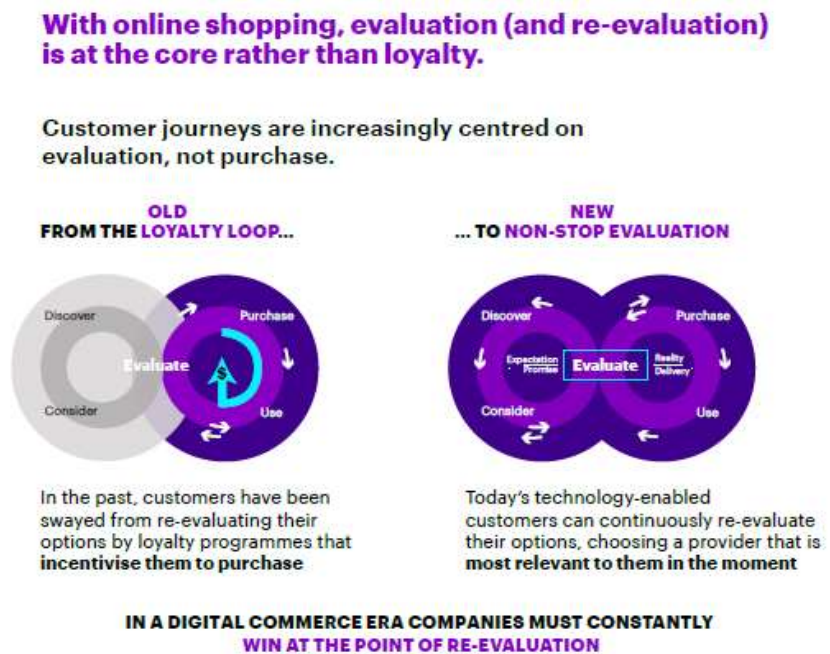


Figure 14: From Customer Loyalty Loop to E-Commerce Driven Continuous Re-evaluation (Watling,2019:13)

3.2.2 Customers increased experience expectations- mall visits for experiences

Masebe et al. (2019) found that customers in the digital era are drawn to experiences rather than the need to purchase when choosing what shopping channel to use. These experiences can be divided into two types of experience expectations, :

- Customer-service experience expectations and
- Sensory experience expectations

Customer service expectations are primarily influenced by the shopping behaviour derived from digital technology, such as smartphones; and they are informed mainly by customers' demand for better transaction efficiency. This is further discussed in the next section; in this section, the focus is on the sensory experience expectations of shoppers.

According to Veuger (2017), in the current digital age and going forward, real estate needs to be adaptable, disrupting, in a good location, sustainable and distinctive in such a way that its spatial and built environment stimulates innovation and promotes knowledge-sharing and co-operation. To do this, shopping centres cease to be merely places for buying products; and the focus shifts from tenants to customer experiences. This means that a greater focus is required on what Buss (1997) calls entertaining or shoppertainment.

Shoppertainment or entertaining is the concept whereby shopping centres increase the leisure and entertainment offerings, in order to attract shoppers looking for new experiences. McIntosh (2000), as far back as the year 2000, predicted that as affluence, represented by a growing middle class across the world, increases, there is a corresponding increase in the “experience economy”. The experience economy refers to the increasing demand for “enjoying the experience” by shoppers, whether that be visiting the UK High streets or Disney world. This experience of the economy will drive up leisure and retail profitability. Furthermore, the increase in the experience economy coupled with e-commerce encourages greater consolidation of retail brands and locations, with more attractive locations thriving; while less attractive centres decline.

In the USA, the demand for experiences has even increased the number of pure-play online retailers, such as Amazon opening physical stores. Greater shopper satisfaction is being experienced at those centres that have adapted to these digital disruption-induced changes in shopping behaviours and expectations. Across generational age cohorts, those malls with a tenant mix that adds experiences such as:

- increase F and B services (food and beverage), especially curated food halls and craft breweries.
 - hosting community events, such as farmers' markets or local artisan craft fairs.
 - adding Grocery stores, gyms, spas, childcare and medical/health facilities.
 - introducing technologies that provide convenience and making shopping trips easier, such as digital mall apps for parking, mall maps and navigation and
 - introducing technologies that engage customers by building relationships through social media, loyalty programmes and targeted marketing
- have led to more satisfied physical retail store customers (ICSC, 2018).

The increase in the use of technology would be expected to show a preference for e-commerce; however, ICSC (2018) studies show that the generational cohorts that use technology, especially mobile phones, are the ones with a greater preference for mall experiences. Millennials (1980 to 1995) and Generation Z (born 1996-2010), which make up

the largest cohorts of the South African population, are the key drivers of disruptive digital shopper behaviour (Masebe, 2020). All Millennials are now adults and form the working adult category of the retail customer base. At the same time, Generation Z comprises children or people entering adulthood it, and forms the student-driven base of retail demand. Furthermore, Generation Z's buying power goes beyond their income, as most of their purchases are made with money from their parents (ICSC, 2018). Both these generational cohorts' technology-driven shopping behaviour and focus on experiences and social-media interaction will become increasingly important in determining successful tenant mixes in retail property. This is because communal aspects, if applied to mall tenant mixes, operations and design, have been found to draw young consumers into brick-and-mortar stores (ICSC, 2018). The importance of the increasing demand for experiences by modern shoppers to retail property has been seen in the death of poorly located malls that have not responded to the experience economy and the digital disruption of shoppers' behaviour (Masebe, 2020) .

3.2.3 Customer demand for better transaction efficiency

In an increasingly digital and connected world, customers are becoming accustomed to the efficiency of the internet and e-commerce. This means that they demand the same level of transaction efficiency from bricks-and-mortar retailers. Customers can find almost any product and purchase it online, or the customer service experience can influence the choice of where to shop in terms of transaction efficiency. Transaction efficiency, in this case, refers to the fluidity, speed and ubiquitous ability to compare products and prices by using mobile and personal computer devices with internet access (Masebe, 2020). With the advent of e-commerce, many retailers added a second channel to their existing retail stores. This has since developed into omnichannel retailing in response to competition from e-commerce retailers such as Amazon in the USA and Takealot in South Africa. This means that physical store operators are competing on the digital front with pure-play online retailers as well as with each other, and thus customer experience becomes ever more important across all the channels. Customers expect a flawless transaction experience and quality of service across all channels and the ability to use any channel or combination of channels to make purchases, collect or receive deliveries) purchased goods (Nojd, 2020).

Nejd (2020) quotes Johnston and Kong (2011) and states that customer experience has been traditionally defined as the "the perceived outcome of the interaction between customer and firm during the service process". However, in today's digital age, customer experience can be viewed from a contextual and systemic perspective in which customers co-create their experiences beyond the boundaries or sometimes even completely independent of the firm. For this reason, uniformity of transaction efficiency across channels is required for physical retail to compete with online retail. Digital retail technology (Retailtech) can be perceived as both beneficial and detrimental by customers. Beneficial in terms of superior and personalised services, increase in a sense of autonomy and satisfaction of individual needs and detrimental in terms of intrusiveness and privacy concerns. When retailers adopt Retailtech that provides the perception of ease-of-of use and enjoyment and caters to the propensity to embrace new technology in the target customer population, they can then provide a customer experience that attracts customers to physical stores (Nojd, 2020; ICSC, 2018).

The challenge caused by digital disruption regarding transaction efficiency and excellent customer service across channels is creating value for the customer within a physical store through transaction efficiency comparable to online retail (Nojd, 2020). Agarwal et al. (2017) put it this way, "Shoppers want a seamless, frictionless experience between online and offline, with little distinction between the two channels. That could mean buying online and picking up at the store or at centrally located "collection lounges," buying online and returning to stores, getting purchases delivered to one's home, and using a mall's app to make purchases from mall stores" (Agarwal, 2017).

3.2.4 Customer data-collection and collection and data-driven marketing

E-commerce has a data advantage over traditional brick-and-mortar retailers; because online transactions are more efficient and convenient (can be done anywhere, ABD at any time). Moreover, e-commerce platforms provide centralised or built-in software data analysis capabilities, allowing online retailers to forecast product sales faster and more accurately. Access to big data gathered from customers' online "clicks" on web advertisements, saved products, wish lists, and online purchases provides a wealth of highly relevant data. This highly relevant data allows online retailers to optimize marketing, advertising and promotions, optimize stock control and provide more personalized services faster, more efficiently and cost-effectively than bricks-and-mortar retailers. In addition, online retailers operate and adapt in real-time as data is available in real-time. In contrast, traditional physical store retailers usually have to wait for reporting periods to analyse the data collected and respond/adapt to it (Xin, 2017).

Bricks-and-mortar retail must meet this challenge by investing in retailtech and other channels that allow them to gather data and use data analytics to improve their ability to satisfy customers who increasingly demand personalised services (Xin, 2017). Opportunities to get a better data analytics capability for malls exist. For example, mall operators can leverage Mall Apps, WIFI service, point-of-sales data and security cameras to develop a greater understanding of their shoppers and shopper behaviour. WIFI analytics can reveal information on what websites shoppers are visiting and thus inform operators on what shoppers are looking at in certain areas of the mall (Agarwal, 2017); however, there has been no significant leveraging of these already available mall technologies for data analytics applications in South Africa (Watling, 2019).

3.2.5 Online web presence and social-media marketing and interaction

Technologically savvy shoppers are concentrated in the Millennial and Generation Z age cohorts who have grown up with the internet and smartphones and thus expect immediate gratification. This leads them to demand experiences which they then share via posts on social media. Social media sharing and following results in the phenomenon of Social Media influencers. Influencers are people who generate the content of their experiences across social media channels and create a large following for their activities and opinions (ICSC, 2018). A great deal of this online activity is carried out on smartphones. Modern shoppers use their phones to make product and price comparisons even while in the mall or store. Therefore, stores and shopping centres that do not have active social media presence and websites are increasingly less attractive to shoppers, especially the younger Millennial and Generation Z

age groups. These shoppers use their smartphones for browsing, online purchasing, accessing retailer applications (Apps), accessing mall apps, click and collect, alternative payments such as virtual bank cards, automated checkouts and signing into mall WIFI. These activities form part of the customer experience for shoppers (ICSC, 2017). According to the ICSC (2019), not only are shoppers driven to physical stores by the online presence of the stores or malls, but the reverse is also true. That is to say, “bricks drive clicks”, evidenced across Europe, the USA and Canada, where most online shoppers say that when buying online, it is important for a retailer to have a physical store presence near their home or work.

3.2.6 Increased channels of delivery by retailers in addition to physical store locations

Digital technology has allowed shoppers to have the ability to shop online or instore or a combination of both. Web-based shopping systems (WBSS) compete with store-based services. Where physical store rent and utilize space, they rent servers, IP addresses, domain names, and courier services to present and get products to shoppers. WBSS is an internet-based shopping system for selling and buying products, information and services. WBSS are classified by transaction patterns, such as e-tailers, virtual merchants, clicks and bricks, manufacturer direct and the market creator. Falling into the various classifications are various types of WBSS, including but not limited to the internet mall, virtual mall, electronic mall, cyber-mall, virtual storefront and online stores (Changsu, 2007).

The advent of WBSS has opened up new retailing channels that retailers and their customers can use, and this has led to a change in the retail mix and customer behaviour. As a result, many retailers have initiated multi-channel strategies to counteract the disruption caused in their business models due to these technological advancements. Multi-channel retailing refers to a retailer using more than one channel, such as a physical store and online store congruously, to sell their products. In contrast, omnichannel retailing has more channels and “the different channels become blurred as the natural borders between channels begin to disappear”. Multichannel retailing has traditionally been segmented into Offline, online and traditional direct marketing channels, with offline referring to physical stores, online to web stores and direct marketing to items such as catalogues. Multichannel retailing has evolved through integration into omnichannel retailing. The management of omnichannel retailing has been defined as “the synergetic management of the numerous available channels and customer touch points, in such a way that the customer experiences across channels and the performance over channels are optimized”. Thus, the different channels interact with each other and are used simultaneously. The difference between multichannel and omnichannel retailing can thus be summarised as illustrated in Figure 15 below (Verhoef, 2015).

Multi-channel versus omni-channel management.		
	Multi-channel management	Omni-channel Management
Channel focus	Interactive channels only	Interactive and mass-communication channels
Channel scope	Retail channels: store, online website, and direct marketing (catalog)	Retail channels: store, online website, and direct marketing, mobile channels (i.e., smart phones, tablets, apps), social media Customer Touchpoints (incl. mass communication channels: TV, Radio, Print, C2C, etc.).
Separation of channels	Separate channels with no overlap	Integrated channels providing seamless retail experiences.
Brand versus channel customer relationship focus	Customer – Retail channel focus	Customer – Retail channel – Brand focus
Channel management	Per channel	Cross-channel objectives (i.e., overall retail customer experience, total sales over channels)
Objectives	Channel objectives (i.e., sales per channel; experience per channel)	

Figure 15: Multi-channel vs Omnichannel management (Verhoef, 2015:176)

According to, Verhoef et al. (2015), the development of multi and omnichannel in retail means that shopping centres need to adapt to changes in:

- Retail Performance across channels
- Shopper Behaviour across channels
- Retail Mix across channels

Understanding these changes and their impacts will inform tenant mixes, technological investments and marketing strategies of retailers and shopping centres (Verhoef, 2015).

Globally the ubiquitous pure-play online retailers such as Amazon and Alibaba have taken significant shares of retail sales. However, even they are opening physical stores in an effort to solidify their brands and curate their product assortment. The trend is towards omnichannel retailing (ICSC, 2015). In South Africa, South African shoppers prefer to “touch and feel” products before purchasing and hence tend towards omnichannel, click-and-collect modes of shopping (Prinsloo, 2016). Omnichannel retailing thus implies a positive outcome for brick-and-mortar retailing; however, it is a double-edged sword. It can result in reduced foot traffic to malls, reduced in-store sales, reduced space requirements by omnichannel retailers and lower turnover rentals (Prinsloo, 2016).

3.2.7 Need for investment in Omni and multi-channel infrastructure

An increasingly digitally savvy or “technologically conversant” society generates a demand by consumers for hybrid sales, i.e., sales ordered online and collected in-store, also known as click-and-collect (Marston, 2002). As a result, more and more brick-and-mortar retailers are

investing in omnichannel retailing, which presents operational challenges for shopping centres. These challenges include supporting digital infrastructure, delivery infrastructure, click-and-collect operations and adjusting lease agreements to capture the implications of e-commerce sales, especially regarding turnover rental clauses (Agarwal, 2017). This poses a dilemma for mall owners who must expand capital investments into technological infrastructure to attract tenants and shoppers while experiencing e-commerce-induced increases in vacancies and a reduction in demand for retail space (Prinsloo, 2016). Shopping centres thus need to invest in reliable power supply, internet connectivity - for tenants (fibre to buildings) and for shoppers' mall WIFI, mall Apps, delivery and pickup areas, data analytics technology and software to enable omnichannel experiences (ICSC, 2015; Watling, 2019).

3.2.8 Increased retail price competition

Prominent players such as Amazon have grown from pure play platforms that other retailers could use to sell their products and have moved into manufacturing and selling their own products as well as those of platform users (ICSC, 2015; Watling, 2019) in the same way that for example Shoprite and Pick n Pay (bricks-and mortar retailers) have their own retailer brands in direct competition with the brands sold in their physical stores (Prinsloo, 2016). The effect of this is the increase retail price competition amongst online and offline retailers. In cases where the merchandising category is particularly susceptible to online sales, e.g., Bookstores like Barnes and noble in the USA, retailers are failing and closing stores.

Consumers have increasingly adapted to the internet for research of any kind. Over the last 20 years, it has become the norm for consumers to compare prices and search for deals and product reviews online. This has increased competitive pressures on retailers and their profit margins, negatively affecting rental affordability (Damesick, 2001).

In South Africa, retail malls saw heavy investment in the last two decades. This investment was driven by retail focussed real estate investment trusts' (REITs) outperformance on the Johannesburg Stock Exchange (JSE), e.g., the number of shopping centres increased from 1053 in 2007 to 1942 in 2015 led by retail focussed REITs. The result has been that specific locations and classes of shopping centres, particularly metropolitan, suburban neighbourhoods, such as Pretoria East, are oversupplied. As a result, the competition between these centres for tenants and shoppers is fierce. It is further exacerbated by the fact that they are located in high LSM communities with the most avid online shopping users. The price competition suffered by retailers results in the need to reduce costs. The particular target of cost reduction for bricks-and-mortar retailers is the cost of occupancy, i.e., rentals (Prinsloo, 2018).

3.2.9 Reduced retailer floor spaces and demand for space

Combining all the above challenges translates to decreasing demand for retail floor space. Retailers moving into omnichannel retailing are finding that they require less retail floor space and more last-mile delivery floor space (i.e., warehousing). Pure play e-commerce retailers also moving into omnichannel simply do not need as much retail floor space because they mostly use their retail space for showrooming, i.e., a place for shoppers to try out goods before making online purchases. Merchandising or service categories that have experienced severe

digital disruption have seen company failures leading to many store closures. Banks being disrupted by Fintech, such as banking Apps wherein clients can conduct almost all banking transactions from their phones, have seen banks reduce their branch footprint in shopping centres (Prinsloo, 2015; Watling, 2019; Prinsloo, 2016; Reynold, 2017).

The preceding challenges impact the brick-and-mortar retail business model and the shopping centres that house them. It can be expected that a variation of impacts across retail centre locations should be experienced. Locations with existing polarisation and sales cannibalisation between different hierarchies of shopping centres are likely to face more significant challenges and impacts of digital disruption. These areas are primarily in metropolitan, suburban areas of South Africa, with the highest LSM and e-commerce penetration. In contrast, lower-income areas such as townships and rural areas with less retail centre competition are likely to be impacted less drastically over the short term (Damesick, 2001). In this paper, we are concerned with disruptive or negative impacts, which are discussed in the next section.

3.3 The Impact of Digital Disruption on Shopping Centres

As far back as the year 2000, Baen observed and predicted the various impacts technology would have on retail centres. He summarised it in an illustration he called the “sword of technology”, shown in Figure 16. The predictions have largely come to fruition over the last 20 years with variations across the world’s geographic regions (Masebe, 2020).

Masebe et al. (2020) found that the impact of digital disruption on the shopping centre industry in South Africa included the following:

- Decreased demand for space and thus increased vacancy rates
- Lower rent levels and decreasing income
- Lower Returns on Investment for investors in retail property
- Lease ambiguity on omnichannel retailing
- Increased innovation and investment in technology
- Obsolescence of certain Retailers and Shop closures
- Declining Retail property values and flight of capital from the retail property sector to other property sectors
- Vacant retail properties needing repurposing or demolition

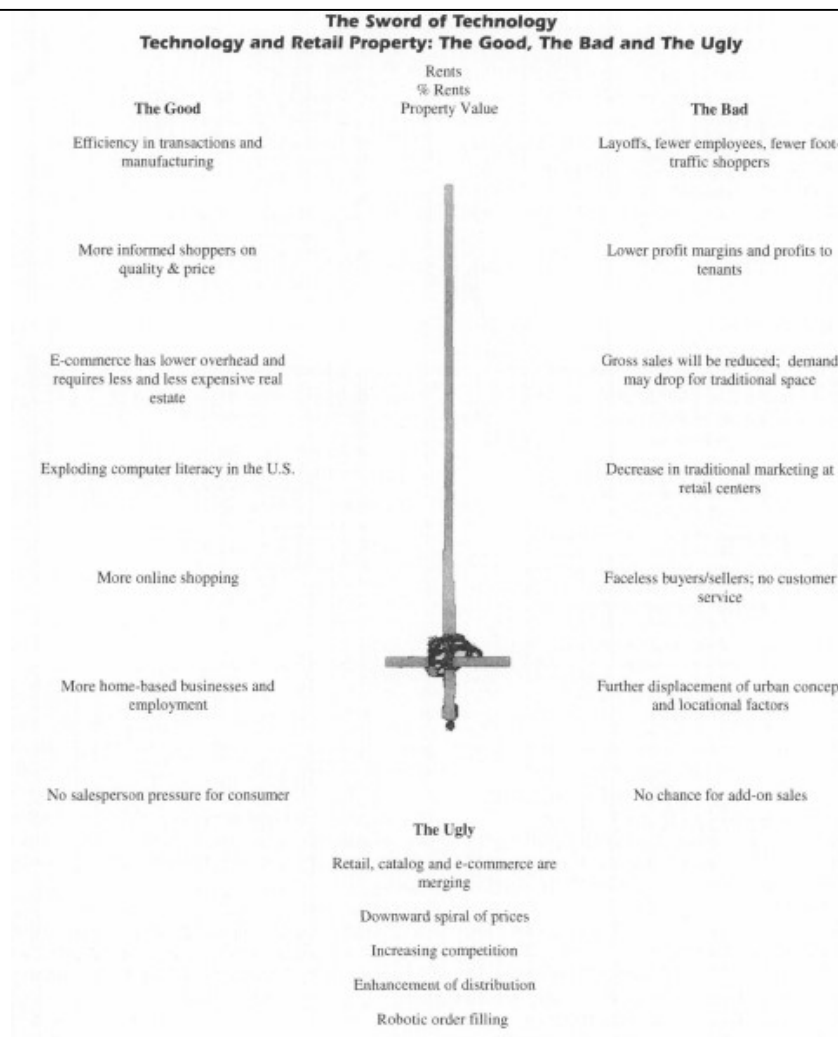


Figure 16: The Sword of Technology (Baen, 2000:188)

The degree to which shopping centres are negatively impacted by digital disruption differs across regions and countries is dependent on other factors, including the shopping culture or “mall culture”, location and prevailing socio-economic conditions in a country (Masebe, 2020).

3.3.1 Decreased demand for space and increased vacancy rates

Some retail property analysts estimated that 20-25% of shopping malls may close by 2022 in the USA due to the challenging retail environment. Many retailers are closing their businesses or trying to restructure their business models resulting in store closures or a decreased demand for retail space (Bond, 2019). According to Marston (2002), small independent retailer numbers continue to decline with their market share; while multiples increase in number and market share, resulting in increasing consolidation of sales and decreasing number of shop units. Digital disruption in retail leads to increased polarization between primary and secondary locations. Larger centres that can offer entertainment, food and beverage outlets and other experiential offerings leverage the experience economy and become more attractive to shoppers at the expense of smaller centres which do not have these offerings (Marston, 2002).

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

A review of shopping centre council websites across the globe, namely ICSC, SACSC and Revo (UK), shows that Marston's 2002 prediction came true and small centres have suffered. Neighbourhood and Community centres declined in South Africa from 2008 to 2018 due to intense competition from regional centres (especially in metropolitan suburbs) and retailer price competition from e-commerce (Prinsloo, 2018). However, from 2018 to (2020) smaller centres, especially Neighbourhood centres, have recovered, and their annualised trading density (ATD) is outperforming, hence catching up to the long-term ATD performance of larger format centres (SAPOA, 2020).

According to the SAPOA (2020) retail trends report, as of March 2020 (prior to the COVID-19 lockdown), annualised trading densities (ATD) of South African shopping centres showed continued growth (+2.8% year-on-year), especially within the Neighbourhood centre segment (Figure 17). However, paradoxically, vacancy rates (Figure 18) continued to increase across all segments of shopping centres.

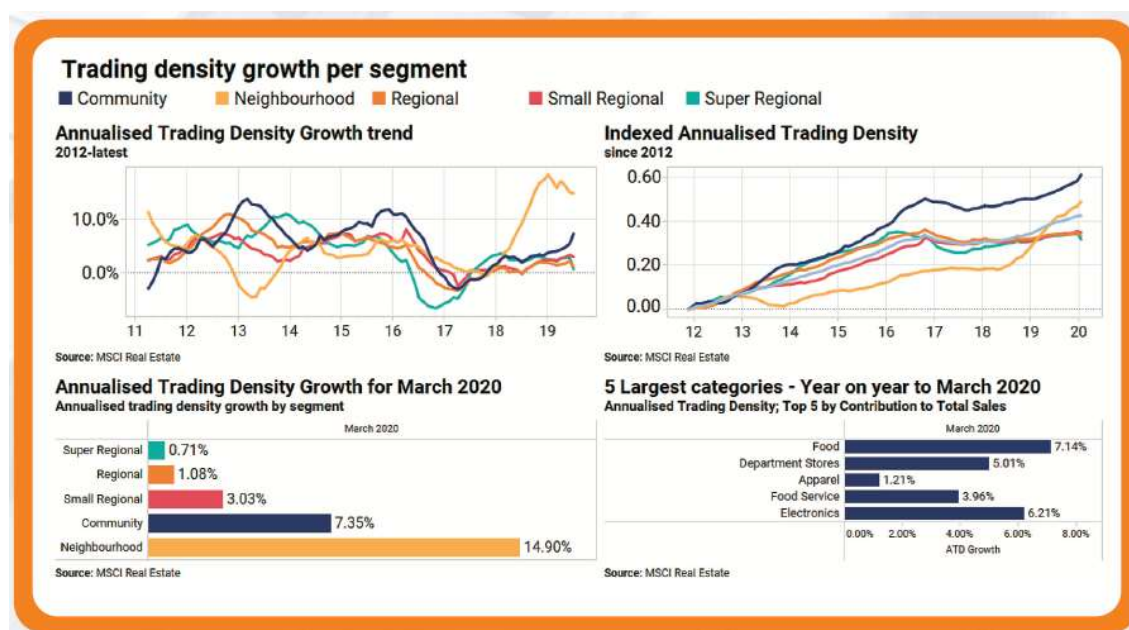


Figure 17: Retail Centre Trading Densities March 2020 (SAPOA, 2020:6)

While the recessionary economic conditions within South Africa largely contributed to the sluggish growth in retail sales (Figure 20), the increasing ATD shows that shoppers are still largely loyal to bricks-and-mortar retail. In addition, in response to digital disruption-induced changes in shopper behaviour, omnichannel and e-commerce strategies by brick-and-mortar retailers have led to retailers (tenants) seeking lower costs of occupancy. Thus a lower demand for space is seen by the increasing vacancies (Figure 19) and cost of occupancy. The cost of occupancy is represented by the gross rent-to-sales ratio, where rising ratios indicate an increasing cost of occupancy for tenants/retailers, as shown in Figure 20 below.

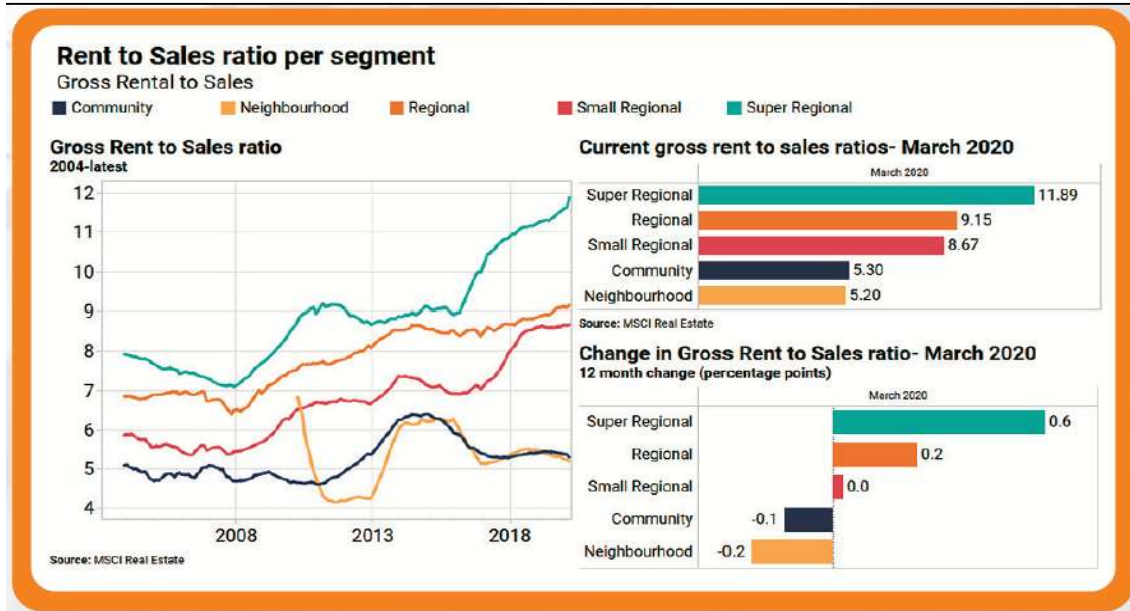


Figure 18: Retail Centre Rent to Sales Ratio March 2020 (SAPOA, 2020:8)

The Super-Regional mall segment has the lowest ATD and yet the lowest vacancy rates (Figure 19); however, this seeming paradox can be put into perspective in that, for example, a 5% vacancy in a Super-Regional centre could translate to 6000m² of space while it could be a more manageable 500m² in a Neighbourhood centre (SAPOA, 2020).

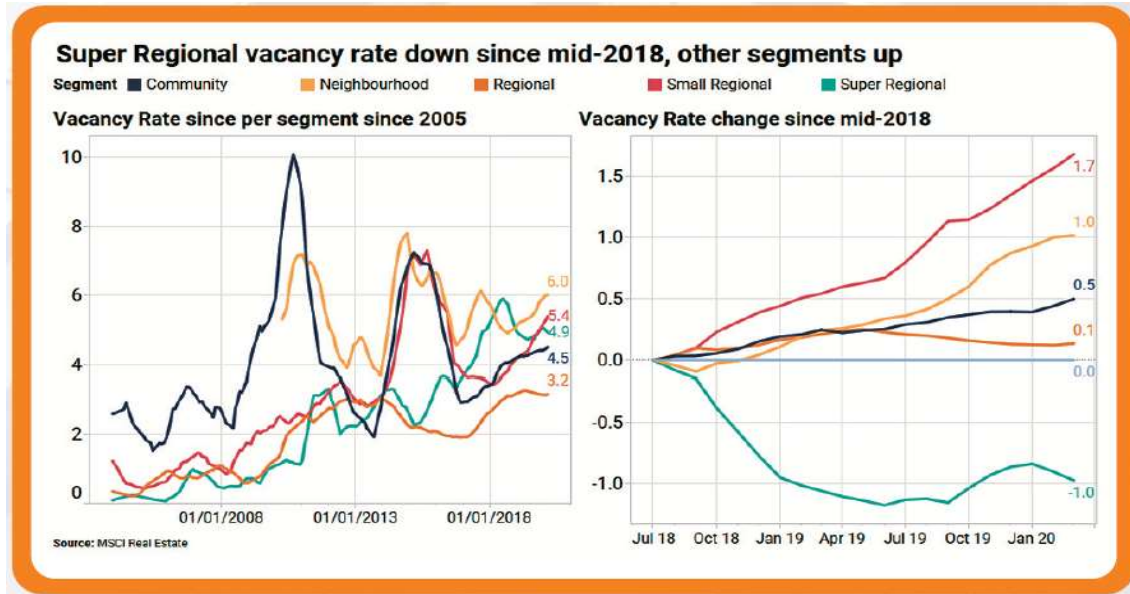


Figure 19: Retail Centre Vacancy Rates March 2020 (SAPOA,2020:9)

3.3.2 Lower rent levels and decreasing incomes

Increased price competition and the lower overhead costs that e-tailers have has led to increased pressure on bricks and mortar retailers' profit margins (Damesick, 2001). This downward pressure on profit margins, coupled with increasing costs of occupation in the South

African context, translates to declining rent levels. A decline in demand for retail space naturally tends to cause a decline in rent prices by the economics law of demand and supply. Price is directly proportional to demand and inversely proportional to supply (Australian Property Institute, 2008).

The so-called “Turnover Rental drives retail leases in South Africa”, wherein a low base rental, perhaps covering operating cost recoveries, is set, and the rest is represented by a percentage of a retailer’s turnover for the particular store. In the South African context, this is primarily the case for anchor/national tenant leases (Cloete, 2003). Turnover rental has also been the traditional form of retail centre rental growth in the USA (Dixon, 2002). However, as retailers physical store sales decline due to increased competition amongst themselves and lost market share to e-commerce as well as sales diversion to omnichannel operations, the amount of turnover rental collectable from stores declines and retail property owners face decreasing income (Marston, 2002; Damesick, 2001; Baen, 2000).

In summary, the impact of e-commerce-derived digital disruption on percentage (turnover) rentals and landlord income is:

- More off-site retail sales translate to lower foot traffic
- Lower impulse buying from non-anchor tenants
- Lower profit margins due to online comparative price gauging by shoppers
- Increased price, product and retail competition
- Increasing retail property vacancies
- More onsite retail sales are being accounted for as offsite sales due to omnichannel sales such as click and collect (Baen, 2000).

3.3.3 Lower Returns on Investment for investors in retail property

As already indicated above, lower space demand in the retail property sector puts downward pressure on rent levels. The market dictates the rent levels, which may mean rent reviews come into play as tenants demand lower rentals to control their cost of occupancy and compete with online retail channels (SAPOA, 2020). Declining store visits and physical store retail sales, or at least those accounted to the stores, result in declining net income for retail property owners. The value of retail property is derived from the capitalisation of net income (Australian Property Institute, 2008); thus, a decline in net income leads to a decline in value. This means that the valuation of retail property is also being disrupted as the retail property value has become a function of virtual and physical space.

3.3.4 Lease ambiguity with regard to Omnichannel retailing

Percentage/ turnover rental clauses drive the greater proportion of retail property leases, especially for major tenants. As more and more retailers adopt omnichannel operations such as click and collect through centralised online stores, those sales that could be accounted to a specific store are increasingly accounted to the online store. This means that turnovers for the physical store may be understated or not captured, thus lowering collectable turnover rental. Therefore, leases need to be adapted to the omnichannel operations of retail tenants (Baen, 2000; Marston, 2002; Verhoef, 2015; Agarwal, 2017).

3.3.5 Increased innovation and investment in technology

Burt and Sparks (2003) stated that innovation is inherent in e-retailing. Although it threatens established retail, distribution channels, systems and behaviours, it also presents opportunities in the form of “new commerce”. New Commerce is where retailers leverage information to speed up activities and increase the scope of retail businesses. What new commerce entails is summarised in Table 19 below (Burt, 2003). In the current digital age, “new commerce” characteristics have become the norm for commerce in general.

Characteristics of the new commerce	
1	New commerce companies operate through multiple marketing channels.
2	Channel structures in new commerce are intermediated in new ways.
3	New commerce retailers operate internationally.
4	New commerce uses new forms of nonprice competition.
5	In new commerce, organisational scale and scope economies become more important than establishment scale and scope economies.
6	New commerce companies do not subscribe to a traditional view of a difference between goods and services.
7	New commerce companies are using the convergence of information and communications technologies as a primary source of innovation.
8	New managerial ideas support innovation processes.
9	Customer loyalty is a central concept in new commerce.
10	Public sector policies relate to old commerce not new commerce.

Source: Adapted from Dawson (2001).

Table 19 :Characteristics of New Commerce (Burt, 2003:279)

As the new commerce businesses engaged in Omni and multi-channel retailing increase worldwide, retail property owners need to adapt their property and operations to offer spaces that support the changing retail sector (Agarwal, 2017). Investments are required in technology and infrastructure that supports tenant operations such as fibre internet, WIFI, data analytics, augmented reality and other types of retailtech (Yan, 2018; Xin, 2017; Watling, 2019). Innovation and investment in smart technology infrastructure to support retailers’ smart stores attracts tenants as it means tenants have a lower tenant installation threshold in building their smart stores than if they have to provide the infrastructure for the store (Poncin, 2017).

There is a need to innovate in shoppertainment and customer-centric design and aesthetics of malls. The modern consumer is increasingly conscious and aware of their surroundings, concerned with climate change and sustainability and demands that the spaces and businesses they buy from show how they contribute to positive changes and culture. Retail properties should thus invest in green building technologies, healthy and clean spaces, and culturally aware advertising and marketing. Since 2020 with the global COVID-19 pandemic affecting everyday activities, consumers have become increasingly intolerant of spaces that do not provide health and hygiene amenities and services. Consumer demand has been seen to be driven by the following:

- A shift to value and essentials
- Flight to digital and omnichannel

-
- Changing brand loyalty
 - Health and “caring” economy
 - Homebody economy as more employees work from home

These pandemic-induced shifts demand a technological innovation and investment response from shopping centres, which is unlikely to change post-pandemic (McKinsey and Company, 2020).

Shopping centres need to upgrade the shopping experience of their customers in order to tap into the experience economy by innovating and investing in seamless omnichannel experiences such as click and collect and showrooming, shoppertainment, sustainability initiatives that lower costs of occupancy, e.g., energy efficiency such as onsite solar energy production and increasing the leisure facilities and services rather than goods, share of the tenant mix. In addition, investing in proptech innovations by adapting partnerships, accelerator programmes, and collaboration with proptech and retailtech start-ups is not only necessary for survival but also to provide market-ready responses to digital disruption for retail REITs in the USA (Damesick, 2001; ICSC, 2015; ICSC, 2018; ICSC, 2019).

3.3.6 Obsolescence of certain Retailers and Shop closures

The combination of digital disruption-induced changes in consumer/shopper behaviour, Omni and multi-channel retailing and the advent of new commerce companies has affected retailers in varying ways and not uniformly, especially across retail merchandise categories. Specific retail categories have been more susceptible to disruption and online e-commerce competition than others. In contrast, others have only survived by adapting to a rapidly changing retail environment, e.g., adopting multi and omnichannel strategies. The most affected merchandise categories have resulted in retailer bankruptcies, store closures and obsolescence of the merchandise or the selling channel. Examples of these include:

- Bookstores- disrupted by the likes of Amazon and the advent of eBooks and eBook readers.
- Travel Agencies – disrupted by the likes of Trivago, Travelstart
- Record, Tapes and CD stores, e.g., Musica
- Video Rental Stores- disrupted by the likes of Netflix, Showmax, DSTV
- Bank branches- fintech leading to decreased need for in-branch banking
- Flower shops -disrupted by the likes of Netflorist (Baen, 2000; Prinsloo, 2016)

The emergence of goods price deflation and the demise of these categories, coupled with competitive discounting to match online pricing, erodes physical store profits. The result has been multiple store closures and increased vacancies in shopping centres that housed these merchandise categories (Damesick, 2001).

3.3.7 Declining Retail property values and the flight of capital from retail property

As stated above, declining shopper visits and sales volumes put downward pressure on basic rent and turnover rent levels in shopping centres. The demand for retail space is a function of consumer spending and retailer profits. As retail profits decline in the physical store channel,

the demand for space declines; thus, the rent (price) levels also decline (Myers, 2011). In addition, the geo-centric shopping pattern is challenged by digital disruption forcing retailers to adapt to multi and omnichannel, forcing landlords to adapt to attract tenants and shoppers. This process is illustrated below (Dixon, 2002).



Figure 20: How e-commerce induces changes in Retail Space demand (Dixon, 2002:157)

As online retail continues to take market share from physical retail, it will further exacerbate the decline in rental and hence net income and values of retail properties. It must be noted that poor-performing retail centres and the companies that hold these types of assets will suffer from de-investment. A flight of capital to more lucrative property assets at the expense of retail real estate follows any slump in values (Baen, 2000).

Reduced in-store sales growth leads to reduced growth in demand for retail space and, thus, reduced retail space rental growth. The impact on value has a variable impact across shopping centres, e.g., it can be expected that high street or CBD retail will be worse affected than the retail warehouse market. Therefore, investors perform vulnerability analyses on a property-by-property basis to determine the level of negative disruption impacting each shopping centre by taking into account the following:

- The location and size of the centre
- The property types
- The tenant and merchandise mix
- The profile of the catchment area

This vulnerability assessment drives commercial property investors to dis-invest in poor-performing centres. They, instead, concentrate their investments in high-performing and well-adapted centres and other real estate asset classes (Damesick, 2001). For example, an asset class experiencing increased investment at the expense of shopping centres is the retail warehouse (industrial) asset class, which is benefiting from the increasing demand for last-mile delivery (SAPOA, 2020; Rode and Associates, 2020).

3.3.8 Completely vacant retail properties needing repurposing or demolition

Retailers have traditionally viewed real estate as:

- Delivering a narrow range of customer needs, such as in-person shopping;
- Needing to be managed as a fixed cost,
- Store locations based on four-wall financial return hurdles may dilute overall store network returns;

-
- A function focusing on deals, leases and negotiations (Mitchell, 2020).

This traditional approach lacks the modern need for businesses and business processes/functions to be “agile” and highly adaptive to change; and this has led to the demise of retailers or the closure of stores in a bid to control costs. In contrast, retailers ought to view their real estate/stores as:

- A network that addresses the full array of consumers’ needs, including shopping, fulfilment and immersion
- Managing the real estate as a strategic, dynamic asset that is close to customers and offers the right mix of store roles and formats
- A function that is highly visible to the C-suite and board and is managed for value creation (Mitchell, 2020).

Failure to adapt, as stated above, has seen retail business failures and the so-called “retail apocalypse” and “death of the high street” widely touted by the media. These failures of retailers and shopping centres, especially in the low-income hinterlands of the USA and the UK High Street, have meant that some shopping centres have been left entirely vacant, or with vacancy levels that are unsustainable and require them to be repurposed or demolished. For example, in the UK, about thirty major retailers are reported to have closed thirteen thousand stores in the last ten years, as a result of the failure of the traditional brick-and-mortar retailing model. The UK parliament is also reported to have issued statements indicating concerns that the UK high street would become unpleasant urban decay areas by the year 2030 if the decline in retail continued (Goldman Sachs, 2019).

In the South African context, completely vacant shopping centres have not begun to appear. However, increases in vacancy levels have been experienced in line with the increased competition from online retailers, the recessionary economy, constrained consumer spending and, since 2020, the effects of COVID-19 lockdown restrictions (SAPOA, 2020).

3.4 The strategies available to counteract digital disruption in shopping centres

The challenges outlined above and their impacts on the retail property industry pose a competitive threat to the retail and retail property industry. It can be seen that a loss of retail sales by brick-and-mortar stores to e-commerce is being experienced across the world at differing rates; hence, the impact on retail property differs according to regions and countries. The level of saturation of shopping centres, penetration of internet access and shopping culture in a country or region seem to be directly related to the level of negative impact on shopping centres.

In regions such as Africa, where shopping centres are few and considered a novel development, the mall experience is still a pull factor. At the same time, price considerations also mean that online price comparisons are a significant factor. For example, the shopping centre industry is an emerging industry causing a retail revolution in Nigeria. Thus, the appeal of planned shopping centres is still relatively high for shoppers. Mobile internet through cellular phone ownership has penetrated areas in Africa where planned shopping centres have not. This creates an opportunity for e-commerce and omnichannel retailing; however, its growth continues to be hindered by the lack of digital-payment methods because most of sub-Saharan

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

Africa's shoppers are still users of cash, and many are unbanked, leading to an e-commerce share of retail sales of only about 1% (Geopoll, 2019).

South Africa has more shopping centres than the rest of Africa combined, but South Africans prefer to "touch and feel" goods and thus shop in brick-and-mortar stores. The growth of omnichannel retailing is evident in the South African market and its impact on retail sales and the demand for retail space (Prinsloo, 2016).

E-commerce is maturing in more developed regions of the world and taking up a significant retail market share across North America and Europe (ICSC, 2019). Despite this, however, those landlords that adapted or are adapting to digital disruption and behavioural change continue to thrive, albeit with their tenant mixes and operations more focused on customer experiences. Key market realities in Europe include:

- Smartphones are driving digital commerce growth in Europe. However, the highly anticipated launch of 5G technology, which would enable the Internet of Things (IoT) connected devices and augmented/virtual reality, is still some way off.
- Europe's population is ageing, and a new kind of affluent, time-rich mature consumer is emerging with a strong focus on health and well-being.
- The notion of 'conscious consumption' crossed over into mainstream public awareness in 2018; and it is increasingly impacting purchasing decisions.
- Consumers prioritise access over ownership, prompting emerging alternative business models founded on the sharing economy.
- Retail landlords diversify their income streams into other real estate sectors by creating additional value from the land surrounding their developments.
- Leisure and entertainment occupiers are becoming the new anchor tenants; as shopping centre owners reposition their assets into consumer centres.
- Retailers and landlords are increasingly looking to mergers and acquisitions and partnerships/alliances to achieve growth and benefit from economies of scale.
- European retail markets are seeing a polarisation of performance, with destination and convenience locations and luxury and discount sectors outperforming mid-market offerings.
- Occupier distress impacts industry perception in Europe, and investors will remain selective regarding retail assets.
- The most successful retailers are restructuring their businesses and investing heavily in reconfiguring their supply chains and inventory-management systems to optimise their omnichannel strategies (ICSC, 2019).

Meanwhile, the Asia Pacific (APAC) region's retail property industry is experiencing a renaissance through the adaptation of omnichannel. APAC, comprising half of the world's population and a third of the world's retail expenditures. This is already a trendsetter in the global retail industry. With expected population and income growth, APAC will account for about half of consumer expenditures by 2050. Moreover, the APAC contains both high- and low-income countries with large populations and the world's largest share of the Millennial generation; hence, retail trends in this region are likely to shape trends across the globe (ICSC, 2019). Key drivers of retail trends in the APAC include:

-
- A very large population with generational diversity probably support retail in APAC for decades, as the largest cohort, Millennials, age into their prime-spending years.
 - Urban population growth in APAC is altering consumer preferences, shopping behaviours, and physical space considerations, and producing a larger middle class with greater disposable incomes.
 - In addition to socio-economic factors, technology is a leading driver of the APAC retail market because of heavy investment in digital infrastructure and the resulting increase in the number of connected consumers.
 - Consumers prioritise having experiences over the accumulation of goods, which has led to a rise in the sharing economy.
 - Asian consumers seek immersive shopping experiences; and they want value in the form of exceptional and personalised services that appeal to their needs and tastes.
 - Shopping-centre landlords are increasingly diversifying the tenant mixes of their properties through the inclusion of non-retail tenants, such as food and beverage, leisure/entertainment, co-working spaces and educational facilities.
 - With the rising urban population, more mixed-use retail centres are emerging around transit-oriented developments, which are becoming a necessary way of life and an integral part of development.
 - Despite a rapid rise in e-commerce sales across APAC, store-based retailing remains the dominant channel, accounting for most of the total retail sales.
 - Across APAC, emerging digital capabilities and a tech-savvy population have propelled the region to be the global leader in mobile usage, with smartphones driving digital commercial growth.
 - Retailers and landlords integrate online marketplaces and physical stores seamlessly to maximise brand experiences throughout consumers' shopping journeys, offering enhanced pickup and delivery, electronic payments and super apps (ICSC, 2019).

Zhang et al. (2016) found that declining demand for commercial real estate and accelerating vacancy rates in China (particularly between 2009 and 2013) are closely related to the growth in e-commerce. Different forms of retail properties, such as stand-alone supermarkets (less vulnerable) and department stores (more vulnerable), are affected differently by e-commerce, and this should inform letting and tenant mix strategies in planned shopping centres. By considering the advantages and disadvantages of online and offline shopping, e-commerce could complement offline shopping and vice versa. This means that omnichannel strategies by retailers seem to be their most effective response; and hence this will probably affect future retail property responses to digital disruption (Zhang, 2016).

In lieu of the foregoing, Masebe et al. (2019) found that given the above-stated market conditions and anticipated changes over time, the main strategies to counteract the negative impacts of the challenges posed by digital disruption in the South African retail property industry include:

- Enhancing customer experience through a customer-centric retail property business model
- Shoppertainment
- Flexible leasing
- Leveraging technology
- Repurposing shopping centres for other uses

-
- Green shopping centre design and retrofitting
 - Agile Property management (Masebe, 2020).

The above strategies are discussed below.

3.4.1 Customer-Centric Retail Property Business Model

The demand for customer experiences, as outlined in the preceding sections, means that shopping centres need to enhance their business models to focus on the shopper and tenant. The shopper and the tenant constitute the business-to-business (tenants/retailers) and business-to-consumer (shoppers) customer base of retail property. Zhu and Nakata (2007) found that information systems and technology facilitate customer orientation and focus. Customer orientation contributes to business performance by influencing market performance which directly influences financial performance, while the customers focus is a strategy concentrating on meeting unique, individual customer needs (Zhu, 2007).

The proliferation of smart devices, e.g., wearables, such as smartwatches and smartphones, has meant that many customers are online and require a seamless experience across channels. Thus, customer dynamics, such as searching, comparing, and evaluating, which are increasingly done both online and in-store and sometimes simultaneously, may impact the customer experience. This means that a customer-centred retailer or shopping centre should leverage technology and digital transformation strategies to adapt to the customers' use of smart technology (Foroudi, 2018).

According to A.T Kearney's The Future of Shopping Centres report, in order to survive the triple threat of lack of customer interest, changing demographics and inability to compete sustainably against digital competitors, shopping centres and malls should morph into "Consumer-Engagement Centres" (CESs) of mixed-use commercial offerings, in order to meet the new and future generations of digitally savvy shoppers. By adopting customer-centricity, shopping centres should find a way of co-existing with digital retailers and start thinking like customers. Customers do not think in terms of channels but are, instead, task-oriented and thus searching for the most economical and efficient way to complete their tasks. Therefore, shopping centres and retailers should think of the most efficient, economical and memorable ways of engaging customers. The preceding is an example of what customer-centricity in retail property should look like in practice. The customer-focused retail centre may be tenanted similarly to the traditional tenant mixes of today; or it may more likely experience transitions in tenancies, as depicted in Figure 21 below (Brown, 2020).

The future of retail real estate will be customer-centric

		Transitions	
Consumer engagement spaces	Anchor tenants	Traditional retailers	→ Retail, residential, entertainment
	Organizing principle	Retailer and manufacturer "push"	→ Consumer "pull"
	Primary focus	Selling things	→ Consumer engagement
	Role of technology	Powering the system	→ Connecting buyers, sellers, and places
	Tenant mix	Mass market	→ Market of one

Source: Kearney analysis

Figure 21: Customer-Centric Retail Real Estate: Possible Transitions in Tenant-mixes (Brown, 2020:Online)

The retail-property industry needs to adopt a customer-centric business model from the ownership level to the central-management level. The model then needs to be curated for each shopping centre, considering the collective and individual customers in the centre’s trade area. Such a model is depicted in Figure 22 below (Masebe, 2020).

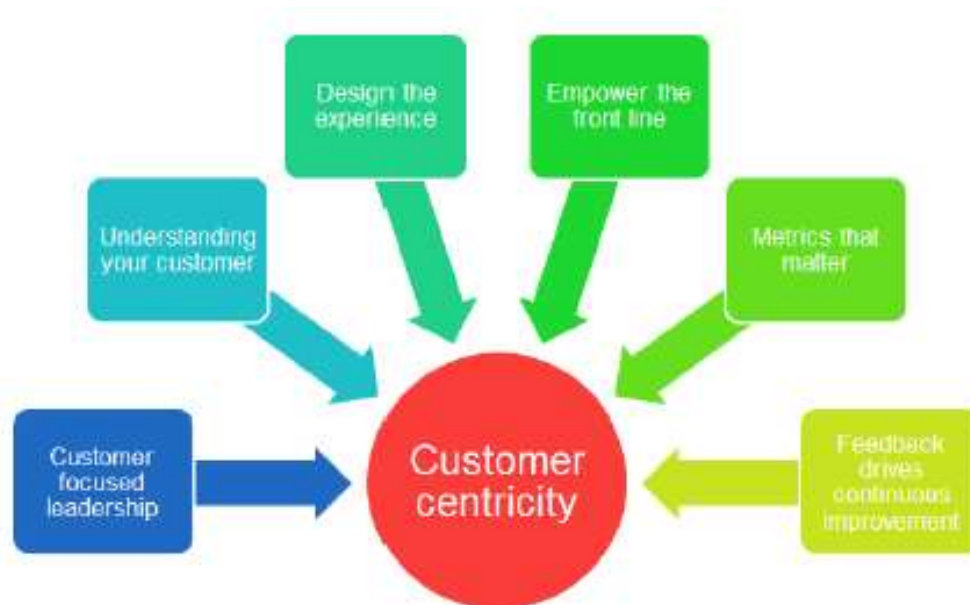


Figure 22: Characteristics of a Customer-Centric Business Model (Banka, 2019:online)

Customer-focused leadership, understanding the customer, and designing the experience have already been alluded to above. The service profit-chain strategy could be a possible

strategy for empowering the frontline and obtaining feedback that drives continuous improvement. The service-profit-chain is a strategy that links profit to customer service. The links in the chain form propositions to be implemented by the selling organisation, in our case, the retailer and retail property. The links are as follows:

- Profit and growth are stimulated primarily by customer loyalty.
- Loyalty is a direct result of customer satisfaction.
- Satisfaction is largely influenced by the value of services provided to customers.
- Value is created by satisfied, loyal, and productive employees.
- Employee satisfaction, in turn, results primarily from high-quality support services and policies that enable employees to deliver results to customers (Heskett, 2008).

