MASTER OF PROPERTY STUDIES

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TOPIC: Exploring the property development risks in modern South Africa and their impact on property development projects.

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ABSTRACT

Property development in South Africa is inherently capital intensive and risky but has the potential to reward brave developers through high returns. The risks that property developers face is multi-layered and unique to each project, requiring discernment on the part of the developer. However, projects likely to yield high returns are fairly easy to identify, and mitigation strategies can be implemented to ensure that property development projects are completed within cost and time limitations, and to a high standard.

The intention of this study was to identify the property development risks in modern South Africa and the impact of these risks on property development viability, and to make recommendations on how identifiable risks may be mitigated in the property development sector.

Property professionals were selected as participants in this study. These included senior executives in some of South Africa's largest development companies, people in the property finance industry, and those who deal daily with property development projects.

All participants were interviewed one-on-one. This strategy yielded insight into the research questions, since participants were able to draw directly from their personal experiences. Responses in the interviews answered all the research questions and thus informed the recommendations made in this study.

The study revealed that the main risks to property development projects in South Africa are political and socio-economic factors, municipal inefficiencies, social unrest, increases in municipal costs and materials, and lack of consistent power supply from Eskom.

Increased capital costs in property development projects have reduced returns for property developers, forcing many to consider investing outside of South Africa. This was identified as the main impact of the risks on property development projects.

The recommendations made in this study to mitigate property development risks are government subsidies for bulk infrastructure, fixing of material prices, greater

engagement of all stakeholders in the property development process, ensuring that construction contractors have the required capacity and skills, greater use of technology in property development projects, and municipal rebates for property developers, in order to incentivise development. It is also recommended that in all property development projects, developers factor in potential cost increases.

Keywords: Property development, risk, development process, developments, property development stages, risk factors, land, economy, construction, finance, development.

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CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE TOPIC

1.1 Introduction

Cadman and Topping (2002: 2) define property development as an industrial process that combines various inputs from labour, finance, land and materials to achieve an output, i.e., a building. The process may involve the use of these inputs on an already existing building through alterations to enhance the value of the property, or the construction of a new building from scratch.

Property development is inherently risky and capital intensive in nature. This is evident in its cyclical nature and its high barriers of entry, according to Newell and Steglick (2006: 24). The cyclical nature of property development is a function of the cyclical nature of the economy, which stimulates the forces of demand and supply that drive developers. When there is high demand in the property market, supply increases, which increases the supply of assets being brought to market through the property development process. This is accompanied by an increase in the price of rentals, which translates into high property values. The converse is also applicable; when there is declining demand in the market, rental prices drop, and there is a commensurate drop in property values. An important factor in this situation is increased vacancies that are likely to occur when demand for rentals is low.

Cadman and Topping (2002: 24) identify six stages in the property development process:

- the formulation of a concept;
- an investigation into design and viability;
- the development of a viable design;
- the tender process;
- the construction process; and
- the completion of the project.

Each stage has inherent risks, which vary in magnitude. Some are less threatening to the viability of the project than others, but all need to be averted or managed for the success of the project. Proper management of risks has the potential to avert major capital spend and render the project more profitable. For instance, a geotechnical study conducted at the beginning of a construction project will reveal the condition of the ground, thus enabling the developer to pre-empt problems later on; such a survey may reveal rock, necessitating blasting. This would be a cost that the developer needs to be aware of before construction begins. The risks are complex and numerous. Some are human in nature and others are driven by micro and macro factors, as described in this study. Other risks that are critical are town planning (including in certain instances heritage applications), geotechnical investigations, traffic impact assessments and environmental risks, which are driven by the developer but most often are out of their control in terms of turn around times to have such approvals in place.

Oakenfull (2021: 2), makes mention that early urban planning was for regulating location of urban settlement including subdivision into streets and erven. Oakenfull (2021: 3-4) further states that by developing a town planning scheme, one is developing a land use legal instrument that dictates where development, what type of development and measures of development that can happen in a certain zone, whether the land is privately owned or not. Town planning schemes were not necessarily developed to look into the future but looked at retrofitting what was already existing in terms of land use rights and development rights, Oakenfull (2021:6). Therefore, with the new urbanisation, municipalities are taking time to make sure that the existing infrastructure that caters for existing land use and development rights is sufficient for new planned developments. This also than creates a problem downstream whereby zoning applications are delayed due to the lack of availability of services and infrastructure, caused by this phenomenon.