Customer and employee satisfaction metrics and surveys implemented as part of the chain would provide feedback that could be implemented in forming and improving business strategy and processes within each shopping centre and retail store (Heskett, 2008).

Customer experience has thus become increasingly more and more important in the digital age; and it will continue to be so over the long-term. The ICSC (2019) conducted a customer-experience survey highlighting the importance of customer service and customer experiences in shopping centres. Some of the key take-aways were:

- “More than nine of 10 (91%) adults say that when paying for services, receiving good customer service is important, while 88% say the same when buying goods.
- The most important in-store customer service elements are friendly/knowledgeable employees, the ability to find items easily and speed/ease of checkout.
- The most important online customer service elements are speed of delivery service, ability to easily find items and flexibility of return/exchange policy.
- Nearly three-fifths (59%) of consumers are generally more satisfied with in-store customer service than online service.
- Most consumers say that when choosing where to shop, customer service is more important than the purchasing channel, design/style of products and brand reputation.
- Most shoppers who receive good customer service are likely to shop at the retailer again and recommend the company to their friends and family.
- For key product categories, face-to-face interactions with employees significantly increase consumers' likelihood of purchasing.
- More than half (57%) of consumers are willing to pay more for an item/service if they can get good customer service.
- Nearly two-thirds (65%) of consumers say the quality of customer service provided at shopping centres are a factor when deciding which to visit. As a result, they are willing to travel further to a centre with better service.
- Over two-thirds (67%) of consumers indicate that good customer service offerings at a shopping centre encourage longer visits and an increase in expenditure (ICSC, 2019:1).

In the face of changing demographics, in which the largest cohorts by population across the world and especially in emerging markets are the Generation Y (Millennials) and Z generational cohorts, the differences in shopper behaviour across generations will play a part

in customer satisfaction. Generations Y and Z are digital natives and users of omnichannel retailing, believers in the co-creation of value, human diversity and individuality. They prefer experiences over ownership, hence the growth in the sharing economy and such platforms as Uber and Airbnb, for example. These two generational cohorts will likely dominate the shopping and consumer markets for the more significant part of the 21st century (Brown, 2020).

Traditional shopper metrics that saw shoppers as being broadly similar will no longer remain relevant with these generational cohorts of shoppers, and more nuanced metrics will be required. A proposition is to utilise retail shopper empowerment (RSE), which is a construct that allows for retail shopper participation in the design and disbursement of goods and services in any retail store or shopping centre. RSE would allow for the inculcating of value co-creation in retail spaces. In addition, an RSE implementation would provide consumer-centric measures of the store or mall performance (Mishra, 2019).

3.4.2 Shoppertainment/Retailtainment

According to the SACSC (2020), e-commerce and mobile shopping increased in 2020, putting increasing pressure on pure-play brick-and-mortar retailers and the shopping centres that house them. In the U.K, 2019 represented the worst year on record for retail sales since 1995 and the first year to show an overall decline in retail sales. Among many factors changing shopping habits, the average High Street customer spending 1 in every 5 Pounds online is a significant contributor to the demise of high-street retail. Under this challenging retailing environment, the UK saw a 0.9% decline in supermarket sales, which usually do not decline even under challenging trading environments, as they sell mainly essential food items. In this same period, however, cinema sales increased by 19%, take-away food spending went up by 12.5%, and outings in pubs went up by 11.7%, thereby clearly showing that shoppers are increasingly shopping for experiences than merely buying stuff. This is an example of the increasing demand for experiences and shopping centres and retailers can appropriately respond to this demand through shoppertainment reattainment and entertainment (SACSC, 2020). The case for increased shoppertainment in the tenant mixes and marketing and promotions programmes of mall owners is simply that today’s consumers prefer to spend money on experiences rather than things, as summarised by the ICSC in Figure 23 below.

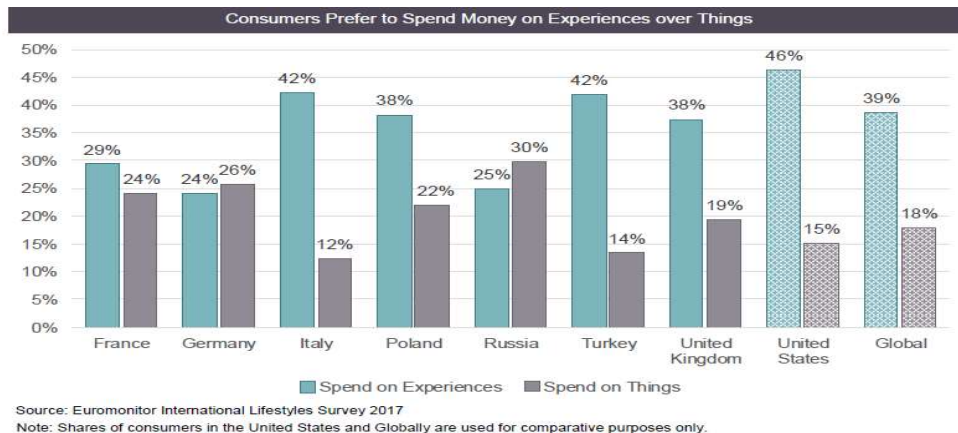


Figure 23: Consumer Spending Preferences- Experiences vs Things (ICSC, 2019:2)

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

re attainment can be described as the application of experiential marketing practices so that the consumer becomes the centre of the shopping experience, and the shopping centre becomes a leisure destination. An example is the Chinese fresh food retailer Hippo, which dedicates 40% of its retail store space to re attainment. The Hippo customers can browse the shelves for ingredients for the desired meal and hand over the ingredients to the kitchen staff, who then cook the meal and serve the customers in a well-appointed dining area. (SACSC, 2020).

Entertainmerce has been described as the convergence of entertainment and commerce. That is retail entertainment at the point where consumers are spending their money. An example is the Chinese internet giant Alibaba, which live-streamed a fashion show for eight hours during a Single-Day Sale. The audience could purchase items worn by the models on Livestream. The concept caught on, and as of January 2020, there were 300 platforms with more than a 300 million users taking advantage of the trend (SACSC, 2020).

In South Africa, the penetration of e-commerce prior to 2020 was only at 2% of retail sales and was expected to go over 2% in 2022 and 5% by the mid-to-late 2020s. However, retailers in South Africa were still reluctant to make serious investments into e-commerce, due to their perception that the South African mall culture, a customer desire to touch and feel products, and consumer preference for making physical payments rather than paying through e-commerce platforms, still dominated consumer behaviour. Nevertheless, online shopping has averaged a 20% growth year-on-year since 2003. The preference for physical stores in South Africa and their relationship to re attainment was highlighted by Manuel Koser, as quoted in World Wide Worx's Online Retail in South Africa 2019 (online) report, when he said, "Culturally, mall-going is seen as an experience. It is a destination to visit for lunch, the cinema, or entertainment - it is not just shopping. Shopping is part of our entertainment culture. This creates a structure where offline retailers are very strong in what they do."

Socialising, leisure and entertainment seem to be ever more important drivers of mall visits than merely shopping for stuff, especially when shopping for stuff can also be done online. This fact has slowed down, but not overcome, the growth of e-commerce at the expense of retailers and shopping centres that do not pivot towards omnichannel retailing. AT Kearney envisages future malls that will respond to the demand for experiences by becoming spaces in which people gather to engage with friends, connect with like-minded shoppers, seek out unique experiences, reaffirm values and interactively relate to brands on a personal level which will lead to purchases being a by-product of consumer socialisation and engagement (Brown, 2020).

According to the ICSC (2019), in creating engaging retailtainment spaces for their shoppers, retail centres can take a leaf from the location-based entertainment sector, which has transformed into what is today known as Leisure 2.0. Some of the lessons learned from Leisure 2.0 that can be applied to retail centres include:

- "Treating consumers as guests and not as customers;
- Creating a fully-immersed sensory-led experience and learning from placemaking best practices in other sectors, such as theme parks;
- Enlisting leisure and entertainment experts for feasibility studies;

- An enjoyable, memorable experience; is not just about big attractions or unit-based tenants; small entertainment offerings throughout shopping centres can be very effective.
- Looking to other global regions for new trends and concepts, but not overlooking home-grown operators in connecting with the local community (ICSC, 2019:1).”

The preceding discussion with regard to retailtainment reinforces the observed fact that shopper behaviour has been transformed by digital disruption in retail, such that the “new retail state of mind” has shifted focus from a “need to buy” towards a “need to enjoy” as illustrated in Figure 24, below (ICSC, 2018).



Figure 24: The New Retail State of Mind (ICSC, 2018:5)

Retailtainment/Shoppertainment, by supplying pleasure, fun and enjoyment, fosters exploration of products, services and stores, thereby creating memorable experiences that pull shoppers to the mall. In this way, it forms a part of the fundamental shift from traditional retailing’s mass-market push approach to a consumer- (shopper) driven pull system of the digital era, in which shoppers largely determined which goods and services are successfully brought to market (Brown, 2020). As a strategic response to digital disruption, retailtainment takes advantage of and enhances the “halo effect” of a physical store. The “halo effect” of a physical store (and hence a shopping centre) is a location’s impact on consumers in its trade area and brand-awareness created by its mere presence; and it includes, by way of example, its influence on increasing online sales and fostering click-and-collect, within its local market (ICSC, 2017).

3.4.3 Place-making Through Flexible Leasing

Shopping centres are being transformed in response to technologically induced customer behaviour changes and retailers adapting omnichannel strategies. One of the surest ways to adapt to these changes is to take a deeper look at tenant mixes and lease provisions. Traditional strategies regarding letting strategies, lease length and income security, development of services and new revenue streams (e.g., non-GLA income such as exhibition and pop-up spaces) will have to be overhauled and reworked for specific properties and

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

locations. It is no longer enough to offer accessible, well-designed centres and good-quality retail space. Instead, shopping centres have begun “place-making” to pull customers into the central market-place (centre). It is no longer left to retailers to draw customers to the centres, but a collaborative effort that creates the shopping centre brand/place in shoppers' minds is required. Place-making has usurped space-making, as a response to shopper demand for experiences (O’Roarty, 2016). Place-making refers to a synergy involving how people live, work, shop, socialise and visit (ICSC, 2018).

Retailers inspired by the Apple store have created experiential stores, and shopping centre owners follow suit. Whereas in the past, shopping-centre owners focused on understanding the agglomeration economics of co-tenancies in order to optimally manage tenant mixes, today, digitalisation-induced customer behavioural changes have meant that the relationship between the landlord and the shopper has become direct. Landlords are increasingly responsible for directly engaging customers. They now must create a shopping place (civic and social space) and not merely a shopping space (traditional shopping centre) in order to create and harness the shopping centre’s brand value, as illustrated in Figure 25 below (O’Roarty, 2016).

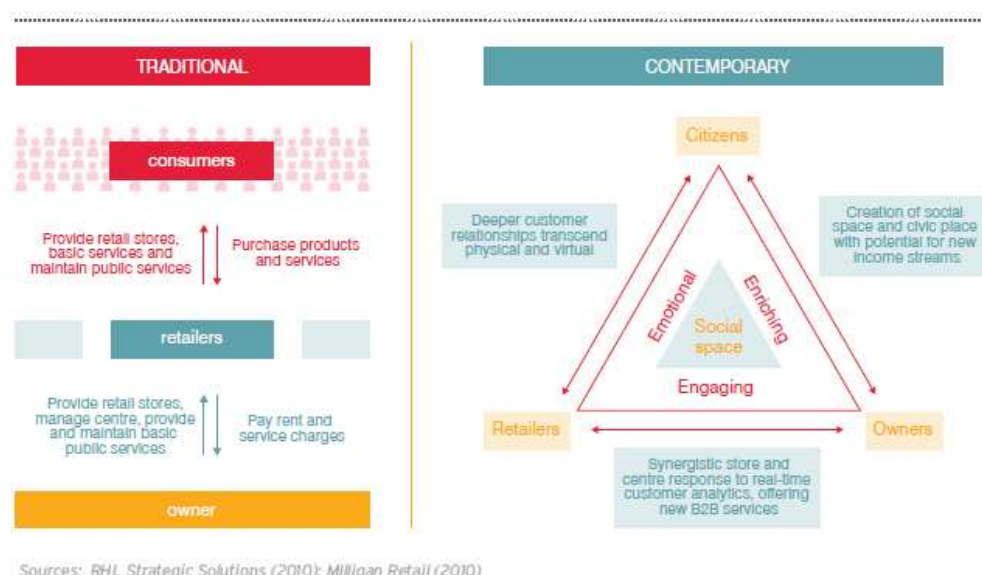


Figure 25: Traditional vs Contemporary Shopping Centre Model (O’Roarty, 2016:22)

According to O’Roarty and Billingsley (2016), Place-making creates a new shopping centre model whose focus is to draw shoppers by congruously creating a:

- “Civic space” that connects retail to the broader economic and societal pursuits, and a
- “Social space” that provides convenience, experience and leisure-oriented retailing.

The aim is to foster feelings of belonging, and to enhance customer well-being and a sense of community, thus allowing shoppers to transcend their purchase decisions and facilitate discretionary spending. In this way, retailer sales and brand success are driven by shopping centres that successfully adapt to technology-induced shopper behavioural changes by creating spaces/places that can fulfil a shopper’s hierarchy of needs. The foregoing is visually

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

illustrated in Figure 26, in which we can see that a shopping centre fulfilling a civic and social space function can become a place that fulfils a shopper's hierarchy of needs. Furthermore, the preceding discussion is visually illustrated by juxta positioning the relevant mall offerings against Maslow's hierarchy of needs (O'Roarty, 2016).

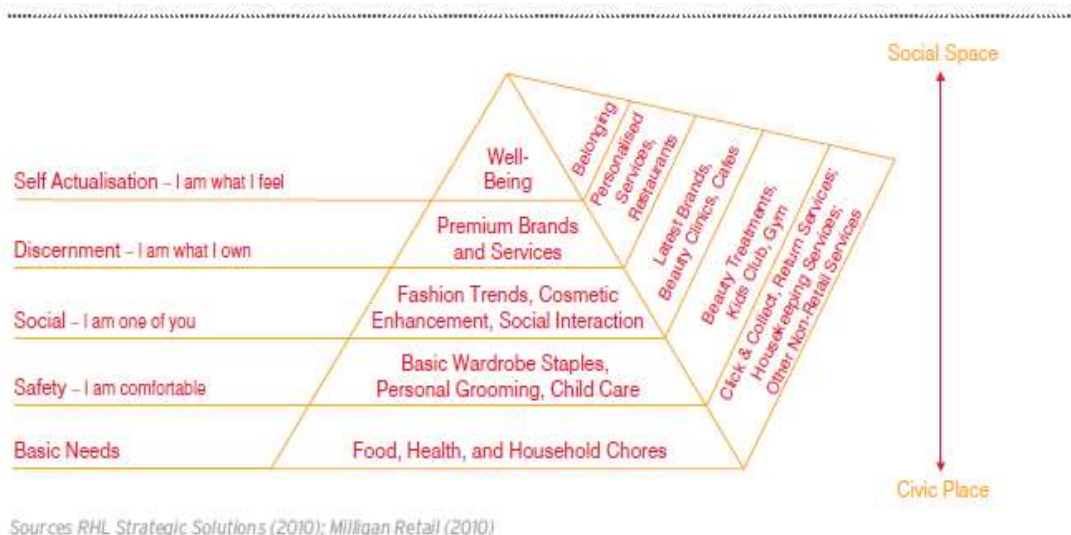


Figure 26: Place-making that fulfils a shopper's hierarchy of needs (O'Roarty, 2016:23)

Landlords and tenants must work together to create shopping environments that engage customers. This means that collaborative and flexible leasing is needed. More non-traditional retail components will have to feature in malls, e.g., medical centres, residential apartments and online shopping collection stores. Trends that have already begun to develop will become more prevalent. Some of these trends include smaller (smart) dynamic stores serving as hubs for interactive brand experiences and “inventory-light” stores for “show-rooming”. Shopping centres adapting to digital disruption will, thus, end up with hyper-localised tenant mixes and is likely to be classified by specialisations. Hyper-localised tenant mixes are intimately linked to group, and individual shopper needs in their trade area by leveraging technology to derive accurate and informative shopper analytics (Brown, 2020). Specialisation will be driven by the long-term impact of digital disruption on retailing. Specialisation calls for appropriate responses for each type of centre and its specific location, e.g., a regional mall facing closures of major anchor tenants may adopt mixed-use redevelopment, as a response. In contrast, a community-centre may not have adequate space to become of mixed-use; but it may be able to open a fulfilment centre for an e-commerce retailer (ICSC, 2018). Some of the envisaged specialised categories include:

- Destination centres
- Retailidential space
- Value Centres
- Innovation centres (Brown, 2020)

These envisaged categories of malls based on the digitally induced transformation of traditional tenant mixes are described in Figure 27.

Most successful future CESs will fall into four basic categories

Destination centers

Large regional centers, anchored by popular attractions, which draw from broad local, national, and some international audiences



Retailidential space

Mixed-use, multifunction centers located where consumers live, work, and travel



Values centers

Hyper-curated centers specializing in related retail businesses and services, reflecting the values and preferences of the surrounding community



Innovation centers

Every "store" (and the center itself) is a smart, active retail environment featuring the latest in high technology



Note: CES is consumer engagement space, a transformed mixed-use commercial offering designed to meet the needs of new and future generations of shoppers. Retailidential space refers to mixed-use CES targeting a specific consumer segment such as young urban hipster professionals, single-and-staying-that-way 40 somethings, or senior living environments.

Source: Kearney analysis

Figure 27: Future categories of Shopping Centres (Brown, 2020:online)

The preceding discussion entails that leasing and leases must transform and adapt with the shopping centres and retailers (tenants). This means that current leasing and leases should become flexible to adapt to the changing retail landscape. Traditional and current leasing models were found to be "working but creaking" in 2016, and looking forward from that time, leasing strategies will need to adapt in terms of:

- Rentals - the basis of lease contracts would now be derived from one or more of the following frameworks:
- Fixed rent models - typical basic rent with annual/periodic escalations or reviews.
- Turnover or Percentage rent models - conventional basic rent plus a percentage of turnover, or European factory outlet-style leasing models with lower basic rentals and a larger percentage of turnover and Geo-fence turnover models, which would include all sales within a geo-coded catchment area, including store sales and click-and-collect.
- Models using alternative performance metrics - that is, performance metrics other than sales, e.g., metrics linked to operational - management expertise wherein rentals depend on landlords' investment in innovative strategies that yield positive results for the shopping centre (O'Roarty, 2016; Cloete, 2020).

Tenant Mixes - should enhance entertainment, food and beverage and experiential offerings. Opportunities should be given to new retail formats, such as pop-ups, showrooms, fulfilment centres and more. Unique, start-up and alternative retailers should be approached using speciality leasing inhouse or outsourced experts. With place-making in mind, services tenants such as medical, government/civic, open-air gathering places and education should be considered together with convenience retail.

Lease Length, Security of Income and Security of Tenure - are increasingly shorter in areas facing declining sales and longer in areas (centres) attracting retail sales. Leases are increasingly linked to retailer performance in Europe and the USA, and this trend will probably permeate other markets worldwide.

New services and revenue streams should be proactively pursued, such as non-GLA income from exhibitions, entertainment events, and click-and-collect lockers. In addition to the fulfilment of e-commerce sales has also led to a market for fulfilment centres and storage and logistics offerings in well-located malls. Shopping centre apps, websites and online e-commerce platforms also provide opportunities for marketing revenues and increasing retailer sales. Analytics capabilities derived from, for example, mall WIFI Apps and analytical beacons can be leveraged to provide additional research and marketing services at a price to existing tenants, potential tenants and complimentary businesses and services.

3.4.4 Leveraging Technology

According to Masebe et al. (2019), shopping centres must adapt to retail digital disruption by adopting technology that supports the retailer's technological upgrades. This implies that shopping centres must have technological infrastructures. such as internet connectivity ready stores, e.g., fibre connections, mall-wide Wi-Fi, mall apps and shopper analytics enabling technology. Furthermore, technology that enables the shopping centre management to carryout in-depth shopper data analytics to inform tenant mixes, track shopper behaviour and to inform marketing and promotions can come in the form of:

- Floor Sensors
- Motion Sensors
- Wi-Fi Sensors
- Intelligent CCTV (Masebe, 2020)

Another technology that shopping centres can adopt is to “take the shopping centre online”. This technology creates an online twin or replica of the shopping centre in which shoppers can view goods and stores and make purchases online. It is a website with e-commerce capabilities wherein every physical store in the physical mall has an online store in the online mall. It builds on the brand loyalty of the shopping centre by offering customers a centralised online shopping option for the shopping centre they already frequent. Two models for taking the shopping centre online have been identified:

- The centre-led approach and,
- The brand-led or marketing-led approach (Dixon, 2002).

The centre-led approach balances the fact that large retailers or anchor tenants usually already have an online e-commerce presence. In contrast, smaller line stores may not have an online presence. Thus, the centre-led approach focuses on signing up tenants with no online presence onto the landlord's e-commerce platform for that particular shopping centre. The landlord charges a commission to cover the system's cost, and tenants receive their e-commerce revenue in return. This approach is diagrammatically illustrated in Figure 28.

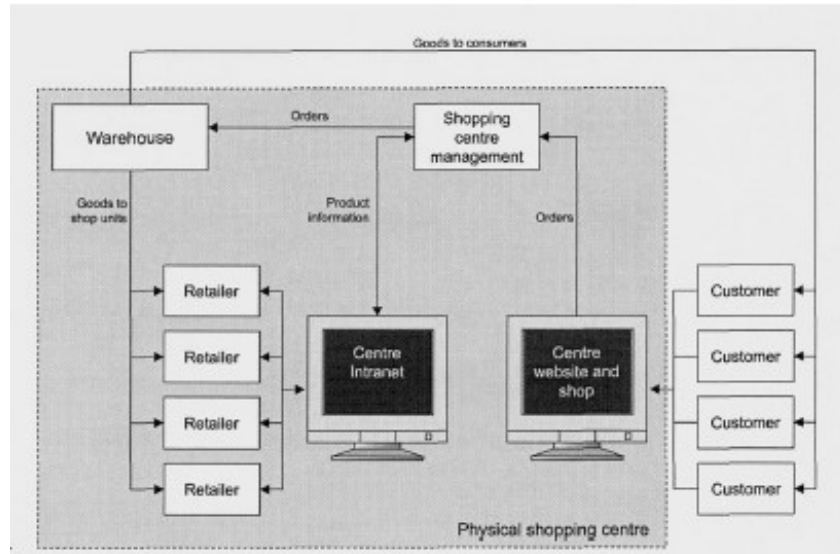


Figure 28: The Centre-led Approach to taking the shopping centre online (Dixon, 2005:104)

The brand-led or marketing-led approach capitalises on the brand power of the shopping centre to create an online version of the mall. It does not require that only tenants without an e-commerce presence participate or even that participants should be tenants in the physical mall. It is an e-commerce platform separate and distinct from the physical shopping centre’s website in which both tenants and “guest” stores (non-physical mall tenants) can have an e-commerce store and leverage the physical mall’s brand power. A fee is charged for an e-commerce store on the site. It is, in fact, a “virtual mall” with the name/brand of a well-known physical mall. This approach is illustrated in Figure 29 below (Dixon, 2002).

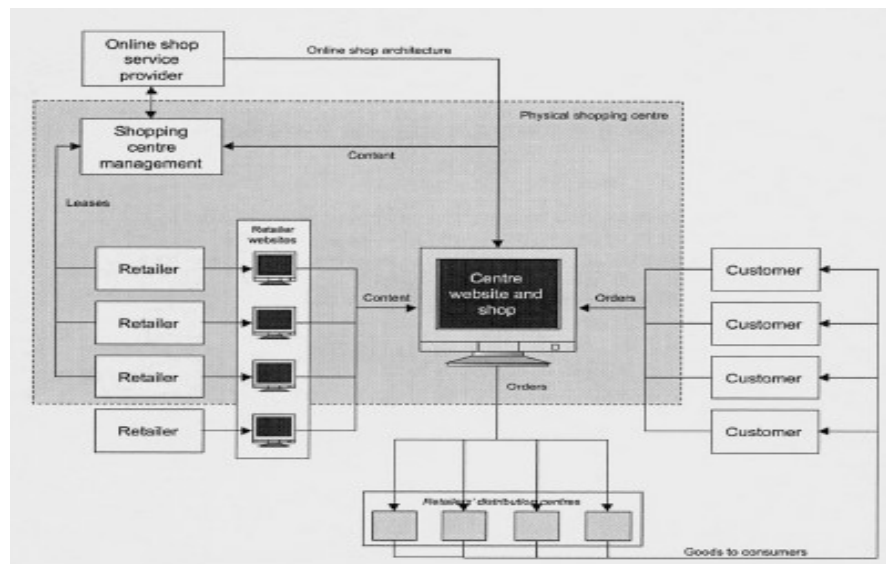


Figure 29: The Brand or marketing-led approach to taking the shopping centre online (Dixon, 2002:105)

The online mall allows shoppers to shop online in different stores; but it has a single check-out, i.e., their purchases are added up in a single basket and paid for in one transaction. Order fulfilment can either be centralised (drop shipping) or the responsibility of each retailer.

Other technological advances that can be leveraged in shopping centres include:

- Augmented Reality - to create immersive virtual world experiences, marketing campaigns and experiences,
- Facial recognition - enable CCTV using artificial intelligence to determine shopper moods based on facial expressions. as they shop and engage with products, services and sales personnel. (SA Commercial Property News, 2019)

3.4.5 Repurposing Shopping Centres for Other Uses

Digital disruption and economic slowdowns have led to changing consumer behaviour and reductions in consumer spending, respectively. This has resulted in excess shopping centre space due to increased vacancies and, in some cases, 100% vacancy rates or mall closures. Shopping centres typically have prime locations and well-engineered bulk services (utilities such as electricity and water), which means that they can be converted to other uses such as:

- Residential: for mall locations where demand and values ensure that conversion is feasible. Residential conversions can lead to densification, thus benefiting local authority service provision, reducing infrastructural costs and lengths and urban sprawl. In addition, the densification of the resident population helps to support retail sales and, in turn, retailer demand.
- Public space: excess mall space can be demolished to create open public spaces that could enhance the shopping mall atmosphere and reduce the negative impact of empty spaces.
- Offices: the attractive convenience and access networks of shopping centres allow them to be repurposed for mixed uses. such as co-working spaces and serviced working spaces, e.g., WeWork.
- Logistics: online shopping has led to an increase in the demand for logistical space. Most warehousing and logistics properties are typically not located close to residential areas, while shopping centres are. The increased demand for “last-mile” logistical space to service deliveries creates an opportunity for excess retail space to be repurposed into fulfilment centres (Savills Commercial Research, 2018).

Another feasible and popular shopping centre conversion for large regional centres is the conversion to mixed uses. Signs that a regional mall may be struggling and ready to be considered for a mixed-use conversion include:

- Large and numerous vacancies.
- Outdated food courts tenanted by sub=standard restaurant proprietors.
- Physical deterioration and ageing of building fabric due to deferred maintenance (ICSC, 2018).

Because of their size and location, regional malls lend themselves well to mixed-use conversion. Mixed-use conversion is a clear and successful asset management trend in the USA market that can be implemented across other markets. Adding a residential component to a mall adds a lifestyle amenity to a modern, uniquely curated retail offering. The uniquely curated retail offering with its restaurant and entertainment offerings, in turn, adds a rich amenity to residential properties. Thus, the mixed-use node creates a synergy that attracts premium rentals for retail and residential properties (ICSC, 2018).

3.4.6 Green-Shopping Centre Design, Construction, and Retrofitting

In a world increasingly concerned with environmental sustainability, climate change and responsible business, modern shoppers use consumer power as a form of activism and advocacy. Thus developers run a reputational risk if they do not build green. Furthermore, in most parts of the world, green building and energy saving have become regulatory requirements for new buildings and retrofits. Regulatory compliance and increasing business benefits, such as savings achieved, payback periods and increased asset values have been noted to drive growth in green-building worldwide (Dodge Data and Analytics, 2018).

The top triggers in 2018 for building green were client demands (tenants/occupiers), environmental regulations and healthier buildings. With the advent of the COVID-19 pandemic in 2020, buildings need to be even healthier in going forward. Green buildings answer this call for healthier buildings, which explains how the Dodge Data and Analytics (2018) survey results showed that survey respondents considered the idea that green buildings promote occupant health. as the top reason for investment in green buildings. The main drivers of green-building investments, in order of importance, in the said survey results were:

- Promotes improved occupant health and wellbeing,
- Encourages sustainable business practices.
- Increases worker productivity,
- Creates a sense of community,
- Supports the domestic economy (Dodge Data and Analytics, 2018).

Green buildings are often smart buildings that adopt intelligent internet of things (IoT) systems, sensors and AI-driven building management systems to manage environmental quality, security and energy use. Green shopping centres are thus likely to be perceived to have better indoor environmental quality (IEQ) by customers. This perception was indeed found to be the case in a study by Xiaohui Du et al. (2020). The study found that:

- Customers show a higher tolerance to the IEQ when they realise that a mall is green, and that their satisfaction with IEQ is higher for green malls than conventional malls.
- Green shopping malls are superior to conventionally built malls with regard to relative humidity, illumination, carbon dioxide concentration and sound levels. However, thermal comfort levels were found to be similar.
- Shoppers' overall satisfaction with the indoor environment will decline significantly when the indoor thermal and acoustic environmental performances are poor, and their overall satisfaction will improve when the indoor air quality is better (Du, 2020).

3.4.7 Agile Property Management

According to the Oxford Languages dictionary (online), the word agile is an adjective meaning “able to move quickly and easily”. In terms of project management, agile project management denotes a method of project management used especially for software development. The method is characterised by dividing tasks into short phases of work and frequent reassessment and adaptation of plans, i.e., agile methods replace high-level design with frequent redesign” (Oxford Languages and Google, 2021).

Agrawal et al. (2017) stated that one of the methods that the mall business could use to reinvent itself for the digital era is to hire for modern capabilities. Malls have traditionally taken the view that they are a capital-intensive real estate business (which they are) and hired accordingly. Today, however, the mall business is adapting and leveraging technology to evolve and counteract digital disruption in retail. Mall operators are developing apps, and omnichannel platforms, taking malls online and investing in big data analytics. As such, the modern mall manager needs extra skills in analytics, customer experience and agile mall operations. Agile mall operations refer to improving customer and tenant experiences by constantly coming up with lots of new, quickly delivered, technology-driven services and products. This need to improve implies embracing agile approaches in business practices and processes. to test new products, events, and services and rapid adaptation based on customer feedback. In addition, close coordination and partnership with tenants will be required to co-create experiences for shoppers. By way of example, malls will need to link up to tenant logistics and inventory systems. in order to facilitate fulfilment centres, click and collect, kerbside pick-ups and more. Therefore, the traditional retail property management operating model and staff capabilities will need to transform to achieve the type and level of agile mall operations described here. An agile property management model that inculcates a laser focus on the customer, embraces a test-and-learn mindset and it creates more collaborative teams accustomed to a sense of permanent disruption would need to be adopted. (Agarwal, 2017).

Not only do the teams (people) need to change to agile approaches; but the organisations/companies must also adapt from being more static to being more agile in their organisational models. Agile organisations excel in their people and strategy when their leaders:

- provide actionable strategic guidance,
- have established a shared vision and purpose.
- and encourage people to develop an entrepreneurial spirit (Jesse, 2018).

Agile organisations are organisations that transform from the paradigm of organisations as machines to that of organisations as organisms. The differences and benefits of this transformation are illustrated in Figure 30 below. Organisations as machines are hierarchical with a top-down hierarchical structure; and thus they are prone to bureaucratic inefficiency; and functional teams tend to work in silos. Organisations as organisms, in contrast, have a flat and circular organisational structure with leadership responsibly giving clear direction and enabling functional teams to act and take accountability for their actions, which lead to a more efficient and flexible organisation that can change quickly and adapt to the ever-changing business environment (Jesse, 2018).

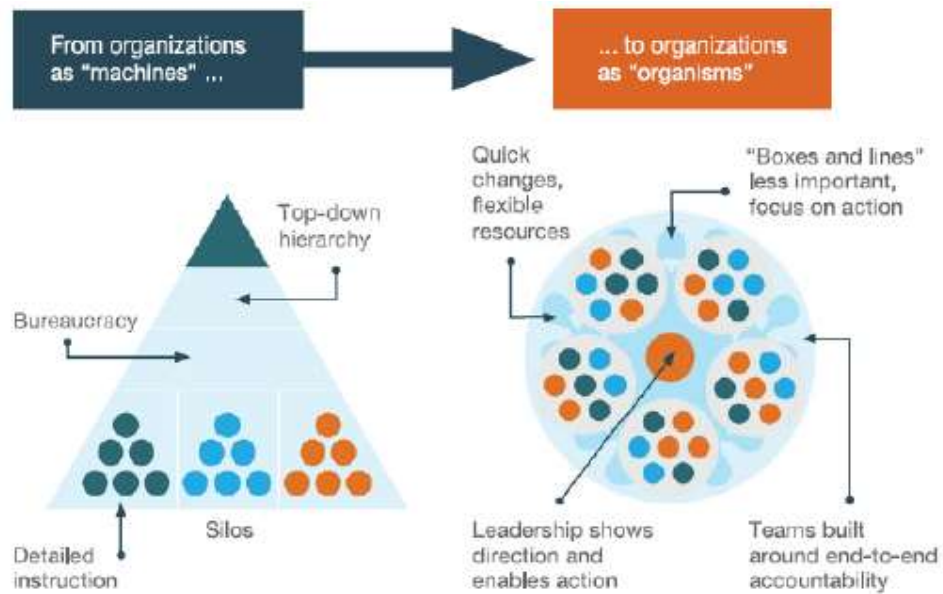


Figure 30: Agile Organisations as a dominant organisational paradigm by Aghina et al., 2018 (Jesse, 2018:487)

3.5 Conclusion

The foregoing literature review has analysed what digital disruption entails for retail property; and what the challenges, impacts and possible counteractive strategies to digital disruption are. The global and South African issues have been identified. What remains now is to analyse the literature and draw conclusions on a framework for challenge-impact-strategy relationships across the hierarchy of planned shopping centres in South Africa.

Chapter 4- Literature Analysis Results and Initial Framework

4.1 Introduction

The initial literature review has revealed some general trends regarding the challenges, impacts and coping strategies relating to the impact of digital disruption on the retail property industry worldwide. The concept of the shopping centre and how it is classified specifically with regards to planned shopping centres was established in Chapter 2. Chapter 2 also investigated the concept of the fourth industrial revolution and digital disruption and how these two concepts pose challenges with resultant impacts on the retail property industry. A review of past studies, in Chapter 3, revealed the challenges, impacts and possible counteractive strategies related to digital disruption within the retail property industry. The key challenges, impacts and coping strategies associated with digital disruption in retail property are illustrated in tabular form in Table 20 below.

Table 20: Digital Disruption in Retail: Challenges, Impacts and Strategies

Digital Disruption in Retail Property		
Challenges Imposed by Digital Disruption	Impacts of Digital Disruption	Strategies to counteract digital disruption
Changing consumer behaviour	Decreased demand for space and increased vacancy rates	Customer-centric retail property business model
Customers increase Experience expectations- mall visits for experiences rather than purchasing	Lower rent levels and decreasing income	Shoppertainment/ Retailtainment
Customer demand for better transaction efficiency	Lower Returns on Investment for investors in retail property	Placemaking through flexible Leasing
Customer data collection and data-driven marketing	Lease ambiguity with regard to omnichannel retailing	Leveraging Technology
Online web presence and social media marketing and interaction	Increased innovation and investment in technology	Repurposing shopping centres for other uses
Increased channels of delivery by retailers in addition to physical stores	Obsolescence of certain Retailers and Shop closures	Green shopping centre design, construction and retrofitting
Need for investment in Omni and multi-channel infrastructure	Declining retail property values and flight of capital from the retail property sector	Agile Property management
Increased retail price competition	Totally vacant retail properties needing repurposing or demolition	
Reduced retailer floor spaces and demand for space		

Source: Masebe (2020:241)

Masebe et al. (2020) analysed the contents of Table 20 within the South African context. They concluded that the inter-relationships between challenges, impacts and strategies could be correlated to produce a framework for implementation, as illustrated in Table 21:

Table 21: Framework for Digital Disruption in Retail Property

Challenges imposed by digital disruption	Impacts of digital disruptions	Strategies that can be adopted
Changing consumer behaviour Customers increased experience expectations - (mall visits for experiences as opposed to purchasing) Customers increased experience expectations - (mall visits for experiences as opposed to purchasing) Customer demand for better transaction efficiency	Decreased demand for space and thus increased vacancy rates Increased innovation and technological capital and operating expenditures	Customer-centric retail property business model Enhance customer experience.
Increased retail price competition	Totally vacant retail properties needing repurposing or demolition.	Repurposing shopping centre for other use
Increased channels of delivery by retailers in addition to physical store locations	Lease ambiguity on omnichannels	Agile property management Flexible leasing
Reduced retailer floor spaces and demand for space	Lower rent levels and decreasing income	Shoppertainment Repurposing excess retail space
Online web presence and social media marketing and interaction.	Declining Retail property values and flight of capital from retail property sector to other property sectors	Leveraging technology
Need for investment in Omni and multi-channel infrastructure		Developing green shopping centres

Source: Masebe (2020:242)

An analysis of Table 21 reveals that each row relates a challenge(s) to its likely impact and, in turn, the most likely counter strategy to the impact. Related challenges with related impacts and their most appropriate counteractive strategy are thus grouped row by row. The first column thus created produces five distinct rows of challenges, which have unique but often overlapping and compounding impacts on retail property (2nd column), while the third column lists possible strategies that could be adopted to counteract the negative impacts of the challenges posed by digital disruption to the retail property industry. We, therefore, have a challenge-impact-strategy framework based on the desktop literature analysis as outlined in the previous chapters.

By analysing the challenge-impact-strategy framework, i.e., each row, we can note five distinct themes regarding digital disruption within the retail property industry. These themes are:

- Theme 1- Changing Customer Behaviour (1st row)
- Theme 2- Increased Retail Competition (2nd row)
- Theme 3- Omnichannel Retailing (3rd row)
- Theme 4- Increasing vacancy Rates and Decreasing retail space demand (4th row)
- Theme 5- Adapting to technology (5th row)

4.2 Discussion of the Results of the Literature Review (Table 21)

The foregoing results are deduced from the information gathered in chapters 2 and 3, which lead to the conclusion that there are five main themes within which the challenges, impacts and coping strategies associated with digital disruption in retail property interact. These themes are qualitatively analysed and discussed below.

4.2.1 Theme 1: Changing Customer Behaviour (1st row)

The first row of Table 21 presents the significant challenges associated with digital disruption-induced changes in customer behaviour as being:

- Changing customer behaviour
- Increased customer experience expectations
- Customer demand for better transaction efficiency

The changes are driven by the advent of retailtech in the form of e-commerce, and online shopping, the proliferation of internet-enabled smartphones and the demographic shift from older consumers to Millennials and Generation Z shoppers. These two younger generational cohorts are becoming the largest share of the consumer market in the world, and their shopping behaviour is heavily influenced by the 4IR technology they grew up with. These two younger generational cohorts have high expectations for seamless transactions, whichever retail channel they use and similar high-quality customer service in-store or online. Retailers and property operators must respond and capture this market by ensuring seamless customer service experiences across all retail channels. They can do this by adopting customer-centric business models and enhancing customer experience through shoppertainment and place-making strategies. Failure to meet these challenges would result in dissatisfied customers who are not afraid to quickly vent their dissatisfaction on social media platforms, including photographic and video evidence of what makes them unhappy. In addition, a tendency towards “cancel culture” exists among these younger generations. Cancel culture can manifest where failures regarding customer service, social tone-deafness from staff and advertisements, or being perceived as socially irresponsible regarding environmental, societal and governance (ESG) issues could result in a social media backlash and brand or business “cancellation”. Being cancelled refers to a phenomenon in which many people boycott a business, brand or person. The social media drive this boycott.

Failure to respond appropriately to these customer behaviours results in decreased shopper foot traffic, leading to shop closures, large vacancies and a decreased demand for space. In

addition, an increased need to invest in innovation, technology and positive promotional activities across all the media, but especially from the social media platforms, is necessary.

4.2.2 Theme 2- Increased Retail Competition (2nd Row)

The second row of Table 21 presents the impacts associated with increased retail competition as being totally vacant retail properties needing repurposing or demolition. This is the worst-case scenario of what could happen to a shopping centre facing severe competition. In Information-communication technology, manufacturing, and transportation advances, coupled with globalisation, have made world trade easier and thus increased competition within local markets from international competitors. In oversupplied retail-property markets, the shopping centres compete with one another and with new retail formats and e-commerce platforms. An example of the impact of retail-property oversupply is when a large regional shopping centre expecting growth from increased residential development can find its gains undercut by the development of a smaller format centre (e.g., a convenience centre) within the new residential development. The reverse is also true, where a larger format centre can cannibalise the trade area of small format centres. Add to this the so-called “Amazon” effect, where e-commerce players can deliver goods purchased online at a lower cost than brick-and-mortar players; and it becomes a race to the bottom regarding price margins. The two biggest cost centres for bricks-and-mortar stores are often staff costs and store rentals. Staff salaries are often regulated, and rentals become the primary target for reduction to compete and stay in business. Rent reviews that result in lower rentals in shopping centres, while operating costs associated with property ownership and operational increase can only tend to lower retail property values and lead to them becoming less attractive investments. Where rentals cannot be lowered, vacancies increase to the point where the asset is untenable and needs to either be demolished or sold, often at a loss. To retain the asset or sell it at a profit, the key strategy would be to repurpose the shopping centres for other more profitable uses within its locality and market, e.g., mixed uses and residential conversions.

4.2.3 Theme 3- Omnichannel Retailing (3rd row)

The third row of Table 21 presents the omnichannel theme. Omnichannel retailing refers to retailers’ (shopping centre tenants) use of multiple channels, including e-commerce, to sell, promote and advertise goods, brands and services to consumers in addition to in their physical stores. Omnichannel retailing presents various challenges concerning lease clauses and rentals. Increasingly former pure-play online retailers are opening “showrooms” for click-and-collect operations, while traditional brick-and-mortar retailers are operating e-commerce sites. In South Africa, many retail leases tend to have percentage rental clauses dependant on the store’s turnover. In cases where leases are ambiguous, or do not factor in e-commerce sales, and retailers do not credit e-commerce sales to physical stores, there could be declining turnover rentals even though retailers’ sales are increasing. This decline in turnover rentals is more likely, as the growth and convenience of online shopping accelerate. In order to resolve this issue, landlords need to adopt flexible lease structures that cater for all types of tenant mixes and retail formats, e.g., showrooms, pop-up stores and markets. Leases need to be flexible, and tenant mixes should be data driven. Flexible leases and data-driven tenant mix decisions call for skills in data analytics, customer service and tolerance for permanent change within retail property management. Thus, retail property management practitioners and firms

must adopt agile property management approaches. Agile property management borrows the project management and business principles of Agile Project Management - a software development project methodology.

4.2.4 Theme 4- Increasing vacancy Rates and Decreasing retail space demand (4th row)

The main challenge of digital disruption is reducing demand for retail floor space, which is presented in Row 4 of Table 21. All other challenges can directly or indirectly result in the reduced demand for retail space, which is further compounded by local changes to property fundamentals in the locality (trade area), the state of the national/regional/local economy and other macro-economic considerations. The economic law of demand and supply states that price increases and decreases according to demand. When demand is high at constant supply, prices rise, and the reverse is also true. As the demand for retail space declines due to the various challenges and impacts of digital disruption in retail, pressure is applied on rent levels, which also begin to decline. As rent levels decline, retail property income also declines. The declining rental levels inevitably lead to declining retail property values, which makes it even harder to source funding for improvements, and operations. The situation can compound into a death spiral for the affected shopping centre. The fundamental counterstrategy would be to work on place-making through shoppertainment and flexible leasing to attract shoppers to the centre. Retailers would respond to a shopping centre asset with high shopper traffic by wanting to be located therein. This positive response by retailers can make the centre a destination and increase the demand for space within it. Where placemaking and flexible leasing are impossible, it may become necessary to repurpose excess retail space for other uses.

4.2.5 Theme 5 - Adapting to technology (5th row)

The fifth row of Table 21 presents the Adapting to technology theme. The key drivers of adapting to technology within retail property are the online web presence, social media marketing and interaction, and a need to invest in omnichannel infrastructure. Failure to meet these challenges/drivers could result in any of the impacts mentioned above (preceding rows in the impact column) compounding to result in declining retail property values and a flight of capital from the retail property sector. In South Africa, the retail property sector has generally outperformed other sectors, especially in the listed property category. However, in the last half of the 2010s, the industrial property sector was the key outperformer, driven by the growth in logistics property (warehouses and distribution hubs) and the growth in e-commerce. Failure to leverage technology and develop lower operating cost green-shopping centres (by way of response) may lead to the demise of many a shopping centre. According to an online article, several listed property REITs that are heavily exposed to retail are already limiting their exposure through disposals (Inceconnect, 2021). For shopping centre owners, the difficulty in leveraging technology is always the timing of investment into digital. Being too early may be difficult to justify if properties are performing well without the technology, while being late may mean it is too late to save an asset. The advent of the COVID-19 pandemic in 2020 brought this into sharp focus in the south African market. Pre-COVID-19 e-commerce growth had been double-digit, but its share of the market was only 1,6% in 2019. The COVID-19 pandemic lockdowns and person-to-person business restrictions led to a surge in e-commerce, which many retailers and shopping centres were not prepared for. During the early days of the pandemic in South Africa (March-May 2020), Visa found that 64% of consumers made online

grocery purchases for the first time, and 53% made their first online pharmacy purchases. However, when lockdown restrictions were relaxed in late May 2020, property research firm Urban Studies (Dirk Prinsloo) found that only 50-70% of shoppers returned to shopping centres (Dludla, 2020).

Considering the preceding analysis, it becomes necessary to review the impact of the economy and the COVID-19 pandemic in relation to digital disruption in South African retail property.

4.3 The South African Economy and COVID-19 Pandemic

The South African economy entered a technical recession in the 4th quarter of 2019 after two consecutive quarters of negative GDP growth. As a result, the major challenge to the survival and success of South African shopping centres by the end of 2019 was putting pressure on household disposable income due to the economic performance for the aggregate economy. As household disposable income declines, so does consumption. Consumption is the primary driver of retail sales, which drives retailers' growth and demand for retail space. The demand for retail space drives the rent levels and continued investments in Retail Property. When retailers are performing poorly due to macro-economic pressures on their customers negatively impacting sales, they tend to halt new store openings, reduce store footprint (store closures) across the country, and to downsize the existing stores. This translates to a reduced demand for retail space and, therefore, downward pressure on rent levels. Increased vacancies and downward rent reviews would tend to lower retail property values. A combination of reduced distributable rental income and reduced values would tend to cause a flight of capital from the retail property asset class. This flight of capital means greater difficulty in financing refurbishments, maintenance and improvements, and new green-shopping centres. Digital disruption in retail, particularly e-commerce/online shopping, only further compounds the negative impact of economic decline by increasing competition, creating alternative channels to brick-and-mortar retailing (Masebe, 2020).

Under the above-stated economic conditions, all vital economic drivers for the retail property sector were trending downwards, which did not bode well for the sector if the trend continued mid to long-term. GDP was down, and consequently the technical recession. Consumer Price Inflation (CPI) was within the Reserve Banks' inflation-targeting monetary policy range of 3-6%.

Retail trading densities in Q4 2019 (December 2019) were sitting at 6.1% annual growth, Sales had grown 6.9%, and shopping centre foot counts were up 4.5%; while spend per head had grown 1.5% year-on-year. Shopping centres saw more feet through the door. However, the spend per visit was flat, indicating the continued attractiveness of shopping centres and resilience of the South African "mall culture" on the positive side, but also showing the downward pressure on household disposable income and consumption spending caused by the lackadaisical economic performance. StatsSA reported nominal retail sales growth of 3.8% year-on-year for 2019. Mall-based retailers continued to outperform the broader market, highlighting the short-term defensiveness of South African malls, even under a recessionary and tough operating environment. See Figure 31 below (SAPOA, 2020).



Fig 4: More feet through the door, but spend per visit flat
Trading density growth requires growth in both components

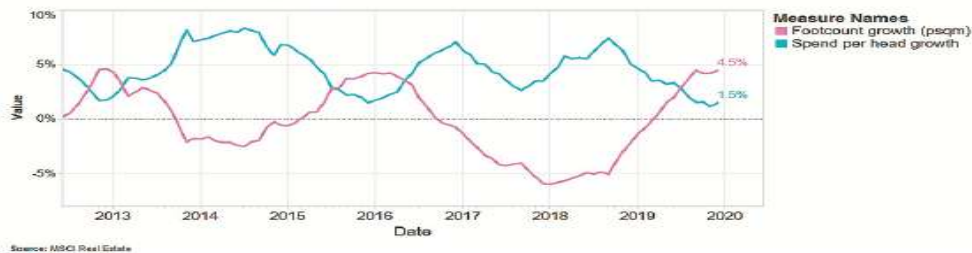


Figure 31: Shopping Centre Trading Densities Q4 2019 (SAPOA, 2020:5)

In the first quarter (Q1) of 2020, retail sector macro-economic fundamentals were still trending downwards with negative GDP growth at -2.0%, CPI at 4.2% (uptick) and final consumption expenditure by households sitting at 0.3%. The trading environment continued to be tough for shopping centres; yet they continued to experience growth in trading densities year-on-year. The trading density growth rate was lower than Q4:2019 in Q1:2020 at a positive 2.8%, with slower growth in foot count at 0.9% and a slight improvement in spending per head at 1.8%. Spending per head may have slightly improved due to increased spending on basic necessities (hoarding) in anticipation of the COVID-19 lockdown towards the end of Q1:2020. South Africa entered a pandemic-induced state of disaster in March 2020, and a “hard” lockdown started on 27 March 2020. The foregoing indicators are illustrated in Figure 32 (SAPOA, 2020).

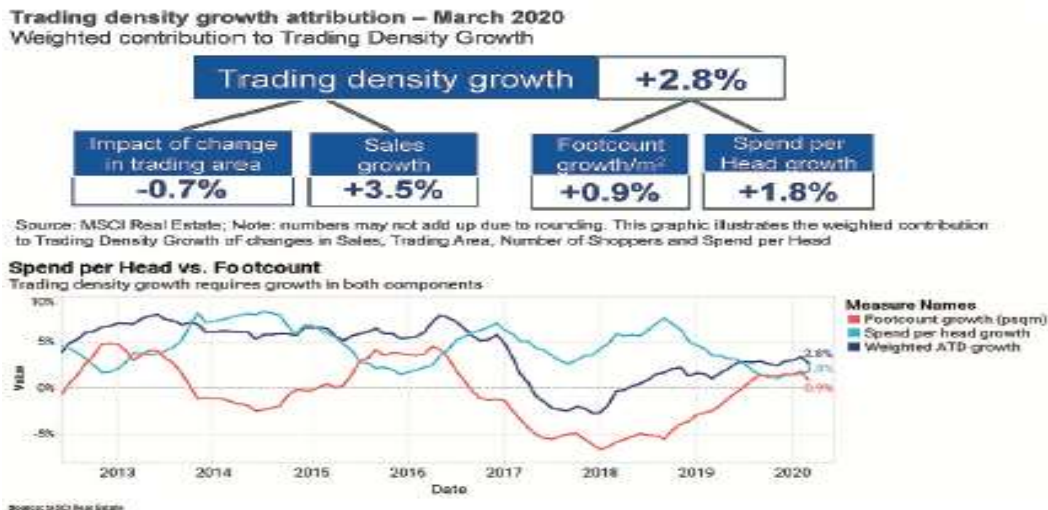


Figure 32: Shopping centre Trading Densities March 2020 (SAPOA, 2020:5)

In 2020, an infectious disease first identified in Wuhan, China, in late 2019 spread across the globe, becoming a global pandemic. The disease, called COVID-19, causes respiratory illness that can be mild to moderate but also severe and fatal, depending on the infected person's general state of health and immune response. The disease is transmitted from person-to-person mainly via respiratory droplets, similar to how influenza spreads. Most cases have

occurred in people who have been in close physical contact with infected persons. Treatment to date has been supportive, i.e., providing oxygen, treating fever and immune support. However, prevention has been the most promoted intervention, and some of the recommended preventive measures include:

- Washing hands often with soap and water for at least 20 seconds. If soap and water are not available, use an alcohol-based hand sanitiser.
- Avoiding the touching of eyes, nose, and mouth with unwashed hands.
- Avoiding close contact with people who are sick.
- Staying at home when sick and keeping a safe distance from others.
- Covering a cough or sneeze with a flexed elbow or a tissue, then throwing the tissue in the bin.
- Cleaning and disinfecting frequently touched objects and surfaces (Department of Health, 2020).

In response to the pandemic, and in an attempt to halt its spread, governments all over the world went into economic “lockdowns. Lockdowns meant that people were confined to their homes, movement was limited, there were travel bans, bans on gatherings, regulations regarding ‘social distancing’, sanitization and the wearing of masks. The lockdowns were intended to limit the infection rate to a level that health facilities could cope with or the so-called “flattening of the curve”. South Africa created a tiered lockdown system based on the so-called COVID-19 Alert Levels. There are 5 Alert levels based on the national infection rate, with each level having different degrees of restrictions to business and human movement. Level 1 has the least restrictions; while level 5 is a total restriction on all activities except those that provide essential services, such as food and grocery stores and government social and municipal services. South Africa entered lockdown at the highest level on 27 March 2020 for 21 days. After that, lockdown levels gradually went up and down depending on the infection rate; but they never went back to level 5. During the “first-wave” peak in infections in the winter (June-July 2020) and the “second wave” peak in summer (December 2020-January 2021), the alert level was adjusted up to Level 3. The result of these limitations on human and business activity was a severe economic downturn across all sectors of the economy. By April 2021, South Africa had had approximately one and a half million infections and fifty-two thousand and nine hundred deaths, as illustrated in Figure 33 below (Department of Health, 2020).

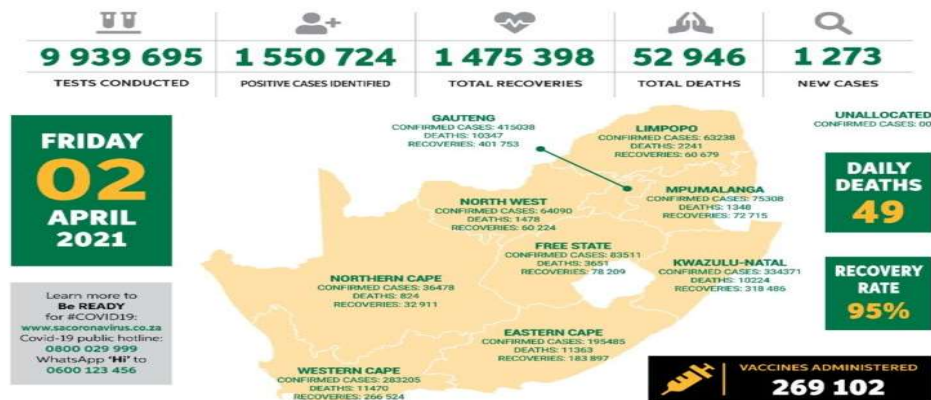


Figure 33: COVID-19 Statistics April 2021 (Department of Health, 2020:online)

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

During the pandemic and the lockdown changes throughout 2020, the South African economy, which was already in recession, plummeted and recovered with the levels of restrictions on human and business activities which correlated to the COVID-19 Alert levels, that in turn correlated with the real-time rate of infection experienced in the country. As a result, the quarter-on-quarter GDP performance, according to StatsSA, was illustrated in Figure 34 below.

Q1: -2.0% pre-lockdown

Q2: -51.0%

Q3: +66.1%

Q4: +6.4%

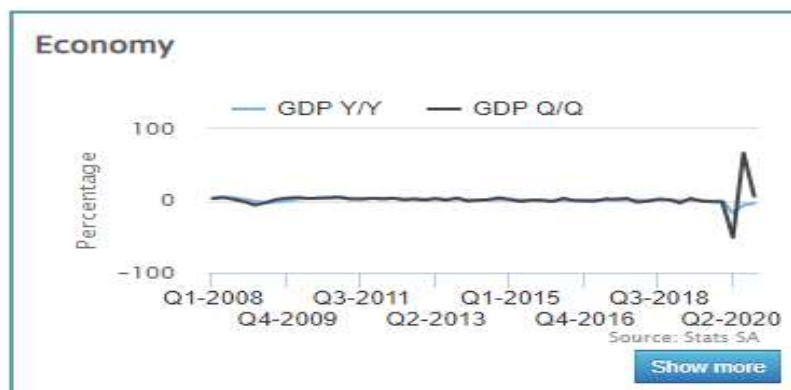


Figure 34: Q/Q GDP Growth of South Africa (StatsSA, 2021:online)

The performance of retail sales, as well as shopping centres, followed the GDP trend, but a notable change was the exceptional growth in online shopping and e-commerce. COVID-19 restrictions drove the need to do non-in-person shopping and e-commerce logistics (deliveries). The workplace restrictions also confined many people to work from home, accelerating e-commerce and shopping as close to home as possible. In the meantime, most shopping centre tenants were severely affected by the lockdown regulations, such as social distancing (a cap on patrons in the store at a given time), curbs on trading hours (curfews), alcohol bans (due to alcohol-driven bad behaviour causing hospital trauma units to be over-extended in treating injuries from alcohol-induced accidents and fights) and cigarette bans. In the stricter levels of lockdown, only grocers, pharmacies, and other healthcare-related tenants could operate. Gyms, restaurants and non-essential services retail tenants suffered greatly from trading restrictions. As a result, many small businesses closed their doors, and vacancies increased in shopping centres. In response, Landlords worked together to pass rental discounts and rent-free periods, among other tenant-relief measures. The aggregate loss of rental income across most shopping centres resulted in significant retail property devaluations.

An example of severe retail property devaluations was the one billion Rand devaluation of Attacq REIT's main retail asset, the Mall of Africa, resulting from increased vacancies and the REIT's R53,8 million rent relief to tenants. Furthermore, Retailers began to roll out, improve, rebrand and drive their e-commerce platforms and omnichannel options, e.g., Checkers Sixty60, Woolworths App and Pick n Pay's Bottles, in order to take advantage of the ability of e-commerce to trade in most lock-down levels except in the very first 21 days (27 March to 15 April 2020). All in all, e-commerce was the biggest gainer during the 2020 COVID-19 pandemic. The pandemic continued throughout 2021 and 2022, with the national state of

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

emergency and lockdowns only ending in April 2022 (Broll Intel, 2020; Rode and Associates, 2020; Property Wheel, 2021).

The entire property market took a severe knock in 2020, due to the COVID-19-induced economic downturn, in particular:

- Office rentals sank, and office space was in oversupply,
- The industrial market, which had been a stellar outperformer in recent years, came under pressure.
- Residential flats/apartment vacancies spiked.
- House prices were surprisingly up, due to an increase in first-time home buyers driven by the lowest interest rates seen in 50 years, but increasing unemployment and layoffs put a damper on this growth.
- Building activity took a nose-dive because construction was not considered an essential service in levels 4 and 5 of the lockdown.
- Retail property values tumbled with market capitalisation rates (Rode and Associates, 2020).

The above conditions were precipitated by COVID-19 and the poor medium-term economic outlook. The COVID-19 pandemic accelerated online shopping, which is bad for malls and good for distribution centres. It also encouraged the work-from-home trend due to restrictions on movement, which is harmful to the office sector and larger format shopping centres but was a boon for Community and Neighbourhood shopping centres. An interesting trend was the outperformance of Retail property REITs with more extensive exposure to shopping centres in low-income areas, which continued to trade fairly well under the circumstances, e.g., Fairvest and Exemplar REITail (Rode and Associates, 2020).

Under such trying circumstances, the listed property sector, which holds most of the higher-quality planned shopping centres in South Africa, saw declining Net Asset Values (NAV), contracting share prices, and rising loan-to-value (LTV) ratios. As a result, the listed property index (SAPY) was down 50%, while the SA REIT index (excludes non-REIT status companies) was down 48% by the end of September 2020, precipitating a month-on-month decline that began in 2018. Figure 35 below shows the declining trend of the listed property index resulting in sharply rising trailing income yields. Rising trailing income yields reflect dismal earnings expectations. A trailing yield is the distribution of the past financial year divided by the current price (Rode and Associates, 2020).

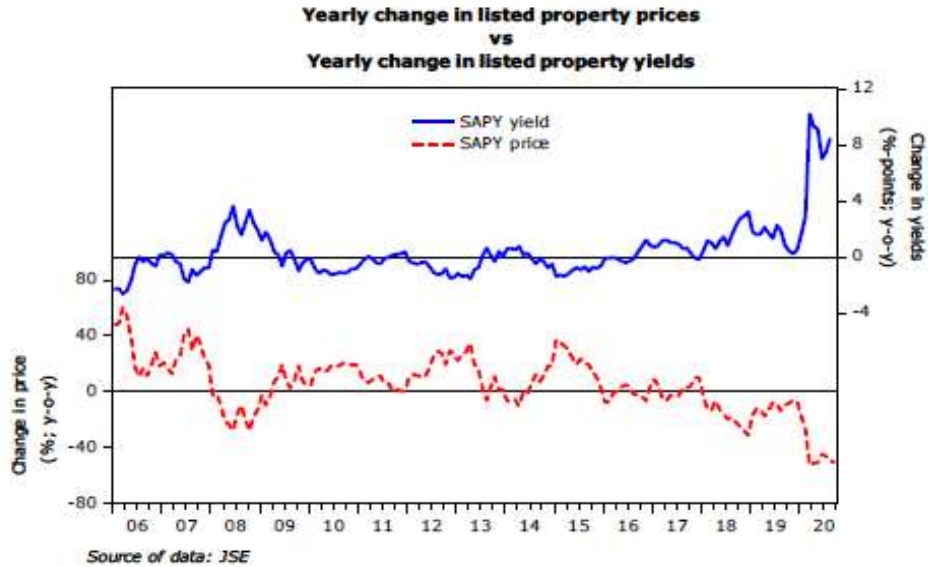


Figure 35: SAPY Index Vs trailing Income Yields (Rode and Associates, 2020:19)

Under these prevailing economic headwinds, e-commerce took off across the globe. South African e-commerce saw a 13% annual growth, with significant growth coming from the omnichannel players of formerly pure-play bricks-and-mortar retailers amongst the top 100 e-commerce players. Takealot continues to be the largest e-commerce player and has also started opening fulfilment centres in shopping centres. The pandemic drove a rise in online grocery/supermarket shopping and a shift in the types of retail shopping categories with the highest consumer interest online. Notable is the increase in Retailtech. Retailtech refers to technological advances leading to digital transformation in retail; and it speaks to the need for leveraging technology in retail and retail property. See Figure 36 (eCommerceDB, 2020).

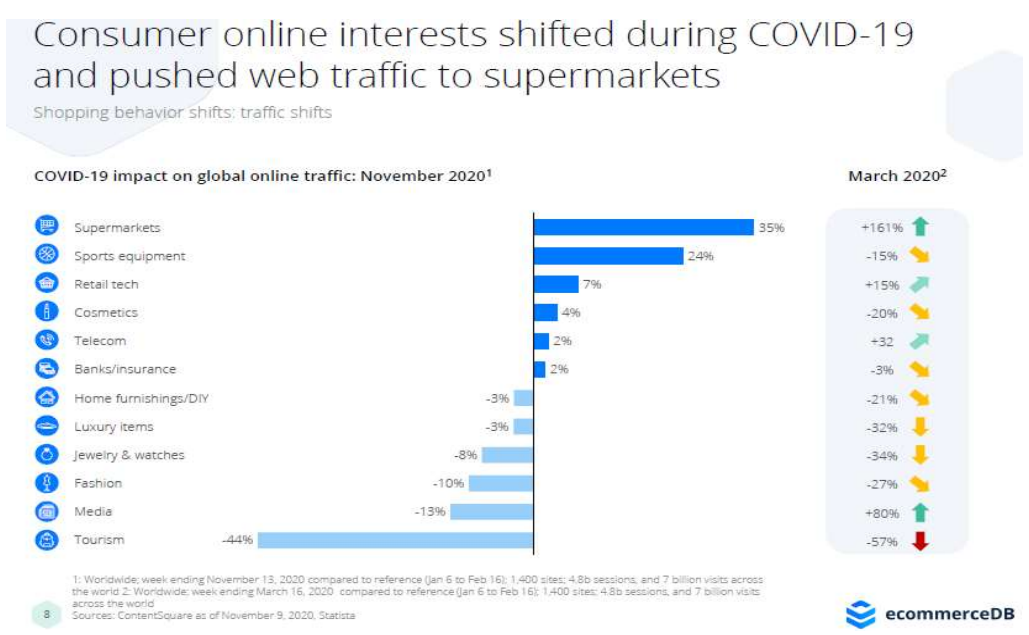


Figure 36: COVID-19 induced shifts in online shopper interests (eCommerceDB, 2020:online)

4.4 Conceptual Framework

The determination of theory is one of the main components of the literature review. In this conceptual framework the concepts of shopping centres, the fourth industrial revolution and digital disruption were reviewed in the literature review (Chapter 2). The shopping centre industry is undergoing disruption from fourth industrial revolution technologies that are digital in nature. These digital technologies cause what is known as digital disruption by presenting challenges with resultant negative impacts on the traditional physical retail business model. The impacts require counteractive strategies to reduce or eliminate negative outcomes on the business of retailing and retail property. Past studies with regards to digital disruption in retail property reveal that a list of challenges, impacts and strategies exist (Table 20) and these interact within 5 main themes forming a framework (Table 21) for digital disruption in the retail property industry. This largely answers the research question but because the research seeks to find valid answers for the South African retail property market the thematic framework derived from the literature must be validated.

The literature review of the concept of the traditional shopping centre brought about the understanding that for the purpose of this study planned shopping centres that can be classified by size and function should be the subject of the study. These centres are experiencing digital disruption from the advent of 4IR technologies that enable e-commerce, omnichannel retailing and changes to shopper behaviour. The retail property market and the retail property business model of shopping centre operators is thus being disrupted and in need of transformation. This disruption presents challenges to the retail property industry which in turn have a series of negative impacts on shopping centres. Various counteractive strategies are being employed to counteract the challenges and their negative impacts. The challenges and impacts influence which relevant strategies can be employed against them. A dependency therefore exist between challenges and impacts on one hand and counteractive strategies on the other hand. All the three factors of digital disruption in retail property i.e. challenges, impacts and strategies interact within 5 main themes. In view of the foregoing the author designed the conceptual framework (see Figure 37) which lays the foundation for this study. In Diagram 1, the thin black arrows indicate which theoretic information came out of the reviews in blue boxes, while the thick blue arrows follow the review from start to finish and indicate the interdependencies of the factors of digital disruption in retail property.

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

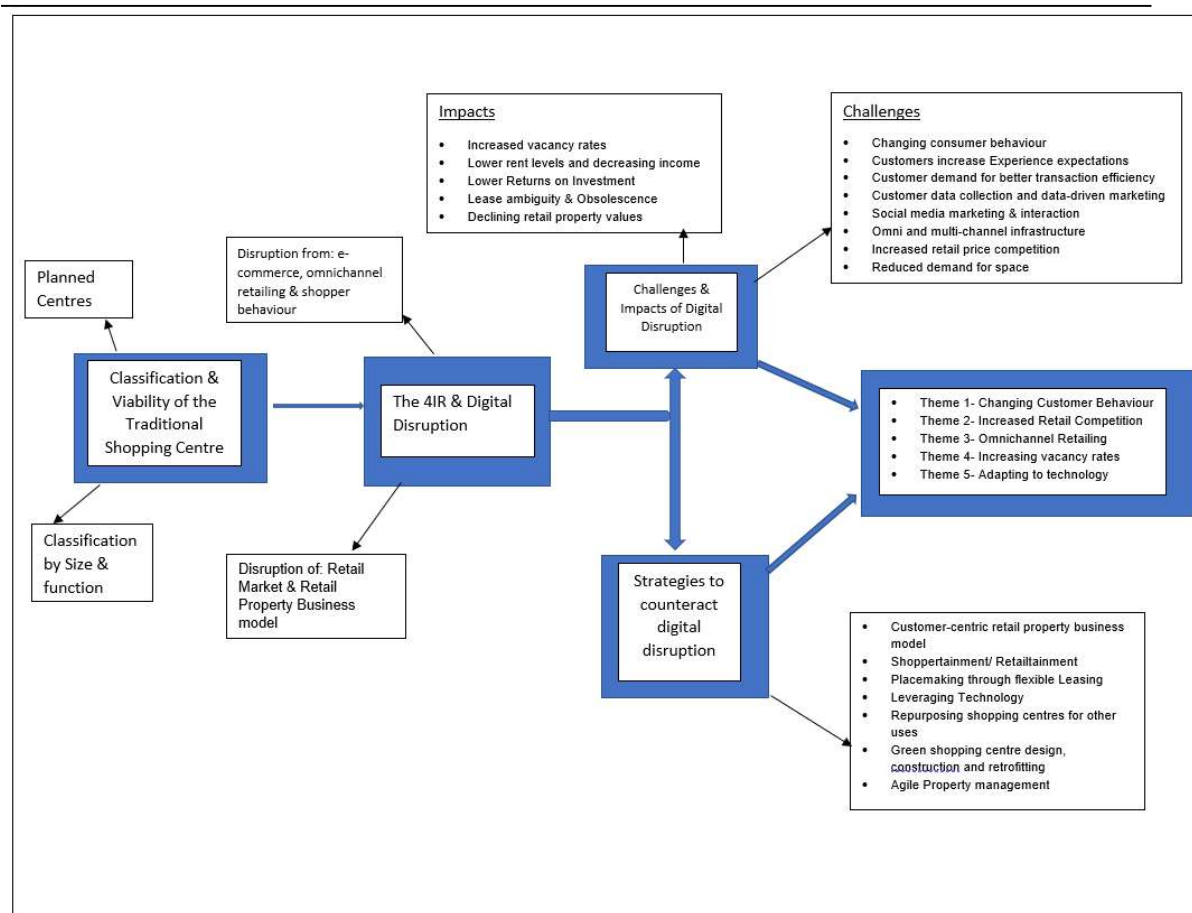


Figure 37: Conceptual Framework
Source: Author (2023)

4.5 Conclusion

Among shopping centres, shoppers did return to in-store shopping after the initial COVID-19 Alert Level 5 hard lockdown, albeit in smaller numbers than pre-COVID-19 numbers. The outperformers were Convenience and Neighbourhood centres, which benefited from proximity to people working from home and having a tenant mix dominated by food anchors, which qualify as essential services. Larger format anchors saw significant declines in trade and increasing vacancies, especially during stricter lockdowns. Larger format malls also generally have premium rents and had to pass significant rental discounts and tenant relief to keep tenants from closing and vacating their stores. In terms of location, rural and low-income urban (township) retail was the outperformer, being located in previously disadvantaged communities and with most tenants being essential food, clothing and national retailers.

Digital disruption in retail is largely driven by e-commerce and retailers' responses to e-commerce and technology-driven changes in consumer behaviour. In South Africa, digital disruption in shopping centres was accelerated by the COVID-19 pandemic, thus accelerating the need for digital transformation and adopting the strategies outlined in Table 21 above. The main challenge to the shopping centres' survival is the poor economic outlook. However, digital disruption has moved from a mid to long-term threat to a short-term threat with long-term

consequences due to the COVID-19 pandemic-induced acceleration. The retailers and shopping centres that do not transform to meet the challenge will be unable to cope with the dual threat of economic uncertainty and the challenges posed by digital disruption.

The foregoing literature review and analysis show that the challenges, impact and counterstrategies of digital disruption, contained in the framework illustrated in Table 21, are relevant to current market conditions in retail property. It is also clear that the hierarchy of planned shopping centres in South Africa has been affected differently by digital disruption and, more poignantly, by its acceleration under the COVID-19 pandemic. This observation demonstrates the research hypothesis to an extent and calls for further investigation of how exactly the framework presents itself in the South African Shopping centre industry. In order to do this, a research methodology needs to be applied. The research design adopted for this study is the exploratory-sequential research design, one of the mixed-methods research methodology designs. The qualitative phase is conducted through research interviews with South African retail property experts. The resulting validated framework is used to develop a survey questionnaire administered to retail-property managers across South Africa and the hierarchy of South African shopping centres. The literature review has yielded an initial framework for this study; and now the framework needs to be validated qualitatively to produce a South African focused and specific framework. The validated framework can then be tested quantitatively; that is to say, the exploratory sequential mixed method of research is applied. The next chapter outlines this research methodology and how it was applied.

Chapter 5 - Research Design and Methodology

5.1 Introduction

A research strategy must be developed for any research to be effective and fit for purpose. Furthermore, the strategy must be accompanied by a suitable research design and methodology. In this chapter, the research strategy section elucidates upon the mixed-methods research type adopted in this project. In addition, the research design addresses how the project was executed; and the research method explains the research approach used.

5.2 Research

As already discussed in Chapter 1 (section 1.4), the purpose of this research project/study was to investigate how the challenges and impact of digital disruption in retail property are counteracted and how these counteractive strategies present themselves across the hierarchy of South African shopping centres. To answer this question, the following research questions were posed:

1. What are the challenges and associated impacts of digital disruption that threaten the viability of South African shopping centres?
2. What are the counteractive strategies/opportunities that can be adopted by the South African shopping-centre industry to counteract the threats posed by digital disruption?
3. How are the threats and strategies applicable across the hierarchy of South African shopping centres?

The research objective was to determine the strategies that can be adopted to ensure the long-term viability of South African shopping centres in the fourth industrial revolution era. These strategies should work by counteracting the long-term threat posed by the negative impacts of digital disruption in retail. In short, this research aims to create a body of knowledge regarding strategies that shopping centres in South Africa can adopt to ensure their continued viability in the face of digital disruption.

To achieve the objective of the researcher developed a conceptual framework to aide in determining the research design and strategy. The conceptual framework (and research strategy thereof) is supported by the researcher's philosophical world view of pragmatism. This world view is explained in the next section.

5.2.1 The Philosophic Worldview

Philosophic worldviews are the "basic set of beliefs that guide action" (Creswell, 2018, p. 44) and the form the methodological paradigm within which a research study is carried out. Worldviews represent a general philosophic inclination that a researcher holds about the world and the nature of research and influences his/her conduct of a study. The factors that influence individual worldviews include:

- Researcher's discipline orientations
- Researcher's research communities

-
- Researcher's advisors and mentors
 - Researcher's past research experiences ((Creswell, 2018)

The most widely discussed worldviews in research literature are post-positivism, constructivism, transformative and pragmatism. The holders of these philosophical worldviews generally differ as follows:

1. **Post-positivists-** generally hold a deterministic philosophy where causes determine effects or outcomes. This is well suited to the scientific approach where experiments seek to discover the causes of specific outcomes. The post positivist research thus generally features: Determination, Reductionism, empirical observation and measurement and theory verification. It is well suited to most quantitative studies.
2. **Constructivists-** generally believe that individuals seek and understanding of the world in which they exist and that these individuals develop subjective meanings for their experiences and thus apply these meanings to objects and things. The goal of constructivist research is therefore to look for multiple viewpoints and rely on participants views. Constructivist research generally features: Understanding, multiple participant meanings, social and historical construction, and theory generation. It typically applies to qualitative research studies.
3. **Transformative-** adherents believe that research should be intertwined with politics and a political agenda to confront social oppression. Adherents of the transformative worldview often include critical theorists, Marxists, feminists, post-colonial people and minority communities. Transformative research thus often: political, power and justice oriented, collaborative and change oriented.
4. **Pragmatists-** hold that this worldview arises out of actions, situations, and consequences rather than antecedent conditions. The main concern is with regards to application and solutions to problems. Rather than focus on methods pragmatist researchers focus on the research problem and question and use all approaches available to understand the problem. Pragmatism is not committed to any one system of philosophy and reality. Pragmatist research thus features: consequences of actions, is problem-centred, pluralistic, and real-world practice oriented. It is typically applied to mixed methods studies (Creswell, 2018).

A pragmatic world view allows the researcher to apply multiple methods, different worldviews, different assumptions and different forms of data collection and analysis. The research problem in this study seeks to find out real-world facts with regards to the challenges, impacts and counteractive strategies of digital disruption in retail property in south Africa. This inquiry is centred on the problem of digital disruption and seeks real world information from pluralistic sources and to produce a real-world practice-oriented solution i.e. A framework(s) applicable across the hierarchy of South African shopping centres. It becomes clear that the pragmatic philosophic worldview is the setting for this study and that it is well suited to mixed method design. According to Bowen (2017:11) "Mixed methodology is the corner stone of research within social science that is experienced within everyday life". This clearly implies the suitability and alignment of mixed methodology with the pragmatist philosophical worldview.

With this pragmatic worldview the researcher was able to use a pragmatic approach centred on the research problem to develop the research strategy and design.

5.3 The Research Strategy

The following research strategy explains the mixed-method nature of this research study.

5.3.1 Mixed-Method Research

Research can generally be classified into qualitative and quantitative research. Qualitative research explores attitudes, behaviour and experiences through methods, such as interviews and focus groups. Qualitative research and its methodologies attempt to obtain in-depth opinions from participants and tend to have fewer participants. Quantitative research, on the other hand, is research that generates statistics by using large-scale surveys using such methodologies as questionnaires and structured interviews. Quantitative research thus involves many more participants (Dawson, 2009; Dawson, 2002). Qualitative and quantitative methodologies have their specific strengths and weaknesses. In practice, they are not as discrete as they may appear at first; but they represent different ends of a continuum. The distinction is often simplified by understanding that qualitative refers to using words and open-ended questions and responses, while quantitative refers to using numbers and closed-ended questions and responses (Dawson, 2002; Creswell, 2018).

A third research approach combines the complementary aspects of qualitative and quantitative methodologies and thus it overcomes their weaknesses (Dawson, 2009). This method is known as the mixed-methods approach (also known as Triangulation) and it lies in the middle of the qualitative-quantitative continuum because it incorporates elements of both approaches. Mixed-methods research involves collecting both qualitative and quantitative data and integrating the two forms to yield additional insight beyond the information provided by either quantitative or qualitative data alone (Creswell, 2018). A summary of the characteristics of these three research approaches/methodologies is illustrated by Creswell and Creswell (2018) in Table 22 below.

Table 22: Characteristics of Qualitative, Quantitative and Mixed Research Methods

Quantitative Methods	Mixed Methods	Qualitative Methods
Predetermined	Both predetermined and emerging methods	Emerging methods
Instrument based questions	Both open- and closed-ended questions	Open-ended questions
Performance data, attitude data, observational data, and census data	Multiple forms of data drawing on all possibilities	Interview data, observation data, document data, and audio-visual data
Statistical analysis	Statistical and text analysis	Text and image analysis
Statistical interpretation	Across databases interpretation	Themes, patterns interpretation

Source: Creswell (2018:53)

Du Toit (2015) created an exhaustive typology for social research in the built environment that is useful in the South African context. The typology can be used when considering which research approach may be appropriate for any particular South African social research study concerning the built environment. This research typology tool (DuToit, 2010) can be used to efficiently investigate possible research approaches and tools to determine the most appropriate ones to use for a given study. This determination of an appropriate research

approach can be done by objectively analysing the research problem and the personal experiences of the researcher and the audience(s) for whom the research would be written and applying the typology to the results of this analysis (Creswell, 2018). Table 23 shows Du Toit’s typology, and by considering it against the research aim, questions and likely data sources, and their likely audience, the author concluded that this research study would be best suited to mixed methods (see yellow highlighted cells in Table 23). This conclusion was reached because the researcher identified this study as one with an applied context and practical aim in order to determine counteractive strategies to digital disruption in retail property and how these are applied across the hierarchy of South African shopping centres. The research purpose is evaluative, and it requires a pragmatic methodological paradigm, which would be best suited to a mixed-method, tending towards a qualitative approach. The data sources are a hybrid of in-depth qualitative interviews and quantitative survey data (DuToit, 2010; Peniel, 2015).

Table 23: A revised typology of designs for social research in the built environment

Methodological considerations						Research designs
Research context and Research aim	Research purpose	Methodological paradigm	Methodological approach	Source of data	Core logic	
Basic (towards applied) contexts Theoretical aims	Descriptive Explanatory	Post-positivist	Quantitative	Primary	Generalisation	Surveys
					Casual attribution	Experiments
	Interpretative Exploratory Descriptive	Interpretative social science (towards pragmatic)	Qualitative	Secondary (numerical/ special)	Prediction/illustration	Modelling, simulations, mapping and visualisation
				Secondary (textual)	Interpretation (hermeneutical)	Textual and narrative studies
				Primary (towards hybrid)	Interpretation (ethnographical/ phenomenological)	Field studies
					Contextualisation	Case studies
Applied contexts Practical aims	Formative Evaluative	Pragmatic	Mixed-method (towards qualitative)	Hybrid	Intervention	Intervention research
					Evaluation	Evaluation research
	Participatory	Participatory	Participatory	Primary	Participation/Action	PAR
Basic contexts Meta theoretical aims	Meta-analytical purpose	N/A (Nonempirical)	N/A (Nonempirical)	N/A (Nonempirical)	Various core logics	Meta research

Source: Du Toit (2010:183)

According to Creswell and Creswell (2018), the mixed-methods research approach originated in the late 1980s to early 1990s in its current form. It has undergone several developmental and growth periods and it is continuously evolving. Mixed-methods research has gained popularity and application, especially in the fields of evaluation, education, management, sociology, political science, psychology, library and information science and health sciences. This growth in popularity in these fields is because it draws from the complementary strengths of both qualitative and quantitative approaches to minimise the individual limitations of each approach (Terrell, 2012; Bryman, 2006; Creswell, 2018).

Mixed-method research ameliorates the weaknesses inherent in qualitative or quantitative research to understand the research topic comprehensively. In practice, mixed-method research is a sophisticated and complex approach that appeals to those engaged in modern research procedures. At the same time, procedurally, it can provide a more complete understanding of research problems and questions, by for example:

- Comparing different perspectives from qualitative and quantitative data
- Explaining quantitative data with follow-up qualitative data collection and analysis
- Developing better-contextualized measurement instruments by first collecting qualitative data and then administering the instruments to a sample (Creswell, 2018; Halcomb, 2015).

Mixed-method research involves gathering both qualitative and quantitative data in response to the research questions and hypotheses. It includes rigorous methods of data collection, analysis and interpretation of qualitative and quantitative data, which are then integrated. Various terminology refers to this method, including triangulation, mixed research, multi-strategy research and multi-method. However, recent publications on the subject, such as the Sage Handbook of Mixed Methods in the Social and Behavioural Sciences and Sage's Journal of Mixed Methods Research, tend to use the term mixed methods (Creswell, 2018; Bryman, 2006).

The preceding explanation of the mixed methods procedures means that it can cause several challenges to the researcher, such as:

- The need for extensive data collection (qualitative and quantitative data)
- The time-intensive nature of analysing both quantitative and qualitative data (it is a time-consuming and rigorous research approach)
- The researcher must be familiar with and understand both quantitative and qualitative forms of research.
- The need to have adequate skills and be able to demonstrate rigour.
- The need for explicit visual models or illustrations to demystify the complexity of the design and to understand the details and flow of research activities (Creswell, 2018; Halcomb, 2015).

There are several forms of mixed methods design in use, and the procedures of data collection, analysis, interpretation and integration must be incorporated into a distinct mixed-methods design. Of these several mixed method designs, there exist three (3) core designs, namely:

- The Convergent Mixed- Method Design
- The Explanatory Sequential Design
- The Exploratory Sequential Design (Creswell, 2018; Terrell, 2012).

The convergent design is based on collecting quantitative and qualitative data independently and concurrently. For example, in the Explanatory-Sequential design, the researcher collects qualitative data to explain quantitative findings, whereas in the Exploratory-Sequential design, the researcher collects quantitative data based on the qualitative findings (Creswell, 2018; Halcomb, 2015).

5.4 Exploratory Sequential Design

Using Du Toit's typology outlined in Table 23 above, the researcher determined that mixed-method research tending towards qualitative research was the most appropriate research approach for this study. This conclusion is borne out by the fact that this study required gathering data from a literature survey, validating that data for the South African context through qualitative interviews, and finally testing the validated qualitative findings across many participants (quantitative survey). A qualitatively based interpretation/conclusion then followed this survey. The research aimed to establish the status of digital disruption in South African retail property (evaluative research) and to formulate counteractive strategies (intervention research) to respond to digital disruption. Of the three designs listed above, the Exploratory-Sequential Design is the one that best fits this description; and it was thus the one used in this research study.

In the exploratory sequential design, qualitative data dominate the investigation. Qualitative data are collected first, and the findings are used to frame the quantitative data collection. This research strategy integrates the qualitative and quantitative data during this interpretation and is used primarily for the following reasons:

- Testing elements of a theory.
- Generalising the qualitative findings to different samples.
- Development of instrumentation (e.g., using a small group to create instrumentation and then collecting quantitative data, based on the instrumentation) (Terrell, 2012).

It is a three-phase design, in which the qualitative data are collected and analysed in the first phase. Then an instrument is developed from the qualitative findings in the second phase. Finally, in the third phase, the instrument is tested quantitatively. The results are then interpreted, in order to answer the research question(s) (Creswell, 2018; Halcomb, 2015).

In this design, the data are collected at two points during the investigation. Firstly, qualitative data are collected by using qualitative methods, such as interviews, literature studies and focus groups. Secondly, the qualitative data findings (feature or instrument from qualitative data analysis) are tested. Qualitative data analysis yields quote, codes and themes that are utilised to develop an instrument to be used for quantitative data collection. Different samples are used for the initial qualitative data collection and the subsequent quantitative data collection. The qualitative sample is typically smaller than the quantitative sample. It is possible to draw both samples from the same population. However, it is crucial that if this is done, the participants used in the qualitative sample must be excluded from the quantitative sample. Finally, the researcher analyses the qualitative and the quantitative databases separately. The qualitative (exploratory) investigation findings are used to build a feature that can be analysed quantitatively. This implies that the researcher should carefully consider the qualitative data analysis step, in order to determine what findings to build on (Creswell, 2018).

The results of a mixed-method study are interpreted in a discussion section of the study. The discussion does not compare the two databases, as they are typically drawn from different samples. This method determines whether qualitative themes can be generalised to a larger sample. The order of interpretation/discussion is to present the qualitative findings, then the

development of the feature to be used in the quantitative study, and finally, the quantitative study results. The exploratory sequential design mixed-method of research requires the researcher to ensure the validity of both qualitative and quantitative data. Appropriate steps must be taken in building the quantitative tool from the qualitative data to ensure that they are relevant to the research questions. The focus is not on the statistical treatment of the quantitative data, but rather on the collecting of the quantitative data in a form that can be qualitatively analysed and interpreted. For example, in this study, the resulting quantitative data went through a qualitative hypothesis test (analysis and interpretation) instead of a quantitative hypothesis test, such as the Ho/Ha statistical test. The sample used in the qualitative phase should be excluded in the quantitative phase, in order to avoid duplication of the responses (Creswell, 2018).

5.5 The Qualitative Phase: Research Design

According to Peniel, “Kerlinger defines research design as the plan, structure and strategy of investigation purporting to answer research questions and to control variance”. Research design is the glue that binds the research project together. It addresses the research studies who, when, where, what, and how. It states when and where the research took place, who was involved, what it was about and how the data were collected (Peniel, 2015: online). These aspects of this study, with reference to the Exploratory-Sequential Design, are outlined in section 5.4. The research strategy adopted was time-consuming. The use of two methods sequentially contributes to the long-time frame of the study, in this case, two and a half years. The research design for the qualitative phase was as follows:

5.5.1 Time (When)

The literature review was completed over 4 months (March-August 2020). The onset of the COVID-19 pandemic and the subsequent lockdown, employment and social upheavals also slowed down processes, such as recruiting participants for the empirical/qualitative phase of the study. The qualitative study involved structured expert interviews of retail property Asset and Portfolio Executives. Obtaining permission from company executives proved difficult, as most retail property owners were in a crisis-management situation due to the COVID-19 pandemic. At that time, they were either non-responsive or still trying to find their way around the situation and its negative impact on company profits. This crisis made the executives more cautious than usual regarding anything that could lead to inadvertently sharing confidential information. Only one listed REIT agreed to give access to their Asset managers and Portfolio executives, and these were interviewed online via zoom calls (October- November 2020). The interview calls were planned for 30 mins, but they averaged 40 minutes each. Five experts were interviewed; the results of the interviews were analysed; and a thematic framework was produced for the South African retail market (December – May 2022).

5.5.2 Environment (where)

Due to the research study being conducted during a state of emergency and the upheavals of the COVID-19 pandemic, public health and safety restrictions were placed on face-to-face meetings. In addition, the requirements of social distancing and many industries switching to working from home or a hybrid of working from home and the office led to both phases of the

study engaging participants remotely. For the qualitative phase, the structured interviews were conducted via video calling over Zoom (a video conferencing internet application). The researcher and the participants were at their place of employment, as most participants scheduled dates and times when they would be at their offices for better connectivity. One of the participants was interviewed in person in the boardroom of the researcher's work office. In South Africa, retail property asset managers and portfolio executives are considered industry experts overseeing large property portfolios. In addition, they have property managers reporting to them; thus, they have a more strategic view of the industry across geographies and locations.

5.5.3 Sampling (who)

For validity and saturation, five expert interviews were conducted. Information saturation was judged to have been sufficiently reached with the five participants, which was fortuitous given the pandemic that led to high resistance to any type of information-sharing within the retail property industry at that time. Therefore, the sample size for the qualitative phase of the study was based on the "saturation" of data collected (Fung, 2019). The selection of Asset Managers and Portfolio Executives for the qualitative interviews was to separate the sample from the property manager's sample planned for the quantitative phase. In the South African retail property industry, Asset Managers and Portfolio executives tend to be mid-to-late career and highly experienced retail property experts, who have risen through the ranks, having started their careers as on-site property managers. Participants were invited to participate via email invitation and follow-up telephone calls that leveraged the permission granted by the REIT's retail executive director. See annexures A and B.

5.5.4 Data Collection (what and how)

The focus of the in-depth interviews was to validate the themes gathered from the literature regarding digital disruption in retail (Table 21) and to develop a South African focused framework that could be tested quantitatively. The interviews were scheduled on Zoom, and interviewees were sent an interview guide via e-mail. The guide consisted of three interview questions, a summary of the literature findings and the framework (Table 21). An online Zoom video call was conducted with each interviewee on the scheduled date and time. The following themes were presented, and three interview questions were asked:

- Theme 1- Changing Customer Behaviour;
- Theme 2- Increased Retail Competition;
- Theme 3- Omnichannel Retailing;
- Theme 4- Increasing vacancy Rates and Decreasing retail space demand;
- Theme 5- Adapting to the technology.

The three interview questions posed concerning each theme were:

1. What are the challenges posed by digital disruption in retail on the retail-property industry?
2. What are the impacts of these challenges on the retail-property industry?

-
3. What are the coping strategies that are being adopted or can be adapted to counteract the impacts of these challenges?

5.6 The Qualitative Phase: Research Methodology

The research methodology followed was the exploratory sequential-mixed method. The methodology section addresses the ethical approvals, funding, consent, confidentiality of information, validity, and reliability of the research. This section outlines the step-by-step approach followed for the qualitative phase of the study.

5.6.1 Ethical Approval

The University of Pretoria (UP) requires that each research project undertaken at the University seek and obtain ethical clearance. An application must be submitted to the ethics committee to obtain ethical approval. The application was submitted in March 2020 with the following supporting documentation:

- Completed Application form with research motivation.
- Research Proposal approval from the research supervisor.
- Consent forms - in this case, consent to conduct interviews granted by a local REIT.
- Declaration.
- Copy of informed consent form to be used by the research participants.
- Copy of proposed survey and interview questionnaire.

The ethics committee reviews various applications at meetings scheduled throughout an academic year; therefore, approval may take some time to obtain. However, approval for this project was unconditionally granted and received in June 2020. The ethics application and approval documents are annexed hereto as Annexure E.

5.6.2 Funding

The mixed method used for this project involved a literature review, interviews and an online survey for the data collection. The literature review used online and the hard-copy resources from the University of Pretoria library, industry reports, journals and articles (e.g., SACSC and ICSC), were freely available to the enrolled students. It must be noted that the COVID-19 pandemic industry reports, such as SAPOA that had previously been free, were suspended for a while in 2020, and when they returned, they were no longer free. The interviews were carried out over Zoom video conferencing, due to the COVID-19 pandemic restrictions and did not require any funding as the researcher had access to these tools. Expenditures, such as calling participants to set up interviews were covered by the researcher's own means.

5.6.3 Consent

As mentioned in the sections above, company consent was required to carry out interviews. However, only one REIT responded positively, and that consent was submitted with the Ethics Approval application (Annexure E). Approvals from individual interviewees (informed consent) are attached hereto as annexure F. Informed consent is necessary to ensure that research is

conducted ethically and transparently. The informed consent process is one in which the research participant is informed of the scope of the research and how their contribution would be used and possibly shared.

5.6.4 Confidentiality of the Information

As part of the Ethical Approval process, the ethics application should outline how the information would be kept secure and confidential, especially that of the participants, to the satisfaction of the Ethics Committee. In this project, secure laptops were used to conduct zoom interviews and to distribute the surveys, and the university email account was utilised for communicating with the participants. All the interviews, bar one, were held via video conferencing on Zoom. The one in-person interview was in a secure and private company boardroom. The research data were saved on a secure university-google drive to prevent any loss. The drive grants access only to the researcher and the research supervisor. Upon completion, the dissertation and data disk are submitted to the university library, where the data-protection systems are in place. Obtaining interview consent from retail real estate companies proved difficult; and only one REIT granted such approval due to heightened confidentiality concerns caused by the COVID-19 pandemic between March 2020 and March 2021.

5.6.5 Validity

Research validity relates to how well the research tools measure the research topic (Robert, 2006). The exploratory-sequential method is a rigorous research method requiring the mixing of qualitative and quantitative research methods. The qualitative portion of the research should be designed to produce a tool to conduct the quantitative portion. In this regard, the interviews are an appropriate qualitative data-collection method that produce a thematic framework that could be used to develop survey questions.

5.6.6 Reliability

Reliability in research essentially refers to the extent to which the research project results are repeatable. That is the extent to which the same or similar results can be obtained, should the research be repeated in different circumstances. Reliability, therefore, talks to the trustworthiness of the procedures and the data generated (Robert, 2006).

The reliability of the qualitative portion of the study was controlled by ensuring that the interviewer used the same interview brief and questions to conduct interviews with retail experts from the same company that manages retail property portfolios of different sizes and locations across South Africa. The interviews were not recorded electronically, but interview notes were taken (annotated on a standard interview form)

The data collected from the interviews were analysed; and the findings were developed into a framework (Table 29). This framework was used to develop the tool (questionnaire) for the quantitative phase of the study.

5.7 The Quantitative Phase: Research Design

The design of the quantitative phase was as follows:

5.7.1 Time (When)

As mentioned in the preceding sections, five experts were interviewed; the results of the interviews were analysed; and a thematic framework was produced for the South African retail market (December – May 2022). The framework was then used to create an online survey administered to South African retail property managers. The South African Council of Shopping Centres (SACSC) directory was used as a database for retail shopping centre managers' details. A 2020 directory was not created, due to the COVID-19 pandemic, and the available 2019 version had a lot of contact details and persons that had changed. Verifying the contact details and recruiting the appropriate participants was a time-consuming exercise. However, the online survey was administered, and of the 1266 shopping centres listed in the SASC 2019 Directory, some 960 contact details (emails) were valid. The survey was administered between 19 May and 3 September 2021. Data analysis and interpretation were then conducted between October 2021 and August 2022. The whole study thus ran from February 2020 (research proposal) to August 2022.

5.7.2 Environment (where)

The quantitative phase survey was conducted online using an online survey tool (Google Forms). Participants could access and complete the survey remotely at any time during the period that the survey was open (19 May- 3 September 2021).

5.7.3 Sampling (who)

The quantitative sampling was based on the number of planned shopping centres listed in the SASC 2019 directory, i.e., 1266 shopping centres. These yielded 960 unique contact email addresses. These had to be validated, and the ones that were no longer valid or returned with alternative contact details were used. A total of 695 emails could be validated as having been delivered. Some shopping centres, especially those in non-metropolitan areas, tended to have clusters managed by a single person; and these participants would only respond regarding one or two of their centres. For a sample size calculation for the 1266 population of planned shopping centres in South Africa, the Tara Yamane formula was used:

$$n = N / (1 + N(e)^2)$$

where:

n signifies the sample size

N signifies the population under study

e signifies the margin of error

For the exploratory sequential method's quantitative phase, a sample size of 50 is generally acceptable for generalising the findings across a population (Fung, 2019). However, given the experience from the qualitative phase and that the COVID-19 pandemic situation had not improved in South Africa in mid-2021, the researcher expected a very low response rate of

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5%- 10%. The population of 1266 shopping centres with about 960 unique contact details translated to an expected survey response of 48- 96 participants representing 63-126 shopping centres (some managers manage more than one centre). The best-case scenario from the expected response rate would thus be a 10% margin of error to maintain a 95% confidence level. Using the Tara Yamane formula, this translates to a required sample size/survey response of:

$$n = 1266 / (1 + 1266(0.10)^2) = 92,68 \text{ approximately } 93 \text{ responses.}$$

The response rate was slow to pick up, hence the extended period that the survey was run (3 months). However, in the end, 100 responses were received, representing the sample size for the quantitative portion of the study, i.e., 100 retail property managers representing 100 shopping centres across South Africa responded to the survey. The survey was sent out via email (see annexure C).

5.7.4 Data Collection (what and how)

The data collected from the interviews were analysed; and the findings were developed into a framework (Table 29) which was then utilized to develop survey questions (Annexure D). The relevance of the survey questions to the study is as follows:

- Questions 1- 4 establish the classification of the centre, based on the characteristics identified in chapter 2 of this study.
- Questions 5 - 8 answer all the research sub-questions outlined in chapter 1.
- Question 9 allows for any variation from what has been established through literature and expert interviews to be added if a participant believes it was not covered in the answer options presented in questions 5-8.

The analysis and interpretation of the survey results then answer the final research question, i.e., " how the threats and strategies present themselves across the hierarchy of SA shopping centres". The interpretation of the survey results also proves or disproves the hypotheses that the threats and strategies present variably rather than uniformly across the hierarchy of shopping centres.

5.8 The Quantitative Phase: Research Methodology

5.8.1 Ethical Approval

A single application for the study was required and it was submitted and approved as already outlined in section 5.5.1.

5.8.2 Funding

The survey was conducted online by using the university's Gmail account (google form) and did not require funding. Expenditures, such as phone calls to respond to any queries regarding the survey were covered by the researcher's own means.

5.8.3 Consent

The informed consent for the online survey questionnaire was administered by having the informed consent form as the landing page of the online survey (google form). After reading the informed consent landing page, an option to accept and go ahead, or to decline and exit the survey, was built into the survey. A participant could not skip the consent form, without opting to accept and participate in the survey first. In this way, informed consent was administered to and obtained from all the survey participants. See Annexure D.

5.8.4 Confidentiality of the Information

As already outlined in section 5.6.4 confidentiality of information is governed by the Ethics Approval process of the University of Pretoria. The survey had a better response rate than the interviews because consent was required from the individual participants and not from organisations. However, some survey participants would reach out to their employers for permission to participate, in which case the employers would contact the researcher to discuss confidentiality concerns. The researcher sent email responses and crafted email invites (see Annexure C) that addressed any confidentiality issues, such that no refusal to participate on the grounds of confidentiality ever occurred.

5.8.5 Validity

The exploratory sequential method is a rigorous method applying rigour to both phases of the research. An online survey has the easiest and quickest reach across a large country, such as South Africa; and it is well suited to distributing the quantitative survey across all the regions of South Africa and the hierarchy of South African planned shopping centres. The response rate was above the minimum required to meet the statistical parameters set for the study (95% confidence level at a 10% margin error). Thus applied, the qualitative phase of the exploratory sequential mixed research method proves appropriate for delivering valid research data for this project.

5.8.6 Reliability

As already stated, reliability in research essentially refers to the extent to which the research project results are repeatable. That is the extent to which the same or similar results can be obtained, should the research be repeated in different circumstances. Reliability, therefore, talks to the trustworthiness of the procedures and the data generated (Robert, 2006).

Regarding the quantitative portion of the project, the same online survey was emailed to participants whose contact details are listed in the SACSC 2019 Directory. Their responses were captured in real-time, i.e., as soon as the participant submitted a response. The validation included follow-up emails or calls, where survey forms seemed to be completed incorrectly, e.g., recording one response for multiple locations or responses from outside South Africa. The survey responses are saved on the researcher's University Gmail account (Google Form).

5.9 Conclusion

A rigorous, albeit time-consuming, research design was used for this project. The exploratory sequential mixed research method was applied, using interviews and a survey questionnaire, thus leveraging the strengths of both quantitative and qualitative research methods and mitigating the weaknesses thereof. The project was undertaken in a very challenging period in the history of the world. It spanned about two and a half years, covering the COVID-19 pandemic period in South Africa and the socio-economic impacts on the retail property thereof. The qualitative research findings, the analysis, and the discussion follow in the next chapter.

Chapter 6- Qualitative Phase: Analysis and Findings

6.1 Introduction

Expert interviews were conducted to validate the literature review findings and the analysis. The interviews were conducted online by using the Zoom video calling platform due to COVID-19 restrictions on face-to-face contact. Interview requests were sent to the relevant directors/executives of four organisations that actively own and manage retail property assets in South Africa. Most of these also have global operations. Unfortunately, only one organisation, a listed South African REIT, responded positively and permitted the interviewing of its retail asset managers and portfolio executives. The REIT owns retail, office and industrial assets and has a multibillion-Rand market capitalisation. Of its owned properties, sixty (60) are retail property assets (shopping centres) spread across all nine provinces of South Africa; and they range in size and location regarding the planned shopping centre core classification of South Africa from Convenience to Regional centres.

Consequently, only the Super-Regional centre class is not represented. The poor response to interview requests was attributable to the COVID-19 pandemic restrictions on business and the sensitivity of many organisations regarding information sharing during a time of severe pressure on business performance. Nevertheless, five retail property experts agreed to be interviewed in October and November 2020. Fortunately, information saturation was reached within the responses of the five interviewed participants. The five participants had a combined total experience in the retail property/shopping centre industry of 106 years, as depicted in Table 24.

The interviews were scheduled on Zoom, and an interview guide was sent via e-mail to the interviewees. The guide consisted of three interview questions, a summary of the literature findings and the framework (Table 20). In addition, each interviewee had an online Zoom meeting on the scheduled date and time. The following themes, as per Table 21, were presented, and three interview questions were asked under each theme:

- Theme 1- Changing Customer Behaviour
- Theme 2- Increased Retail Competition
- Theme 3- Omnichannel Retailing
- Theme 4- Increasing vacancy Rates and Decreasing retail space demand
- Theme 5- Adapting to technology

The three interview questions posed concerning each theme are:

1. What are the challenges posed by digital disruption in retail on the retail property industry?
2. What are the impacts of these challenges on the retail property industry?
3. What are the coping strategies that are being adopted or can be adapted to counteract the impacts of these challenges?

Table 24: Characterisation of Research Interview Participants

Participant Number	Position in Shopping Centre Industry	Number of Years of Experience in the Shopping Centre Industry	Contribution of Participant
1	Retail Property: Asset Manager (listed REIT)	21	In-depth interview held on 23 October 2020 regarding shopping centre challenges, impacts and strategies regarding digital disruption in retail.
2	Retail Property: Asset Manager (listed REIT)	27	In-depth interview held on 09 November 2020 regarding shopping centre challenges, impacts and strategies with regard to digital disruption in retail
3	Retail Property: Asset Manager (listed REIT)	11	In-depth interview held on 10 November 2020 regarding shopping centre challenges, impacts and strategies with regard to digital disruption in retail
4	Retail Property: Portfolio Executive (Managing Agent for the listed REIT)	7	In-depth interview held on 13 November 2020 regarding shopping centre challenges, impacts and strategies with regard to digital disruption in retail
5	Retail Property: Retired Asset Manager (listed REIT)	40	In-depth interview held on 26 November 2020 regarding shopping centre challenges, impacts and strategies with regard to digital disruption in retail

Source: Author (2022)

6.2 In-depth Expert Interviews

Retail property experts with oversight of multiple properties and property management teams were interviewed from October to November 2020. The interviews were analysed and presented in a thematic format consistent with the framework developed from the literature review (Table 21).