The purpose of the study is to investigate property development risks and their impact on property development projects, and to make recommendations on how these risks may be mitigated.

To obtain this information, the researcher interviewed property development consultants and asset managers, which were around 14 professionals. These interviews were used to triangulate results obtained from a literature review. The semi-structured interviews yielded a great deal of insight on property development risks in South Africa and the impact of these risks on property development projects in the country.

From the data collated, the researcher was able to identify current property development risks in South Africa, the impact of these risks on property development projects, and possible ways to mitigate them.

1.2 Background to the study

According to Heath (2005: 6), property is the cornerstone of many financial institutions, in that the number and value of a bank's mortgage loans, and asset holdings gives some idea of the financial position of the bank. This measure may be used to assess the wealth of a country, and the contribution of property to the country's gross domestic product (GDP).

Property development is an integral part of the property sector as it allows for the production of new assets into the property market, and thus the creation of value.

Cadman and Topping (2002: 26) argue that most approaches to property development concentrate on measuring risk rather than identifying and dealing with key risk factors in the property development process. These authors are critical of an approach which focuses mainly on feasibility and cashflow analysis, giving little attention to property development risks. They classify property development risks into four categories:

- commercial risks;
- construction risks;
- land use risks; and
- social risks.

These categories of risk each contain variables that have to be managed, as all are critical to the development process and can threaten the success of projects if not mitigated. Property developers need to deal with each category systematically and individually. The impact of these risks, if not dealt with, vary from mild to catastrophic.

Little research has been undertaken to date on property development risks in South Africa and their impact on property development projects.

In my career spanning 12 years in the property development industry, I have undertaken projects in South Africa and elsewhere in Africa. Although there is area of commonality in terms of risk, there are also some distinct differences between countries, giving projects in each country a unique set of risks and areas to consider before projects are undertaken. It is therefore my interest to explore in some detail the nature of the property development risks in South Africa, their impact on property development projects, and how these risks may be mitigated.

1.3 Problem statement

Property development consists of multiple complex, interrelated processes and interrelationships that all provide possible sources of risk and conflict, according to Loizou and French (2012: 202). Property developers may experience and perceive risks differently. Some risks are in the control of the developer, while others are beyond the control of the developer. Property development involves the interaction of numerous disciplines that, if handled correctly, will contribute towards successful development.

The result of unmitigated property development risks can include serious financial loss to the developer, the impacts of which extend beyond the immediate project. Reputational damage and damage to relationships are an obvious potential consequence of failed projects. Each potential project therefore requires thorough analysis and due diligence before it is embarked on. It is impossible to eliminate all risks, but it is possible to reduce their impact and thus save time and money.

In light of the above, it is imperative to explore the risks faced by property developers and how these risks can be mitigated. The property development landscape is constantly

changing, as are countries' economies, as a result of the evolution of technology. Thus, the property developer works in a volatile environment and must be able to assess the relative weight of each risk. With the rapidly changing nature of society, the economy and technology, the major risks now faced by developers may well be different from the traditional property development risks long understood as fundamental to property development. Hence there is a great need to keep abreast of changes, to understand what risks are currently being faced by property developers, and to know how to mitigate these.

Thus, the expected outcome of this research is an enhanced understanding of property development risks in South Africa, their impact on property development projects, and possible ways to mitigate these.

1.4 Research questions

The research seeks to answer the following questions:

- What are the current property development risks in modern South Africa?
- What is the impact of these risks on development projects?
- What recommendations may be made to mitigate these property development risks?

1.5 Research proposition

Property development risks in South Africa are poorly defined, and thus developers find it difficult to manage and mitigate these risks.

1.6 Research methodology

According to Rajasekar, Philominathan and Chinnathambi (2013: 2), research is a systematic search for information on a particular topic. This means that the researcher has to be logical and systematic in acquiring information.

Rajasekar et al. (2013: 7–8) classify research into two categories: basic research, also known as theoretical research, and applied research. Basic or theoretical research, according to these authors, is an investigation of basic principles and reasons for the occurrence of a particular event, process or phenomenon. This form of research is

conducted for the purpose of acquiring knowledge and may not have any immediate use or application. Applied research, on the other hand, makes use of well-known and accepted theories and principles in order to solve certain problems (Rajasekar et al., 2013: 8). This research is practical and can be used immediately. This research is applied research.

A further distinction can be made between quantitative and qualitative research. According to Rajasekar et al. (2013: 9), the difference between the two are as follows:

- Quantitative research is based on an amount or quantity, often represented in graphs and tables;
- Qualitative research seeks to understand the meaning of phenomena; it is usually explanatory in nature and results cannot be represented in tables and graphs.

The nature of these differences is supported by Harding (2018: 16), who states that quantitative studies tend to involve the collection of limited and specific information from a large number of respondents, while qualitative research involves the collection of more detailed information from a smaller number of people.

This study takes a qualitative approach. Information from the literature was reviewed, organised and analysed, and interviews were conducted with participants involved in various aspects of the property development sector. Analysis was conducted to attempt to reconcile the data gathered from the literature with data gathered from the interviews. Themes that emerged from both kinds of data were identified and discussed, and based on these findings, recommendations were made.

The qualitative approach allows for flexibility in the gathering of data. When limited data is available on a topic from the literature, interviews supply a rich alternative source of data that may be used to fill in gaps on knowledge. In this study, interviews were combined with data from the literature to develop a comprehensive understanding of property development risks in South Africa, and the impact of these risks.

1.6.1 Target population, sample and types of sampling

The target population comprises all persons who meet the particular criterion specified for a research investigation, according to Alvi (2016: 11). In this instance, the target population was property developers in the rural and urban retail market in South Africa, professional consultants and asset managers.

Since the population is generally too large in number to interview, a sample is selected to represent the population. In this study, the sample comprised 14 professionals involved property development. Initially 15 were envisaged, but all the prospective participants were busy people and only 14 finally availed themselves. Interviews with the sample yielded a wider range of responses on the question of property development risks, as experienced by those affected. This allowed a balanced assessment of property development risks and their impact on developments. Interviews were conducted until data saturation was reached.

Qualitative researchers may obtain their sample through a variety of methods. Elmusharaf (2012: 7–14) lists six types of sampling that may be used to collect qualitative data. Each is discussed below.

1.6.1.1 Convenience sampling

Convenience sampling is the least rigorous technique, with the researcher selecting participants based on their ease of access. This is the easiest and least costly technique to the researcher.

1.6.1.2 Judgement sampling

This is the most common and productive of sampling techniques. Here the researcher chooses the most productive subjects to answer the research questions. It is convenient and cost-effective, according to Rahi (2017: 3). It can involve developing a framework of the variables that might influence an individual's contribution to the data, based on the researcher's practical knowledge of the research area, the available literature and evidence from the study itself.

1.6.1.3 Theoretical sampling

This technique enables the researcher to build theories from an interpretation of the data.

1.6.1.4 Purposive sampling

With purposive sampling, the researcher obtains a sample that appears most representative of the population of interest.

1.6.1.5 Snowball sampling

With snowball sampling, the researcher contacts a few potential respondents and asks them for recommendations for further participants, based on their knowledge of the research topic.

1.6.1.6 Maximum variation

According to Elmusharaf (2012:14), maximum variation involves purposefully picking a wide range of elements of interest, including documents, that will yield variety in the kind of data obtained, since each will have emerged in adaptation to different conditions. This helps the researcher to identify important common patterns that cut across variations.

In this study, the researcher used judgement sampling.

Judgement sampling was deemed ideal, as it would yield access to subjects who had the necessary knowledge to answer the research questions. All participants were fairly easy to locate, as they all worked in Gauteng, which introduced an element of convenience sampling, too.