6.2.1 Theme 1- Changing Customer Behaviour

The consensus was that customer behaviour is changing, driven by technology, such as e-commerce and social media. The price and access to data for mobile internet access were noted to be a hindrance and an opportunity in lower LSM markets, such as rural and township areas. A hindrance is that there is little to no internet infrastructure, and the cost of data from mobile telecommunications operators is out of reach for many low-income shoppers. An opportunity is that there is a high usage of social media and uptake of free Mall WIFI across all locations and markets, especially amongst the younger (Millennials and Generation Z) demography. Free WIFI in shopping centres is a pull-factor for shoppers, dwelling time for

younger shoppers and the public in general in rural and township markets. This increases foot traffic, marketing opportunities and shopper analytics that could inform customer-centric services, tenant mixes and marketing. Surveys done in low LSM centres have shown that there is a large market for click-and-collect, but there are difficulties with logistics/delivery and infrastructure. The customer experience is enhanced by providing WIFI, social media campaigns and marketing events curated for the particular market, e.g., entertainment for higher LSM centres and free gift events for low LSM centres. Customer experience needs collaboration between landlords and tenants. Customer service has to be collaboratively implemented by centre management and tenants; that is, the shopper experience must be consistently at a high level, from the car guard and cleaner to the centre manager and store salesperson. Community building or place-making strategies make the community within which the shopping centres are located feel a sense of ownership over the centre; and that it is a safe “public space”.

The most experienced participants, now retired, noted that in order to be able to understand the interaction between shopper behaviour and the performance of retail property, the shopping centre managers need to understand the business of shopping centres, but there is a knowledge, skills and training gap, especially for entry-level to mid-career centre managers. Asset managers need better training in financial management, portfolio theory and retail letting strategies. Many managers do not fully grasp theoretical and practical centre management principles; but they only grasp their employers’ systems and processes. The skills gap slows down the ability to adapt to a fast-evolving market and technologies. It is mainly due to most hires not coming from property-related post-secondary school training, but rather from various business and technical backgrounds.

The consensus was that customer behaviour changes were not yet consistent and easily identifiable across all shopping centres, due to the lack of adequate IT infrastructure coverage, data costs, and income inequalities across geographical locations. However, the one common driver of change was the social media. Social Media interactions among shoppers drive behavioural changes, shopper perceptions and influences. This calls for more significant investment in IT infrastructure to enable free WIFI, shopper data analytics and social media marketing. However, value is still the main driver of sales, and technology is used mainly for bargain hunting, price comparison and trend spotting (influencers). Shoppers spot trends on the social media and want the item, then shop for it online, compare prices and walk into a store to test the quality- “touch and feel” before purchasing the lowest priced channel, whether it be online or in-store. The interview results for this theme are summarised in Table 25.

Table 25: Interview Responses: Changing Customer Behaviour

Input	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5
Challenges	Customer behaviour influenced by social media	Customer behaviour influenced by social media	Customer behaviour influenced by social media	Customer behaviour influenced by social media	COVID-19 driving online shopping behaviours
Impacts	The negative impact of Social Media Complaints, Social Media Interaction, Customer connectivity-WIFI	Negative Social Media Interactions requiring increased investments in IT infrastructure and social media presence,	Social media, Bargain hunting online, Research online and a need for increased investments in IT infrastructure and social media presence	Influence of social media and the need for increased investments into IT infrastructure and social media presence	Reduced foot counts in physical stores, decrease in rental income and devaluations
Strategies	Leverage insights to curate customer experiences, marketing events and Tenant mixes	Free WIFI for analytics, enhanced customer experience, Social Media Marketing	Improved analytics through technology, e.g., WIFI, to spot trends and rapidly respond to social media trends	Improve experience offerings, thinking out of the box in leasing and catching up to retailtech trends. View social media as a marketing and controlled interaction tool	Tenant mixes; portfolio reconfigurations to balance Balance-sheets, Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels.

Source: Author (2022)

6.2.2 Theme 2 - Increased Retail Competition

Increasing price competition from e-commerce was not as severe in South Africa, due to eCommerce only taking up 2-3% of the retail sales. This low share of retail sales is despite its stellar double-digit percentage growth over the last 3years. South Africans still prefer to touch and feel their purchases, especially clothing and food items. Higher LSM centres cater for trading areas more prone to the uptake of e-commerce than lower LSM commuter, rural and township centres. The COVID-19 pandemic proved to be an accelerator of e-commerce and led to many major retailers launching omnichannel platforms. These platforms offer click-and-collect, shop online and have delivered to the home/workplace options and goods sold at the same cost as in-store prices. Pure play online retailers were moving into brick-and-mortar spaces by opening fulfilment centres, e.g., Takealot and Yuppiechef. The move to strategically located brick-and-mortar stores by previously pure-play online retailers is an example of the Halo effect of physical stores. Price competition from online stores mainly affected non-anchor tenants in categories, such as electronics; and this can be seen by the large-scale shop closures of stores, such as Dion Wired. Delivery costs for online stores were also noted to sometimes increase the final cost of goods, especially in non-metropolitan areas, to such an extent that they cost more than in-store prices. Due to delivery costs and economies of scale, South African e-commerce pricing is not yet undercutting that of brick-and-mortar stores. Established brick-and-mortar retailers have well-established supply lines and competitive pricing.

The lack of logistics and digital infrastructure was the main hindrance to e-commerce in non-metropolitan areas. This is an example of the great income inequality and digital divide in South African society. What this entails for retail property is that the response to digital disruption, especially COVID-19 accelerated online shopping, required strategies curated to each specific shopping centre's trading area and shopper household income levels. Vacant centres are not yet an issue in the South African context. The metropolitan, suburban centres are seen to be oversupplied and at the greatest threat of unsustainable vacancy levels pre-COVID-19 received a boost from the pandemic. The pandemic response of restricting movement and forcing many workers to work from home meant that people started shopping more and more for convenience items and as close to home as possible. Whether this trend to support local shopping will continue post-pandemic is yet unknown.

The consensus is that e-commerce though accelerated by COVID-19, does not yet pose a significant threat to South African shopping centres, at least not to the degree that would see unsustainable vacancy levels or empty malls. In fact, it is causing an evolution of the industry wherein retailers see opportunities from tracking e-commerce trends. Shopping centres and retailers are evolving and must evolve, in order to survive. They are evolving to become more customer-centred, omnichannel and experiential entities. Table 26 summarises the interview responses to this theme.

Table 26: Interview Responses: Increased Retail Price

Input	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5
Challenges	Ecommerce price competition	Ecommerce price competition	Ecommerce price competition	Ecommerce price competition	Ecommerce price competition
Impacts	Negligible but potent and growing e-commerce challenge to physical retailers	Negligible price competition	Some Price competition in certain categories	Negligible, but some price competition in certain categories, such as consumer electronics	Category price competition. That is, certain categories, such as equipment, electronics, pharmaceuticals, and alcohol, as opposed to touch and feel goods, such as clothing and fresh produce.
Strategies	Omnichannel strategies; agile management of tenant mixes, taking risks on non-traditional tenants and start-ups	Improving tenant mixes and curating them for LSM of the trading area	Omnichannel strategies by retailers supported by shopping centres enabling infrastructure	Adopting retailtech, improving the quality of shopper and mall apps and websites	Improve management systems, adopt agile property management strategies and highly curated tenant mixes and shop sizing

Source: Author (2022)

6.2.3 Theme 3- Omnichannel Retailing

The overwhelming consensus was that the future of South African retail is evolving towards omnichannel retailing becoming the norm. This means that shopping centres must adapt to accommodate retailers' omnichannel operations. Accommodating retailers' omnichannel

operations can be done by configuring spaces that are the right size for the right tenants, spaces designed to accommodate click-and-collect, deliveries and IT infrastructure, such as WIFI coverage and fibre internet to the centre. Participants noted that some categories of merchandise might lead to requests for reduced space, while others may need increased space to create collection areas. Security in South Africa also means that people are less inclined to give their personal information and addresses to lesser-known e-commerce platforms. This preference can be seen in the preference to use platforms, such as Uber Eats and Mr D for food deliveries over the restaurants' independent delivery service. The South African "mall culture", where malls are seen as pleasant, safe public spaces where people can meet for entertainment, food, business and social interactions, means that even online retailers see value in having exposure to physical stores. An example of the value of omnichannel retailing was brought into prominence by the COVID-19 pandemic when the country was moving from hard lockdown to lower levels of lockdown. The first non-essential retailing allowed to trade was e-commerce, and those retailers who did not have e-commerce platforms lost out on another month of trade. Restaurants with no in-house delivery system or that had previously shunned platforms, such as Uber Eats, and Mr D, found that they now had to quickly reconfigure and adapt these platforms, in order to be allowed to continue trading.

The capturing of turnover rentals for online sales did not seem to be a major issue, as most of the COVID-19 induced acceleration to omnichannel platforms by retailers were store focused. Online sales are allocated to the relevant stores, especially for click-and-collect. Where online sales are not allocated to a store, these do not contribute to turnover rentals, which may lead to lower income for a shopping centre. However, the main impact of physical store retailers adopting omnichannel retailing and having online sales delivered to shoppers' homes is that it reduces foot traffic to shopping centres. This reduction in foot traffic is evident, especially due to the e-commerce platforms of national retailers the traditional role in shopping centres was to draw feet and support line stores. Such a situation in which anchor tenants' omnichannel operations mean they no longer optimally play their role of drawing feet to malls is quite adverse. More so under circumstances, such as the COVID-19 pandemic, where shoppers were taking up e-commerce and not visiting malls at the expense of smaller tenants (line stores).

There is an us-versus-them relationship between Landlords and tenants when it comes to leasing negotiating and reporting of turnovers that have led to difficulties in adjusting the standard South African turnover clause for newer omnichannel-related clauses. The standard clause has a basic rental plus a turnover rental, which is only payable should the percentage for the year be higher than the basic rental. There is a need to improve this adversarial relationship and to build collaborative and inclusive business relationships and a working culture between Landlords and tenants/retailers.

The consensus is that flexibility in leasing is now necessary, and moving away from static leases with rigid clauses needs to be adapted to shorter terms, flexible rental terms and new retail formats. The COVID-19 pandemic clearly showed the value of collaborative and flexible leasing, when lockdowns forced Landlords and tenants to negotiate discounts, turnover-only rentals and performance-related rentals. In addition, a higher risk-taking appetite is required to take on start-up businesses looking to pivot from online only and to take advantage of the halo effect of having a physical store presence. The retailers failing to adapt and closing stores can

and will be replaced by new businesses and retail formats, whose business models and space needs shopping centres must adapt to. By way of example, while Edcon was going under and Dion Wired was closing stores, new South African brands, such as Drip Footwear, Bathu Shoes, and The San Hair were opening multiple stores during the pandemic; and all these started online.

The interview responses for this theme are summarised in Table 27 below.

Table 27: Interview Responses: Omnichannel Retailing

Input	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5
Challenges	Omnichannel retailing	Omnichannel retailing	Omnichannel retailing	Omnichannel retailing	Omnichannel retailing
Impacts	Changing space demand, technological infrastructure, investment in internet technologies	Changing space configurations and demand	Changing space configurations and demand	Changing space configurations and demand	Changing space configurations and demand
Strategies	Agile management of tenant mixes, taking risks on non-traditional tenants and start-ups	Flexible Leasing, Agile property management	Flexible and Collaborative leasing, agile property management	Flexible leasing, agile property management,	Investment in technology, new retail market, technology, strategy training of management staff to understand omnichannel retailing

Source: Author (2022)

6.2.4 Theme 4- Increasing vacancy Rates and Decreasing retail space demand

Shopping centre leasing needs to be flexible enough to encourage non-GLA income; Pop-up stores and exhibitions, in order to manage vacancies, especially in low-demand spaces. Lead-in malls tenanted by the right sort of vibrant tenancies, pop-ups or exhibitors, must be designed into mall layouts to create demand through experiences. In addition, shopping-centre operations need to focus on customer-centric soft services, safety and security. Community services, such as children’s play areas and day-care centres can also be alternate tenants in an attempt to place-make in response to any reduction in demand for space due to retailer streamlining caused by adapting to omnichannel retailing.

The COVID-19-induced lockdowns and economic downturn succeeding a decade of sluggish economic growth in South Africa are the leading causes of increased vacancies as businesses fail due to economic slowdown rather than digital disruption. Most digital disruption-induced reductions in demand for space have been counter-balanced by increases in space demand from some merchandise categories, omnichannel operations by online retailers, and new retailing formats, such as pop-ups, fulfilment centres and show-rooms.

Shoppertainment, repurposing excess retail space for new retail formats, and place-making activities that appeal to communities are, by consensus, the major drivers of the continued

appeal of shopping centres to the shopping public. The Halo effect of physical stores is enhanced by continuing to draw feet to shopping centres. The ambience, safety and security of shopping centres and community public spaces, albeit privately owned with the right of admission reserved, continue to encourage the South African ‘mall culture’. Safe, secure parking, entertainment, and convenience will continue to draw the driving public. In contrast, convenience, essential offerings (food, clothing, medical and public services, e.g., Post offices) and location (within walking or public transportation reach) will continue to draw the lower-income market to township, rural and transport hub shopping centres. Visible soft services, such as cleaning, hygiene and security continue to contribute to shopper satisfaction and attraction, leading to tenant attraction and retention. Capital investments in technology and other retail infrastructure must be at the appropriate level. Not all shopping centres are the same size, or have large enough marketing and promotional funds. Therefore marketing, shoppertainment and promotional activities that promote place-making and community involvement should be curated for the specific budget, location, trading area, tenant mix and shopper demography and income levels. The preceding interview responses are summarised in Table 28 below.

Table 28: Interview Responses: Reduced Demand for Retail Space

Input	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5
Challenges	Reduced demand for retail floor space	Reduced demand for retail floor space	Reduced demand for retail floor space	Reduced demand for retail floor space	Reduced demand for retail floor space
Impacts	Changing space demand, technological infrastructure, investment in internet technologies	Changing space configurations and demand	Changing space configurations and demand	Changing space configurations and demand	Changing space configurations and demand
Strategies	Customer focus, shoppertainment, community placemaking, and curated social media marketing. Flexible leasing	Location and market Curated leasing, marketing and promotions, including events.	Curated leasing and tenant mixes, marketing and promotions. Shoppertainment and experiential offerings.	Curated customer service, technology, e.g., parking payment systems and WIFI that works. Appropriate capital investments to adapt to change.	Curated leasing. The right tenants for the right space. Knowledge-based management and functional modern IT property management systems

Source: Author (2022)

6.2.5 Theme 5- Adapting to technology

As already seen from the responses given under the Changing Consumer behaviour theme, social media are a big influencer of shopping trends and behaviour in South Africa. While digital disruption in the form of e-commerce, online shopping, and omnichannel retailing is still developing, social media use has matured. As a result, it has a high level of penetration across all retail markets in South Africa. Social-Media use is heaviest amongst millennials and younger, but its influence transcends generations. By way of example, Millennials and younger generational cohorts may be more active on Instagram and TikTok, while older generations

are active on Facebook. However, a complaint or compliment may start on Twitter and spread to all platforms, influencing shoppers. Most shoppers consider it necessary for any legitimate business to have a social media presence for open customer interactions. This presents the challenge of shopping centres and retailers not only needing an online and e-commerce presence, but also a social media presence that is well curated, managed and promoted.

Modern business practices and customers demand digital transformation and systems, so that transactions and communication are flawless across multiple platforms, e.g., computers, smartphones or in-store. This customer demand calls for investments in digital infrastructure, such as fast internet connectivity, retailtech, shopper insights, sensors and technology, to allow shopper and business data analytics. A failure to adapt and leverage technology may lead to retail business failures that, in turn, lead to declining demand for store space. This declining demand for store space inevitably puts pressure on rental levels and, thus, income and property values. Declining property values inevitably result in a flight of capital from the asset class and a consequent decline in providing quality customer services. Such a situation was observed with the onset of the COVID-19 pandemic-induced lockdowns and trading restrictions in South Africa (beginning in March 2020). After the first six weeks of hard lockdown, e-commerce was allowed to resume. Those retailers who did not have an e-commerce platform quickly collapsed and closed down stores or had to make urgent investments into e-commerce infrastructure. Retail property landlords who were unprepared for this acceleration in e-commerce lost out on existing tenants and potential new tenants and retail formats to those who were prepared or could quickly adapt. Digital disruption was not the main contributor to declining earnings, withheld dividends and sharp declines in asset values, but it proved to be a contributor to how quickly retailers and shopping centres recovered or failed.

The consensus amongst research participants is that digital transformation or leveraging technology is essential because of the accelerating 4IR era and the unprecedented digitisation caused by COVID-19. E-commerce has never been more important in South Africa than in 2020. Remote working communications, logistics, deliveries, payment methods, and touchless and contactless technologies became crucial proverbially overnight. After the initial hard lockdown ended, there was a return to shopping centres, and trading densities were picking up, driven by the growth in omnichannel and e-commerce capabilities, such as click-and-collect. The post-pandemic shopper will likely retain the pandemic shopping habits in the medium term.

Although South African shoppers increasingly care about climate change and consider environmental, sustainability and governance (ESG) issues, these issues still do not feature prominently in purchasing decisions. Value hunting, that is, good quality at an affordable or matching price is still the key driver of purchasing decisions. Trends driven by social media influences play a significant role in creating demand, but the ability to purchase leads to actual transactions. Interviewees were in consensus, stating that leveraging technology that improves customer experiences, attracts shoppers, is easy to use; and it provides data and data analytical capabilities are essential. Furthermore, it is necessary for the long-term survival and thriving of the South African shopping centre industry.

However, what contributes to Landlord’s bottom lines but has no bearing on tenant retention or attraction and shoppers is green-shopping centres. Going green promotes the corporate image of Landlords. Some green or sustainability interventions, such as rainwater harvesting, boreholes, greywater recycling, solar power, and energy-efficient lighting contribute to lower operating costs, thereby further enhancing the property value beyond the capital spent on these initiatives. However, the current operating models of most Landlords are set up, such that cost savings from sustainable water and energy investments are not passed on to tenants. Instead, they are recovered from the tenants at standard utility costs, thereby contributing to the Landlords’ income with no financial savings to tenants. There is, therefore, no customer (neither tenant nor shopper) incentive to shop at a green shopping centre, as opposed to one that is not. Green-shopping centres and shopping centre retrofits are thus currently not seen as a practical means of counteracting digital disruption in retail, but rather as a means to improve property values, gain non-GLA income through tenant recoveries and counteract high municipal utility charges. Under pandemic conditions, hygiene technologies became very important. Thus, air filtration, water treatment, surface sanitization, and the continuous availability of clean running water and hand sanitisers in toilets and public mall areas took precedence over other operating cost expenditures.

Different shopping centres, locations and trading areas require curated and unique leveraging of technology, and there is no one-size-fits-all solution. Digitizing property management, leasing functions, social media marketing and online presence, and enabling shopper data capturing and analytics are the main technologies to invest in across the shopping centre hierarchy. In addition, omnichannel technology and infrastructure to support first-world retailtech, such as augmented reality (AR), may need curating; and it is more suited to larger formats and higher LSM centres than small format low LSM centres. The interview responses for this theme are summarised in Table 29.

Table 29: Interview Responses: Adapting to Technology

Input	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5
Challenges	Adapting to Technology	Adapting to Technology	Adapting to Technology	Adapting to Technology	Adapting to Technology
Impacts	Declining property values, increasing operating and utilities costs	Declining property values, increasing operating and utilities costs	Declining property values, increasing operating and utilities costs	Declining property values, increasing operating and utilities costs	Flight of capital
Strategies	Upskilling property managers for the digital age, investment in ITC systems, analytics, social media marketing	Leveraging existing and new technologies within the cost constraints and demography of the actual centre	Leveraging technology to improve customer satisfaction, data gathering and analysis	Leveraging technology to improve customer satisfaction, data gathering and analysis but curating it to actual centres	Investments in IT systems that work and allow for real-time analytics. Current Landlord and Managing agent IT systems “suck.”

Source: Author (2022)

6.3 Qualitative Phase Research Findings

The interviews of South African retail property experts revealed that the South African market still lags behind the developed world market in terms of the penetration and market share of e-commerce. Digital disruption is happening, but it is causing an evolution rather than a collapse of shopping centres. 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 state of the economy, the consumers declining disposable income and high and rising unemployment were worsened by the negative economic impact of the COVID-19 pandemic. This recessionary impact of the pandemic accelerated digital disruption, especially in the form of e-commerce and omnichannel retailing, which pose a long-term challenge to shopping centres. However, these challenges and their impacts are already being counteracted by counterstrategies within the industry. The collapse of some malls, similar to that seen in the USA over the last decade or two, is unlikely to occur in South Africa due to digital disruption or competition from e-commerce. The more significant threat to South African malls is the state of the economy and government. Digital disruption does, however, require a response, in order to survive the economic downturn and thrive in a post-pandemic world.

Among those challenges, impacts and strategies associated with digital disruption in retail that are highly relevant for the current South African retail property industry, as validated by the expert interviews, are:

6.3.1 Challenges:

- Changing Customer behaviour.
- Social-Media Influences upon customer behaviour,
- Online Shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity.
- Negligible but present e-commerce price competition.
- Omnichannel retailing - a move towards omnichannel becoming the retailing norm in South Africa has been accelerated by the COVID-19 pandemic.
- Reduced demand for retail floor-space.
- Adapting to technology (digital transformation)

6.3.2 Negative Impacts:

- Lease ambiguity on omnichannel retailing, e.g., Online sales not being captured with store turn-over.
- Obsolescence of certain Retailers or Merchandise category demise due to e-commerce price competition.
- Negative Social Media Interactions and the need for social media presence and modern communication skills.
- Increased pressure to invest in ICT systems and digital infrastructure, e.g., mall WIFI, capable and digital property management and proptech systems
- Reduced foot counts and trading densities in physical stores.

- Changing space configurations and reduced demand for retail space, resulting in a decrease in rental income and property devaluations, leading to a flight of capital from retail property.
- Increasing operating and utilities costs.

6.3.3 Counteractive Strategies:

- Curating tenant mixes; space reconfigurations.
- Repurposing excess retail space and increasing non-GLA income
- Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age.
- Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytical capabilities.
- Adopting Agile property-management systems and processes.
- Flexible Leasing and leases
- Curated marketing, promotions, social-media marketing, shoppertainment and place-making events.
- Customer and community focussed business practices, e.g., service profit chain implementation from soft services staff (e.g., security guards and cleaners) and store salespersons to Centre managers and Store Managers).

When used to validate the framework produced from the international literature (Table 21), the foregoing interview results produce a South African focused Challenge-Impact-Strategy framework, as depicted in Table 30. The same themes appear, but the content is contextualised and adjusted for the South African market.

Table 30: Validated Digital Disruption Framework for South African Shopping

Challenges imposed by digital disruption	Impacts of digital disruptions	Strategies that can be adopted
<p>Changing consumer behaviour</p> <p>Social Media Influences on customer behaviour</p> <p>Online Shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity</p>	<p>Decreased demand for space and thus increased vacancy rates</p> <p>Negative Social Media Interactions and a need for social media presence and modern communication skills.</p> <p>Reduced foot counts and trading densities in physical stores.</p>	<p>Customer and community-centric retail property business model</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytics capabilities</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand</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>
<p>Omnichannel retailing</p>	<p>Lease ambiguity on omnichannel</p> <p>Reduced foot counts and 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>Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age</p> <p>Adopting Agile property management systems and processes</p>
<p>Reduced retailer floor spaces and demand for space</p>	<p>Changing space configurations and reduced demand for retail space resulting in decreases in rental income and property devaluations, leading to the flight of capital from retail property.</p> <p>Increasing operating and utilities costs</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>Green initiatives to reduce operating costs</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>Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytics capabilities.</p> <p>Adopting Agile property management systems and processes</p>

Source: Author (2022)

In Table 30, various strategies can be employed and that they often overlap in counteracting the negative impacts caused by the challenges posed by digital disruption within the South African shopping-centre industry. The framework is quite similar to the one derived from the Literature review; and most of the adjustments are in terms of language choice and a more explicit focus on South Africa.

6.4 Conclusion

The subject under investigation in this research project is “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?”

To answer this question, it was necessary first to answer the associated research questions, which are:

1. What are the challenges and associated impacts accruing from digital disruption that threaten the viability of South African shopping centres?
2. What are the counteractive strategies/opportunities that can be adopted by the South African shopping-centre industry to counteract the threats posed by digital disruption?
3. How are the threats and strategies applicable across the hierarchy of South African shopping centres?

The associated research questions 1 and 2 were answered by using the desktop literature review and summarised in Tables 19 and 20. The literature review had a South African sway; but it but was international in nature; thus, it was necessary to bring the research into the South African context, which was done through the in-depth expert interviews presented in this chapter. The result is a South African-focused adjustment of the initial framework (Table 21), summarised in Table 30. What remains to be answered is the associated research question 3. Once this question has been answered, the research problem and the question will be answered fully. In order to do this, a survey of South African shopping centre managers, using a questionnaire derived from the validated framework (Table 30), is conducted. The survey constitutes the quantitative phase of the study; and it follows in the next chapter.

Chapter 7 – The Quantitative Phase: Analysis and Findings

7.1 Introduction

The penultimate phase of an exploratory sequential mixed-methods study involves the quantitative testing of the qualitative findings. To test the study's qualitative findings, the validated framework (Table 30) was used to develop a questionnaire that was then administered as an online survey (annexure D). Nine questions were posed in the survey questionnaire. As outlined in the research methodology, answers to questions 1 to 4 establish the classification of the shopping centres; and the answers to questions 5 to 8 answer the sub-questions of the research study. The multiple-choice answers in questions 5 to 8 are derived from the qualitative-phase framework (Table 30). The last question is an open-ended question that allows for any differing opinion, answer or theme from those already established in the research study thus far to be recorded. The survey was sent out to retail property managers listed in the SACSC 2019 directory, and 100 responses were received. The survey response data were exported to Microsoft Excel and analysed by using Microsoft Excel spreadsheet functions.

7.2 The Survey Responses/Results

A total of one hundred (100) survey responses were received. These need to be validated to ensure they were within the research study parameters. After validation, two responses were disqualified and deleted from the survey tool (Google Form). These were disqualified as the stated geographic location was outside South Africa, i.e., Namibia. The survey respondents who chose not to participate did not open the survey; thus, the survey results show 100% consent to participate, as evidenced in Figure 37, which is an image of the answers to the questions on the survey consent page. Figure 37 proves that all those who chose to participate consented.

I hereby agree and give my informed consent to participate in the research survey.
98 responses

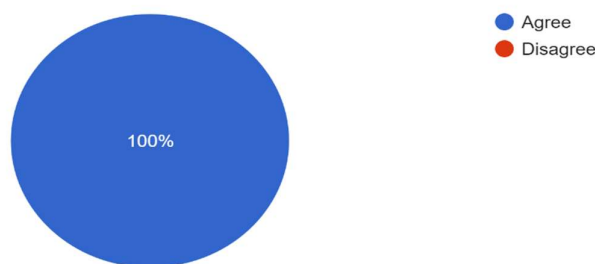


Figure 38: 100% of Participants gave their Informed Consent

The survey was administered to shopping centre/retail property managers across the hierarchy of South African planned shopping centres. The hierarchy used in this study is derived from shopping centre classification by size and function. The 98 valid responses represented the hierarchy of shopping centres, as follows:

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

- 6% represent Convenience centres (GLA 500-5000m²).
- 24% represent Neighbourhood Centres (GLA 5000-12000m²).
- 33% represent Community Centres (GLA 12000-25000m²).
- 20% represent Small-Regional Centres (GLA 25000-50000m²).
- 11% represent Regional Centres (GLA 50000-100000m²).
- 6% represent Super-Regional Centres (GLA>100000m²).

The above distribution of responses across the hierarchy of South African shopping centres is illustrated in the pie chart below.

Planned shopping centres in South Africa can be classified using a hierarchical classification by size and function, as listed below. What is your type of shopping centre by size (GLA)?
98 Responses

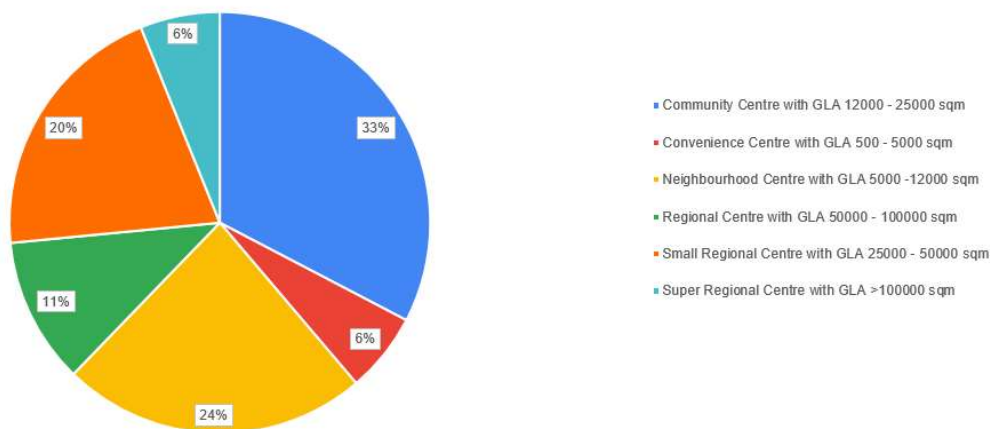


Figure 39: Survey Responses by Shopping Centre Classification

The geographical location of the shopping centres represented by the responses mirrors the economic and urbanisation landscape of South Africa. This conclusion is deduced from the provincial location of each shopping centre as follows:

- Approximately 40% of the responses were for Gauteng Shopping centres. Gauteng is the most urbanised province. It has the smallest land area; but it contains three Metropolitan areas with the highest GDP and population in South Africa (StatsSA, 2011).
- 18% of the responses came from the Western Cape and 20% from Kwazulu-Natal, representing the second and third largest metropolitan/urban areas and economies, respectively (StatsSA, 2011).
- Mpumalanga accounted for 8% of the responses, Limpopo 6%, the Eastern Cape 3%; the Northwest 3%; the Frees-State 2% and no responses from the Northern Cape. Ironically the Northern Cape is the largest province by land area, but the most sparsely populated; and it consists mainly of a semi-arid and desert landscape.

From this geographic distribution of the responses received, it is clear that the research study covers most of the country and the majority of the population centres. The responses per province are illustrated in the pie chart shown in Figure 39.

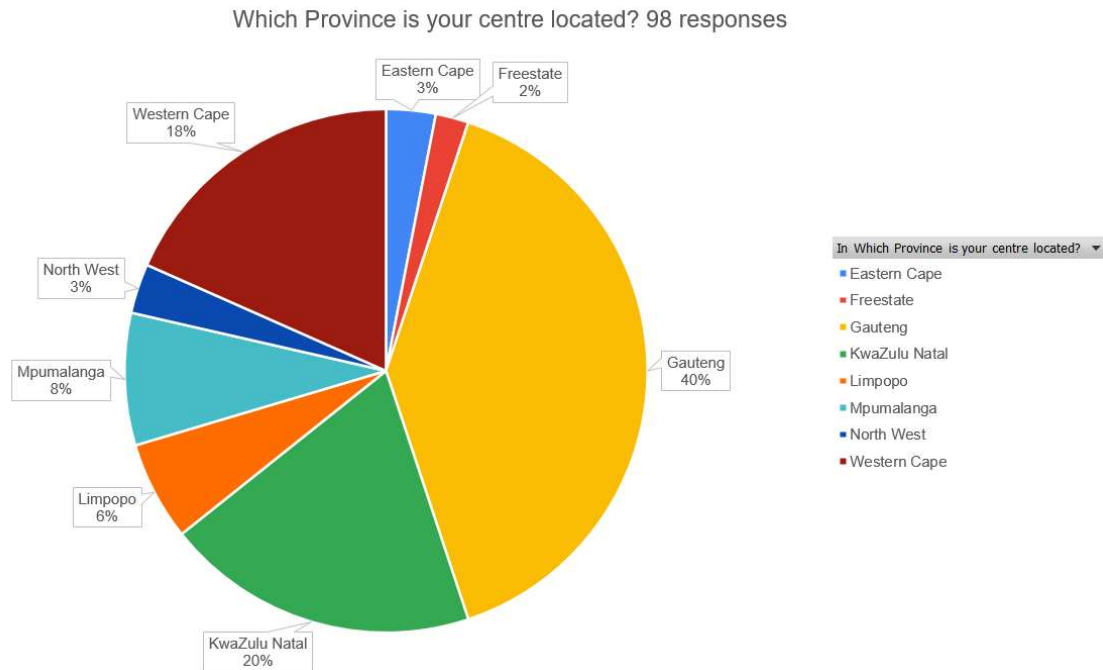


Figure 40: Provincial Distribution of Survey Responses

The survey responses, when classified, according to the geographic categories used to classify shopping centre locations in South Africa, are distributed as follows:

- 3% Metropolitan CBD
- 29% Metropolitan Suburb
- 10% Metropolitan Township
- 5% City CBD
- 16% City Suburban
- 1% City Township
- 10% Town Centre
- 12% Town Suburbs
- 5% Townships
- 9% Rural Areas

One response was classified under holiday resort by the survey participant. However, when validating the responses, the researcher concluded that the location is a rural area of the Eastern Cape, and this reclassified the survey response.

A further measure of shopping centre classification is the income level of the shopping centre's trading area. Therefore, the survey also asked participants to classify the income levels of their shopping centre's trading area, based on the Living Standard Measure (LSM). The defined LSM measures used in the survey have responses distributed, as illustrated in Figure 40.

What is the living standard measure (LSM) by income level (per month) in your centre's trading area/location? 98 responses

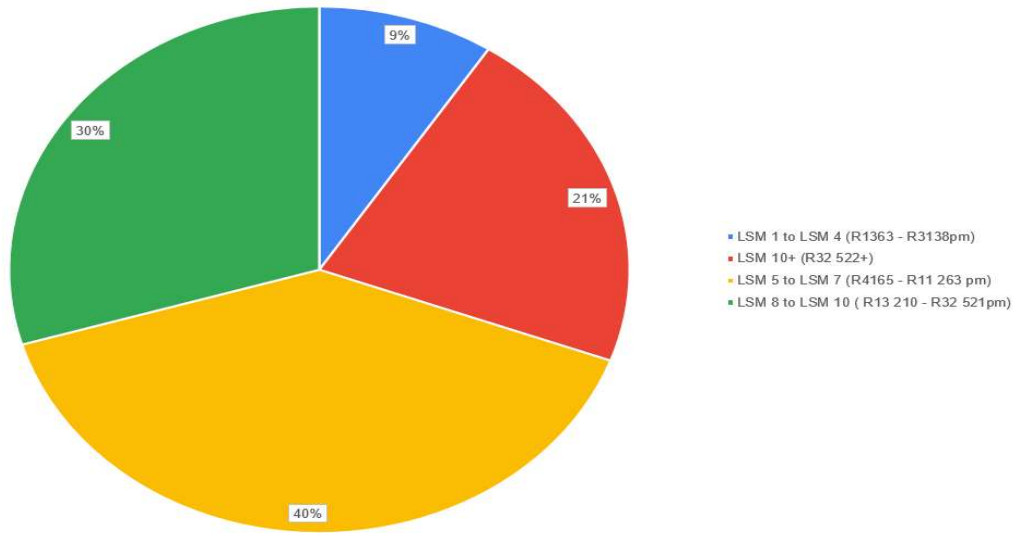


Figure 41: Responses by LSM (income level) of Shopping Centre Trading Area

Figure 40 above indicates that the majority (40%) of the responses came from shopping centres located in middle-income areas (LSM5 to 7), 30% from High-Income areas (LSM 8-10), and 21% from the highest-income areas (LSM10+); while a minority of 9% came from shopping centres located in low-income areas (LSM1-4). This spread of income levels mirrors the provincial spread of shopping centres (the majority in metropolitan suburbs in the wealthiest provinces) in South Africa. Planned shopping centres are the focus of the research study; and they generally aim for trading areas that can support their tenants. As we saw in chapter 2, higher LSM trading areas mean that shopping centres can be supported by fewer households; and these are therefore preferable for investors and developers (Prinsloo, 2016).

To the survey question, “what are the challenges posed by digital disruption in your shopping centre?”, the majority of responses indicate that the top 3 challenges are, changing customer (shopper) behaviour followed by online shopping behaviours induced by the COVID-19 pandemic and a reduced demand for retail floor space. The survey responses are distributed across the identified challenges, as illustrated below.

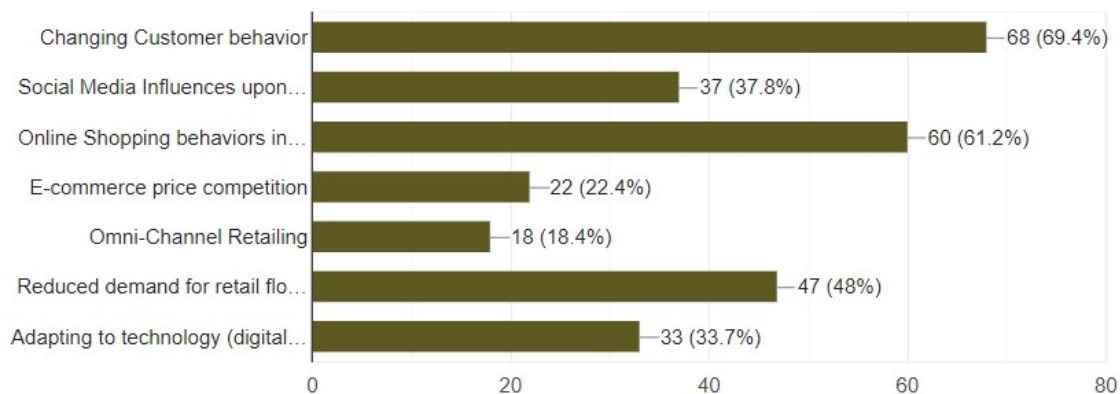


Figure 42: Survey Responses-Challenges posed by Digital Disruption

The survey responses indicated that at an aggregate level, South African retail property managers are of the opinion that the most prevalent impact of the challenges posed by digital disruption on the shopping centres they manage are reduced foot counts and trading densities in physical stores, followed by changing space configurations coupled with reduced demand for retail space and increased operating and utility costs. However, the rest of the impacts identified in the qualitative phase of this study are less prevalent, according to the survey responses, as illustrated in Figure 42 below.

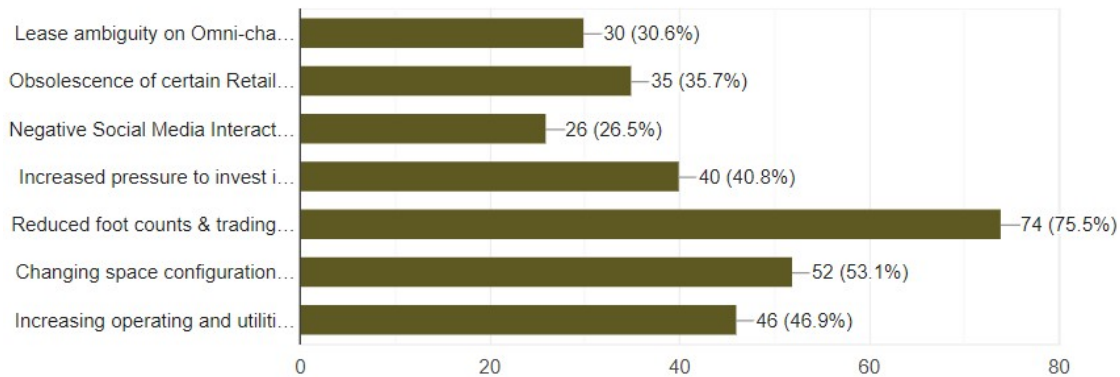


Figure 43: Survey Responses- Impacts of the Challenges Posed by Digital Disruption

According to the survey responses, at an aggregate level, the most popular coping strategies that shopping centres are adopting to counteract the negative impacts of digital disruption in retail are curating tenant mixes, flexible leasing and customer and community focused business practices, respectively. The survey responses in this regard are illustrated below.

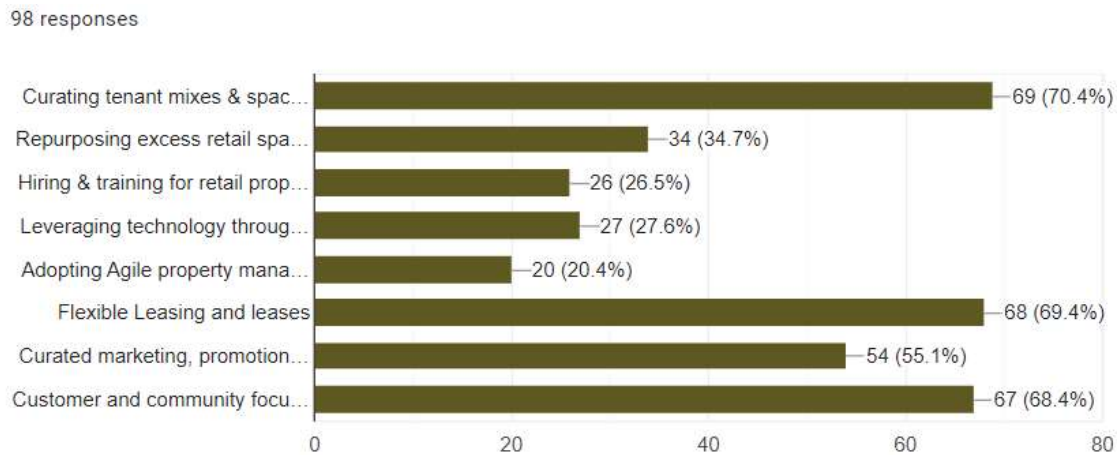


Figure 44:: Survey Responses - Strategies to Counteract the Impacts of Digital Disruption on Retail Property

The study's qualitative phase led to findings summarised in a validated framework with five main themes, in which digital disruption's challenges, impacts and strategies interact. The survey asked the participants to rank the themes in the order of magnitude from the highest to the lowest impact/importance on each shopping centre they manage. The majority opinion of

South African retail property managers, according to the survey results, ranks the themes as follows:

- First- Theme 1- Changing Customer Behaviour
- Second- Theme 4- Reduced retailer floor spaces and demand for space
- Third- Theme 5- Adapting to technology
- Fourth-Theme 3- Omnichannel Retailing
- Fifth-Theme 2- Increased Retail Competition

Out of 98 responses received, only 17 included additional thoughts regarding challenges, impacts and counteractive strategies involved with digital disruption in the South African shopping-centre industry. These additional opinions were provided in answer to question 9 of the survey questionnaire, which asked, “Are there any other challenges/impacts and strategies to counteract them that are encountered/anticipated at the shopping centre, as a result of digital disruption, which are not included above?”. The analysis of the responses reveals that there are no new themes or challenges, impacts and strategies that have not already been summarised in the research study thus far. Most of the responses to this last question tend to reinforce the findings, while others raise issues and concerns outside the scope of the study. Below is a summary of the analysis of these responses to question 9.

Group 1 Socio-Economic Issues (outside the scope of the study):

- Minimal delivery options are available in the area, as it is high risk.
- “Unemployment, Gangs, Drug Use and Abuse”
- “Crime, construction mafia, lack of services by govt, corruption in local councils.”

Two responses highlighted the socio-economic issues that are largely a result of economic stagnation over the last decade to 2019 (Loos, 2019), which the COVID-19 pandemic has exacerbated during the period that the study was conducted. At the beginning of the study, unemployment was already very high and sat at 29%, and by Q4 2021, it sat at 35.3%, according to Statistics South Africa (StatsSA). In addition, during the pandemic, political and economic distress fuelled rioting and looting that targeted shopping centres, especially in the low-income areas of KwaZulu Natal and Gauteng, in July 2021 (News 24, 2021).

Group 2 Operational Issues (Outside the scope of the study):

Various responses pointed to the issues faced by shopping centres in providing for online deliveries, especially food-delivery services run by external courier services, such as Mr Delivery and Uber eats, as quoted below:

- “The mall is swamped with Uber and Mr delivery drivers. This increases risk and the occurrence of theft and crime.”
- “Other operational issues that we experience is with the food-delivery operators whose staff are not always sticking to the rules of the centre, where they wait in large groups at entrances for food orders, or they drive illegally with their motorcycles. It is an ongoing management process. I also understand that their fees to restaurant owners

are quite high, but obviously still worth it; otherwise, restaurants would have already started their own delivery services.”

Group 3 Observations within the scope of the study (easily classified within the findings thus far):

The rest of the survey responses to question 9 mostly pointed out observations regarding omnichannel retail challenges and opportunities and COVID-19-induced costs (e.g., provision of hand sanitisers) and supported the findings of the expert interviews. No new or additional challenges, impacts or counteractive strategies to digital disruption in the retail property industry were identified. Some of the responses are quoted below:

COVID-19-induced changes - “We are fortunate that we do not have any vacancies, and those that came as a result of COVID-19 were quickly filled with quality retailers. We were required to make considerable rental concessions during 2020 (and in some cases, we still assist where needed), which is why we are currently fully let.”

COVID-19-induced changes- “Automatic sanitising in malls through the HVAC system.”
Customer Focus and marketing Initiatives - “Ongoing marketing initiatives driving foot traffic to the centre is our main priority. We find that incentives work well (like a loyalty system where customers receive a gift when they make purchases up to a certain value). We also have parking incentives for shoppers listed on our database. For the past two years, a solid shopper database has been extremely valuable to many shopping centres.”

Adapting to omnichannel retail- “We are actively engaging with online retailers to accommodate them by building distribution/collection centres at our centres. The township market currently still struggles with not having physical addresses for delivery; secondly, the online retailers are still concerned about safety (delivery), and if we can create a distribution/collection point within the centre, the customer would still visit your centre.”
Adapting to omnichannel retail- “Creating Click and Collect facilities at Malls, thereby encouraging shopper visits.”

Adapting to omnichannel retail and the halo effect of physical stores- “We opened the very first brick and mortar shop of a well-known on-line only retailer, and we have recently been approached by another on-line only retailer to open a brick-and-mortar shop in the centre. I think that online retailers realise that people tend to increase their basket size when they are inside a shop, being exposed to more products, as opposed to online, where they might only purchase specific items. Furthermore, I was told by the retailer that their shop at our centre has the highest collections of online purchases of all their shops. Finally, it was interesting to me that people were still prepared to collect an item from the shop, as opposed to having it delivered, which proves my theory that people still like to come into a shop for the experience, which is non-existent in an online sale.”

Low impact of digital disruption in low-income areas (digital divide) - “South African shopping centres cannot be studied without considering the number and popularity of township and rural shopping centres. Access to smartphones / fast internet remains a hurdle to true digital disruption in this environment. To this end, I believe the widespread adoption of e-commerce, as a real competitor to brick-and-mortar in South Africa, is lagging the rest of the

developed world by at least 5-10 years. In addition, disruption to Convenience centres will be mitigated as current e-commerce logistics deliver and therefore compete with customers' immediate need for daily groceries and other goods.”

Low impact of digital disruption in low-income areas (digital divide)- “There have not been any visible effects of technology to the centre in terms of customer behaviour changes. Customers still frequent the centre, and the demand for floor space has not changed much. There is very little effect at this stage. This could be due to the type of market that the centre is serving.”

The survey results thus far validate the findings of the qualitative phase of the study in that no new theory, challenge, impact or strategy were revealed, but instead, the findings have been reinforced. As already alluded to in chapter 5, this means that the research sub-questions have all been answered except for whether the challenges, impacts and strategies present similarly or variably across the hierarchy of South African planned shopping centres. In order to answer this question, the survey results need to be further analysed by shopping centre category. The survey responses were thus sorted by shopping centre categories, and the answers to the questions are presented in the next section.

7.3 The Survey Results across the Hierarchy of South African Shopping Centres

The shopping centre classification used in this study is the classification by size and function (see Chapter 2). In addition, the majority opinion is used to rank the responses in each category of shopping centres, i.e., the higher the count of responses choosing a particular answer, the higher the ranking thereof.

The analysis was done from the smallest class of shopping centres to the highest, and the results are presented below.

7.3.1 Convenience Centres (GLA 500-5000m²)

There were only six (6) responses to the survey from shopping centres classified as Convenience centres. The majority of these are from Gauteng Province and the Western Cape, with the provincial distribution of responses being as follows:

- Gauteng- 33%
- The Western Cape- 33%
- Limpopo- 17%
- KwaZulu Natal- 17%

There were no responses from any of the remaining five provinces. Each of the six responses originated from a distinct geographic-location category, even where centres are located in the same province. The distribution of the responses across the geographic-location categories is one (1) centre, each located in a:

- Metropolitan CBD
- Metropolitan Township
- City CBD
- City Suburban

- Town Centre
- Town Suburb

These locations imply high population-density locations with low-to middle income. This implication is verified by the responses regarding the income levels (LSM) of the Convenience centre locations. The responses present the income levels as 33% in LSM, 1-4 (low income) and 67% in LSM 5-7 (middle income) trading areas, as illustrated in Figure 44 below.

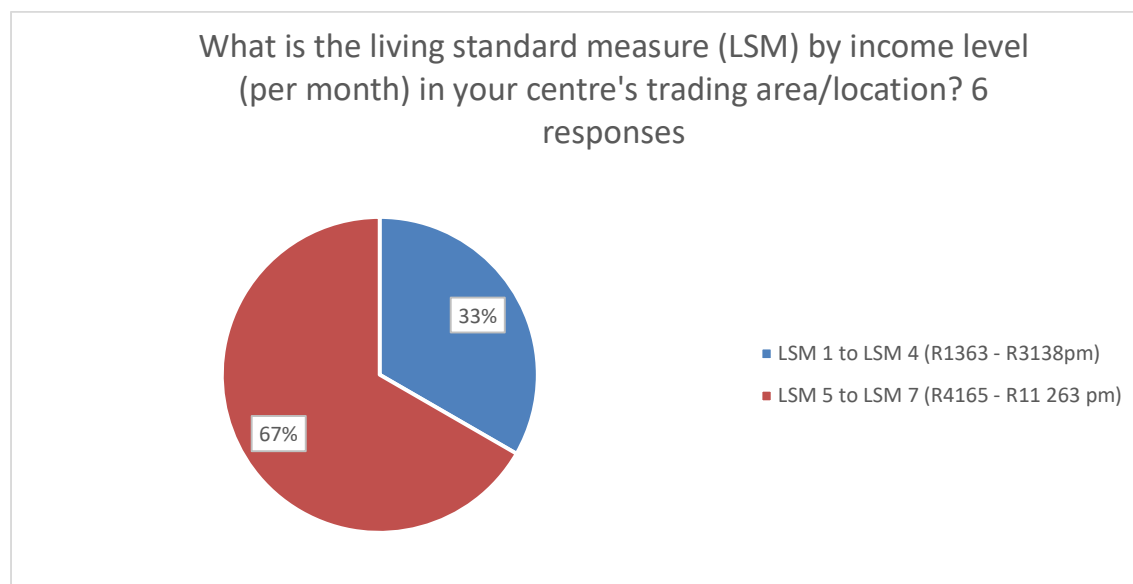


Figure 45: Convenience Centre Responses- Income level of Trading Area

Given these location characteristics, it can be expected that a lower degree of or less direct impact from digital disruption is experienced by the Convenience centres that participated in this study.

The results show that the highest-ranked digital disruption-induced challenge amongst this cohort of Convenience centres is COVID-19 pandemic-induced rather than purely digital disruption. This observation validates the finding that the COVID-19 pandemic has accelerated digital disruption in retail property, at least during the pandemic. Regarding Convenience centres, the challenges rank as follows:

- Online shopping behaviours induced by the COVID-19 pandemic.
- Changing customer behaviour.
- Reduced demand for retail floor space jointly with Adapting to technology.
- E-commerce price competition, jointly with the social media, influences upon customer behaviour.

The ranking of challenges according to the survey responses is visually depicted in Figure 45.

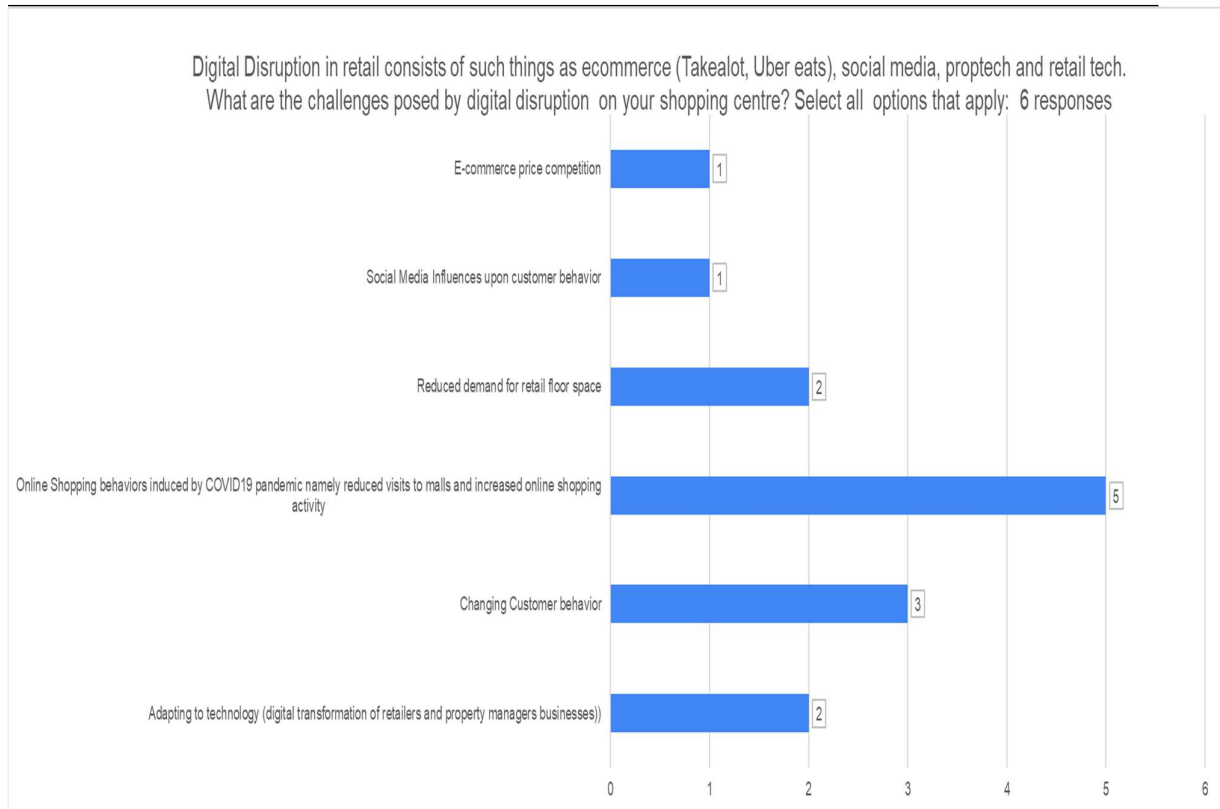


Figure 46: Convenience Centre Responses - Challenges induced by Digital Disruption

The consequences/impacts of the challenges posed by digital disruption in Convenience centres ranked as follows:

- Reduced foot counts and trading densities in physical stores
- Increasing operating and utility costs
- Changing space configurations jointly with the Obsolescence of certain retailers or merchandise categories
- Negative Social Media interactions and a need for Social Media presence and modern communication skills.

The rankings are illustrated in Figure 46.

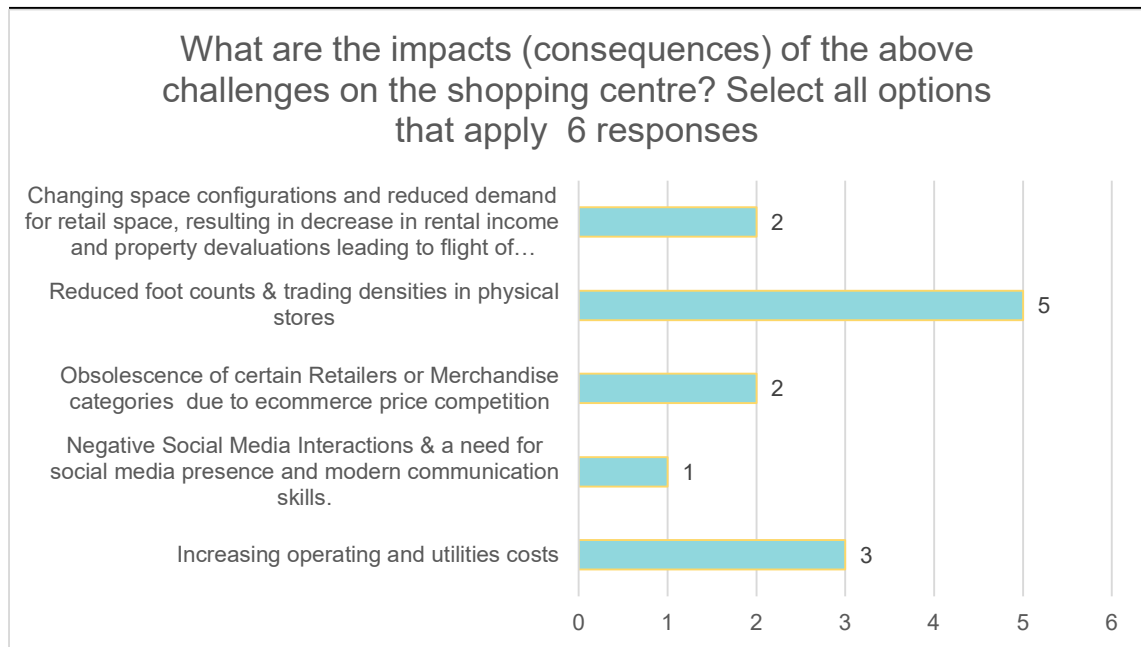


Figure 47: Convenience Centre Responses- Impacts of Digital Disruption

The managers of Convenience centres, responses rank the coping strategies being adopted or that can be adopted to counteract the impact of digital disruption as follows:

- Customer and community focused business practices
- Flexible leasing and leases jointly with Curated marketing
- Repurposing excess retail space
- All the remaining identified strategies were ranked last.

The responses are illustrated in Figure 47, below

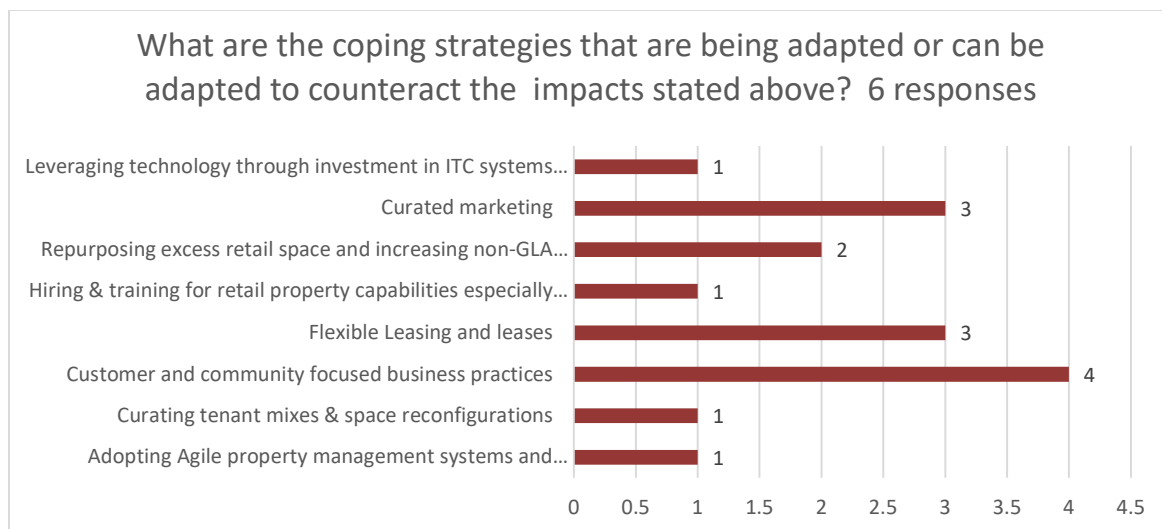


Figure 48: Convenience Centres- Strategies to Counteract Digital Disruption

From this presentation of the results regarding Convenience centres, we proceed to the Neighbourhood centres.

7.3.2 Neighbourhood Centres (GLA 5000-12000m²)

Twenty-three (23) responses to the survey were from shopping centres classified as Neighbourhood centres. The majority of these were from Gauteng Province 39% and the rest were distributed as follows:

- KwaZulu-Natal- 31%
- The Western Cape- 9%
- Mpumalanga- 9%
- Limpopo- 4%
- The Eastern Cape- 4%
- The Free State- 4%

There were no responses from the North-West and Northern Cape provinces. The geographic location categories represented by Neighbourhood centre responses are illustrated in Figure 48 below, where the majority originated from Metropolitan suburbs, followed by rural areas.

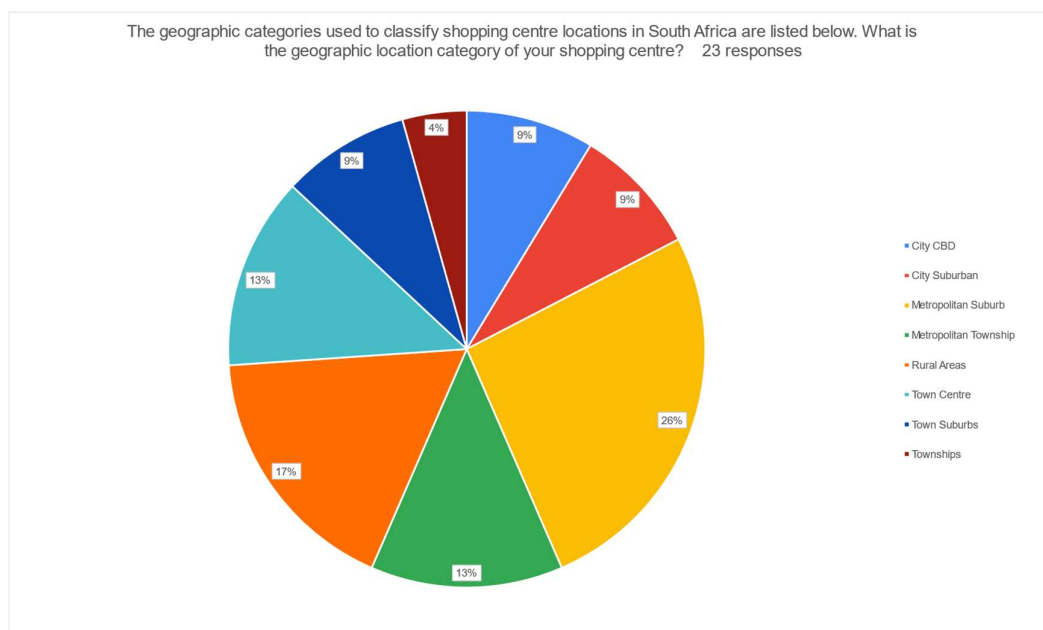


Figure 49: Neighbourhood Centre responses - Geographic Location Categories

The majority (43%) of the Neighbourhood shopping centres that participated in the survey are in middle-income (LSM 5-7) areas. The remaining 22% are in high-income (LSM 8-10), and a further 22% are in the highest-income (LSM10+) trading areas. This distribution is consistent with the income distribution of the provincial locations and geographic location categories, namely Gauteng and metropolitan suburbs, respectively, where most responses came from. The least number of responses (13%) came from centres located in low-income areas (LSM 1-4). It can be deduced from these characteristics that a higher degree of digital disruption can be expected across the Neighbourhood centre responses than from those for Convenience centres.

The challenges faced by Neighbourhood centres have all been found to mirror those derived from the empirical findings of the qualitative phase of the study (expert interviews), as depicted in Table 30. By using the majority opinion, as a means of determining the ranking (importance) of each challenge induced by digital disruption upon Neighbourhood centres, the results present as follows:

1. Changing Customer behaviour
2. Online shopping induced by the COVID-19 pandemic and the reduced demand for retail floor space (jointly second)
3. Social Media Influences upon customer behaviour
4. Adapting to technology
5. Omnichannel retailing
6. E-commerce price competition.

These results are visually illustrated in Figure 49 below:

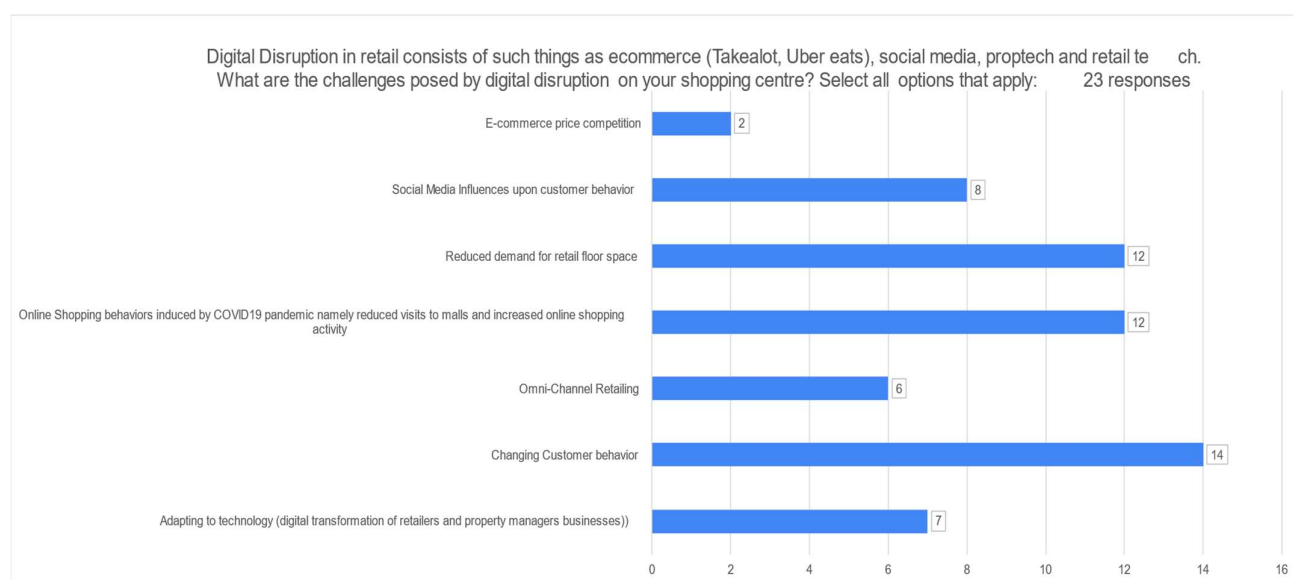


Figure 50: Neighbourhood Centres- Challenges Induced by Digital Disruption

The impacts or consequences of the above-stated challenges induced by digital disruption in retail on Neighbourhood centres are the same as those derived from Table 30, however by using majority opinion, they rank as follows:

1. Reduced foot counts and trading densities in physical stores.
2. Changing space configurations and reduced demand for retail space.
3. Jointly third- Obsolescence of certain retailers or merchandise categories due to e-commerce price competition and increasing operating and utilities costs.
4. All other impacts are jointly ranked last (4th).

The foregoing is visually illustrated in Figure 50.

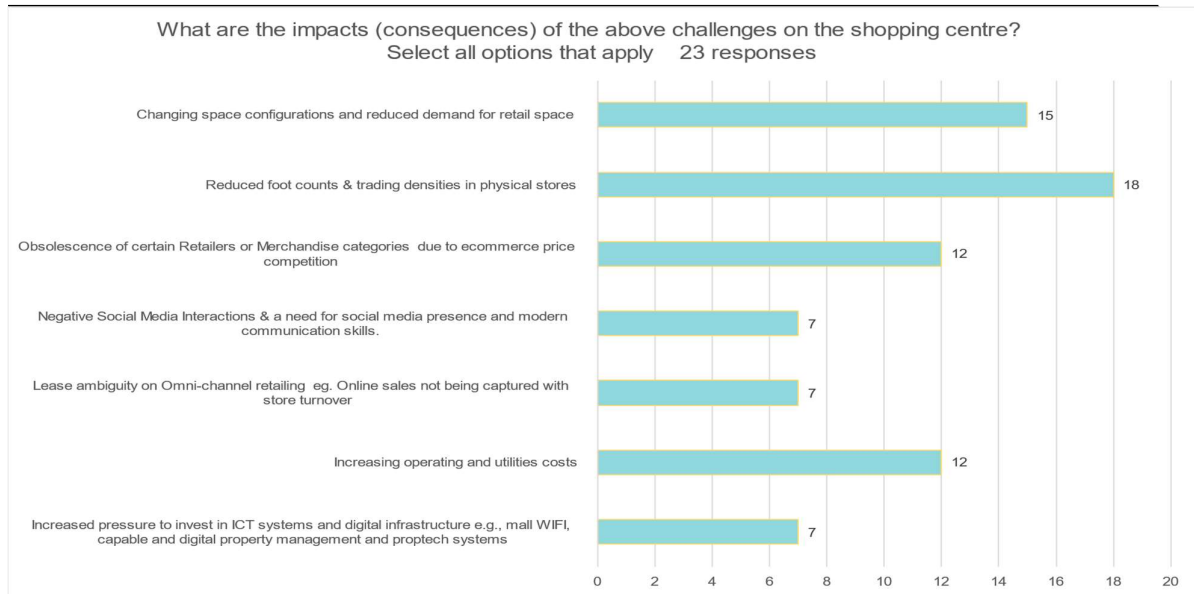


Figure 51: Neighbourhood Centres- Impacts of Digital Disruption

According to the survey responses, South African Neighbourhood centres are adopting, or would adopt all the coping strategies found in the qualitative phase of this study, in order to counteract the negative impacts of digital disruption in retail property. They, however, by majority vote, rank the strategies as follows:

1. Flexible leasing and leases jointly with customer and community-focused business practices.
2. Curating tenant mixes and space reconfigurations.
3. Curated marketing.
4. Repurposing excess retail space jointly with hiring and training for retail property capabilities.
5. Leveraging technology jointly by adopting agile property management.

The distribution of the preceding responses is visually illustrated in Figure 51.

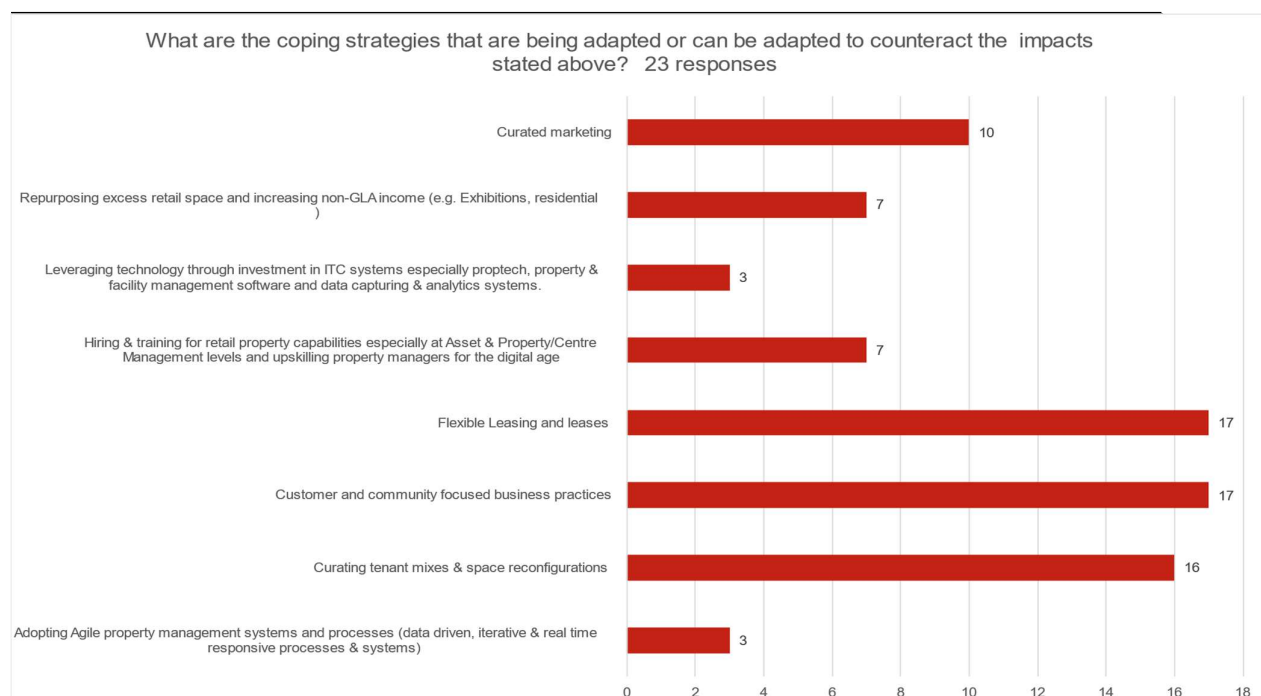


Figure 52: Neighbourhood Centres - Strategies to Counteract Digital Disruption

Community centres are the subject of the next sub-section.

7.3.3 Community Centres (GLA 12000-25000m²)

There were 32 survey responses received from shopping centres classified as Community centres in South Africa. The Community centres are located across all eight provinces, from which responses were received (no responses were received from the Northern Cape), and the majority were from Gauteng Province. The Community-centre responses in this study came from shopping centres located in the following provinces:

- Gauteng- 41%
- Western Cape- 13%
- Mpumalanga- 13%
- KwaZulu Natal- 12%
- Limpopo- 9%
- North-West- 6%
- Eastern Cape- 3%
- Free-state- 3%

The distribution is illustrated in Figure 52.

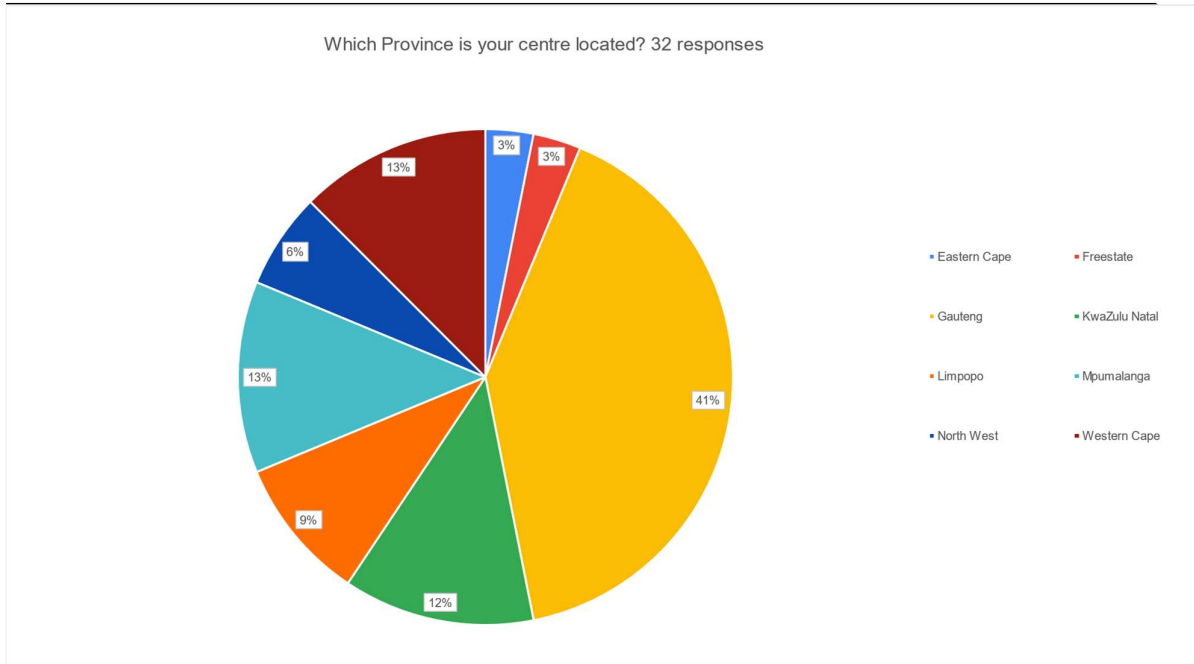


Figure 53: Community Centre Responses- Provincial Locations

Most (31%) of the shopping centres are in the Metropolitan suburbs. On the other hand, most (60%) of the Community centres are in the suburban areas of metropolises, cities and towns across South Africa, implying that their trading areas are the media to high incomes. This is borne out by the survey responses that showed that 97% of the centres' trading areas are classified as medium to highest income (LSM 5-10+), thereby validating the classification by size and function (Community centre) given by the respondents. The forgoing is visually illustrated below. The geographic location categories represented are illustrated in Figure 53, while the income levels (LSM levels) are illustrated in Figure 54 below.

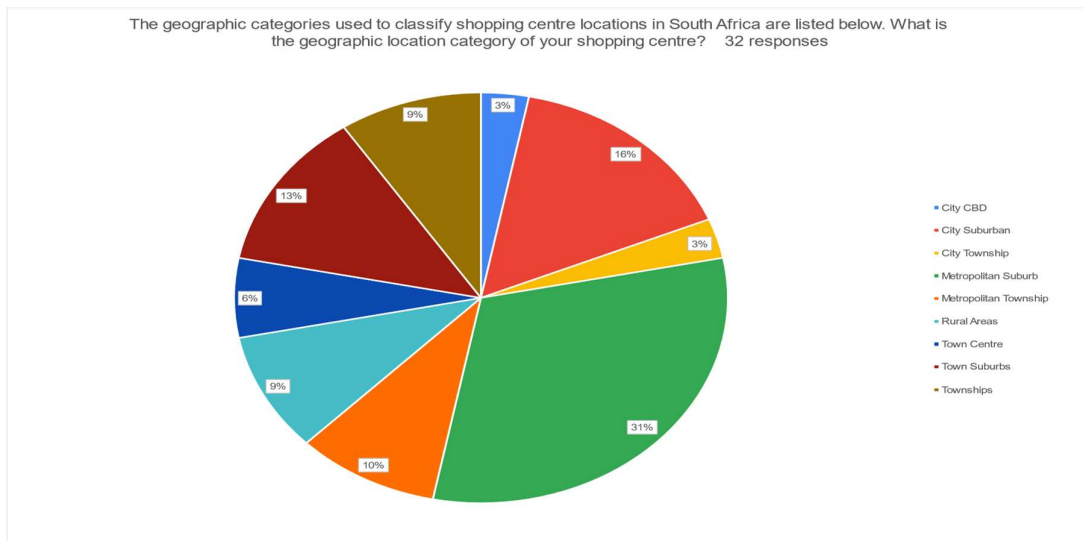


Figure 54: Community Centre responses- Geographic-Location Categories

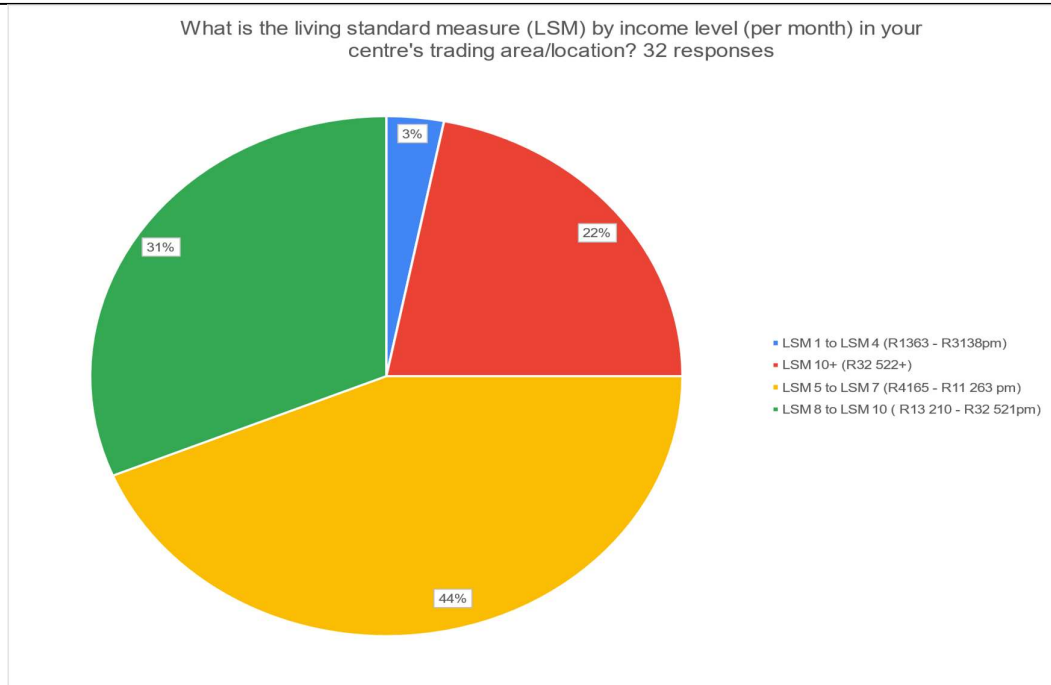


Figure 55: Community Centre Responses- Income levels of Trading Areas

According to Prinsloo (2015), income levels are directly correlated to the adoption of online shopping; therefore, it can thus be inferred from the preceding characteristics of the sample Community centres that a degree of direct digital disruption is being experienced in these centres. Furthermore, the inference is valid in the survey responses received regarding challenges, impacts and strategies experienced in Community centres.

According to the survey responses, the digital disruption-induced challenges experienced by Community centres in South Africa are ranked as follows:

1. Changing customer behaviour.
2. Online shopping behaviours induced by the COVID-19 pandemic.
3. Reduced demand for retail floor space.
4. Adapting to technology.
5. Social media influences upon customer behaviour.
6. E-commerce price competition.
7. Omnichannel retailing.

The response distribution thereof is illustrated in Figure 55.

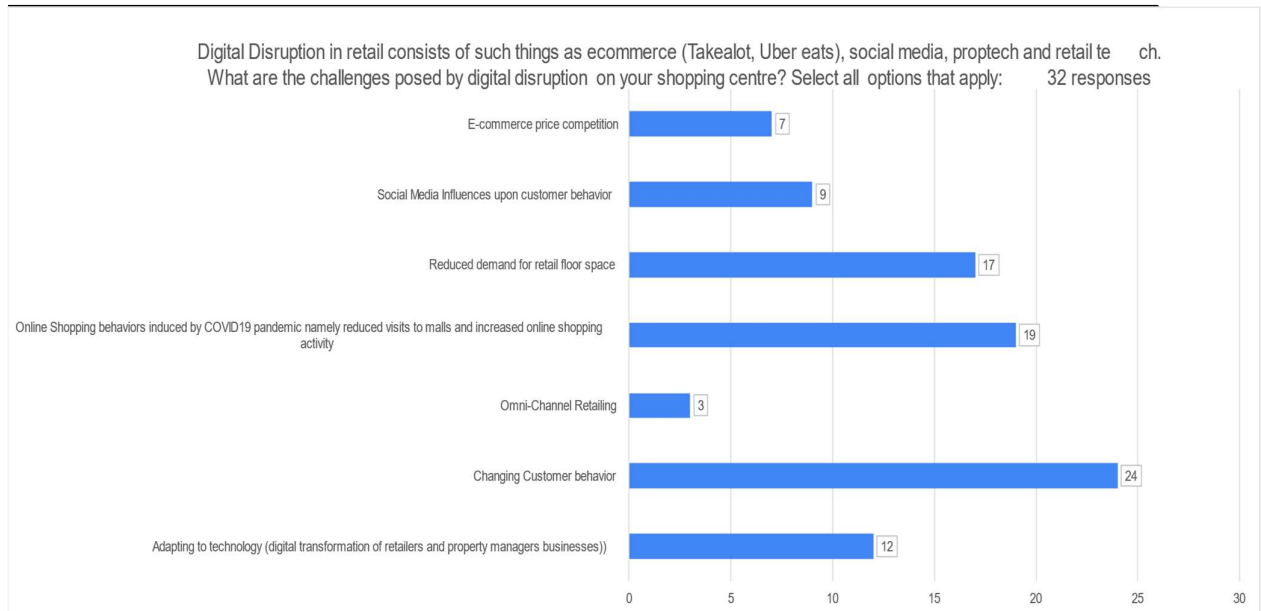


Figure 56: Community Centre Responses- Challenges induced by Digital Disruption

The survey ranks the resulting impacts of these challenges within the Community centre class of South African shopping centres as follows:

1. Reduced foot counts and trading densities.
2. Changing space configurations and reduced demand from retail space,
3. Increasing operating and utility costs.
4. Increased pressure to invest in ICT systems and digital infrastructure,
5. Obsolescence of certain Retailers and Merchandise categories,
6. Negative Social media interactions jointly with Lease ambiguity on omnichannel retailing.

The survey responses regarding the impacts of digital disruption are illustrated in Figure 56.

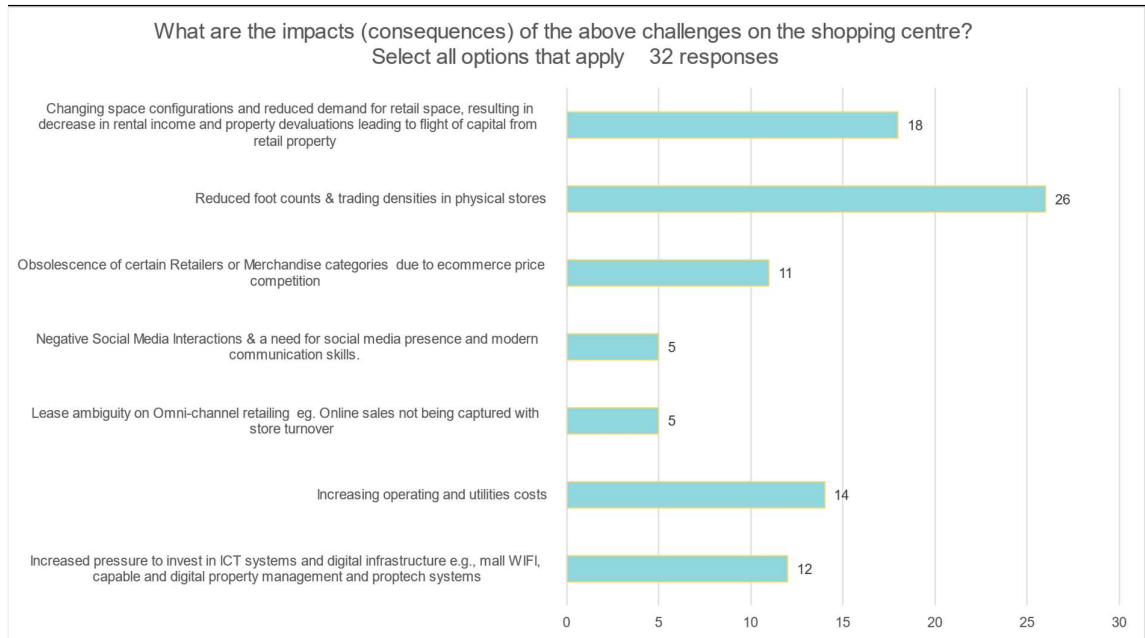


Figure 57: Community Centre Responses- Impacts of Digital Disruption

The coping strategies adopted by Community centres to counteract the negative impacts of digital disruption can be ranked as follows and as illustrated in Figure 57.

1. Curating tenant mixes and space reconfigurations
2. Flexible leasing and leases
3. Curated marketing
4. Customer and community-focused business practices
5. Leveraging Technology
6. Repurposing excess retail space
7. Hiring and training for retail-property capabilities jointly with Adopting Agile property management.

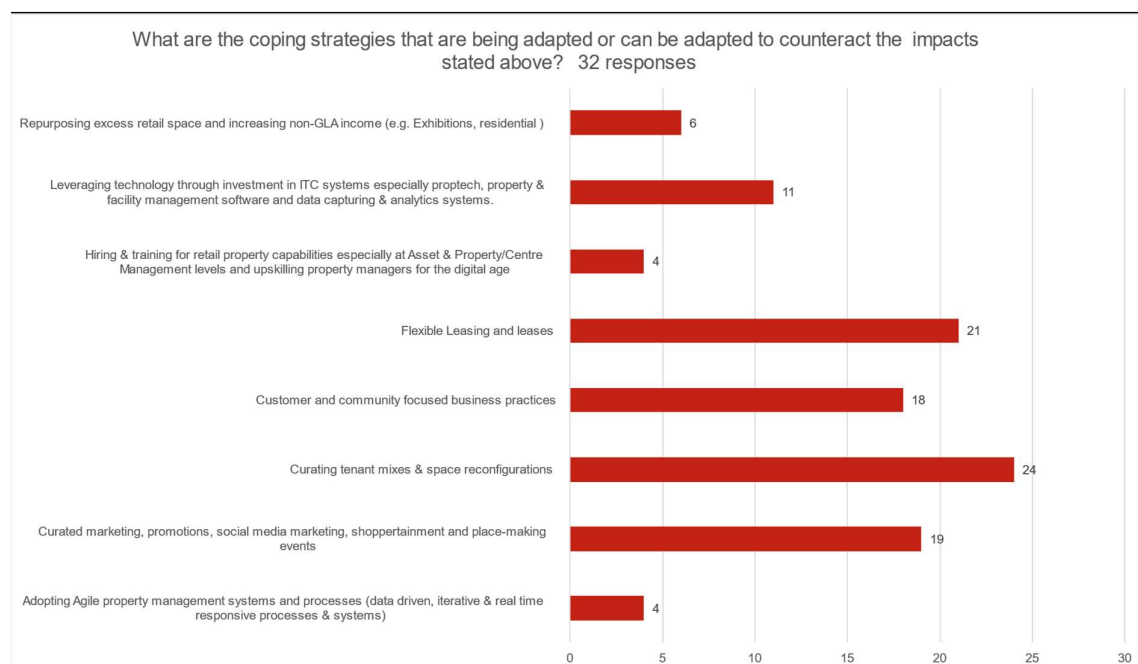


Figure 58: Community-Centre Responses- Strategies to Counteract Digital Disruption

In the following subsection, we move along the hierarchy to Small-Regional centres.

7.3.4 Small-Regional Centres (GLA 25000-50000m²)

The research survey received 20 responses from the Small-Regional centre class of shopping centres. Most of the responses were for centres located in the major metropolitan provinces of Gauteng, the Western cape and KwaZulu Natal. Except for Limpopo, no responses in this class were received from the rural, mining and agrarian inland provinces. The provincial distribution of responses was as follows:

- Gauteng- 40%
- Western Cape- 40%
- KwaZulu Natal- 10%
- Limpopo and the Eastern Cape- 5%

The geographic locations and income levels of the trading areas of this cohort of Small-Regional centres should indicate medium to high LSM, with a minority of low-income/LSM locations. This is the expected income-level distribution because Small-Regional centres support a broader area that frequently includes other smaller classes of shopping centres in urbanised areas. At the same time, they may be the main shopping centre in small provincial towns and rural areas.

From the survey results, it is clear that 85% of the Small-Regional centres in this study are in the suburban areas of metropolises, cities and towns, as expected from the provincial profile, size and functional characteristics. Furthermore, the income levels of the trading areas are distributed across all the identified income levels, with 85% being in the middle to highest

income levels (LSM 5-10+) and only 15% being in low-income areas (LSM1-4). These features are illustrated in Figures 58 and 59, respectively.

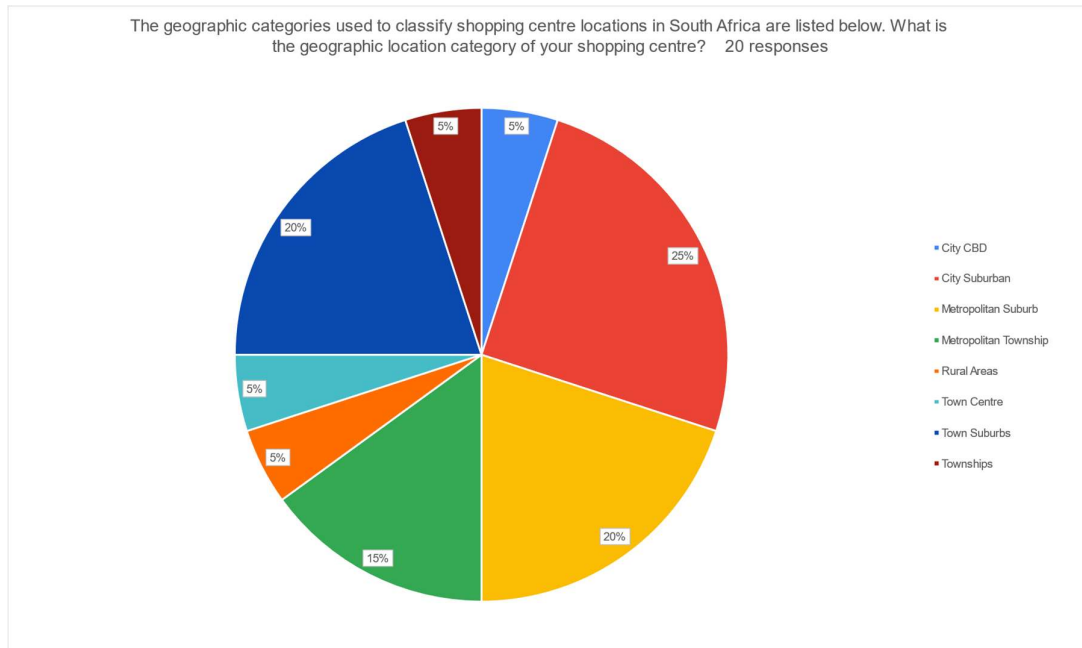


Figure 59: Small-Regional Centre Responses- Geographic Location Categories

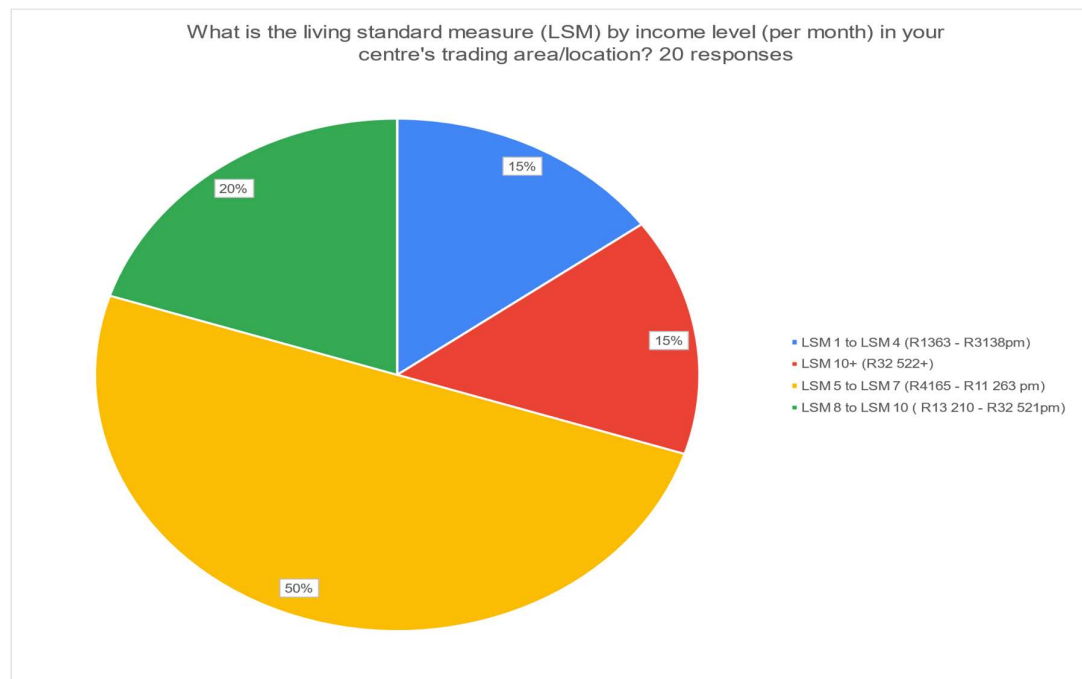


Figure 60: Small-Regional Centre Responses- Income Levels of Trading Areas

The twenty responses within the Small-Regional centre classification indicated that all challenges, impacts and strategies already identified are relevant to this class of centres (every option received a vote/selection). The selections, when ranked by majority vote, yield the following rank distributions, as illustrated in Figures 60, 61 and 62:

a) Small-Regional Centre Challenges (see Figure 60):

1. Changing Customer behaviour.
2. Reduced demand for retail floor space jointly with Online shopping behaviours induced by the COVID-19 pandemic.
3. Social Media influences upon customer behaviour.
4. E-commerce price competition.
5. Omnichannel retailing jointly with Adapting to technology.

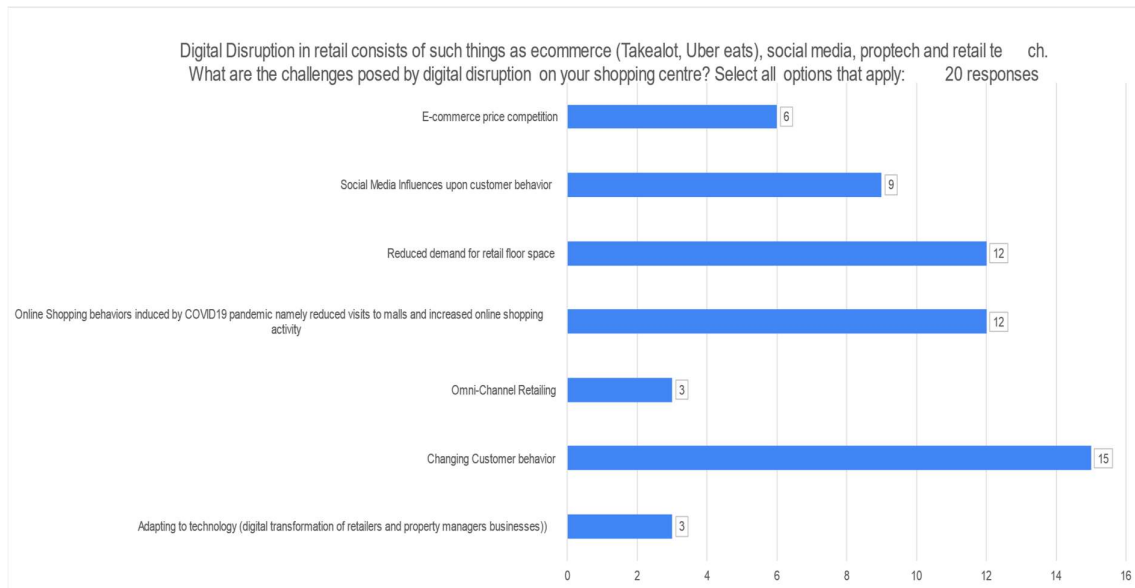


Figure 61: Small-Regional Centre Responses- Challenges induced by Digital Disruption

b) Small-Regional Centre Impacts/Consequences (see Figure 61):

1. Reduced foot counts and trading densities.
2. Changing space configurations and reduced demand for retail space.
3. Increased pressure to invest in ICT.
4. Obsolescence of certain retailers jointly with Increasing operating and utility costs.
5. Negative Social media interactions.
6. Lease ambiguity on omnichannel retailing.

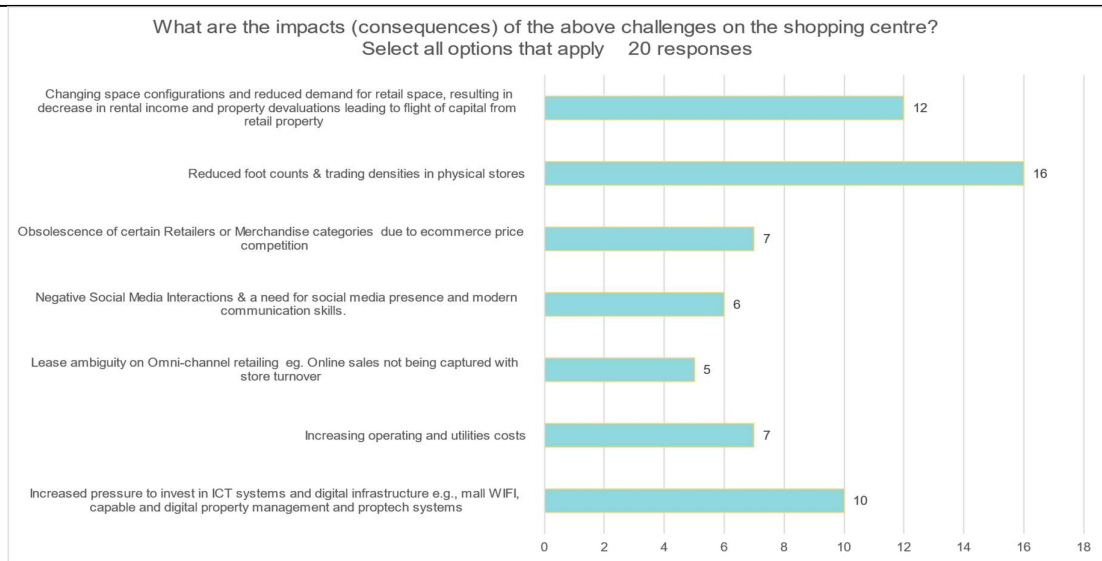


Figure 62: Small-Regional Centre Responses - Impacts of Digital Disruption

c) Small-Regional Centre Counteractive Strategies (see Figure 62):

1. Flexible leasing and leases
2. Curating tenant mixes and space reconfigurations
3. Customer and community focused business practices
4. Curated marketing
5. Repurposing excess retail space
6. Leveraging technology
7. Adopting agile property management
8. Hiring and training for retail property capabilities

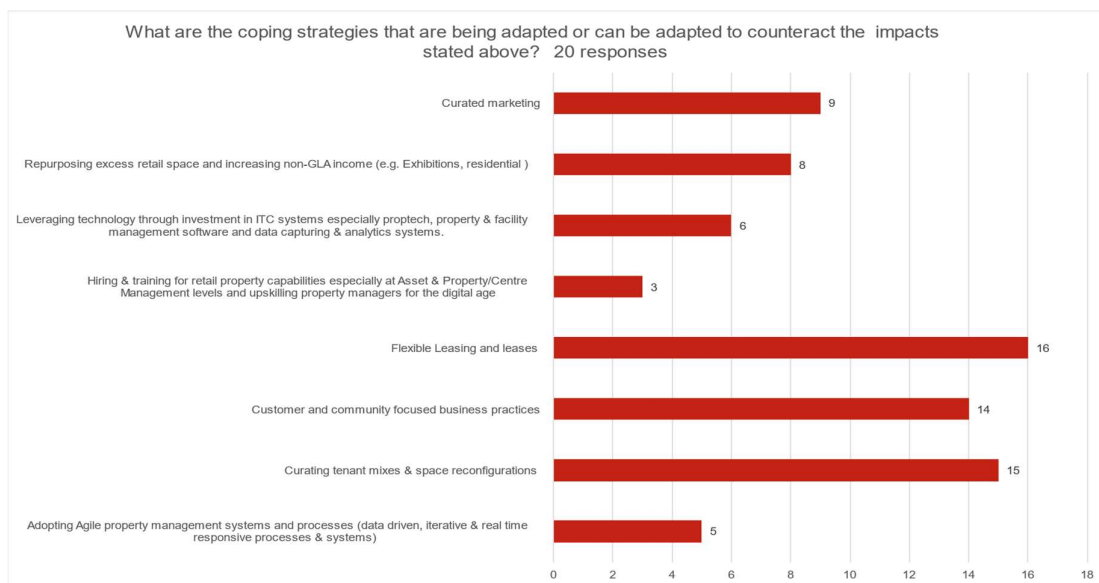


Figure 63: Small-Regional Centre- Strategies to Counteract Digital Disruption

The survey results regarding the regional centre class of shopping centres will now follow.

7.3.5 Regional Centres (GLA 50000-100000m²)

The survey yielded eleven (11) responses from the regional centre class of shopping centres. These were distributed across the South African provinces, as follows:

- KwaZulu Natal- 36%
- Gauteng- 27%
- Mpumalanga- 18%
- Western cape and North-West - 9%

There were no responses from any of the other five provinces within this class. Regional centres cater to a vast trading area across the income levels. Thus, although the provincial locations imply suburban, urban areas, it can be expected that all income levels should be represented by most of the middle to high-income trading areas. This is because middle to high-income shoppers can support the centre from the immediate trade area or drive/commute from the secondary trade area (suburbs). The survey results indicate the location of the regional centres in suburban and regional town central business districts (Town CBD), as depicted in Figure 63.