Convenience sampling is flexible, allowing the researcher to obtain the most credible information for the research.

In interviewing a sample, it is important to consider one's spatial surroundings and other possible influences that might affect responses, such as the individuals' particular roles in the phenomenon of interest, and their context.

1.6.2 The data collection instrument

An interview involves the collection of data through the asking of questions, with the interviewer listening carefully to responses and recording them through written notes, audio recordings or film, or a combination of these methods, according to Abawi (2013: 11). Interviews may be conducted face to face, over the phone or electronically. Abawi (2013: 11) states that there are four types of interviews: structured interviews, semi-structured interviews, in-depth interviews and focus group discussions.

The data collection instrument used in this study was semi-structured interviews.

In a semi-structured interview, the interviewer uses a set of predetermined questions, and the respondents answer in their own words. The interviewer may modify the wording and the order of the questions, and probe for further details where necessary, according to Abawi (2013: 12).

This approach allows for flexibility in the interviews and enables the researcher to obtain a greater depth and range of data than might be possible with a more structured approach. The participants in this study were interviewed individually, either in person or telephonically, with notes taken during each interview. Face-to-face interviews were conducted in quiet, calm environments chosen by the interviewees, where they would feel most comfortable.

1.7 Validity

According to Silverman (2015, 413 – 424), the validity of research concerns the correctness of the interpretation of observations, which may be ensured in various ways, depending on the type of data collated.

In this study observations were not made; rather, semi-structured interviews were used to obtain the qualitative data. The use of the sampling technique discussed above helped to ensure the credibility of the study, since all participants were knowledgeable on the topic. Triangulation comprising the use of both a literature review and interviews allowed for the verification of data and further enhanced the reliability of the data. However, the validity of the data uncovered in this study is based largely on the reliability of the

participants, who were selected for the experiential knowledge. Their responses to questions were, of course, subject to my interpretation.

1.8 Limitations of the research

The limitations of this research were that the researcher worked with a relatively small sample, based in one city in South Africa, Johannesburg.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The purpose of this study was to explore the property development risks in South Africa and their impact on property development projects. The study made use of both literature on the topic and the personal views of property development professionals, including intermediaries and investors. The academic literature on the topic assisted in establishing a baseline understanding of all the risks involved in property development, and how those risks might be mitigated. The study also made use of non-academic online texts on the internal and external risks of property development in South Africa.

The review of the literature informed the formulation of the research questions. It also provided perspective and helped with the identification of gaps in the body of knowledge that this study attempts to address. The review took an explorative approach, covering the various types of property development risk and various authors' views on the relative weight of each. The proposition stated in Point 1.5 informed the approach used to undertake the literature review.

2.2 The nature of risk

DeLisle (2004:97) defines risk as the difference between expectations and realisations. To clarify this point, he states that it is the measure of uncertainty surrounding a future event, thus a set of assumptions.

Risk assessments therefore entail assumptions about a future event. The property development sector is dynamic and capital intensive, susceptible to external forces such as the timing of a project and the availability of market-related information, a lack of which can cause inefficiencies (DeLisle, 2004:98). DeLisle (2004:098) states that risk is inherent in real estate owing to its temporal nature; uncertainty is inherent in anything affected by the passage of time. Real estate risk is more complicated than other asset classes because of i) inefficiencies, behavioural aspects and the space-time-money- dimensions of the market, and ii) the capital-intensive, durable and vulnerable nature of individual assets to external forces. These external forces make real estate vulnerable, subject to

both windfalls (i.e., unexpectedly high returns) or wipe-outs (i.e., erosion of capital and exposure to residual risks).

The above notions are supported by Atherton et al (2008:1) who suggest that real estate development appraisal is a quantification of future expectations. This mirrors what is said above; that risk assessment is a set of assumptions of future events.

Within the property development sector there are different asset classes, as follows:

- retail
- commercial
- hospitality and
- residential.