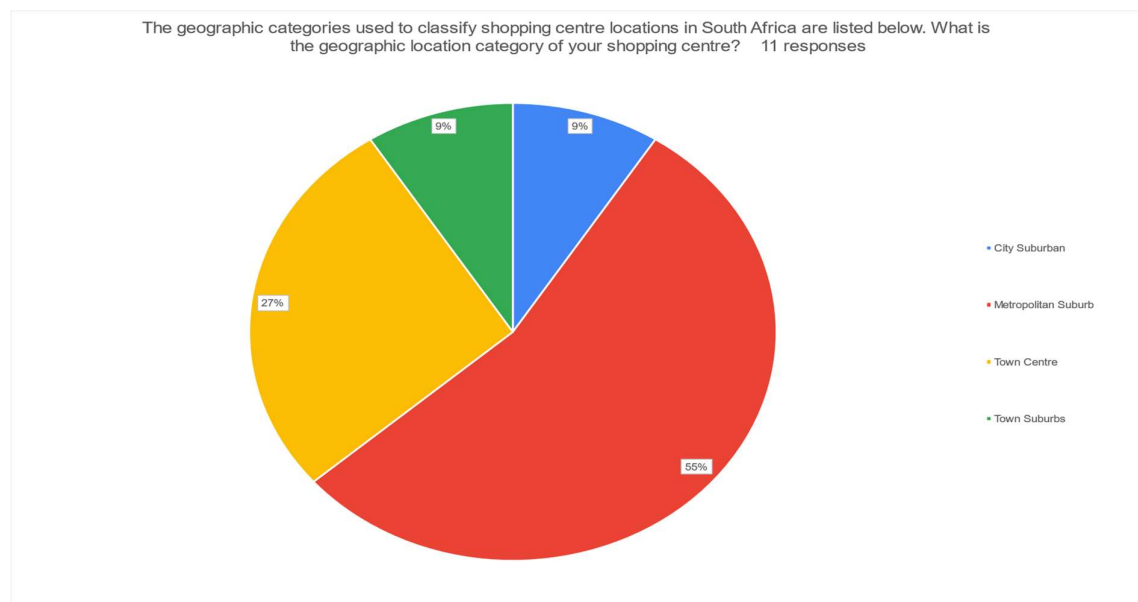


Figure 64: Regional Centre Responses - Geographic Location Categories

The income levels indicated by the survey responses also speak to the provincial and geographic-location categories, showing income levels from LSM 5 to LSM10+ (82% being high-income LSM 8-10), as illustrated in Figure 64.

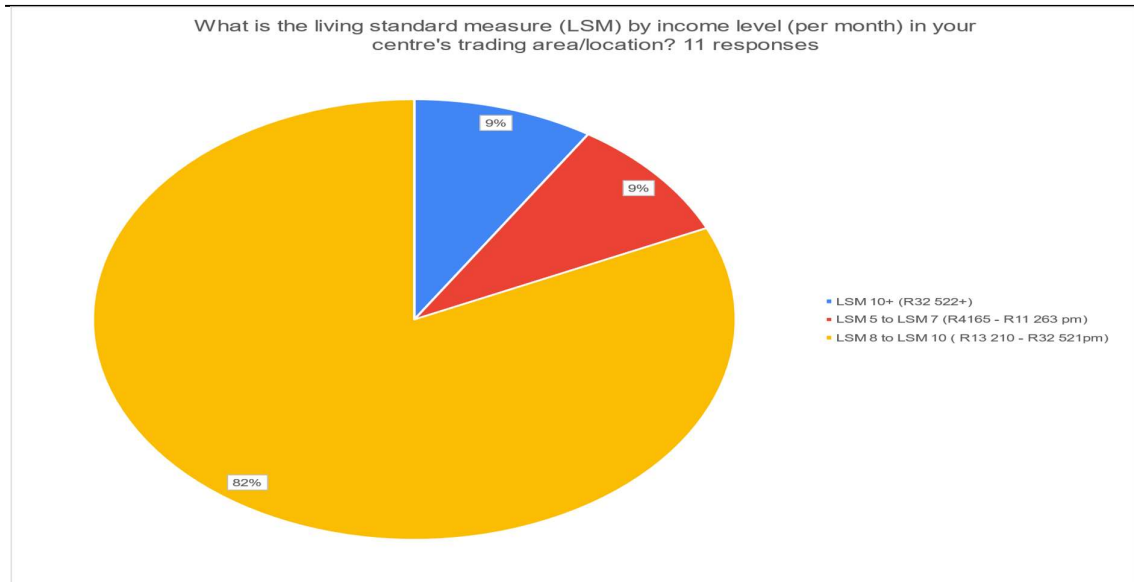


Figure 65: Regional Centre Responses- Income Levels of Trading Areas

Moving on from the classification characteristics to the actual research questions, the survey responses reveal that regional centres rank the challenges posed by digital disruption, as listed below and illustrated in Figure 65.

1. Online Shopping behaviours induced by the COVID-19 pandemic.
2. Changing customer behaviour
3. Social Media influences on customer behaviour jointly with Adapting to technology
4. E-commerce price competition
5. Omnichannel retailing,
6. Reduced demand for retail floor space

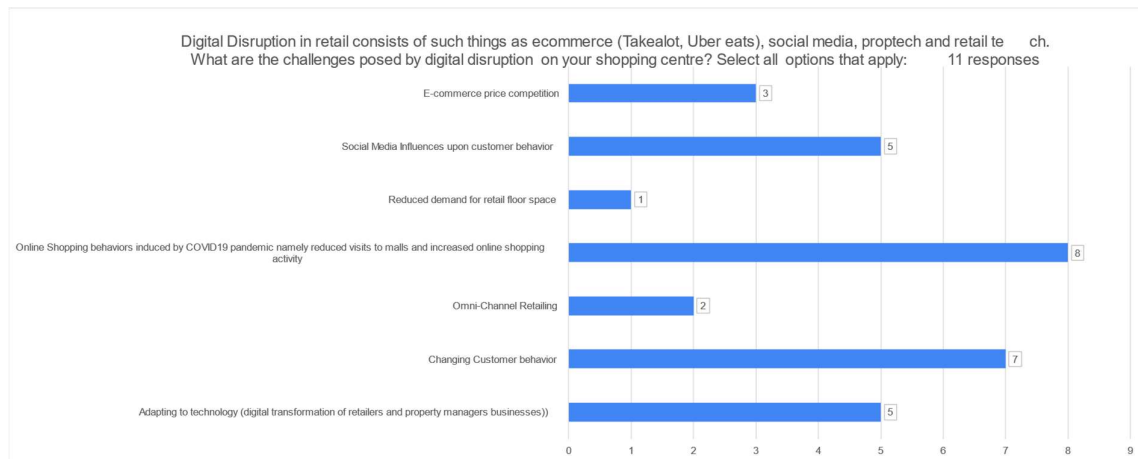


Figure 66: Regional Centre Responses- Challenges posed by Digital Disruption

The impact of the above-listed challenges presented in rank order, as shown below and illustrated in Figure 66, across the sample of regional centres surveyed in this study.

1. Lease ambiguity on omnichannel retailing.
2. Increasing operating and utilities costs jointly with Increased pressure to invest in ICT infrastructure.
3. Reduced foot counts and trading densities
4. Changing space configurations jointly with Negative Social Media interactions

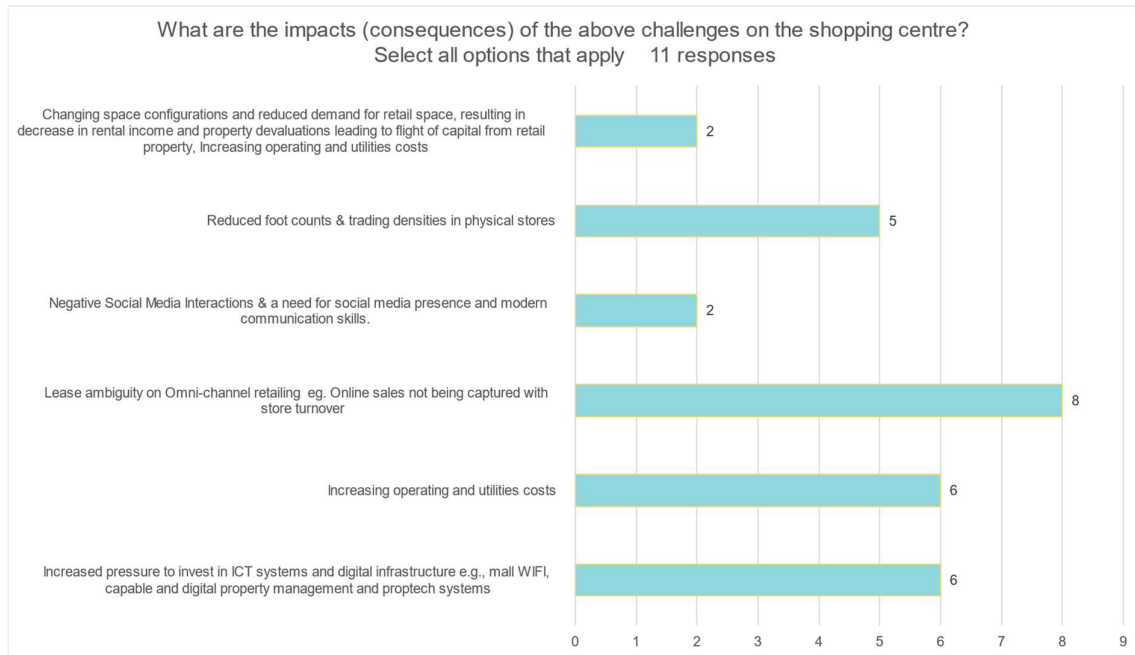


Figure 67: Regional Centre Responses- Impacts of Digital Disruption

The coping strategies adopted by regional centre survey respondents are ranked as listed below and illustrated in Figure 67.

1. Curated marketing jointly with Customer and community-focused business practices
2. Repurposing excess retail space jointly with Curating tenant mixes and space reconfigurations
3. Hiring and training for retail property capabilities
4. Flexible leasing and leases
5. Adopting Agile property management
6. Leveraging technology

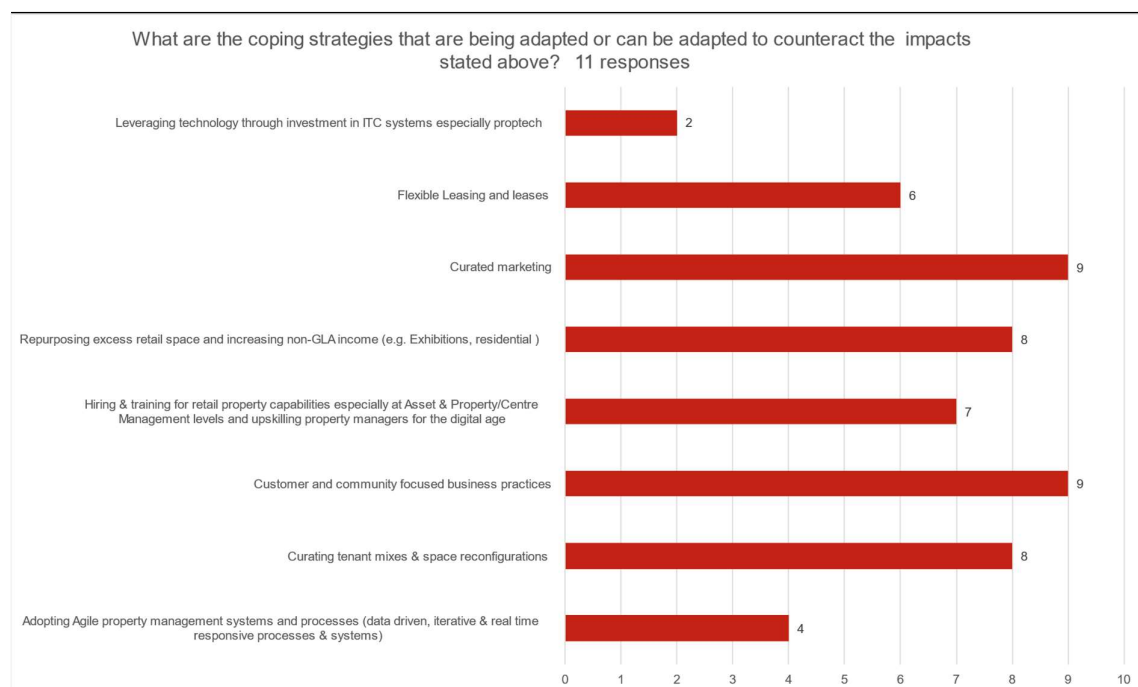


Figure 68: Regional Centre Responses - Strategies to counteract Digital Disruption

The results presentation moves to the Super-Regional centres in the next section.

7.3.6 Super-Regional Centres (GLA >100000m²)

Super-Regional centres comprise the ultimate shopping centre in size and function. They are primarily located in densely populated provincial capitals or urbanised economic hubs. They cater to an immediate high-income primary trading area and a secondary trading area across various income levels; and they overlap the trading areas of other classes of shopping centres. Super-Regional centres are the fewest across the country, and the six responses received represent just over 50% of the super-regional malls in South Africa.

As expected, all the responses are in the major Metropolises of Gauteng, KwaZulu Natal and the Western cape and within the high-income suburban areas of major cities (Johannesburg, Pretoria, Durban and Cape Town). See Figures 68, 69 and 70 for the provincial, geographical and income levels of the survey respondents within this category of shopping centres.

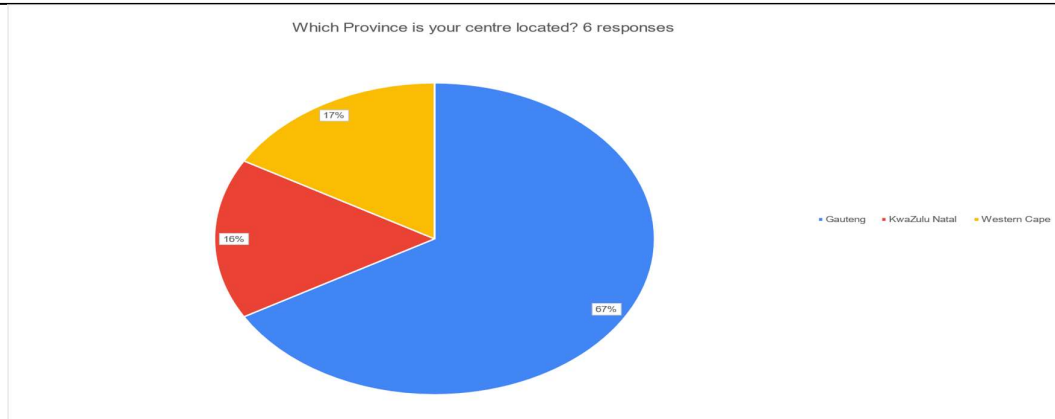


Figure 69: Super-Regional Centre Responses- Provincial Locations

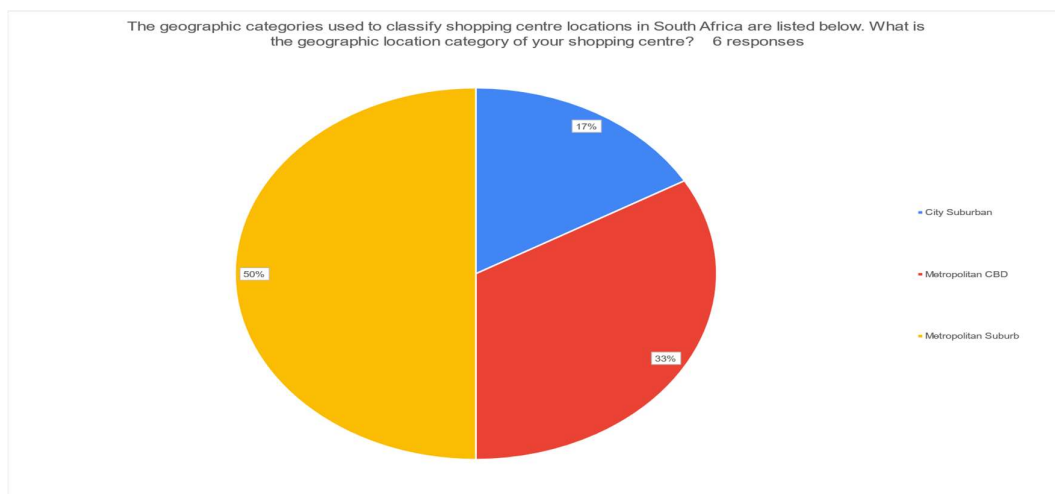


Figure 70: Super-Regional Centre- Geographical Location Categories

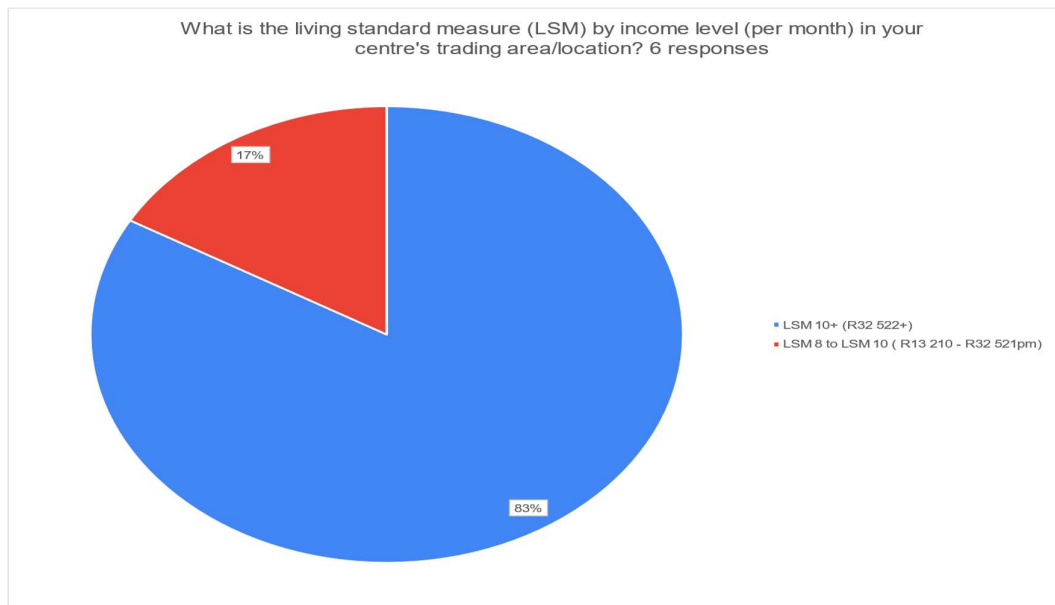


Figure 71: Super-Regional Centre Responses- Income levels of trading areas

The survey responses accurately represent the classification of a Super-Regional centre in the South African context. Therefore, the responses regarding the challenges, impacts and strategies of digital disruption in retail property can be considered valid. The Super-Regional centres experience challenges in the rank order depicted below and illustrated in Figure 71.

1. Joint first
 - Changing customer behaviour;
 - Omnichannel retailing;
 - Online shopping behaviours induced by the COVID-19 pandemic;
 - Social Media influences upon customer behaviour.
2. E-commerce price competition, jointly with Adapting to technology
3. Reduced demand for retail floor space

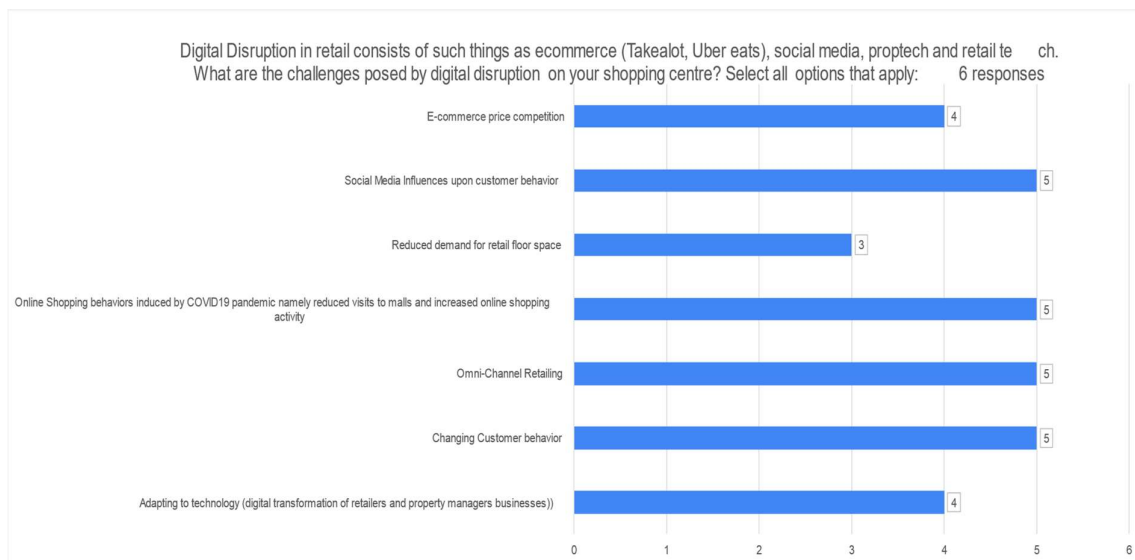


Figure 72: Super-Regional Centre Responses- challenges posed by Digital Disruption

The impacts of the challenges upon the Super-Regional centres are ranked as listed below and illustrated in Figure 72.

1. Lease ambiguity on omnichannel retailing jointly with increased pressure to invest in ICT infrastructure.
2. Negative social media interactions.
3. Reduced foot counts and trading densities.
4. Jointly 4th
5. Changing space configurations
6. Obsolescence of certain retailers and merchandise categories,
7. Increasing operating and utilities costs.

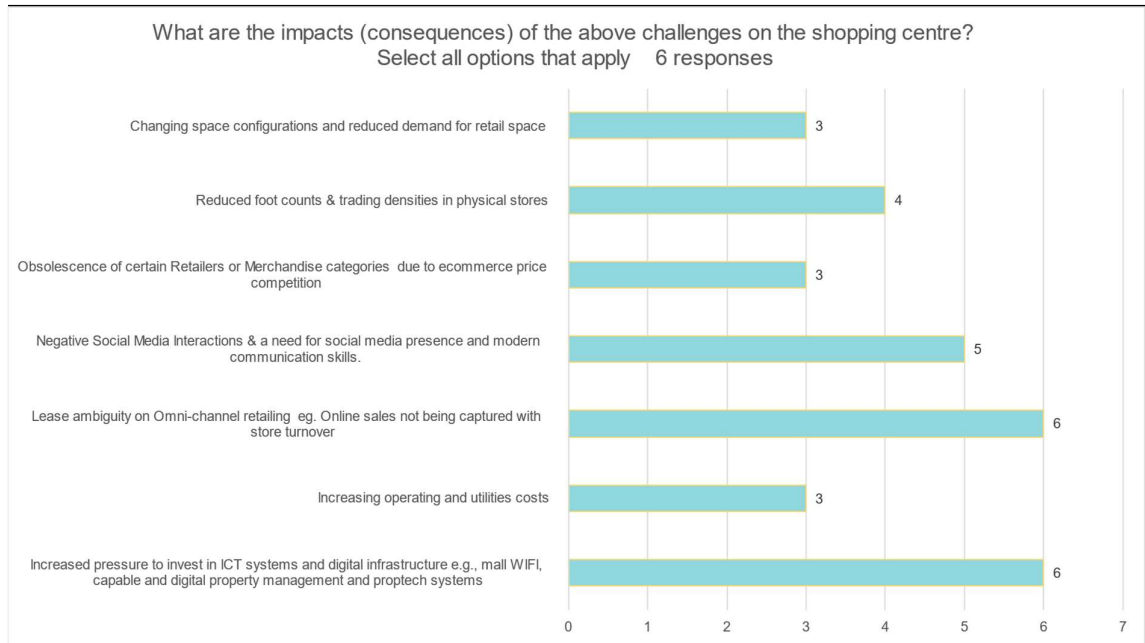


Figure 73: Super-Regional Centre Responses - Impacts of Digital Disruption

The coping strategies adopted by South African Super-Regional centres are listed in rank order below, and the survey responses are illustrated in Figure 73.

1. Jointly first:
 - Curated Marketing
 - Flexible leasing and leases
 - Customer and community-focused business practices
 - Curating tenant mixes and space reconfigurations
2. Jointly second:
 - Leveraging technology
 - Repurposing excess retail space
 - Hiring and training for retail-property capabilities
 - Adopting Agile-property management

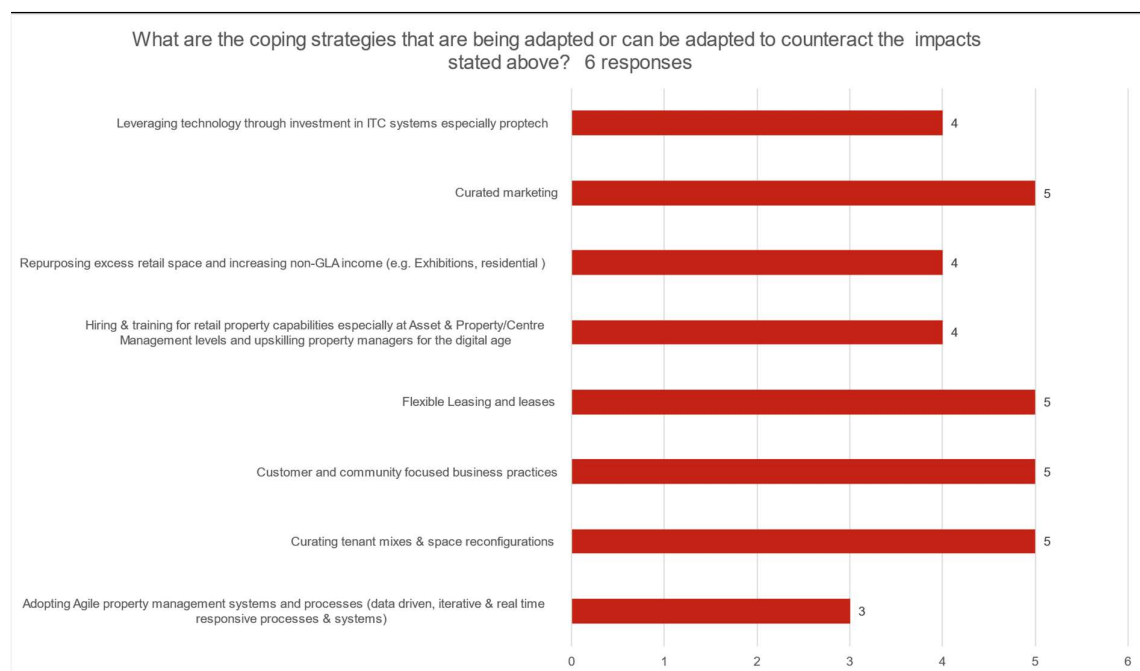


Figure 74: Super-Regional Centre Responses - Strategies to Counteract Digital Disruption

7.4 Summary of the Quantitative Results

In the overall/aggregate survey results presented in Section 7.2, the ranking of the themes within which digital disruption is experienced is clear and not ambiguous. However, when we drill down to analyse the results by shopping-centre classification, we see some inconclusive results (ties in the vote). This can be attributed to variations in how digital disruption is perceived across the income levels of a shopping centre's trading area. For example, in South Africa, a “digital divide” exists between high- and low-income households, in which higher-income households can afford smartphones, computers and data bundles (mobile or fixed line airtime) to access the internet. In contrast, lower-income households have less access to the internet tools and the data needed to access internet services.

Furthermore, there is less adequate infrastructure for delivery services in low-income areas (e.g., roads). Some areas are informal settlements (slums), and the addresses are not standard, in order to allow for e-commerce deliveries. This dearth of digital and general infrastructure manifests in a phenomenon where shopping centres in higher-income areas (suburbs) tend to experience more significant digital disruption than those in lower-income areas (townships and rural areas) (Prinsloo, 2015). It is also clear that survey respondents did not consider how the challenges, impacts and strategies relate to the themes, and they interpreted each theme independently of how it relates to the challenges, impacts and strategies thereof, resulting in inconclusive results.

In order to overcome this problem, the researcher used the framework (Table 30) to rank the themes. Each row in Table 30 represents a theme, and each column presents the challenges, impacts and strategies. The first row represents Theme 1 (Changing Consumer behaviour), Row 2 represents theme two and so on.

Table 30 is once more presented below for ease of reference.

Table 30: Digital Disruption Framework for South African Shopping Centres

Challenges imposed by digital disruption	Impacts of digital disruptions	Strategies that can be adopted
<p>Changing consumer behaviour</p> <p>Social Media Influences on customer behaviour</p> <p>Online Shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity</p>	<p>Decreased demand for space and thus increased vacancy rates</p> <p>Negative Social Media Interactions and a need for social media presence and modern communication skills.</p> <p>Reduced foot counts and trading densities in physical stores.</p>	<p>Customer and community-centric retail property business model</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytics capabilities</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand</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>
<p>Omnichannel retailing</p>	<p>Lease ambiguity on omnichannels</p> <p>Reduced foot counts and trading densities in physical stores.</p> <p>Changing spatial configurations and demand for retail space leading to declining rent levels and property values.</p>	<p>Flexible Leasing and leases</p> <p>Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age</p> <p>Adopting Agile property management systems and processes</p>
<p>Reduced retailer floor spaces and demand for space</p>	<p>Changing space configurations and reduced demand for retail space results in decreased rental income and property devaluations leading to the flight of capital from retail property.</p> <p>Increasing operating and utilities costs</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 incomes,</p> <p>Green initiatives to reduce operating costs</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>Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels, and upskilling property managers for the digital age</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytics capabilities.</p> <p>Adopting Agile property management systems and processes</p>

Source: Author (2022)

The results of the survey responses per shopping centre category concerning challenges, impacts, and strategies have been presented and ranked, based on the number of selections each item received, as an answer to the relevant question (quantity of votes). By matching the selections to their relevant theme, as represented in the framework illustrated in Table 30, the themes can be accurately ranked despite inconclusive data in the survey results. In order to be able to conduct this analysis of the themes, it was necessary to simplify the framework in Table 30 by ascribing alphabetic letters to each challenge, impact, strategy and theme, thereby encoding it for tabular analysis. The alphabetic labels ascribed were as follows:

Challenges

- A- Changing Customer behaviour
- B- Social Media Influences on customer behaviour
- C- Online Shopping behaviours induced by the COVID-19 pandemic, namely reduced visits to malls and increased online shopping activity
- D- E-commerce price competition
- E- Omnichannel Retailing
- F- Reduced demand for retail-floor space
- G- Adapting to technology (digital transformation of retailers and property managers' businesses)

Impacts

- A- Lease ambiguity on omnichannel retailing, e.g., Online sales not being captured with store turnover
- B- Obsolescence of certain Retailers' or Merchandise categories due to e-commerce price competition
- C- Negative Social Media Interactions and a need for social media presence and modern communication skills.
- D- Increased pressure to invest in ICT systems and digital infrastructure, e.g., mall WIFI, capable and digital property management and proptech systems
- E- Reduced foot counts and trading densities in physical stores
- F- Changing space configurations and reduced demand for retail space, resulting in a decrease in rental income and property devaluations, leading to the flight of capital from retail property
- G- Increasing operating and utilities' costs

Strategies

- A- Curating tenant mixes and space reconfigurations
- B- Repurposing excess retail space and increasing non-GLA income (e.g., Exhibitions, residential)
- C- Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age
- D- Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytic systems.
- E- Adopting Agile-property management systems and processes (data-driven, iterative and real-time responsive processes and systems)
- F- Flexible Leasing and leases

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

G- Curated marketing, promotions, social-media marketing, shoppertainment and place-making events

H- Customer and community-focused business practices

Themes

A- Theme 1- Changing Customer Behaviour

B- Theme 2- Increased Retail Competition (price competition from online stores, e.g., Takealot)

C- Theme 3- Omnichannel Retailing

D- Theme 4- Reduced retailer floor spaces and demand for space

E- Theme 5- Adapting to technology

With these alphabetic labels, Table 30 can be reproduced to form an encoded thematic Table relating to those challenges, impacts and strategies tested in the survey tool. Table 31 illustrates the thematic map below:

Table 31: Alphabet-Coded Thematic Map

Themes	Challenges	Impacts	Strategies
Theme 1	A, B, C	C, E	D, G, H
Theme 2	D	B	A, B
Theme 3	E	A, E, F	C, E, F
Theme 4	F	F, G	A, G
Theme 5	G	D	C, D, E

Source: Author (2022)

A table wherein the variation in responses across the hierarchy of South African shopping centres is visualised can be produced by using the alphabetic labels. Thus far, the research findings prove that the framework illustrated in Table 30 is valid. All the challenges, impacts and strategies provided as multiple-choice answers to the survey questions were selected across almost every shopping centre category. In order to analyse the variations in responses, it was thus necessary to rank the responses in their order of popularity, as presented in section 7.3. Ranking the responses by popularity per shopping centre category was the only differentiator between shopping centre categories; otherwise, the conclusion would be that digital disruption presents similarly across the hierarchy of South African shopping centres. Therefore, to conduct a tabular analysis of the ranked survey results presented in section 7.2, it was necessary to utilise the alphabetic labels and colour and numerical codes for the various rank positions. The rank positions are encoded, as shown in Table 32.

Table 32: Rank Labels for Survey Responses

Position/Rank	Label
Not Applicable	0
First	1
Second	2
Third	3
Fourth	4
Fifth	5
Sixth	6
Seventh	7
Eighth	8

Source: Author (2022)

Applying the rank and alphabetical labels allowed a cross-sectional tabular analysis of the survey responses across the hierarchy of South African shopping centres, as illustrated in Table 33 below.

Table 33: Ranked Survey Responses per Shopping Centre Category

	CHALLENGES							IMPACTS							STRATEGIES							
Alphabetic Label	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	H
Type of Centre																						
All Centres	1	4	2	6	7	3	5	6	5	7	4	1	2	3	1	5	7	6	8	2	4	3
Convenience	2	4	1	4	0	3	3	0	3	4	0	1	3	2	4	3	4	4	4	2	2	1
Neighbourhood	1	3	2	6	5	2	4	4	3	4	4	1	2	3	2	4	4	5	5	1	3	1
Community	1	5	2	6	7	3	4	6	5	6	4	1	2	3	1	6	7	5	7	2	3	4
Small-Regional	1	3	2	4	5	2	5	6	4	5	3	1	2	4	2	5	8	6	7	1	4	3
Regional	2	3	1	4	5	6	3	1	0	4	2	3	4	2	2	2	3	6	5	4	1	1
Super-Regional	1	1	1	2	1	3	2	1	4	2	1	3	4	4	1	2	2	2	3	1	1	1

Source: Author (2022)

Comparing and contrasting Tables 30, 31 and 32 allowed mapping of the themes of digital disruption against the corresponding challenges, impacts and strategies. This process then informs the ranking of the themes and overcomes the problem of inconclusive ranking of themes, when the survey results are broken down by shopping centre category. This process of analysing inconclusive rankings for the themes follows the principles of the exploratory sequential research method, i.e., to interpret quantitative results qualitatively (Creswell, 2018). The result of such comparison yields rankings of the themes corresponding to the rankings of the challenges, impacts and strategies per shopping centre category, as depicted in Table 34.

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

Table 34: Survey Findings (Ranked)

	CHALLENGES							IMPACTS							STRATEGIES								THEMES				
Alphabetical Label	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	H	A	B	C	D	E
Type of Centre																											
All Centres	1	4	2	6	7	3	5	6	5	7	4	1	2	3	1	5	7	6	8	2	4	3	1	5	4	2	3
Convenience	2	4	1	4	0	3	3	0	3	4	0	1	3	2	4	3	4	4	4	2	2	1	1	4	5	3	2
Neighbourhood	1	3	2	6	5	2	4	4	3	4	4	1	2	3	2	4	4	5	5	1	3	1	1	5	4	2	3
Community	1	5	2	6	7	3	4	6	5	6	4	1	2	3	1	6	7	5	7	2	3	4	1	4	5	2	3
Small-Regional	1	3	2	4	5	2	5	6	4	5	3	1	2	4	2	5	8	6	7	1	4	3	1	3	4	2	5
Regional	2	3	1	4	5	6	3	1	0	4	2	3	4	2	2	2	3	6	5	4	1	1	1	3	4	5	2
Super-Regional	1	1	1	2	1	3	2	1	4	2	1	3	4	4	1	2	2	2	3	1	1	1	1	4	2	5	3

Source: Author (2022)

The themes within which the challenges, impacts and strategies of digital disruption in South African retail property interact can thus be deduced and summarised in their order of magnitude of impact/importance in each category of shopping centres. The aggregate (all centres) ranking, as already presented earlier in this chapter, ranks the themes as follows:

- First- Theme 1- Changing Customer Behaviour
- Second- Theme 4- Reduced retailer floor spaces and demand for space
- Third- Theme 5- Adapting to technology
- Fourth-Theme 3- Omnichannel Retailing
- Fifth-Theme 2- Increased Retail Competition

The rankings at the shopping centre category level immediately deviate from this ranking, which is based on popular vote rather than on valid analysis using the framework (Table 30). However, by considering the validated rankings per category of shopping centres, the aggregate ranking above is validated. Although there is considerable variability in the rankings across the hierarchy of shopping centres, most categories rank Themes 1,3,4 and 5 consistently (3 out of 6 categories), and theme 2 has the most varied (but low) ranking placing it last. Therefore, the ranking of the themes of digital disruption in retail across the hierarchy of shopping centres, according to the survey results illustrated in Table 34, are as follows:

Convenience Centres

- 1st- Theme 1- Changing customer behaviour
- 2nd- Theme 5- Adapting to technology
- 3rd- Theme 4- Reduced retailer floor spaces and demand for space
- 4th- Theme 2- Increased retail competition (price competition from online channels)
- 5th- Theme 3- Omnichannel retailing

Neighbourhood Centres

- 1st- Theme 1- Changing customer behaviour
- 2nd- Theme 4- Reduced retailer floor spaces and demand for space
- 3rd- Theme 5- Adapting to technology
- 4th- Theme 3- Omnichannel retailing
- 5th- Theme 2- Increased retail competition (price competition from online channels)

Community Centres

- 1st- Theme 1- Changing customer behaviour
- 2nd- Theme 4- Reduced retailer floor spaces and demand for space
- 3rd- Theme 5- Adapting to technology
- 4th- Theme 2- Increased retail competition (price competition from online channels)
- 5th- Theme 3- Omnichannel retailing

Small-Regional Centres

- 1st- Theme 1- Changing customer behaviour
- 2nd- Theme 4- Reduced retailer floor spaces and demand for space
- 3rd- Theme 2- Increased retail competition (price competition from online channels)
- 4th- Theme 3- Omnichannel retailing
- 5th- Theme 5- Adapting to technology

Regional centres

- 1st- Theme 1- Changing customer behaviour,
- 2nd- Theme 5- Adapting to technology,
- 3rd- Theme 2- Increased retail competition (price competition from online channels)
- 4th- Theme 3- Omnichannel retailing,
- 5th- Theme 4- Reduced retailer floor spaces and demand for space

Super-Regional Centres

- 1st- Theme 1- Changing customer behaviour.
- 2nd- Theme 3- Omnichannel retailing.
- 3rd- Theme 5- Adapting to technology
- 4th- Theme 2- Increased retail competition (price competition from online channels)
- 5th- Theme 4- Reduced retailer floor spaces and demand for space

7.5 Conclusion

The key aim of the quantitative phase of the exploratory sequential research project is to validate the qualitative findings. From the results outlined above, it is clear that every theme, challenge, impact and strategy established from the literature and qualitative (interviews)

findings are valid, according to the survey responses. Therefore, it can be deduced that the survey respondents believe the qualitative findings are valid. The question that remains is to establish whether there is any variation in how the phenomena (challenges, impacts, strategies and themes) present across the hierarchy of South African shopping centres. Variations in how the said phenomena present can be seen in the various rankings of the challenges, impacts, strategies and themes across the different categories of shopping centres. As the themes contain corresponding challenges, impacts and strategies, an analysis of how the themes are ranked across the hierarchy of South African shopping centres reveals whether these factors present uniformly or variably across the said hierarchy. The foregoing results presentation and analysis prove the hypotheses that the threats posed by digital disruption and the counteractive strategies thereof present variably rather than uniformly across the hierarchy of South African shopping centres.

In the next chapter, we investigate the research questions, interpret and discuss the findings, and propose more focused frameworks for digital disruption per South African shopping-centre category.

Chapter 8- Interpretation and Discussion

8.1 Introduction

In the previous chapter, the hypothesis that digital disruption in retail property presents itself in a variable manner across the hierarchy of South African shopping centres was found to be correct. This conclusion was reached by analysing how the themes within which the challenges, impacts and coping strategies of digital disruption in retail property interact, are ranked in order of importance/impact within the various categories of shopping centres in South Africa.

In this chapter, the findings are discussed for each theme. A framework of strategies to counteract digital disruption in retail property are proposed for each category of the shopping centres in South Africa. The frameworks were based on the research results presented in Chapter 7. The top 3 themes, as ranked by each category of the shopping centres, constitute the frameworks, as they are considered to have the highest impact on the specific category of shopping centres.

8.2 Discussion: Challenges, Impacts and Strategies (Research Questions 1-3)

In order to discuss the findings of the research study in a structured manner, the discussion around the first three research questions, each of the five themes within which digital disruption in retail is discussed with reference to the research findings in sections 8.2.1 to 8.2.5. How and why each theme with its corresponding challenges, impacts and the strategies present across the hierarchy of planned shopping centres in South Africa is discussed below.

8.2.1 Theme 1- Changing Customer Behaviour

Changing consumer behaviour was the most prevalent challenge across all the shopping centres. The main drivers of changes in consumer behaviour within the phenomenon of digital disruption in retail property in South Africa during the period of this study (2020 to 2022) are online shopping behaviours induced by the COVID-19 pandemic. The period saw a reduction in shopper visits due to the strict hygiene and social distancing regulations imposed by the government in varying degrees during the State of Disaster from March 2020 to April 2022. The entire study was conducted during the said State of disaster and over four infection waves of COVID-19. The restrictions on shopping centres were altered between the so-called Alert Levels (1 – 5). Only essential services could be conducted, i.e., supermarkets and pharmacies at Alert level 5. At lower levels, restrictions on business and movement were decreased; however, at all levels, hygiene, mask mandates (wearing of cloth masks when in public) and social distancing (reduced carrying capacities of shopping centres and their tenants) were mandatory.

Social media influences on customer behaviour had the most negligible impact on customer behavioural changes, except in as far as the social media were used to alert people of the COVID-19 risks and outbreaks at certain stores and shopping centres; or to report any deviations from the safety protocols. Such negative posts on the social media would immediately impact foot traffic to the affected centre or stores in the short term, or during an infection wave.

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

The primary behavioural change observed was reduced visits to shopping centres, especially in the early days of the pandemic in 2020. Shoppers began to switch to online shopping, and retailers expanded online and omnichannel offerings. As the pandemic wore on, shopper visits began to increase, but not to the same levels as before the pandemic. However, trading densities increased from the low base of the hard lockdown of 2020, as shoppers returned to malls. As of the third quarter of 2021 (Q3:2021), when the survey was conducted, foot traffic to all the shopping centres was still below pre-pandemic levels; however, the spend per head had increased. This implies that although shoppers were visiting malls less often, they were spending more when they did. The South African mall culture may have taken a knock, but the halo effect of physical stores and the South African need to touch and feel products continues to persist (Harmse, 2021).

The research results show that across the hierarchy of South African shopping centres, the chief challenge within the Customer Behaviour theme is changing customer behaviour, followed by COVID-19 induced behavioural changes. Social media influences on customer behaviour have the least importance. The resulting impacts (consequences), in order of importance, are:

- Reduced foot counts and trading densities in physical stores;
- Changing space configurations and reduced demand for retail space. resulting in a decrease in rental income and property devaluations, leading to the flight of capital from retail property.

A possible explanation for the relative importance of these two impacts is that reduced foot counts naturally lead to a reduction in trading densities. However, trading density is driven by the combination of foot counts and spending per head. As spending per head has been increasing per shopping centre visit, it follows that the trading densities have been recovering, albeit off the very low base of the March/April 2020 hard lockdown. Naturally, when trading densities are low, retailers tend to stock fewer goods; and thus, the demand for space decreases, leading to changing space configurations and declining rentals. In addition, a need to attract shoppers during a pandemic meant that there was also a move towards the outdoor and well-ventilated centre and store designs, contributing to the changes in spatial configurations. These observations can be seen in the retail vacancy rates of Q3:2021 (6%), being 200 basic points above the pre-pandemic (2019) vacancy rates (3.9%) (Harmse, 2021).

From small format centres up to Small-Regional centres, the challenges and impacts of this theme were broadly similar; and they were ranked highest. The large format centres (Regional and Super-Regional) ranked the theme and the challenges of changing customer behaviour highest. However, when it came to the impacts of changing customer behaviour, they ranked these low. Instead, they ranked their most pressing challenges as lease ambiguity associated with omnichannel retail, a need for social media presence, and pressure to invest in digital transformation. Three observations can explain this variance in responses between small format and large format centres, namely:

- The digital divide in South Africa, where large format centres are in high-income low-density areas with customers more likely to use social media and online shopping (Prinsloo, 2016).

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- The impact of remote working (working from home) that began in 2016 in South Africa and was accelerated during the pandemic on shopping patterns, i.e., it led to growth in small format centre trading densities, especially in Convenience and Community centres (Redefine Properties, 2021).
- The pandemic largely benefitted Community centres located in residential areas while it resulted in decreased visits to large format centres. The recovery has seen still lower visits to large format centres, but higher spending per visit. As a result, Community-centre trading densities were trading above pre-pandemic levels by Q3:2021; while all the other formats were still below their pre-pandemic levels (see Figure 74, below) (Harmse, 2021).

Regarding the survey results, there is a difference in approaches to the strategies to counteract digital disruption compounded by the COVID-19 pandemic, where larger format centres with deeper pockets focused on digital transformation, as well as shoppers; while smaller format centres focused on retail fundamentals, i.e., the shopper.

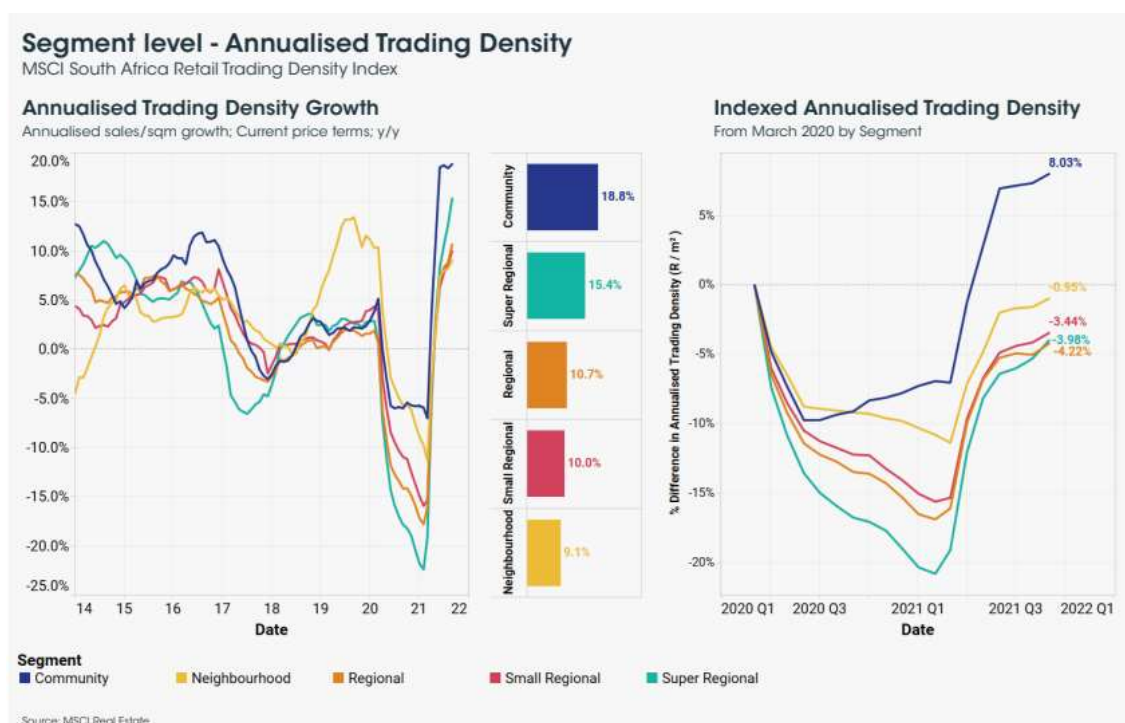


Figure 75: Q3:2021 Trading Densities per Shopping Centre Category (Harmse, 2021:7)

8.2.2 Theme 2- Increased Retail Competition

Within this study, Theme 2 refers to increases in price competition experienced by retailers competing against prices offered by online retailers. In the South African context, the results seem to suggest that this is not a significant challenge, and the theme is ranked second last in importance at an aggregate level. The theme and its corresponding challenges, impacts and strategies are consistently ranked low across all the categories of shopping centres. Its highest ranking is within the Super-Regional centre category, ranking third.

A possible explanation for such a low impact on shopping centres is that online retailers tend to maximise their prices to levels not too far below those of physical retailers. In addition, even online retailers, such as Takealot, are moving into retail centres by opening fulfilment centres. The research interviews and survey responses indicated that this type of tenant is seeking space in small format centres. Some reasons behind the opening of fulfilment centres by e-commerce retailers are to capitalise on the work-from-home phenomenon, thereby benefitting small format centres located in residential areas, being close to customers, and enabling the option of collecting rather than delivery. Click-and-collect can drive sales, especially in low fuel price periods, where the delivery cost is a cost shoppers would rather not shoulder, despite its convenience value. However, South Africa still lags in online shopping adoption – aptly due to the digital divide and logistics infrastructure constraints (roads, informal settlements and warehouses), especially at the low end of the retail market. In addition, the prevalent “mall culture” and halo effect of physical stores imply that small price differentials will not attract shoppers away from the physical stores (Prinsloo, 2016). The pandemic did accelerate the growth of online shopping, which increased by 4% in 2021 from its 2019 levels; but this only means that the growth of the online retail share of the retail sales market is at 1.5%, due to the smaller basket sizes, as opposed to the increased spending per visit to physical stores (Harmse, 2021; Redefine Properties, 2021).

A caveat to the preceding paragraph’s observations is that although the overall growth in online shopping and sales is still negligible when compared to offline shopping, it is experiencing accelerated growth. This growth is observed in the increased omnichannel operations of previously physical retail-only retailers, meaning that physical retailers who are well established can compete in the same market with online retailers. As a result, price competition is less of an issue for mall owners. Different retail merchandise categories are impacted differently by online and omnichannel shopping growth. A case in point is technical goods sales, which do very well online; and this merchandise category has previously been observed to be about 4.7% cheaper online than that of physical stores (Businesstech, 2018). This category of retail merchandise has thus been exiting from small retail centres, and reducing space in large format centres, as one survey respondent noted: “Especially with the digital world evolving rapidly, as well as the current economic uncertainty, which comes along with the current COVID-19 trends, i.e., staying/working from home, staying at home, ordering online, etc. Electronics, from a value point of view at the moment, is evolving enormously, especially online sales. Now, HIFI Corp (home entertainment goods) and Incredible Connection (computer goods) sell 25% of their stock online; therefore, it is very clear that retail space definitely needs to reduce for them, where a typical HIFI corporation store was over 1000m² five years ago, we now only need 550m² to 650m². Almost half to make it a feasible retail outlet.” (Parenthesis added)

8.2.3 Theme 3- Omnichannel Retailing

The findings from the expert interviews revealed that omnichannel retailing is believed to be the next phase in the digital transformation of retail in South Africa; and that it will probably be the focus of strategies in the long term. During the 2020/2021 COVID-19 pandemic period, within which this research study was conducted, however, the omnichannel retailing theme and its associated challenges, impacts and strategies did not rank highly. In fact, at an

aggregate level, this theme ranked last, consistently ranking low across all shopping centre formats except for Super-Regional malls, where it ranked second.

It may be concluded that omnichannel retailing is largely not seen as a significant challenge, but as a natural progression within South African retail and, thus, an opportunity.

As observed from the interviews and survey responses for most formats of shopping centres, the development of omnichannel retailing is well covered in lease agreements (Cloete, 2020). In most cases, omnichannel retail is experienced in the food-service categories (Prinsloo, 2015), which anchor most small format retail centres, i.e., restaurant deliveries through platforms, such as UberEATS and Mr Delivery. These services require minimum operational changes to shopping centres, such as allocating parking for delivery drivers, rather than major digital transformation initiatives. In Super-Regional malls, the full impact of COVID-19 accelerated digital disruption is experienced; as these types of centres fulfil all aspects of shopping, from convenience items and essentials to luxury, experienced and destination shopping, thus presenting more targets for disruption. The correlation between shopping centre size and the magnitude of digital disruption was observed for the period of the study, with the lowest trading densities observed in Figure 99 (above) being within the large-format centres. The first choice among retail formats in combatting any adverse impacts of omnichannel retailing is flexible leasing and leases to clear up lease ambiguity; and to apply an effective, low-cost solution. Hiring and training for digital skills and digital transformation in the form of Agile-property management systems and practices are to be avoided. This avoidance is probably due to the higher costs involved and the fact that these are more long-term solutions likely to be implemented at a slower rate.

8.2.4 Theme 4- Reduced retailer floor spaces and demand for space

A reduction in the demand for retail space has been ongoing since late 2017 in South Africa (Harmse, 2021). Digital disruption has been a minor contributor to this trend, as competition from online retailers has not been significant enough to lead to the demise of large-scale traditional retailers. However, the stagnant economy, high unemployment and declining disposable income have meant a somewhat subdued growth in retail enterprises. The retail property industry has responded by diversifying the tenant mix to include traditionally non-retail tenants from the service industry, such as medical and dental practices (Masebe, 2020). The key impacts of reduced retailer floor spaces were found to be increasing vacancy rates and operating costs in the qualitative phase of this study.

The contribution of digital disruption to the vacancy rate (declining demand for retail space) has primarily been seen in the digital transformation of merchandise categories. Online shopping behaviours affect specific merchandise categories, such as electronic goods, more than apparel, homeware and furniture (Harmse, 2021). As a result, there is a declining demand for certain types of retail space, such as electronic goods stores or departments in large retailers. This results in changes to space configurations and location consolidations that affect different categories of shopping centres to a different degree. During this study, the COVID-19 pandemic, compounded with customer shopping behaviours moving towards less frequent physical shopping, was the biggest driver of this phenomenon and the resultant increase in vacancy rates across the hierarchy of South African shopping centres. While most merchandise categories were in recovery from the hard lockdown of March/April 2020, very

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few had recovered to or past the pre-pandemic (2019) trading densities. Electronic goods, which ironically have a high online shopping and omnichannel presence, were the best performer in the period under review (Q1:2020 to Q3:2021). Electronic goods performed well in large format retail centres, where the merchandise categories most disrupted by digital disruption are choosing to locate physical stores (location consolidation) with omnichannel options. In contrast, electronic goods performed poorly in the smaller format centres, where these categories are increasingly vacating (Harmse, 2021). As explained above, the performance of various merchandise categories is depicted in Figures 75 and 76.

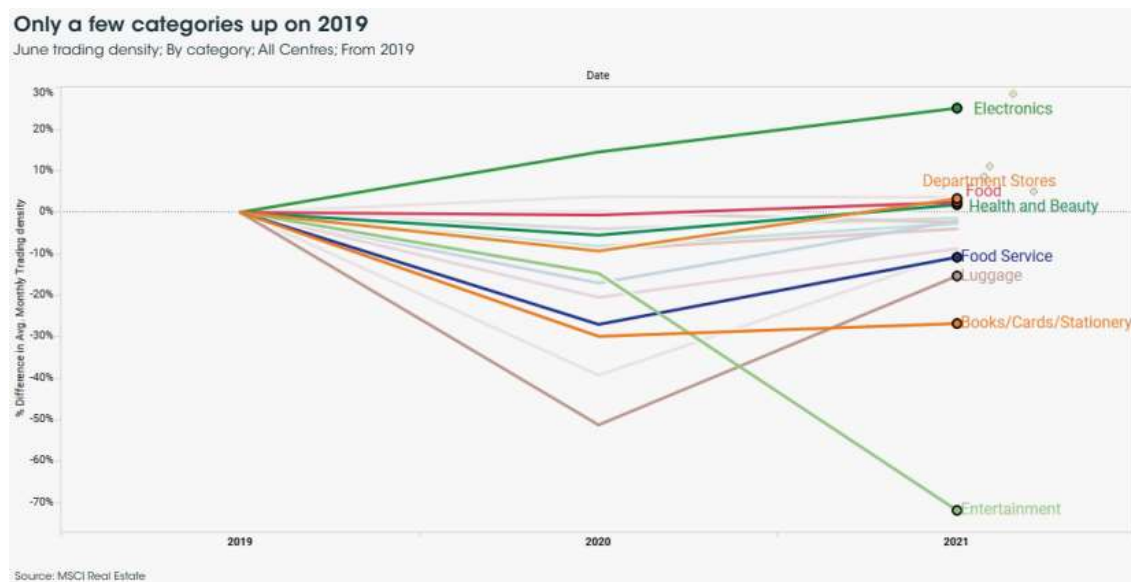


Figure 76: Q1:2020 to Q3:2021 Trading Densities Across Different Merchandise Categories (Harmse, 2021:8)

Electronics, Health & Beauty up on 2019 while many categories still well off pre-Covid trade

Monthly trading density per category					Comparing Q3 2021 to Q3 2019							
Merchandise Category	2020				2021			% change in Quarterly Trading Density				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Super Regional	Regional	Small Regional	Community	Neighbourhood
Accessories, Jewellery & Watches	5.7K	1.5K	5.4K	8.5K	6.1K	6.4K	6.4K	22.0%	-12.0%	-15.8%	-10.2%	-23.5%
Health and Beauty	5.7K	3.8K	5.2K	5.9K	5.4K	5.5K	5.7K	15.7%	-2.1%	1.7%	-1.6%	2.0%
Electronics	4.4K	2.4K	4.8K	5.5K	5.2K	5.2K	5.2K	-2.5%	-5.8%	2.3%	3.6%	14.7%
Eyewear & Optometrists	5.3K	1.8K	4.0K	5.0K	5.2K	4.2K	4.2K	-3.2%	-9.4%	-4.7%	2.2%	3.4%
Food	3.7K	2.9K	3.4K	3.9K	3.5K	3.6K	3.5K	-3.9%	-2.5%	-4.1%	3.9%	
Food Service	3.0K	0.5K	2.3K	3.3K	2.8K	3.0K	2.9K	-4.2%	9.4%	1.6%	-1.9%	-13.7%
Department Stores	2.9K	2.2K	2.4K	3.0K	2.6K	3.0K	2.8K	-6.2%	-11.7%	-29.1%	44.2%	11.5%
Speciality	2.4K	0.9K	2.6K	3.2K	2.4K	2.7K	2.6K	-9.0%	-6.8%	6.4%	46.0%	-23.1%
Services	2.5K	0.5K	2.0K	2.2K	2.2K	2.3K	2.3K	-10.5%	-5.9%	4.4%	8.5%	-14.1%
Sportswear and Outdoor	1.9K	1.1K	2.2K	3.4K	2.1K	2.5K	2.3K	-11.0%	-20.7%	-16.0%	-6.6%	20.1%
Luggage	2.0K	0.3K	1.3K	2.4K	1.8K	2.1K	2.2K	-17.4%	-19.8%	-22.9%	-8.8%	20.2%
Apparel	1.9K	1.3K	2.0K	3.2K	2.0K	2.5K	2.1K	-24.8%	23.7%	-2.0%	-100.0%	
Homeware, Furniture & Interior	1.7K	0.9K	1.8K	2.2K	1.8K	1.8K	1.7K	-41.6%	-24.0%	-29.2%	0.4%	-36.8%
Books/Cards/Stationery	2.7K	0.8K	1.5K	2.3K	2.1K	1.7K	1.6K	-69.5%	-66.9%	-78.5%		
Entertainment	0.3K	0.0K	0.3K	0.1K	0.1K	0.1K	0.1K					

Source: MSCI Real Estate

Figure 77: Performance of different retail Merchandise Categories per Class of Shopping Centre (Harmse, 2021:8)

Small format centres are affected to a greater degree by the decline in space demand; as their tenant-mix options are smaller, and they do not generally attract new/start-up retailers. However, they are anchored by well-established convenience retailers, predominantly food retailers (supermarkets) (Prinsloo, 2018). Small format retailers are likely to reflect any vacancy as having a more significant impact on their centre than large format retailers, due to economies of scale. For example, a 500m² vacancy in a 5000m² Convenience centre represents 10% of the space available, while it represents only 0.5% of a 100 000m² Super-Regional centre. This reality is observed in the survey results in which small format centres up to the Small-Regional centre category ranked this theme high (second or third). In contrast, the large format Regional and Super-Regional centres that ranked it low (last).

In the overall analysis (aggregate survey results), the reduction in the size of retailer floor space and demand for retail space was ranked high in the study in part, due to high vacancy rates caused by the COVID-19 pandemic's impact and compounded by accelerated online shopping. Also, it must be noted that the number of small format centres in South Africa is much larger than that of large format centres, for the apparent reason that larger centres require larger, more densely populated trading areas to support them than do small format centres (see in Chapter 2) (Prinsloo, 2018). This fact is also seen in the survey results where small format centres (< 50 000m²) make up 82.6% of the respondents; and thus, they have a greater bearing on the survey results.

Increasing operating costs driven by inflation and municipal rates and services often compound the declining operating profits of retail centres in an environment of low space demand. However, during the pandemic, retailer sales rebounded after the initial lockdowns. At the same time, the low space demand and the rental concessions given by landlords to tenants whose operations were negatively affected by government restrictions meant low rental growth in the same period. The low growth in rental prices offset the negative impact of increasing costs on, whose cost of occupancy was still at February 2020 levels in Q3:2021 (Harmse, 2021).

The declining occupancy cost resulted in tenant retention that contributed to a recovery in vacancy rates over this period, but this came at the expense of rental growth, as depicted in Figure 77 below (Harmse, 2021).

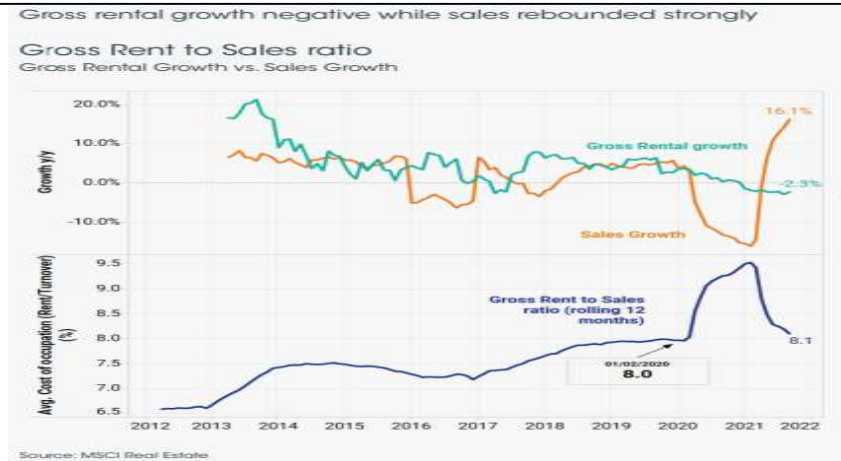


Figure 78: Q1:2020 to Q3:2021 Rental Growth vs Retail Sales Growth (Harmse, 2021:6)

Figure 102 depicts that the overall cost of occupancy of 8.1% is similar to what it was in February 2020 (pre-pandemic). This is, however, not uniform across the categories of retail centres in South Africa. There are glaring variances between the retail segments and the merchandise categories. For example, within the food-service category, which was hardest hit by the COVID-19 pandemic restrictions, the cost of occupancy (as depicted by the rent-to-sales ratio) increased by more than 3% for Super-Regional centres and only by 1.7% for Neighbourhood centres, pointing to a preference for small centres for this merchandise category in this period. In contrast, electronics retailers in larger format centres outperformed those in smaller format centres and had a lower cost-of-occupancy in the same period. The vacancy rates improved in Q3:2021, but were still well above the pre-pandemic levels, which explains why most small format centres regarded this theme as being second only to changing customer behaviour in terms of the magnitude of impact on their centres. Vacancy rates tend to lag behind micro-economic impacts; thus, the increase in rates peaked (6.9%) twelve months after the initial pandemic lockdown (March 2021), and the rates have since then been improving (6% at Q3:2021). The vacancy-rate trends and the variation across retail centres are depicted in Figure 78 below (Harmse, 2021).

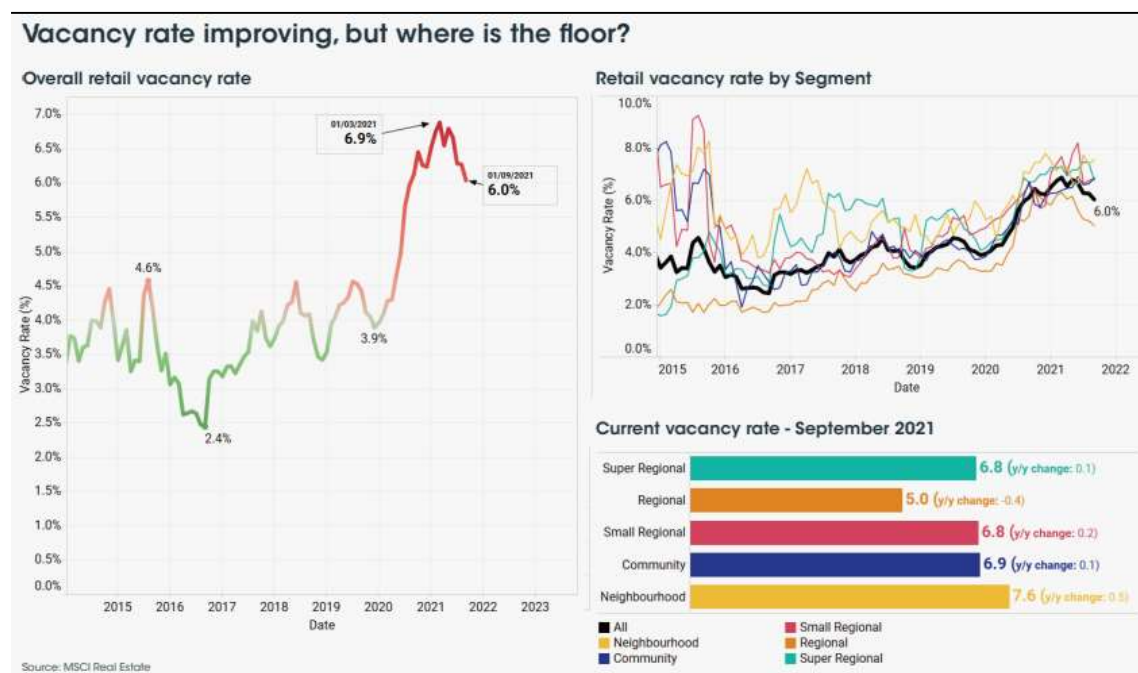


Figure 79: Q1:2020 to Q3:2021 Retail Vacancy Rates (Harmse, 2021:5)

8.2.5 Theme 5- Adapting to Technology

Adapting to technology speaks to the importance of digital transformation as a challenge and coping mechanism to digital disruption in retail property. The qualitative findings revealed that retail property experts believe there is increased pressure to invest in information communication technological (ICT) systems and digital infrastructure, such as mall WIFI, digital property-management systems/software and relevant proptech initiatives. This pressure to transform operating models digitally presents a financial challenge and it impacts those implementing or considering said investments. At an aggregate level, the theme was ranked third in importance by survey respondents; however, its challenges and impacts were consistently ranked as being of medium to low importance across all retail centre formats. Among the survey respondents, those associated with Super-Regional centres believed that adapting to technology is somewhat more important than did those associated with smaller format centres.

A possible explanation for the perceived average-to-low importance of this theme could be the requirement to invest in digital transformation in a period of funding constraints, as well as the fact that the probable strategies to implement digital transformation, such as hiring and training for the digital age, leveraging technology and adopting agile property management all require significant funding, scarce skills; and they are more likely to be looked at as long-term solutions. In contrast, the acceleration in digital disruption during the period of the study was precipitated by the COVID-19 pandemic, and the preferred strategies were those that had a short-term horizon and immediate impact in dealing with the pandemic. Reasons for the long-term outlook on investing in digital transformation include a lack of understanding of what proptech entails, a shortage of digital skills in South Africa, and mores so in the boardrooms of the large, listed REITs that own and operate most of the malls in South Africa. An analysis of the integrated annual reports (IARs) of five large REITs to see whether digital transformation

was high on their agenda. All the REITs identified the challenge posed by digital disruption; but only one had skills at the executive level driving technological transformation (Laskarides, 2021).

In the long term however, there is a definite move towards smarter buildings. New buildings are adopting smart technologies and integrating with the physical aspects of the buildings. The aim is to improve efficiencies, reduce costs, mitigate security risks and implement health and safety measures using IoT-enabled sensors that provide data on occupancy and environments. Building-Management systems (BMS) are also being integrated into new centres and retrofitted into older buildings, in order to automate environmental control, to mitigate security and health and safety risks, while also enhancing mechanical electrical and plumbing maintenance services by monitoring performance and automating preventative maintenance schedules. (Malebye, 2021)

The first three research questions have been answered, and the findings thus far inform us of the challenges, impacts and strategies of digital disruption in retail. Furthermore, these factors have been found to interact within five main themes. The preceding discussion has proposed explanations for why these themes and their associated challenges, impacts and strategies present the way they do, i.e., variably across the hierarchy of South African shopping centres. Having interpreted the quantitative results, based on qualitative data, as required in an exploratory sequential research study, the study now moves on to the proposal of thematic frameworks for determining possible strategies to counteract digital disruption across the hierarchy of South African shopping centres. The proposals form the last part of the research study, as proposed in Chapter 1 (Section 1.9 and Figure 1).

8.3 Discussion: Digital Disruption Across the Hierarchy of South African Shopping Centres (Research Question 4)

This section proposes thematic frameworks within which the challenges, impacts and coping strategies of digital disruption in the South African retail property industry can be applied across the hierarchy of South African shopping centres. The frameworks are based on the qualitative findings (Table 30) and the top three highest-ranked themes for each category of shopping centres (quantitative findings). The challenges, impacts and coping strategies for each theme are not simply taken from Table 30, but are validated using the quantitative results (Table 34).

8.3.1 Convenience Centre Framework

The survey results show that the top 3 themes in order of magnitude of impact (importance) regarding digital disruption in the Convenience centre category of South African shopping centres are:

1. Theme 1- Changing customer behaviour
2. Theme 5- Adapting to technology
3. Theme 4- Reduced retailer floor spaces and demand for space

Within these themes, the research shows the challenges, impacts and coping strategies of digital disruption in retail interact, as illustrated in Table 35 below.

Table 35: 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 and trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates</p>	<p>Customer and 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 and facility management software and data capturing and 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 utilities 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>

Source: Author (2022)

Within the Convenience centre shopping centre category changing customer behaviour exacerbated by the COVID-19 pandemic was the leading challenge during the period of the research study. Its impact was seen in reduced foot counts, reduced demand for space and increasing vacancy rates in the retail property industry, which according to Harmse (2021), peaked at 6.9% and was sitting at 6% at the time the study was concluded (Q3:2021).

The next most significant challenge was adapting to technology, as the pandemic accelerated digital disruption in the form of online and omnichannel shopping. Reduced retailer floor space sizes and demand for space were a challenge related to the pandemic-induced changes in customer behaviour and the restrictions imposed on retailer operations by the pandemic. Although adapting to technology, which implies digital transformation within Convenience centres, was ranked second as a theme, according to the survey results, the most significant impacts had to do with space demand and vacancy rates, and as such, the corresponding coping strategies were:

1. Customer and community-centric retail property business model

-
2. Curated marketing, promotions, social-media marketing, shoppertainment and place-making events to create foot traffic and demand
 3. Flexible leasing and leases
 4. Repurposing excess retail space and increasing non-GLA income

The preceding implies that the focus of the Convenience centres was to manage vacancy rates, tenant retention and shopper visits to counteract digital disruption coupled with the COVID-19 pandemic during the period of this study. These are people- (customer/shopper) centred strategies focusing on the shopper, not requiring a great deal of digital transformation, but based on retail property management fundamentals. Leveraging technology for better data collection and data-driven management are seen as important in adapting to technology (digital transformation) is recognised as being an important long-term solution to digital disruption within the retail property industry.

8.3.2 Neighbourhood Centre Framework

The survey results for the Neighbourhood centre class of South African planned shopping centres reveals that the most important themes within which these types of centres experience digital disruption are:

1. Theme 1- Changing customer behaviour
2. Theme 4- Reduced retailer floor spaces and demand for space
3. Theme 5- Adapting to technology

For this class of South African shopping centres, the challenges, impacts and coping strategies interact within these themes, as illustrated in Table 36. The framework for Neighbourhood centres is quite similar to that of Convenience centres, only differing in the perception of which is more important between theme 4 and theme 5. Many of the reasons outlined in section 7.3.1 above apply here, and the survey results accurately depict that the COVID-19 pandemic accelerated digital disruption. This acceleration induced changing customer behaviour, a reduction in demand for Neighbourhood centre retail space and a need for digital transformation/adapting to technology.

Table 36: Digital Disruption Framework for Neighbourhood

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>Social Media Influences on customer behaviour</p>	<p>Reduced foot counts and trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates</p> <p>Negative Social Media Interactions and a need for social media presence and modern communication skills.</p>	<p>Customer and 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 utilities 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 and facility management software and data capturing and analytics capabilities.</p>

Source: Author (2022)

Based on Table 36, it is clear that the focus of Neighbourhood centres in this period was to manage declining shopper visits and increasing vacancy rates. As a result, the vacancy rate of Neighbourhood centres was the highest among the shopping centres tracked by the SAPOA-MSCI retail trends report in South Africa at 7.6% as of Q3:2021 (Harmse, 2021).

The focus of coping strategies within Neighbourhood centres was people/customer focused and grounded in retail property management fundamentals. In contrast, adapting to technology themes is perceived to be important; leveraging technology as a strategy is not seen as very important in the short term. This paradox is possibly due to most technological disruption in the food service-anchored Neighbourhood and Convenience centres being experienced in the form of an increase in food delivery services, e.g., UberEATS. Adapting to food delivery services largely called for operational innovations, such as providing parking for food collection and delivery vehicles, rather than investing in technology and digital transformation. A

noticeable difference between Convenience and Neighbourhood centres is that within the changing customer behaviour theme, Neighbourhood centres faced challenges and impacts associated with social media interactions and marketing, which Convenience centres did not. This implies that a social media presence and customer focused interactions are required to avoid or manage negative publicity in Neighbourhood centres. Another difference is that Neighbourhood centres tend to curate tenant mixes to counteract the obsolescence of certain retail categories in addition to other interventions associated with declining demand for retail space.

8.3.3 Community Centre Framework

Community centres were the best performing centres in terms of trading density growth for the period of the study (Q1:2020 to Q3:2021), taking market share from larger format centres. Between Q3:2020 and Q3:2021, Community centre trading densities increased 18.8% year on year. This segment of shopping centres has also seen its trading density recover to a level above its pre-COVID19 level (Harmse, 2021). A possible explanation of this outperformance in this segment is that it is food-anchored and food-service heavy, while being located in residential areas that benefited from the work-from-home phenomenon induced by COVID-19 pandemic restrictions. Though food services suffered a great deal from the restrictions on trade, they also benefited from the early lifting of restrictions on e-commerce that allowed for online ordering of meals immediately after the hard lockdown of March-April 2020. The food service based in Community centres benefited from this early on, being closer to homes from which shoppers were ordering, while larger format centres did not benefit as much and, in fact, lost their market share to Community centres.

Furthermore, small format retail is primarily anchored by supermarkets (grocery stores), which were considered essential services and were not closed even during the most restrictive lockdowns. This benefited Community centres more than larger format centres because of the exact location-related reasons outlined in the preceding paragraph. Community centres also benefitted more than smaller formats because they have larger tenant mixes and merchandise offerings. For example, two grocery anchors, such as Checkers and Woolworths, are often found in the same Community centre, thus attracting more shoppers in search of variety and value even during the pandemic. In addition, the major food retailers in South Africa also launched their online shopping and grocery delivery services, resulting in increased sales despite low foot traffic.

The preceding implies that Community centres experienced COVID-19 accelerated digital disruption in much the same way as Neighbourhood centres and focused on the same strategies to cope as outlined for Neighbourhood centres; however, they realised better results from the strategies thereof. As a result, the Community centre vacancy, as of Q3:2021 continued to be high and well above pre-pandemic levels at 6.9% (Harmse, 2021). Despite the improved trading densities, this high vacancy rate implies that the obsolescence of certain retail categories, such as electronics and entertainment, in this category of shopping centres continued to drive vacancies.

Community centres appear not to have suffered from any social media-related impacts, perhaps because from this segment upwards, most centres already have a website and a

managed social-media presence. However, as with the smaller categories of shopping centres already analysed above, increasing operating costs are seen as important. These operating costs tended to be associated with hygiene and COVID-19 response, as well as the usual increases in municipal rates and utility costs, which centres pass on to tenants. The low rental growth and rental concessions given by landlords to tenants, whose operations were disrupted or restricted by lockdown regulations, offset the high operating costs for tenants, to a large extent, especially those in merchandise categories that outperformed. This cost offset is evidenced by the cost of occupancy being down to pre-pandemic levels, as of Q3:2021 (Harmse, 2021). The cost of occupancy is driven by the ratio between gross rental growth and sales growth. The cost of occupancy (8.1%) declined for the period in question, as a result of sales growth (16.1%) coupled with negative rental growth (-2.3%) across all shopping-centre classes, with some merchandise categories faring better than others.

Community centres consider adapting to technology important, but once more not as urgent as challenges, impacts and strategies associated with customer behaviour and reduced vacancy rates. In order to cope with the disruptions, these centres adopt a retail management-fundamental-approach focusing on the shopper to increase foot counts and sales, as outlined in the preceding paragraphs. The survey results show that the top 3 themes of digital disruption in retail property affecting Community centres are:

1. Theme 1- Changing customer behaviour
2. Theme 4- Reduced retailer floor spaces and demand for space
3. Theme 5- Adapting to technology

Within these themes, the essential strategies to counteract digital disruption within the Community centre category are (in order of importance):

1. Curating tenant mixes and space configurations
2. Flexible leasing and leases
3. Curated marketing, promotions, social-media marketing, shoppertainment and place-making events
4. Customer and community-focused business practices

In conclusion, Community centres focus on tenant and shopper retention and attraction. This implies a focus on place-making, customer experience and landlord services. The framework for digital disruption in Community Centres is illustrated in Table 37.

Table 37: 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 and 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 and 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 and facility management software and data capturing and analytics capabilities.</p>

Source: Author (2022)

8.3.4 Small-Regional Centre Framework

Small-Regional centres experienced a 10% growth in trading densities between Q1:2020 and Q3:2021, that is, from the lows of the hard lockdown to the time of the research survey. However, this did not mean that trading densities improved overall beyond pre-pandemic levels, and the trading densities as of Q3:2021 sat at 3.44% below pre-pandemic levels. This is because the pandemic and its acceleration of digital disruption in the retail sector had a greater impact on Small-Regional centres than on smaller centres.

Small-Regional centres cater to a larger catchment area than all the smaller format centres; but, in most cases, are not fulfilling a regional centre role, especially in metropolitan and city suburbs due to many shopping centres of similar and larger sizes competing in these areas. Instead, they tend to have a more regional presence in rural or small-town centres. The tenant mix in these centres generally comprises two to three large food retailers, convenience

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retailers and national clothing outlets. The food and clothing merchandise categories lost their market share to smaller format centres, especially Community centres located within residential neighbourhoods, as people tended to shop locally to avoid lockdown restrictions. Additionally, with the expansion by many food retailers of their e-commerce channels and delivery services, shoppers shop closer to home to avoid high delivery charges. Due to the digital divide caused by internet access affordability in South Africa, suburban locations experience more significant e-commerce disruption than do township and rural locations.

The COVID-19 pandemic lockdown restrictions limited shoppers' ability to visit shopping centres located outside of their immediate area of residence. 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 major 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 that Small-Regional centres may have lost their market share to smaller and larger centres, especially regarding the food retail-merchandise category. This observation is borne out by Figure 79 below, which depicts that the market share, represented by trading-density growth, for Community and Neighbourhood centres has been an outperformer and that amongst the large format centres, the remaining market share went largely to Super-Regional centres.

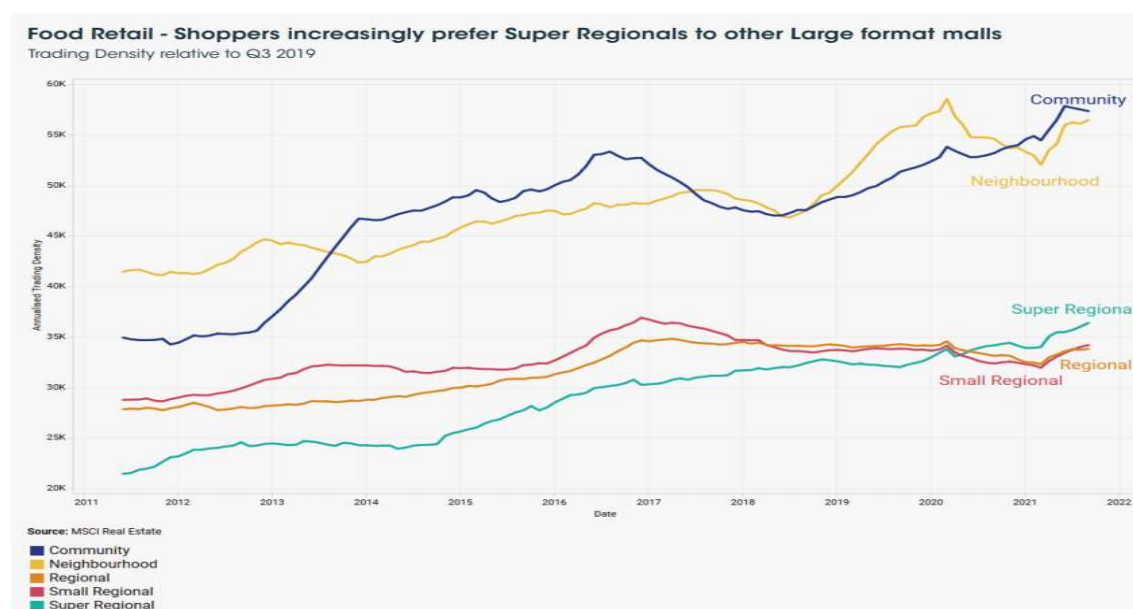


Figure 80: Food Retail Trading Density Trends Q1:2020 to Q3:2021 (Harmse, 2021:9)

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 3 themes within which a category of shopping centres experiences digital disruption. The top 3 themes for Small-Regional centres are:

- Theme 1- Changing customer behaviour

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

- Theme 4- Reduced retailer floor spaces and demand for space
- Theme 2- Increased retail competition (price competition from online channels)

Within these themes, the essential counteractive strategies to digital disruption are:

1. Flexible leases and leasing
2. Curating tenant mixes and space reconfigurations
3. Customer and community focused business practices
4. Curated marketing, promotions, social media marketing, shoppertainment and place-making events
5. Repurposing excess retail space and increasing non-GLA income

These strategies point to a focus on the shopper and enticing them to the shopping centre through experiences to counteract the negative impacts of COVID-19-accelerated digital disruption. The framework for digital disruption within Small-Regional shopping centres in South Africa is illustrated in Table 38.

Table 38: Digital Disruption Framework for Small-Regional Centres

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

Source: Author (2022)

8.3.5 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. They, like Small-Regional centres, have been more significantly impacted by the COVID-19 pandemic and accelerated digital disruption in the form of e-commerce for essentially the same reasons as those outlined above, concerning Small-Regional centres. These reasons can be more succinctly summarised for this class of shopping centres as follows:

- Loss of food and convenience market share to smaller format centres located 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, resulting 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.

Because of these circumstances, the survey results show that the most important themes within which regional centres experience digital disruption are:

1. Theme 1- Changing customer behaviour
2. Theme 5- Adapting to technology
3. Theme 2- Increased retail competition (price competition from online channels)

The critical strategies that regional-centre operators are employing to counteract the negative impacts of COVID-19 accelerated digital disruption are:

1. Customer and community-focused business practices
2. Curated marketing, promotions, social-media marketing, shoppertainment and place-making events
3. Curating tenant mixes and space reconfigurations
4. Repurposing excess retail space and increasing non-GLA income (e.g., Exhibitions, residential)
5. Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels, and upskilling property managers for the digital age.

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 39.

Table 39: 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 and trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates</p>	<p>Customer and 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 property management and proptech systems</p>	<p>Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytics capabilities</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: Author (2022)

8.3.6 Super-Regional Centre Framework

The research has shown that disruption is perceived, by shopping centre operators, to be more important or to have a greater impact on shopping centres in direct proportion to the size of the shopping centre. The larger the centre, the greater the level of digital disruption and the need to counteract it. The analysis of the survey results across the hierarchy shows that the top 3 themes within which shopping centres experience digital disruption become increasingly related to e-commerce and omnichannel disruptions. as one moves the analysis from the smallest to the largest shopping centre categories. The performance of various merchandise categories across the hierarchy of shopping centres also depicted this fact. For example, electronic goods, which are highly affected by e-commerce, did not do well in small format centres, but outperformed in large format centres where the retailers consolidated their physical store presence and added omnichannel delivery from said locations. At the same time, food retail, which was not greatly impacted by e-commerce/digital disruption, but rather by COVID-19 restrictions on shopper movements, consolidated and outperformed in small format centres during the research period. Food retail in small format centres benefited from e-commerce and the pandemic-induced work-from-home and shop-local trends. This is

because shoppers prefer to visit local stores closest to their homes for their food shopping and order online from the closest locations to minimise delivery costs.

Considering the circumstances outlined in the paragraph above and the rest of this paper, it is not surprising that the survey results indicate that Super-Regional centres ranked almost every strategy available largely as they experience the whole gamut of digital disruption. Super-Regional centres also fulfil the destination shopping centre role in its truest sense in South Africa. Therefore, they are under greater pressure to attract shoppers, to have appropriate tenant mixes and to provide experiences. The themes that ranked highest for Super-Regional Centres, according to the research survey, are:

1. Theme 1- Changing customer behaviour
2. Theme 3- Omnichannel retailing,
3. Theme 5- Adapting to technology

These point to a focus on digital disruption in retail and its consequent impact on shopper behaviour. Super-Regional centres are also the category of centres with the highest market values, greatest merchandise offerings and largest catchment areas. This implies that though vacancy rates as of Q3:2021 were 6.8%, the operators of these malls are somewhat more concerned with tenant retention and shopper attraction. By their 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). Super-regional centres in South Africa are thus employing the following strategies as their primary defence against any adverse impacts of digital disruption:

1. Curating tenant mixes and space reconfigurations
2. Flexible Leasing and leases
3. Curated marketing, promotions, social-media marketing, shoppertainment and place-making events
4. Customer and community-focused business practices
5. Repurposing excess retail space and increasing non-GLA income (e.g., Exhibitions, residential)
6. Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age
7. Leveraging technology through investment in ITC systems, especially proptech, property and facility-management software and data capturing and analytical systems.

The entire framework for digital disruption in South African retail (Table 29) is relevant for Super-Regional centres to a greater or lesser degree, depending on location. However, the most relevant framework based on the top three themes, according to the research survey results, is illustrated in Table 40.

Table 40: Digital Disruption Framework for Super-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>Social Media Influences upon customer behaviour</p>	<p>Reduced foot counts and trading densities in physical stores.</p> <p>Decreased demand for space and thus increased vacancy rates</p> <p>Negative Social Media Interactions and a need for social media presence and modern communication skills.</p>	<p>Customer and community-centric retail property business model</p> <p>Curating tenant mixes and space reconfigurations</p> <p>Curated marketing, promotions, social media marketing, shoppertainment and place-making events to create foot traffic and demand</p>
<p>Omnichannel retailing</p>	<p>Lease ambiguity on omnichannels</p> <p>Reduced foot counts and 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>
<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>Hiring and training for retail property capabilities, especially at Asset and Property/Centre Management levels and upskilling property managers for the digital age</p> <p>Leveraging technology through investment in ITC systems, especially proptech, property and facility management software and data capturing and analytics capabilities</p>

Source: Author (2022)

8.4 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. The challenges, impacts and coping strategies associated with each theme also varying in importance. However, 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 would need to adopt digital

transformation in the long term. More focus on customers/shoppers and their experiences calls for greater investment in data-analytical infrastructure and shopping-centre management teams' analytical capabilities for data-driven decision-making and planning.

Chapter 9: Research Conclusion

9. Conclusion

This research study has found various manifestations of digital disruption within the South African retail property industry. The disruption poses various challenges that negatively impact South African shopping centres' current and future viability, as a real-estate investment asset class. However, there exist strategies that can be adopted to counteract these negative impacts, to overcome not only current viability issues, but also future-proof South African shopping centres. In the short-term, digital disruption is a threat of lower importance than economic recovery from the COVID-19 pandemic-induced downturn and its associated socio-economic disruption. Political instability within South Africa and globally are additional threats with more significant economic impact than digital disruption in the immediate term. These threats are evidenced by the economic and social upheaval caused by the Russia-Ukraine conflict and the disruption the response to that conflict has caused in the energy markets, thus driving up fuel prices. The knock-on effects of high fuel prices are high inflation globally. The inflationary rise in food prices disproportionately impacts the poor and unemployed, who comprise most of the South African population. The South African monetary policy is based on inflation targeting, with the reserve bank targeting an inflation rate between 3% and 6%. As of July 2022, the inflation rate, measured by the consumer price index (CPI), stood at 7.4%, primarily driven by fuel price increases. As a result, and in response, the South African Reserve bank (SARB) responded by raising interest rates, which put further pressure on household/consumer debt servicing and disposable incomes. The economic and social malaise induced by these inflationary and unstable geo-political conditions poses more immediate threats to South African shopping centres; because they reduce households' disposable income, adversely impacting spending levels in shopping centres. A reduction in spending means lower sales and, thus, higher occupancy costs for retailers (tenants), which puts downward pressure on rentals at a time when inflation is driving up operating costs. The net result is lower net operating incomes and property values, at a time when retail property is looking to rebound from the pandemic-induced downturn (SARB, 2022).

The COVID-19 pandemic continues but has become largely manageable, in 2022, with the South African government terminating the state of disaster that allowed for disruptive lockdowns to be implemented. The lockdowns were highly disruptive to shopping centres and retailers by reducing foot counts and sometimes also reducing the merchandise categories that could be sold. The pandemic also drove an uptake in e-commerce and online shopping as pandemic restrictions curtailed travel, causing shoppers to switch to online shopping, while stuck at home. However, the growth, as already seen in this study, was not very high, and online shopping is still a minuscule portion of overall retail sales in South Africa. South Africans continue to have a mall culture, and shopping centres are likely to cope with digital disruption in the form of e-commerce over the remainder of this decade. Increasing numbers of South African retailers are adopting omnichannel retailing strategies, with formerly pureplay bricks-and-mortar retailers launching online shopping platforms and formerly pureplay online retailers opening fulfilment stores in shopping centres. The omnichannel trend bodes well for retail property space demand, but it requires transformations in tenant mixes and space configurations and the application of strategies like those proposed in this study.

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The post-pandemic period will determine whether some pandemic-induced challenges, impacts and strategies will continue to weigh as much in the opinion of retail property stakeholders and role players. It can, however, be hypothesised that the pandemic-related changes are more likely to end up being more short-term. At the same time, the acceleration in digital disruption is likely to slow down to a more rate of technological advancement-driven pace constrained by the digital divide, aggregate economic performance and socio-political conditions in South Africa. Based on this hypothesis, physical retail will likely maintain its position, as the preferred shopping channel in the medium term, and omnichannel as the long-term strategy of retailers, retail property owners, and shoppers. In contrast to the expected highly negative impact of the COVID-19 pandemic and its acceleration of digital disruption in the form of e-commerce on the retail property industry in other parts of the world, South African shopping centres are likely to recover and continue to be well-performing property assets for investors and the first choice of most South Africans for their shopping needs, at least for the remainder of this decade.

The research objectives can thus be concluded as follows:

9.1 A framework for digital disruption in South African Retail Property

Digital disruption of the retail property market is occurring in South Africa through interrelated challenges, impacts and strategies that interact within 5 themes, namely:

- Theme 1- Changing Customer Behaviour
- Theme 2- Increased Retail Competition
- Theme 3- Omnichannel Retailing
- Theme 4- Increasing vacancy Rates and Decreasing retail space demand
- Theme 5- Adapting to technology
-

Within each theme the strategies applicable to corresponding challenges and impacts tend towards either property management fundamentals or towards digital transformation (response to digital disruption).

9.2 Strategies Across the hierarchy of South African Shopping centres

The strategies to counteract digital disruption within retail property in South Africa vary across the hierarchy of shopping centres. As the size of shopping centres increases so does the perceived level of digital disruption. This seemingly proportionate relationship between the level of disruption and the size/class of shopping centre in the hierarchy is driven by:

- the digital divide and trading area income levels
- the impact of the COVID-19 pandemic on shopper behaviour (work from home trend)
- the traditional merchandise categories and tenant mixes of each category of shopping centres.

The result is that strategies more closely related to digital disruption are more important to large format (regional) centres and those related to traditional retail property management fundamentals are more important to smaller format centres.

These conclusions create a basis for future-proofing retail property in South Africa. The research is of value to retail property stakeholders from investors, developers, property managers and retailers. It can help these stakeholders to map and future-proof their businesses to survive in the short term and thrive in the long term. The survival and thriving of the retail property industry are especially important because, though currently playing second fiddle to logistics property in terms of investment performance, retail property has been the long-term outperformer for property investors, and it is likely to see a post-pandemic resurgence. South Africa has Africa's largest supply of retail property, but this supply is concentrated in suburban areas; thus, there are some opportunities for additional supply in underserved rural and low-income townships outside major metropolises and cities. In addition, the digital divide and the cost of access to the internet mean that large swathes of the population will still maintain demand for physical shopping. These circumstances present opportunities for reconfigurations, tenant mixes and experiences that speak to the South African mall culture of weekend shopping, coupled with eating out. Shopping centres, especially at the large format end of the hierarchy, will likely increase experiences, such as childcare, entertainment and play areas, while parents shop to continue to cater to this mall culture. The retail industry in South Africa is worth some 1 trillion Rand in revenue and it contributes 15% of GDP; thus, its ability to continue to thrive is important for the Republic's socio-economic stability, especially during a pandemic-induced economic malaise and record unemployment levels. To this end, the retail property industry value chain will be critical in the post-pandemic economic revival, from construction, infrastructural development, and property tax remittances to the employment of property services staff. In addition, this industry houses the retailers who employ a significant portion of the South African labour force,

9.3 Recommended Future Research

A topic of interest that was deduced from analysing the research results is: To what extent do location and trading-area income levels influence the level of digital disruption experienced by a particular shopping centre and across the hierarchy of shopping centres?

With this question in mind, the following research topics are recommended for future research:

- Strategies to counteract digital disruption across the geographic location categories of South African shopping centres.
- Strategies to counteract digital disruption across the income levels of the trading areas for shopping centres in South Africa.
- A post-pandemic study of the strategies to counteract digital disruption across the hierarchy of South African shopping centres.

Further research in these areas should yield strategies at a location and provincial level that would allow for understanding the nuances across provinces and income levels. This knowledge would better inform retail property investments at the regional level to the benefit of most stakeholders. In addition, a post-pandemic study like this would allow for the understanding of whether the acceleration of digital disruption (growth in e-commerce and omnichannel retail) and its impacts are a long-term or a temporary feature of the pandemic period. Finally, of interest, would be whether a post-pandemic adjustment to the strategies employed by shopping centres to counteract digital disruption is required.

Bibliography

- Agarwal, P., Breschi, R. and Devillard, S. 2017. *How the mall business can reinvent itself for the digital age*. Dubai: McKinsey.
- Ancora, L. 2016. *Digital Disruption: Impacts on Organizational Strategy and Structure ING Bank Case Study*. Rome: Università Luiss Guido Carli.
- Animesh, T. 2019. *History of mall management*. [Online]
Available at: <<http://www.yourarticlelibrary.com/mall-management/history-of-malls-management/87292>> [Accessed 18 May 2020].
- Australian Property Institute. 2008. *The Valuation of Real Estate*. 2nd ed. Deakin West.
- Baen, J. 2000. The effects of technology on retail sales, commercial property values and percentage rents. *Journal of Real Estate Portfolio Management*, 6(2), pp. 185-201.
- Banka, S. 2019. *CFOs role in driving customer centricity*. [Online]
Available at: <<https://cfoengage.com/2019/06/06/cfos-role-in-driving-customer-centricity/>> [Accessed 14 February 2021].
- Bloem, J., Van Doorn, M., Duvelstein, S., Excoffler, D., Maas, R. and Van Ommeren, E. 2014. *VINT Research Report 3: The Fourth Industrial Revolution*. St Laurent: Sogenti.
- Bond, J. and Austin, A. 2019. *The evolving demand for retail spaces*. [Online], Available at: <<https://www.cpexecutive.com/post/the-evolving-demand-for-retail-spaces/>> [Accessed 28 September 2020].
- McKenzie, B., Burt, S. and Dukeov, I. 2018. Introduction to the special issue: technology in retailing. *Baltic Journal of Management*, 13(2), pp. 146-151.
- Broll Intel. 2020. *COVID-19 data hub*. [Online], Available at: <<https://www.broll.com/news/broll-intels-COVID-19-data-hub-2020/>> [Accessed 6 April 2021].
- Brown, M. and Lubelczyk, M. 2020. *The Future of Shopping Centres*. Atlanta: A.T. Kearney.
- Bryman, A. 2006. *Integrating quantitative and qualitative research: how is it done?* *Qualitative Research*, 6(1), pp. 97-113.
- Buckley, T. R. 2018. In the city: The John Lewis Partnership and planned shopping centres. *Business History*, 60(4), pp. 512-541.
- Bureau of Market Research, UNISA. 2008. The impact of shopping mall development on small Township retailers. *SAJEMS*, 11(1), pp. 37- 53.
- Burt, S. and Sparks, L. 2003. E-commerce and the retail process: a review. *Journal of Retailing and Consumer Services*, 10(1), pp. 275-286.
- Businesstech. 2018. *Online vs physical retail shopping which is cheaper in South Africa?* [Online]. Available at: <<https://businesstech.co.za/news/internet/252189/online-vs-physical-retail-shopping-which-is-cheaper-in-South-Africa/>> [Accessed 18 June 2022].
- Buss, D. D. 1997. Entertailing. *Nations's business*, 85(12), p. 12.
- Cambridge Dictionary, 2022. *Shopping centre*. [Online].
Available at: <<https://dictionary.cambridge.org/dictionary/english/shopping-centre>> [Accessed 24 July 2022].
- Changsu, K., Galliers, R.D., Yang, K.H. and Kim, J. 2007. Evolution of Web-Based Shopping Systems: Characteristics and strategies. *Journal of Electronic Commerce in Organisations*, 5(4), pp. 70 - 87.
- Cloete, C. E. 2003. *Shopping Centre Management in South Africa*. 2nd ed. Sandton: South African Council of Shopping Centres.

- Cloete, C.E. and Pretorius, J.A. 2020. Retail turnover clauses in an online world. *Journal of Business and Retail Management Research*, 14(3), pp. 44-52.
- Creswell, J.W. and Creswell J.D. 2018. *Research Design- Qualitative, Quantitative, and Mixed Methods Approaches*. 5 ed. Thousand Oakes: Sage Publications Inc.
- Damesick, P. 2001. E-commerce and UK retail property: Trends and Issues. *Briefings in Real Estate Finance*, 1(1), pp. 18-27.
- Dawson, C. 2002. *Practical Research Methods- A user-friendly guide to mastering research techniques and projects*. 1 ed. Oxford: How To Books Ltd.
- Dawson, C. 2009. *Introduction to Research Methods: A practical guide for anyone undertaking a research project*. 4 ed. Oxford: How To Books Ltd.
- South Africa. Department of Health. 2020. *Information about the virus*. [Online]. Available at: <<https://sacoronavirus.co.za/information-about-the-virus-2/>> [Accessed 6 April 2021].
- Dixon, T. and Marston A. 2002. E-commerce and retail property in the UK and USA. *Journal of Property Investment and Finance*, 20(2), pp. 142-158.
- Dixon, T. and Marston A. 2005. Taking the shopping centre online: new models in e-commerce. *Property Management*, 23(2), pp. 97-109.
- Dludla, N. 2020. *South African e-commerce is a COVID-fired market of risk and reward*. [Online]. Available at: <<https://www.reuters.com/article/us-health-coronavirus-safrica-ecommerce-idUSKCN24G1A6>> [Accessed 5 April 2021].
- Dodge Data and Analytics. 2018. *World Green Building Trends 2018*, New Jersey: Dodge Data and Analytics Smart Market Reports.
- Du, X., Zhang, Y. and Zhengquan, L. 2020. Investigations and analysis of indoor environment quality of green and conventional shopping mall buildings based on customers' perception. *Building and Environment*, 177(106851), pp. 1-12.
- DuToit, J. L. 2010. *A Typology of Designs for Social Research in the Built Environment*. Stellenbosch: University of Stellenbosch.
- eCommerceDB. 2020. *E-commerce in South Africa*. [Online] Available at: <<https://www.statista.com/study/70380/ecommerce-in-south-africa/>> [Accessed 11 April 2021].
- Fantoni, R., Hoefel, F. and Mazzarolo, M. 2018. *The future of the shopping mall*. New York: McKinsey.
- Foroudi, P. Gupta, S., Sivarajah, U. and Broderick A. 2018. Investigating the effects of smart technology on customer dynamics and customer experience. *Computers in Human Behaviour*, 80(1), pp. 271-282.
- Fung, H. P. 2019. *How to calculate the sample size in sequential exploratory research design for both qualitative and quantitative*. [Online]. Available at: <<https://www.researchgate.net/post/How-to-calculate-the-sample-size-in-Sequential-Exploratory-Research-Design-For-both-Qualitative-and-quantitative/5d611109d7141b6e993ccb7f/citation/download>> [Accessed 9 January 2022].
- Geopoll, 2019. *E-commerce in Africa: Youth online shopping behavior across six African countries*. [Online]. Available at: <https://www.geopoll.com/blog/ecommerce-africa-youth/?adgroupid=88467538270andutm_term=andutm_campaign=b2b_Dynamic_Adsandutm_source=googleb2badutm_medium=cpcandutm_medium=ppcandutm_content=398216288095andhsa_acc=9672540637andhsa_cam=8170878869andhsa_grp=88467538270andhsa_a> [Accessed 6 November 2020].

-
- Ghyoot, V.G. and Collins, T. 2015. *Commercial Property Finance, Development and Investment*. 1st ed. Pretoria: University of South Africa.
- Goga S., Paelo, A. and Nyamwena, J. 2019. *Online Retailing in South Africa: An Overview*. Johannesburg: IDTT-CCRED, Department of Trade and industry.
- Goldman Sachs. 2019. *How is tech reshaping the city skyline (Podcast)*. London.
- Guy, C. M. 1998. Classifications of retail stores and shopping centres: some methodological issues. *GeoJournal*, 45(1), pp. 255-264.
- Halcomb, E.J and Hickman, L. 2015. *Mixed-methods research*. University of Wollongong: Faculty of Science, Medicine and Health- Papers: part A. 2656.
- Harmse, N. 2021. *SAPOA Research Report : Retail trends Q3 2021*. Johannesburg: South African Property Owners Association.
- Heskett, J.I., Jones, T.O., Loveman, G.W., Sasser G.W. and Schlessinger, L. 2008. Putting the service-profit chain to Work. *Harvard business Review*, July-August 2008.
- Hoyer, W.D., Kroshcke, M., Schmitt, B., Kraume K. and Venkatesh, S. 2020. *Transforming the customer experience through new technologies*. [Online]. Available at: <<https://doi.org/10.1016/j.intmar.2020.04.001>> [Accessed 22 June 2020 2020].
- ICSC. 2015. *Envision 2020: The future of the shopping centre industry*. New York: International Council of Shopping Centres.
- ICSC. 2017. *Industry Insights: Consumer series- Millenials most empowered by retailer technology*. New York: International Council of Shopping Centres.
- ICSC. 2017. *The importance of physical stores "Halo Effect"*. New York: International Council of Shopping Centres.
- ICSC. 2018. *Industry Insights (Consumer series): Consumers see a bright future in malls*. New York: International Council of Shopping Centres.
- ICSC. 2018. *Industry Insights (Consumer Series): Generation Z shopping behaviours support retail real estate*. New York: International Council of Shopping Centres.
- ICSC. 2018. *Industry Insights: Retail REITs successfully adapting to new shopping environment*. New York: International Council of Shopping Centres.
- ICSC. 2018. *Mixed-Use Centres, Part 1: The economics of place-making*. New York: International Council of Shopping Centres.
- ICSC. 2018. *Mixed-Use Centre Conversions, Part 2: Achieving optimal market position*. New York: International Council of Shopping Centres.
- ICSC. 2018. *The new retail state of mind*. New York: International Council of Shopping Centres.
- ICSC. 2019. *Asia-Pacific's Retail Renaissance: Success through omnichannel experiences*. New York: International Council of Shopping Centres.
- ICSC. 2019. *Customer Service: A key part of the retail renaissance*. New York: International Council of Shopping Centres.
- ICSC. 2019. *European Retail Real Estate: Successfully navigating a world in transition*. New York: International Council of Shopping Centres.
- ICSC. 2019. *Industry Insights: Future-proofing retail real estate by investing in innovation*. New York: International Council of Shopping Centres.
- ICSC. 2019. *What shopping centres can learn from the location-based entertainment sector*. New York: ICSC.
- ICSC. 2020. *Asian shopping centre definition standard*. New York: International Council of Shopping Centres.

- ICSC. 2020. *European shopping centre definition standard*. New York: International Council of Shopping Centres.
- ICSC. 2020. *U.S shopping centre classification and typical characteristics*. New York: International Council of Shopping Centres.
- Idoko, E. C., Ukenna, S.I. and Obeta, C. E. 2019. Determinants of shopping mall patronage frequency in a developing economy: Evidence from Nigerian mall shoppers. *Journal of Retailing and Consumer Services*, 48(1), pp. 186-201.
- Inceconnect. 2021. *Resilient in talks to sell malls*. [Online] Available at: <<https://www.inceconnect.co.za/article/resilient-in-talks-to-sell-malls>> [Accessed 5 April 2021].
- Jesse, N. 2018. Organisational Evolution- How digital disruption enforces organizational agility. *IFAC Papers Online*, 51(30), pp. 486-491.
- Kaplan, A. and Haenlaein M. 2019. Digital transformation and disruption: On big data, blockchain, artificial intelligence, and other things. *Business Horizons*, 62(1), pp. 679-681.
- Kaye, A. 2008. The mall comes back to town. *The Architects' journal*, 227(16), pp. 30- 35.
- Mackenzie, N. 2020. *Why are investors betting against shopping centres*. [Online] Available at: <<https://www.bbc.com/news/business-51588970>> [Accessed 21 February 2020].
- Marston, T. D. 2002. The impact of e-commerce on retail real estate in the UK. *Journal of Real Estate Portfolio Management*, 8(2), p. 153.
- Masebe, N. L., Moseneke M., Burger M. and Van Heerden. A. 2020. Digital Disruption in Retail: Strategies for South African shopping centres. In: Kantola, J.I., Nazir, S. and Salminen, V., ed. *AHFE 2020 Conference Proceedings: Advances in Human Factors, Business Management and Leadership*. San Diego: Springer Books, pp. 238-243.
- McIntosh, A. 2000. International consumer behaviour: The relationship between e-commerce and retail and leisure property. *Journal of Leisure Property*, 1(2), pp. 170-187.
- Mckinsey and Company. 2020. *Perspectives on retail and consumer goods*. New York.
- Mishra, A. and Vishvas R. 2019. Retail Shopper Empowerment: A consumer-centric measure for store performance. *IIMB Management Review*, 1(31), pp. 20-36.
- Mitchell, A., Barton, C., Yu C. and Nayak, M. 2020. *Winning the future of retail with real estate*. Boston: Boston Consulting Group.
- Myers, D. 2011. *Economics and Property*. 3 ed. UK: Routledge.
- News 24. 2021. *Eight Days in July: Inside the unrest and looting that shook South Africa*. [Online]. Available at: <<https://www.news24.com/news24/books/eight-days-in-july-inside-the-unrest-and-looting-that-shook-south-africa-20211105>> [Accessed 8 May 2022].
- Nojd, S., Trischler J.S., Otterbring, T., Andersson P. K. and Wastlund, E. 2020. Bridging the valuescape with digital technology: A mixed methods study on customer's value creation process in the physical retail space. *Journal of Retailing and Consumer Services*, 56(102161), pp. 1-10.
- O'Roarty, B. and Billingsley A. 2016. *Exploring new leasing models in an omnichannel world*. New York: International Council of Shopping Centres.
- Oxford College of Marketing. 2016. *What is digital disruption?* [Online]. Available at: <<https://blog.oxfordcollegeofmarketing.com/2016/02/22/what-is-digital-disruption/>> [Accessed 4 April 2021].
- Oxford Languages. 2021. *www.languages.oup.com*. [Online] Available at: <https://languages.oup.com/google-dictionary-en/>, [Accessed 4 April 2021].

- Pantano, E., Priporas, C. V. and Dennis, C. 2018. A new approach to retailing for successful competition in the new smart scenario. *International Journal of Retail and Distribution Management*, 46(3), pp. 264-282.
- Peniel, B.B. 2015. *Research Design*. [Online]. Available at: <<https://www.researchgate.net/publication/308262064>> [Accessed 9 January 2021].
- Planting, S., 2020. *Adapt or Die: Truworths and Woolies must bow to the consumer*. [Online], Available at: <<https://www.dailymaverick.co.za/article/2020-02-20-adapt-or-die-truworths-and-woolies-must-bow-to-the-consumer/>> [Accessed 20 February 2020].
- Poncin, I., Garnier, M., Mimoun, M.S.B. and Leclerq. T. 2017. Smart technologies and shopping experience: Are gamification interfaces effective? The case of the Smartstore. *Technological Forecasting and Social Change*, 124(1), pp. 320-331.
- Prinsloo, D. 2015. *Omnichannel retailing changes, trends and strategies*. Johannesburg: South African Council of Shopping centres.
- Prinsloo, D. 2016. *Major Retail types, classification and the hierarchy of retail facilities in South Africa*. Pretoria: Urban Studies.
- Prinsloo, D. 2016. *Online vs in-store shopping*. Pretoria: Urban Studies
- Prinsloo, D. 2018. *SA shopping centre benchmarks 1998-2018*. Johannesburg: Urban Studies.
- Property Wheel. 2021. *Rental relief of R53.8m hinders Attacq's distributable income*. [Online]. Available at: <https://propertywheel.co.za/2021/03/rental-relief-of-r53-8m-hinders-attacqs-distributable-income/?utm_source=Wheel+Mediaandutm_campaign=5ce3af2e37-Property+Wheel+Editor%27s+Highlights+15.05.2020_COPYandutm_medium=emailandutm_term=0_c8ce0081c4-5ce3af2e37-5085495> [Accessed 23 March 2021].
- Property24. 2020. *Soweto property market will soon be the Sandton of the south*. [Online]. Available at: <<https://www.property24.com/articles/soweto-property-market-will-soon-be-the-sandton-of-the-south/29261>> [Accessed 24 February 2020].
- Rael, L. 2020. *Real Estate is being disrupted faster than what you think*. [Online]. Available at: <<https://www.linkedin.com/pulse/commercial-real-estate-being-disrupted-far-faster-than-rael-levitt>> [Accessed 24 February 2020].
- Raj, P. and. Lin, J. 2020. Stepping into the digitally instrumented and interconnected era. *Advances in Computers*, 117(00065-2458), pp. 1-34.
- Redefine Properties, 2021. *Data reveals retail greenshoots as lockdown restrictions ease*. [Online]. Available at: <<http://www.redefine.co.za/media/press-archive/data-reveals-retail-green-shoots-as-lockdown-restrictions-ease->>> [Accessed 10 June 2022].
- Reynolds, K. 2017. *How digital opportunity is reshaping SA's shopping centres*, Johannesburg: Nedbank CIB.
- Robert, P., Priest, H.M. and Traynor, M. 2006. Reliability and validity in research. *Nursing Standard*, 20(44), pp. 41-45.
- Rode and Associates. 2020. *State of the property market in quarter 1 of 2020*. Cape Town.
- Rode and Associates. 2020. *Rode's Report 2020:3 Property industry playing from the rough*. Cape Town.
- Rode and Associates. 2022. *State of the property market in quarter 1 of 2022*. Cape Town.
- SA Commercial Property News. 2019. *How advanced data analytics is boosting shopping centre performance*. [Online]. Available at: <<http://www.sacommercialpropnews.co.za/global-property-news/9003-how-advanced-data-analystics-is-boosting-shopping-centre-performance.html>> [Accessed 02 August 2019].

-
- SA Commercial Property News. 2020. *Empty spaces take a toll as Massmart plans to close DionWired and Masscash*. [Online]. Available at: <http://www.sacommercialpropnews.co.za/property-companies-news/9154-empty-spaces-take-toll-as-massmart-plans-to-close-dionwired-and-masscash.html> [Accessed 6 February 2020].
- SACSC. 2019. *Shopping Centre Directory 2019.*, Johannesburg: South African Council of Shopping Centres.
- SACSC. 2020. How China is innovating the future of retail. *ShoppingSA*, January/February, p. 14.
- SAPOA, 2020. *Retail Trends Report Q4:2019*. Johannesburg: South African Property Owners' Association.
- SACSC. 2020. Is Retail About to be Clobbered? *ShoppingSA*, March/April, pp. 16-17.
- SAPOA. 2020. *Research Report: Retail Trends May 2020*. Johannesburg: South African Property Owner's Association.
- SARB. 2022. *Monetary Policy Review- July 2022*. Pretoria: South African Reserve Bank.
- Savills Commercial Research. 2018. *Spotlight: Retail Revolutions 2018 Outlook*. London: Savills.
- StatsSA. 2011. www.statssa.gov.za. [Online], Available at: <https://www.statssa.gov.za/?page_id=1021&id=city-of-cape-town-municipality> [Accessed 11 April 2022].
- StatsSA. 2021. www.statssa.gov.za. [Online], Available at: <<http://www.statssa.gov.za/>> [Accessed 6 April 2021].
- Strydom, J. 2018. Introduction to Business Management. In: J. Strydom, ed. *Principles of Business Management*. Cape Town: Oxford University Press, pp. 4-30.
- Terrell, S. R. 2012. Mixed Methods Research Methodologies. *The Qualitative Report*, 17(1), pp. 254-280.
- Veuger, J. 2018. Trust in a viable real estate economy with disruption and blockchain. *Facilities*, 36(1), pp.103-120.
- Verhoef, P.C., Kannan, P.K. and Inman, J.J. 2015. From Multi-Channel Retailing to Omnichannel Retailing: Introduction to the special issue on multi-channel retailing. *Journal of Retailing*, 91(2), pp. 174-181.
- Watling, J., McCabe, J. and Seedt, Y. 2019. *Rethinking the eCommerce opportunity in South Africa: How retailers can pivot to digital customers*. Johannesburg: Accenture.
- Xin, S., Rongzhi, G., Guanjie, H. and Dongmin C. 2017. Interaction data detection system to upgrade brick and mortar shops. *IEEE Consumer Electronics Magazine*, 22 September, pp. 57-63.
- Yan, X. 2018. *The Impact of online shopping on shopping malls*, New York: Buffalo State College of the State University of New York.
- Zhang, D. and Yanmei, Y. 2016. The effects of e-commerce on the demand for commercial real estate. *Cities*, 51(1), pp. 106-120.
- Zhu, Z. and Nakata C. 2007. Re-examining the link between customer orientation and business performance: The role of Information Systems. *The Journal of Marketing Theory and Practice*, 15(3), pp. 187-203.

List of Annexures

Annexure A- Email Request for permission to conduct research interviews

Annexure B- Company Permission Letter (interviews)

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Annexure D- Online Survey (Copy of Google Form)

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Annexure G- University Letter to Support Research Activities

Annexure H- Turnitin Similarity Report

Annexure A- Email Request for Permission to Conduct Interviews

From: Norman Masebe <Norman.Masebe@excelleratejhi.com>

Sent: Friday, 24 April 2020 08:38

To: Fiona Abrahams <AbrahamsF@fortressfund.co.za>

Subject: RE: Permission to conduct Research survey

Hi Fiona

Thank you so much. I will interview those that I agree to do an interview up to 5 will do. I would have liked to propose a focus group after my presentation but given the COVID19 situation I have revised that idea and will only do interviews then a survey.

The letter can just say:

To the EBIT Ethics Committee

This letter serves to confirm that Fortress REIT has granted Norman L Masebe permission to conduct research for his MSc Real Estate at the University of Pretoria, within our company. He may conduct interviews with relevant staff members and distribute an online survey to our retail property managers. We acknowledge the current COVID19 situation and that he may have to conduct interviews via telephone or video call.

Then Vuso's details (name, title and signature)

Regards

From: Fiona Abrahams <AbrahamsF@fortressfund.co.za>

Sent: Thursday, 23 April 2020 4:16 PM

To: Norman Masebe <Norman.Masebe@excelleratejhi.com>

Subject: RE: Permission to conduct Research survey

Hi Norman

He says its fine you may proceed.

Send me the letter and I will put on letterhead and get it signed.

Are you interviewing all of them?

Regards

Fee

From: Norman Masebe <Norman.Masebe@excelleratejhi.com>
Sent: Thursday, 23 April 2020 15:45
To: Fiona Abrahams <AbrahamsF@fortressfund.co.za>
Subject: Permission to conduct Research survey

Hi Fiona

1

I hope you are well and keeping safe? May you kindly forward the below email request to Vuso. I do not have his email address.

Good Day Sir

I hope this email finds you well?

I am currently an MSc Real Estate student at the University of Pretoria. I am hereby requesting to conduct research interviews with the retail property asset managers of Fortress REIT, on the subject Digital Disruption in Retail Property. Please see the attached university confirmation letter.

The research is building on the findings of Honours thesis which is summarized in the attached paper which was submitted for, and will be presented in, the AHFE2020 conference in San Diego later this year. The survey and interviews seek answers to the following questions:

- What are the challenges brought about by digital disruption in retail to their (specific) shopping centres?
- What are the impacts brought about by said challenges?
- What strategies are being employed (or can be employed) to deal with the impacts of digital disruption?

Interviews will be used to compliment the literature analysis and improve the resulting framework and then an online survey will be used to apply the framework to the hierarchical structure of planned shopping centres (across GLA sizes and general locations).

I would like to conduct interviews in June 2020 and send out an online survey in July 2020.

Approval, if granted may be in the form of a letter your company letterhead. I need the approval by **30th of April 2020**.

Regards

Norman Masebe | Operations Manager
JHI Retail (Pty) Ltd

Annexure B- Company Permission Letter for Research Interviews



11 May 2020

To the EBIT Ethics Committee

This letter serves to confirm that Capital Propfund (PTY) LTD has granted Norman L Masebe permission to conduct research for his MSc Real Estate at the University of Pretoria, within our company. He may conduct interviews with relevant staff members and distribute an online survey to our retail property managers. We acknowledge the current COVID19 situation and that he may have to conduct interviews via telephone or video call.



Vuso Majija
Retail Director

Block C, Cullinan Place, Cullinan Close, Morningside, 2196
PO Box 138, Rivonia, 2128 Tel: +27(11) 282 2800

Directors: Steven Brown, Vuso Majija, Ian Vorster, Donovan Pydigadu

Capital Propfund Proprietary Limited
Reg. no. 2014/013211/07

Company Secretary: Tamlyn Stevens

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

Annexure C- Email Invitation to Participate in Research Survey

Subject: Fwd: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

CAUTION: This email originated from outside of the organization - be aware of attachments, links or suspicious payment requests. Please report suspicious emails to the IT department immediately.

Dear Sir/Madam

I trust this email finds you well, especially in these difficult times for the retail property industry and country.

You are receiving this email because either you or the shopping centre you manage is listed in the South African Council of Shopping Centres (SACSC) Directory. The SACSC has had a research chair at the University of Pretoria for a few years now, which sponsors retail real estate research. I am an MSC Real Estate student in my final year of research and the last leg of my dissertation. This leg requires a survey of South African Shopping Centre managers to obtain data on digital disruption in light of information already gathered from literature and expert interviews.

You are kindly requested to participate in the research survey by completing the survey below. The survey is an online survey composed of multiple choice questions and takes 3 - 10mins to complete. Responses are completely anonymous and the first page allows you to either consent and go on with the survey or opt out (which is also a valid response). If you are not a centre manager but manage centre managers may you please kindly forward this email to centre managers in your team.

Your participation will go a long way in adding knowledge and value regarding digital disruption and transformation in the retail property industry, and is thus anticipated and will be much appreciated.

Kind Regards
Norman L. Masebe
Student Number 16204248

Having trouble with viewing or submitting this form?

FILL IN USING GOOGLE FORMS

I've invited you to fill in a form:

[Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres](#)

Annexure D- Online Survey (Copy of Google Form)

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

Informed consent form

1. Project information

1.1 Title of research project: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

1.2 Researcher details:

Norman L Masebe (Student No. 16204248)
Department of Construction Economics, EBIT Faculty.
Email: u16204248@tuks.co.za
Cell: 078 862 1342

1.3 Research study description:

The project entails a survey of planned shopping centres through information given by participants in order to determine the challenges, impact and counteractive strategies with regards to digital disruption across the hierarchy of South African shopping centres. The aim is to identify problems and possible solutions to digital disruption in retail, which affect the planned shopping centre industry. Prior to sending out the survey expert interviews with Retail Portfolio/Asset Managers were conducted to validate the literature study and put it into the South African context. The results of these interviews helped formulate the nine (9) questions on this survey which is sent out to retail property managers/staff. Participation is anonymous, safe and confidential in that neither the retail property managers'/staff or shopping centres' names or contact details are required. The final research dissertation may be published in academic and scientific peer reviewed journals or conference proceedings.

2. Informed consent

2.1 I, hereby voluntarily grant my permission for participation in the project as explained above.

2.2 I understand the nature, objective, possible safety and health implications as explained above.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

2.4 Upon agreeing to participate, I will have given my informed consent to participate in the survey.

*Required

1. I hereby agree and give my informed consent to participate in the research survey. *

Mark only one oval.

- Agree Skip to question 2
- Disagree Skip to section 3 (Participation Declined)

Survey Questions

Online Research Survey

2. Planned shopping centres in South Africa can be classified using a hierarchical classification by size and function, as listed below. What is your type of shopping centre by size (GLA)? *

Mark only one oval.

- Convenience Centre with GLA 500 - 5000 sqm
- Neighbourhood Centre with GLA 5000 - 12000 sqm
- Community Centre with GLA 12000 - 25000 sqm
- Small Regional Centre with GLA 25000 - 50000 sqm
- Regional Centre with GLA 50000 - 100000 sqm
- Super Regional Centre with GLA >100000 sqm

3. In Which Province is your centre located? *

Mark only one oval.

- Gauteng
- Western Cape
- Eastern Cape
- Northern Cape
- North West
- Mpumalanga
- Limpopo
- Freestate
- KwaZulu Natal
- Other: _____

4. The geographic categories used to classify shopping centre locations in South Africa are listed below. What is the geographic location category of your shopping centre? *

Mark only one oval.

- Metropolitan CBD
- Metropolitan Suburb
- Metropolitan Township
- City CBD
- City Suburban
- City Township
- Town Centre
- Town Suburbs
- Townships
- Rural Areas
- Other: _____

5. What is the living standard measure (LSM) by income level (per month) in your centre's trading area/location? *

Mark only one oval.

- LSM 1 to LSM 4 (R1363 - R3138pm)
- LSM 5 to LSM 7 (R4165 - R11 263 pm)
- LSM 8 to LSM 10 (R13 210 - R32 521pm)
- LSM 10+ (R32 522+)

6. Digital Disruption in retail consists of such things as ecommerce (Takealot, Uber eats), social media, proptech and retail tech. What are the challenges posed by digital disruption on your shopping centre? Select all options that apply: *

Tick all that apply.

- Changing Customer behavior
- Social Media Influences upon customer behavior
- Online Shopping behaviors induced by COVID19 pandemic namely reduced visits to malls and increased online shopping activity
- E-commerce price competition
- Omni-Channel Retailing
- Reduced demand for retail floor space
- Adapting to technology (digital transformation of retailers and property managers businesses))

7. What are the impacts (consequences) of the above challenges on the shopping centre? Select all options that apply: *

Tick all that apply.

- Lease ambiguity on Omni-channel retailing eg. Online sales not being captured with store turnover
- Obsolescence of certain Retailers or Merchandise categories due to ecommerce price competition
- Negative Social Media Interactions & a need for social media presence and modern communication skills.
- Increased pressure to invest in ICT systems and digital infrastructure e.g., mail WiFi, capable and digital property management and proptech systems
- Reduced foot counts & trading densities in physical stores
- Changing space configurations and reduced demand for retail space, resulting in decrease in rental income and property devaluations leading to flight of capital from retail property
- Increasing operating and utilities costs

8. What are the coping strategies that are being adapted or can be adapted to counteract the impacts stated above? *

Tick all that apply.

- Curating tenant mixes & space reconfigurations
- Repurposing excess retail space and increasing non-GLA income (e.g. Exhibitions, residential)
- Hiring & training for retail property capabilities especially at Asset & Property/Centre Management levels and upskilling property managers for the digital age
- Leveraging technology through investment in ITC systems especially proptech, property & facility management software and data capturing & analytics systems.
- Adopting Agile property management systems and processes (data driven, iterative & real time responsive processes & systems)
- Flexible Leasing and leases
- Curated marketing, promotions, social media marketing, shoppertainment and place-making events
- Customer and community focused business practices

9. The challenges, impacts and strategies of digital disruption have been found to interact within 5 main themes. With respect to digital disruption (ecommerce, uber eats, online shopping etc.), please rank the below themes in order of magnitude, from the highest to lowest impact/importance on your shopping centre

Mark only one oval per row.

	Theme 1- Changing Customer Behaviour	Theme 2- Increased Retail Competition (price competition from online stores e.g. Takealot)	Theme 3- Omni-Channel Retailing	Theme 4- Reduced retailer floor spaces and demand for space	Theme 5- Adapting to technology
First	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2nd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3rd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4th	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5th	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Are there any other challenges/impacts and strategies to counteract them that are encountered/anticipated at the shopping centre as a result of digital disruption, which are not included above? If so, please describe them briefly below (if none please type N/A):

Participation Declined

You have elected not to participate in the research project. You may click submit or close your browser

This content is neither created nor endorsed by Google.

7/3/22, 4:48 PM

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

Google Forms

<https://docs.google.com/forms/d/1He21ZOOH-Xo2FLdLPqXIQ7DdtDRE4EbLylYD0Mn0Z1-8/edit>

1/7

Annexure E- Ethics Approval and Supporting Documents



Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en
Inligtingtegnologie / Lefapha la Boetsenere,
Tikologo ya Kago le Theknolotši ya Tshedimošo

Reference number: EBIT/80/2020

Mr NL Masebe
Department: Construction Economics
University of Pretoria
Pretoria
0083

Dear Mr NL Masebe

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Research Ethics Committee refers.

Approval is granted for the application with reference number that appears above.

1. This means that the research project entitled "Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres" has been approved as submitted. It is important to note what approval implies. This is expanded on in the points that follow.
2. This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Research Ethics Committee.
3. If action is taken beyond the approved application, approval is withdrawn automatically.
4. According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.
5. The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Prof K.-Y. Chan

Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

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Assigned EBIT tracking number	EBIT/ /
Date received	

UNIVERSITY OF PRETORIA
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY
FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY
(EBIT Ethics Committee)

APPLICATION FOR APPROVAL OF A RESEARCH PROJECT

This application form must be read with the relevant UP regulations, as documented in the Code of Ethics for Scholarly Activities, and the Policy and Procedures for Responsible Research. By completing and submitting this form, you declare that you have read these two documents and understand the regulations.

Important: Each item must be completed.

Complete the form in your word processor. Forms completed in handwriting are not accepted.

Where applicable, underline the correct answer (e.g. Yes or No).

1. RESEARCHER DETAILS: (Please include your Supervisor details in this section if you are a student)			
Applicant details:		University of Pretoria supervisor details:	
Initials and surname:	NL MASEBE	Initials and surname:	M Burger
Title:	MR	Title:	Dr
Email:	u16204248@tuks.co.za	Email:	Michelle.Burger@up.ac.za
Phone:	078 862 1342	Phone:	012 420 4972
Employee/student number:	16204248	Employee number:	95009452
Department:	Construction Economics	Department:	Construction Economics
Are you a student (yes or no):	Yes		Lecturer

2. RESEARCH PROJECT TITLE (use a descriptive title)

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

3. RESEARCH PROJECT DETAILS

3.1 Provide a complete but concise description (no more than 5000 characters, including spaces) of the study objectives and study design, so that the relevant ethical aspects can be identified.

- From this, please identify the aspects clearly that you believe require ethics clearance.
- Please note: do NOT submit a complete research proposal. The Ethics Committee will not consider this, but will only consider the documents required for submission of an application.

The world is currently the era known as the fourth industrial revolution (4IR). The 4IR is driven by the conjunction of information and communication technology advancements such as artificial intelligence (AI), internet of things (IoT) and advancements in robotics, automation and 3D printing. According to Veuger (2018), disruption refers to when something new and small penetrates something existing and big in a short space of time. New relatively small 4IR technologies are penetrating the retail sector and the retail property sector thereof, in a disruptive fashion that calls for rapid adaptation of retail property business and investment decisions (Veuger, 2018).

Online retail, cloud kitchens, co-working spaces, flexible warehousing are all rapidly changing different classes of real estate to the point where real estate as an asset class is looking unpredictable to investors. Companies are limiting planning to 2year horizons as they grapple with 4IR disruption and thus demanding shorter lease terms. Commercial real estate derives value from its ability to generate income and that is represented and secured by lease contracts. Shorter leases combined with lower rentals result in lower values (Australian Property Institute, 2008). The erosion of values has been cataclysmic for shopping malls as the combined impact of various 4IR challenges congruously impacting the sector is eroding investor confidence resulting in the flight of capital from the asset class.

Digital disruption of retail property has been most prevalent in geographical regions where there is a convergence of high technology and large numbers of retail properties. The USA retail property market represents this convergence best and it is here that ubiquitous platform based retailers like Amazon and rapid uptake of online shopping has led to "the death of the mall" (Yan, 2018). In the USA shopping mall values have declined by 30% from their peak values (Rael, 2020).

While shopper visits to shopping centres have been declining overtime, online shopping has been increasing. In South Africa the "death of the mall" has not quite taken effect and although retail property is under strain it has not collapsed as yet. The retail property industry in South Africa represents billions of Rand in investment, employment and urban development, all of which would be negatively impacted should it collapse. It therefore follows that knowledge about its adaptation to the 4IR and the threats and opportunities that the 4IR represents is vital to the long-term success of the industry and the economy of South Africa.

Study Objectives:

The objectives of the study are:

1. To understand the impact of digital disruption on retail property in South Africa
2. To understand the strategies that can be adapted to deal with digital disruption in retail property
3. To understand the disruption and its impact and applicable strategies across the planned shopping centre hierarchy

Study Design:

The study design follows the following chronological steps:

1. A literature analysis to produce a framework of impact vs strategies
2. Expert interviews to complement and improve upon the Framework
3. An online survey of shopping centre managers listed in South African Council of shopping Centres Directory (about 1200 planned shopping centres) to understand the framework across the shopping centre hierarchy
4. Analysis of results and Discussion of findings

The aspects requiring ethical approval are:

1. List of interview question
2. The survey questions

The shopping centre directory is a publication that can be purchased over the counter or sourced from the SACSC Research chair in the Department of Construction economics of the University of Pretoria. Company permission for interviews and survey is attached hereto.

Interviewees will sign the informed consent form prior to the interview. The survey shall be of retail property managers as informants and an informed consent form will be included in the online survey as the first page to which informants are to accept/agree in order to access the survey. A copy of said informed consent form is attached hereto.

<p>3.2 Will a research questionnaire/survey be used?</p> <ul style="list-style-type: none"> • If Yes, please answer the next question. If No, ignore the next question. • Please submit your questionnaire, survey questions or interview questions with your application. This will be a separate file that should be submitted as a pdf file, using this filename format: Questionnaire.pdf or Survey.pdf 	<u>Yes</u>	No
<p>3.2.1 Does your questionnaire/survey include any personal questions? (including ANY of the following: name, address, email address, any other information by which a respondent can be identified, gender, age, race, income, medical status)?</p>	Yes	<u>No</u>
<p>3.3 Are employees of a firm, organisation or institution questioned as informant in this study?</p> <ul style="list-style-type: none"> • If Yes, please submit letter(s) of permission from this entity to carry out this study. It should be clear that the person giving permission is authorised to do so and should be on a company letterhead and should include the date and that person's signature. • Where required, your application cannot be considered without this permission. • This letter should be submitted as a pdf file, using this filename format: CompanyPermissionLetter.pdf 	<u>Yes</u>	No
<p>3.4 Will you be surveying or questioning UP students or UP personnel in this study?</p> <ul style="list-style-type: none"> • If Yes, you need to submit a letter or email from the Dean that provides permission for you to include UP personnel or students as participants in your study. • Where this is required, your application cannot be considered without this permission letter. • This letter should be submitted as a pdf file, using this filename format: DeanPermissionLetter.pdf 	Yes	<u>No</u>

4. RESEARCH PARTICIPANTS		
<p>Does the project involve people as participants, either individually or in groups? If Yes, please answer questions 4.1 to 4.7. If No, continue to section 5.</p>	<u>Yes</u>	No
<p>4.1 Does the study involve people as informants, or does it involve people as research subjects? <i>Informants</i> are people of whom you require an opinion, e.g. people that are interviewed or that take part in a survey. <i>Research subjects</i> are people that actively take part in research, e.g. where biological measurements are made (e.g. heart rate) or where people take part in behavioural tasks (e.g. listening tasks)</p>	<u>Informants</u>	Subjects
<p>4.2 Describe possible safety and health implications that participation in the project may pose. None</p>		
<p>4.3 What is the expected duration of participation of people in the project? An hour for interviews and 10-20mins for the Survey</p>		
<p>4.4 Describe the manner in which confidential information will be handled and in which confidentiality will be assured. No confidential information is required for the study</p>		
<p>4.5 Please explain how and where data will be stored. It should be clear that data will be appropriately protected (e.g. password protected in encrypted files). Password protected file on laptop and google drive.</p>		
<p>4.6 Is remuneration offered to subjects for participation? If yes, please expand. No</p>		
<p>4.7 INFORMED CONSENT/ASSENT Informed consent is a requirement for <i>all</i> studies. All participants need to provide individual informed consent, which the researcher should keep on record. An example for an informed consent form appears on the website, but this should be adapted to be very specific about your study and what you will require of participants. Please submit your informed consent form (an example of the form that you will use) with your application. This should be submitted as a pdf file, using this filename format: InformedConsent.pdf</p>		
<p>4.7.1. Please describe what you will do to obtain informed consent/assent from your participants (or their caregivers in the case of underage participants). Regarding interviews the informed consent form will be signed prior to the start of any interview. Regarding the online survey, the informed consent form will be the first page of the online survey and will be required to be accepted before survey can be accessed.</p>		
<p>4.7.2 Detail the measures you will take to ensure that participation is voluntary. Interview Informants will be asked to take part voluntarily via email and telephone calls. Those that agree will voluntarily sign the informed consent form. Survey informants will receive an email request containing the survey which will be voluntarily completed.</p>		
5. ENVIRONMENTAL IMPACT and HAZARDOUS MATERIALS		
<p>5.1 Does the project have a potentially detrimental environmental impact, or are hazardous materials used in the project?</p>	Yes	<u>No</u>
<ul style="list-style-type: none"> • If Yes, you will need to submit a letter of approval from the Department of Facilities and services, Occupational Health and Safety division, before the Ethics Committee can consider your application. • If section 5 (this section) is the only aspect of your project for which you require clearance from the Ethics Committee (i.e. no people or animals are included in your study), you should not apply to the Ethics Committee, but should apply for clearance directly to the Occupational Health and Safety division. • If No, continue to section 6. 		

6. DISSEMINATION OF DATA

6.1 How and where will your results be published and/or applied?

A research dissertation will be submitted to the Department of construction economics of the University of Pretoria's EBIT faculty.

7. DECLARATION (Tick the relevant boxes)

✓	I accept and will adhere to all stipulations pertaining to ethically sound research as locally, nationally and internationally established.
✓	I will conduct the study as specified in the application and will be principally responsible for all matters related to the research.
✓	I shall communicate all changes to the application or any other document before any such is executed in my research, to obtain the necessary permissions from the Ethics Committee.
✓	I will not exceed the terms of reference of the research application or any other documents submitted to the Ethics Committee.
✓	I confirm that I'm not seeking ethics clearance for research that has already been carried out.
✓	I affirm that all relevant information has been provided and that all statements made are correct.
✓	I have familiarised myself with the University of Pretoria's policy regarding plagiarism http://www.library.up.ac.za/plagiarism/index.htm . Plagiarism is regarded as a serious violation and may lead to suspension from the University.

Please submit the completed Declaration By The Researcher form with your application.
Please submit this as a pdf file with this filename format: Declaration.pdf

8. SUBMISSION CHECKLIST

Each item to be submitted should be submitted as a separate pdf file, using the naming convention given earlier in this document or below.

8.1 Have you submitted confirmation that the research proposal has been approved? Please submit as a pdf file with this filename format: Confirmation.pdf	<u>Yes</u>	No	N/A
8.2 Have you submitted your application form (this form)? Please submit as a pdf file with this filename format: ApplicationForm.pdf	<u>Yes</u>	No	N/A
8.3 Have you submitted your survey questions, questionnaire or interview questions (where applicable)? Please submit as a pdf file with this filename format: Questionnaire.pdf	<u>Yes</u>	No	N/A
8.4 Have you submitted the Declaration by the researcher form? Please submit as a pdf file with this filename format: Declaration.pdf	<u>Yes</u>	No	N/A
8.5 Have you submitted the Informed consent form? Please submit as a pdf file with this filename format: InformedConsent.pdf	<u>Yes</u>	No	N/A
8.6 Have you submitted permission letters from firms, institutions or organisations where required? Please submit as a pdf file with this filename format: CompanyPermission.pdf	<u>Yes</u>	No	N/A
8.7 Have you submitted a permission letter from the Dean where required? Please submit as a pdf file with this filename format: DeanPermission.pdf	Yes	No	<u>N/A</u>

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

From: Michelle Burger <michelle.burger@up.ac.za>
Date: Fri, 13 Mar 2020, 14:02
Subject: Re: MSC Research Proposal Updated
To: Norman Masebe <u16204248@tuks.co.za>
Cc: Hoffie Cruywagen <hoffie.cruywagen@up.ac.za>, Benita Zulch <benita.zulch@up.ac.za>, Adri Viljoen <adri.viljoen@up.ac.za>

Hi Norman,

Thank you for your updated research proposal. You are on the right track. I have offered some feedback that you can implement. I accept your proposal. Please ensure your registration is complete.

Next step - send a framework for chapter 2.
Draw at least 50 sources and start reading
Go through the ethics application process. You will need a bunch of consent forms signed before you can apply.

I look forward to working on your research with you.

Best wishes

Dr Michelle Burger

Programme Leader MSc Real Estate
Department Construction Economics
University of Pretoria
South Campus, Building 5, Room 3-12

On Sun, 8 Mar 2020 at 12:37, Norman Masebe <u16204248@tuks.co.za> wrote:
Hi Michelle

Please find attached research proposal updated with more references.

I am considering validating the research by a focus group rather than interviews as I have been invited to present last years research at Fortress REIT's retail meeting and i will have a number of retail asset managers in the room....what do you think?

Kind Regards
Norman L Masebe
Student Number 16204248

This message and attachments are subject to a disclaimer. Please refer to <http://www.it.up.ac.za/documentation/governance/disclaimer/> for full details.

This message and attachments are subject to a disclaimer.
Please refer to <http://upnet.up.ac.za/services/it/documentation/docs/004167.pdf> for full details.

This message and attachments are subject to a disclaimer. Please refer to <http://www.it.up.ac.za/documentation/governance/disclaimer/> for full details.

RESEARCHER DECLARATION

APPLICATIONS MUST INCLUDE THE FOLLOWING STATEMENTS

Hereby I, Norman L Masebe (u16204248) in my capacity as MSc Real Estate (Research) student, confirm that

- 1 Research subjects will be informed, information will be handled confidentially, research subjects reserve the right to choose whether to participate and, where applicable, written permission will be obtained for the execution of the project (example of permission attached).
- 2 No conflict of interests or financial benefit, whether for the researcher, company or organisation, that could materially affect the outcome of the investigation or jeopardise the name of the university is foreseen.
- 3 Inspection of the experiments in loco may take place at any time by the committee or its proxy.
- 4 The information I furnish in the application is correct to the best of my knowledge and that I will abide by the stipulations of the committee as contained in the regulations.

5 Signed: 

Date: 13/05/2020

**Informed consent form
(Form for research participant's permission)**

1. Project information

1.1 Title of research project: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

1.2 Researcher details:

Norman L Masebe (Student No. 16204248)

Department of Construction Economics, EBIT Faculty.

Email: u16204248@tuks.co.za

Cell: 078 862 1342

1.3 Research study description.

The project entails a survey of planned shopping centres through information given by centre managers in order to determine the challenges, impact and counteractive strategies with regards to digital disruption in retail across the hierarchy of South African shopping centres. The aim is to identify problems and possible solutions due to digital disruption in retail which affect the planned shopping centre industry. The informant centre manager is requested to answer the survey questions by selecting appropriate answers specific to their shopping centre from the lists given. There is a total of 9 questions to be answered and all but the last require selecting answers from the given lists.

2. Informed consent

2.1 I, *name of participant* hereby voluntarily grant my permission for participation in the project as explained to me by Norman L Masebe.

2.2 The nature, objective, possible safety and health implications have been explained to me and I understand them.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

2.4 Upon signature of this form, the participant will be provided with a copy.

Signed: _____ Date: _____

Witness: _____ Date: _____

Researcher: _____ Date: _____

CAPITAL PROPFUND

PROPRIETARY LIMITED



11 May 2020

To the EBIT Ethics Committee

This letter serves to confirm that Capital Propfund (PTY) LTD has granted Norman L Masebe permission to conduct research for his MSc Real Estate at the University of Pretoria, within our company. He may conduct interviews with relevant staff members and distribute an online survey to our retail property managers. We acknowledge the current COVID19 situation and that he may have to conduct interviews via telephone or video call.



Vuso Majjja
Retail Director

Block C, Cullinan Place, Cullinan Close, Morningside, 2196
PO Box 138, Rivonia, 2128 Tel: +27(11) 282 2800

Directors: Steven Brown, Vuso Majjja, Ian Vorster, Donovan Pydligadu

Capital Propfund Proprietary Limited
Reg. no. 2014/013211/07

Company Secretary: Tamlyn Stevens



University of Pretoria

QUESTIONNAIRE

**Strategies to counteract digital disruption across the hierarchy of
South African Shopping Centres**

Norman L Masebe

Master of Science: Real Estate

Supervisor: Dr Michelle Burger

Department of Construction Economics
Faculty of Engineering, the Built Environment and Information Technology
University of Pretoria
Pretoria
0002
South Africa

Interview Questions

1. What are the challenges caused by digital disruption in retail on the retail property industry?
2. What are the impacts of these challenges on the retail property industry?
3. What are the coping strategies that are being adapted or can be adapted to counteract the impacts of these challenges?

Survey Questions

4. What is the type of shopping centre by Gross Lettable Area? Choose from the below options:
 - Convenience Centre with GLA of 500m² – 5000m²
 - Neighbourhood Centre with GLA of 5000m² - 12000m²
 - Community Centre with GLA of 12000m² - 25000m²
 - Small Regional Centre with GLA of 25000m² - 50000m²
 - Regional Centre with GLA of 50000m² - 100000m²
 - Super Regional Centre with GLA of >100000m²
5. In what Province is the shopping centre located? (9 options)
6. What is the local authority type of the shopping centre?
 - A) Rural District Council (remote) B) Rural District Council (Urban-small town)
 - A) City Council D) Metropolitan Council
7. What is the socio-economic demography (location attribute) of the shopping centres primary trade area?
 - A) Township B) Suburban C) CBD D) Remote Rural
8. What are the challenges caused by digital disruption on the shopping centre? Select all options that apply from the below:
(Options will be given from framework derived from literature and interviews) e.g.
 - Changing consumer behaviour
 - Customers increased experience expectations- mall visits for experiences as opposed to purchasing
 - Customer demand for better transaction efficiency
 - Increased retail price competition

- Increased channels of delivery by retailers in addition to physical store locations
 - Reduced retailer floor spaces and demand for space
 - Customer data collection and data informed marketing
 - Online web presence and social media marketing and interaction.
 - Need for investment in Omni and multi-channel infrastructure
9. What are the impacts of these challenges on the shopping centre? Select all options that apply:
(Options will be given from framework derived from literature and interviews) e.g
- Decreased demand for space and thus increased vacancy rates
 - Lower rent levels and decreasing income
 - Lower Returns on Investment for investors in retail property
 - Lease ambiguity on Omni-channel retailing
 - Increased innovation and investment in technology
 - Obsolescence of certain Retailers and Shop closures
 - Declining Retail property values and flight of capital from retail property sector to other property sectors
 - Vacant retail properties needing repurposing or demolition.
10. What are the coping strategies that are being adapted or can be adapted to counteract the impacts of these challenges?
(Options will be given from framework derived from literature and interviews) e.g.
- Enhance customer experience.
 - Customer centric retail property business model
 - Shoppertainment.
 - Leveraging technology
 - Repurposing shopping centres for other uses
 - Developing green shopping centres
11. Please rank the challenge-impacts in order of magnitude, from the highest to lowest impact on the shopping centre:
12. Are there any other challenges/impacts and strategies to counteract them that are encountered/anticipated at the shopping centre as a result of digital disruption, which are not included above? If so, please describe them briefly below:

Annexure F- Informed Consent Forms (Interviews)

Informed consent form (Form for research participant's permission)

1. Project information

1.1 Title of research project: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

1.2 Researcher details:

Norman L Masebe (Student No. 16204248)

Department of Construction Economics, EBIT Faculty.

Email: u16204248@tuks.co.za

Cell: 078 862 1342

1.3 Research study description.

The project entails a survey of planned shopping centres through information given by centre managers in order to determine the challenges, impact and counteractive strategies with regards to digital disruption in retail across the hierarchy of South African shopping centres. The aim is to identify problems and possible solutions to digital disruption in retail, which affect the planned shopping centre industry. Prior to sending out the survey expert interviews with Retail REIT Asset managers will be conducted to validate the literature study and put it into the South African context. Three interview questions will be paused and discussed during expert interviews.


2. Informed consent

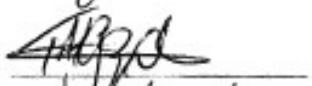
2.1 I, *Andries Oelofse* hereby voluntarily grant my permission for participation in the project as explained to me by Norman L. Masebe.


2.2 The nature, objective, possible safety and health implications have been explained to me and I understand them.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

2.4 Upon signature of this form, the participant will be provided with a copy.

Signed:  Date: 10/11/2020

Witness:  Date: 10/11/2020

Researcher:  Date: 10/11/2020

**Informed consent form
(Form for research participant's permission)**

1. Project information

1.1 Title of research project: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

1.2 Researcher details:

Norman L Masebe (Student No. 16204248)

Department of Construction Economics, EBIT Faculty.

Email: u16204248@tuks.co.za

Cell: 078 862 1342

1.3 Research study description.

The project entails a survey of planned shopping centres through information given by centre managers in order to determine the challenges, impact and counteractive strategies with regards to digital disruption in retail across the hierarchy of South African shopping centres. The aim is to identify problems and possible solutions to digital disruption in retail, which affect the planned shopping centre industry. Prior to sending out the survey expert interviews with Retail Portfolio/Asset Managers will be conducted to validate the literature study and put it into the South African context. Three interview questions will be paused and discussed during expert interviews.

2. Informed consent

2.1 I, *Ge' Van Rooyen*, hereby voluntarily grant my permission for participation in the project as explained to me by Norman L Masebe.

2.2 The nature, objective, possible safety and health implications have been explained to me and I understand them.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

2.4 Upon signature of this form, the participant will be provided with a copy.

Signed: Ge.Van.Rooyen Date: 13.11.2020

Witness: C.Nyathi Date: 13.11.2020

Researcher: N.L Masebe Date: 13.11.2020

**Informed consent form
(Form for research participant's permission)**

1. Project information

1.1 Title of research project: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

1.2 Researcher details:

Norman L Masebe (Student No. 16204248)

Department of Construction Economics, EBIT Faculty.

Email: u16204248@tuks.co.za

Cell: 078 862 1342

1.3 Research study description.

The project entails a survey of planned shopping centres through information given by centre managers in order to determine the challenges, impact and counteractive strategies with regards to digital disruption in retail across the hierarchy of South African shopping centres. The aim is to identify problems and possible solutions to digital disruption in retail, which affect the planned shopping centre industry. Prior to sending out the survey expert interviews with Retail REIT Asset managers will be conducted to validate the literature study and put it into the South African context. Three interview questions will be posed and discussed during expert interviews.

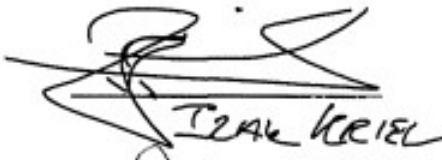
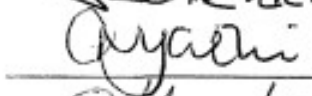

2. Informed consent

2.1 I, *Izak Kriel* hereby voluntarily grant my permission for participation in the project as explained to me by Norman L Masebe.

2.2 The nature, objective, possible safety and health implications have been explained to me and I understand them.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

2.4 Upon signature of this form, the participant will be provided with a copy.

Signed:		Date: <u>2020/11/09</u>
Witness:		Date: <u>9/11/20</u>
Researcher:		Date: <u>2020/11/09</u>

**Informed consent form
(Form for research participant's permission)**

1. Project information

1.1 Title of research project: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

1.2 Researcher details:

Norman L Masebe (Student No. 16204240)

Department of Construction Economics, EBIT Faculty.

Email: u16204248@tuks.co.za

Cell: 078 862 1342

1.3 Research study description.

The project entails a survey of planned shopping centres through information given by centre managers in order to determine the challenges, impact and counteractive strategies with regards to digital disruption in retail across the hierarchy of South African shopping centres. The aim is to identify problems and possible solutions to digital disruption in retail, which affect the planned shopping centre industry. Prior to sending out the survey expert interviews with Retail Portfolio/Asset Managers will be conducted to validate the literature study and put it into the South African context. Three interview questions will be paused and discussed during expert interviews.

2. Informed consent

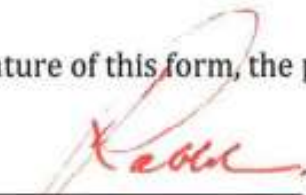
2.1 I, *John Rabbolini*, hereby voluntarily grant my permission for participation in the project as explained to me by Norman L Masebe.

2.2 The nature, objective, possible safety and health implications have been explained to me and I understand them.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

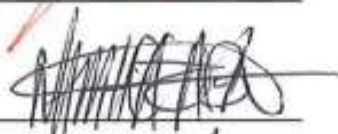
2.4 Upon signature of this form, the participant will be provided with a copy.

Signed:



Date: 26.11.20

Witness:



Date: 26.11.20

Researcher:



Date: 26.11.20

Informed consent form
(Form for research participant's permission)

1. Project information

1.1 Title of research project: Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

1.2 Researcher details:

Norman L Masebe (Student No. 16204248)

Department of Construction Economics, EBIT Faculty.

Email: u16204248@tuks.co.za

Cell: 078 862 1342

1.3 Research study description.

The project entails a survey of planned shopping centres through information given by centre managers in order to determine the challenges, impact and counteractive strategies with regards to digital disruption in retail across the hierarchy of South African shopping centres. The aim is to identify problems and possible solutions to digital disruption in retail, which affect the planned shopping centre industry. Prior to sending out the survey expert interviews with Retail REIT Asset managers will be conducted to validate the literature study and put it into the South African context. Three interview questions will be posed and discussed during expert interviews.

2. Informed consent

2.1 I, *Kelly Carmichael* hereby voluntarily grant my permission for participation in the project as explained to me by Norman L Masebe.

2.2 The nature, objective, possible safety and health implications have been explained to me and I understand them.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

2.4 Upon signature of this form, the participant will be provided with a copy.

Signed:  Date: 21/10/2020

Witness:  Date: 21/10/20

Researcher:  Date: 21/10/2020

Annexure G- University Letter to Support Research Activities



UNIVERSITY OF PRETORIA
UNIBESITHI YA PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

9 April 2020

To whom it may concern,

MSc DISSERTATION: RESEARCH

We hereby confirm that Norman Masebe is an enrolled student at the University of Pretoria studying towards an MSc Real Estate degree. Our research aim is to conduct a study that will contribute to the knowledge base and that may subsequently benefit the industry. Please consider supporting our student with research activities. Your assistance will be highly appreciated.

Yours sincerely



DR MICHELLE BURGER
PROGRAMME LEADER: MSc REAL ESTATE (by coursework)

Appointment approved by:

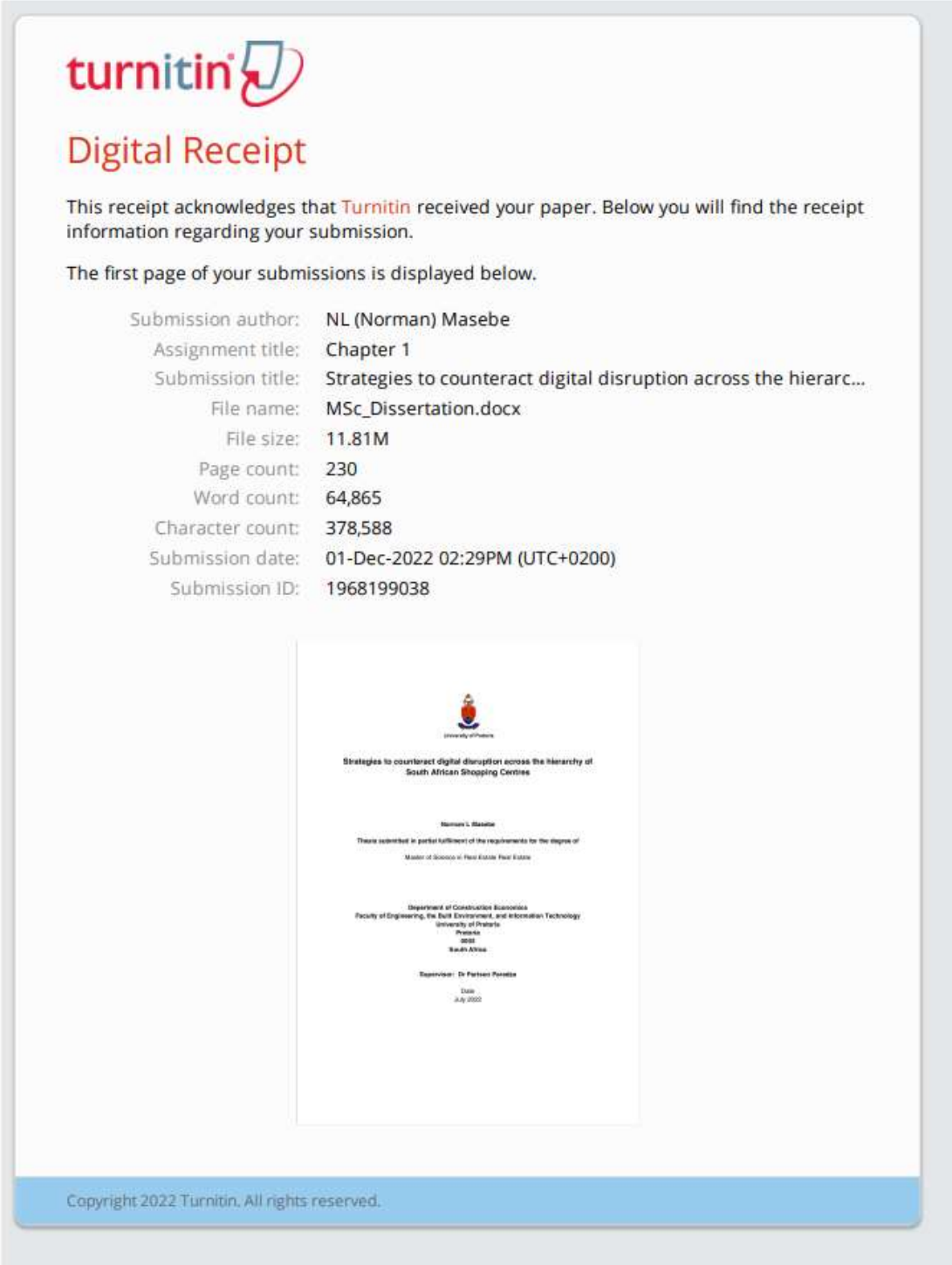


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Annexure H- Turnitin Similarity Report



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University of Pretoria

Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

Norman G. Masebe

Thesis submitted in partial fulfillment of the requirements for the degree of
Master of Science in Real Estate Four Estates

Department of Construction Economics
Faculty of Engineering, the Built Environment, and Information Technology
University of Pretoria
Pretoria
2022
South Africa

Supervisor: Dr Pieterien Perretze

Date
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Strategies to counteract digital disruption across the hierarchy of South African Shopping Centres

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