Although these assets classes share certain property development fundamentals, their risk profiles differ. The retail sector, for instance, has a different risk profile than the residential sector, with the former characterised by short-term leases and the latter by longer-term leases. Thus, investors face different hurdles when engaging in each. Atherton et al (2008:1) support this notion, stating that property developers cannot ascertain the anticipated level of return without a full knowledge of risk, so that they may take compensatory action for it. At the same time, property developers need to be aware that risk cannot be fully eliminated in property development projects.

2.3 Internal sources of risk

Ansah et al. (2017: 91) describe risk as any influencing factor that negatively affects the time, budget, quality, and overall objectives of a project. Risks occur at all stages of the property development process.

These factors of risk relevant to property development in South Africa are things like the acquisition of land, land use management thereof, composition of the professional team/s that would assist in the design and execution, assessing of available services and augmentation thereof of these services including the cost implications involved and development rights attached, size of development amongst many others. Every

development in the early stages is dependent on how these are mitigated and managed for it to come to fruition.

2.3.1 Initiation and concept

Reed (2021:2) states that no two land parcels are the same, with each requiring its unique attributes to be taken into consideration at a specific point in time. This is because each piece of land presents unique challenges which dictate the type of property development that can be undertaken. This implies that each site also carries its own risks.

Reed (2021:1) describes property development as a perpetual, organic process that exists everywhere in society. It involves the use of scarce resources and large sums of money, and an indivisible product that is also illiquid. Property development is driven by the ever-changing environments in which humans operate, with property developers adapting or producing buildings to fit the needs of a population at a point in time. Therefore, the process is dynamic and ongoing, shaped by the cyclical nature of the economy and the forces of demand and supply.

Cadman and Topping (1995: 14) stipulate that the initiator should research the market and the potential to acquire the necessary statutory planning consent for the intended change of land use. This takes place once the developer has identified a site for development, as a result of changing demographic, social, economic and other circumstances.

The property developer identifies a parcel of land to develop. This might already be in their possession or could be acquired through an option agreement with the landowner, with exclusive use for a certain period. The developer at this stage would be guided by the market research conducted on the size and type of development that may be undertaken.

Furthermore, the developer would need to consider other factors like town planning (town planning in this regard will incorporate all co-ordinated measures including studies required to have a land use ready for development, township establishment or rezoning), geotechnical investigations, traffic impact assessments and environmental approvals in

the main, amongst others. In some instances, a heritage study could be required depending on the age of the building that is being re-developed. These are not necessarily in the control of the developer but are critical to the development process. These risks are driven by the developer from the onset but are primarily controlled by the authorities in terms of approval thereof. The approval process could have an adverse effect on any development depending on the timing of its approval and also what other additional services and infrastructure might be imposed by the authorities in a particular, that would have added costs implications on a development, contributing to its viability or lack thereof.

Before commencing any work or looking at a purchase of any land the property developer needs to consider the zoning of the land. The town planning process is thus triggered at this instance, should the appropriate zoning that is required by the developer not be available at this point in time.

Concurrent to the town planning process, other specialist studies that will be required are the following:

- Geotechnical Investigation

The Geotechnical Investigation would inform the developer of the underground conditions, thus informing of the type of foundations that would be required, including the financial implications thereof which are then captured in the feasibility study of the Quantity Surveyor.

- Traffic Impact Assessment

This will inform the ingress and egress into the property. Without any of these a property would thus be rendered not ideal for development as access into a property is one of the main fundamental aspects a developer would consider.

- Environmental Assessment

This report would inform the environmental impact of the development of the property including looking at what vegetation, bird life, etc. needs to be protected.

The above studies all are considered by the authorities in the issuance of their approvals relating to the property that a developer would be potentially looking at developing. In some instances, a heritage report might be required, which also will have risk and cost implications to the developer.

Thomas (2012:42) suggests that the starting situation for a development may be:

- an existing plot of land, for which a use/concept must be found, and financing acquired;
- a project idea for which a suitable location must be procured; and
- the availability of capital that is seeking investment in a real estate project, and thus a property/micro location and a project idea or concept.

Figure 2.1 below shows these starting point for property development, according to Thomas (2012).

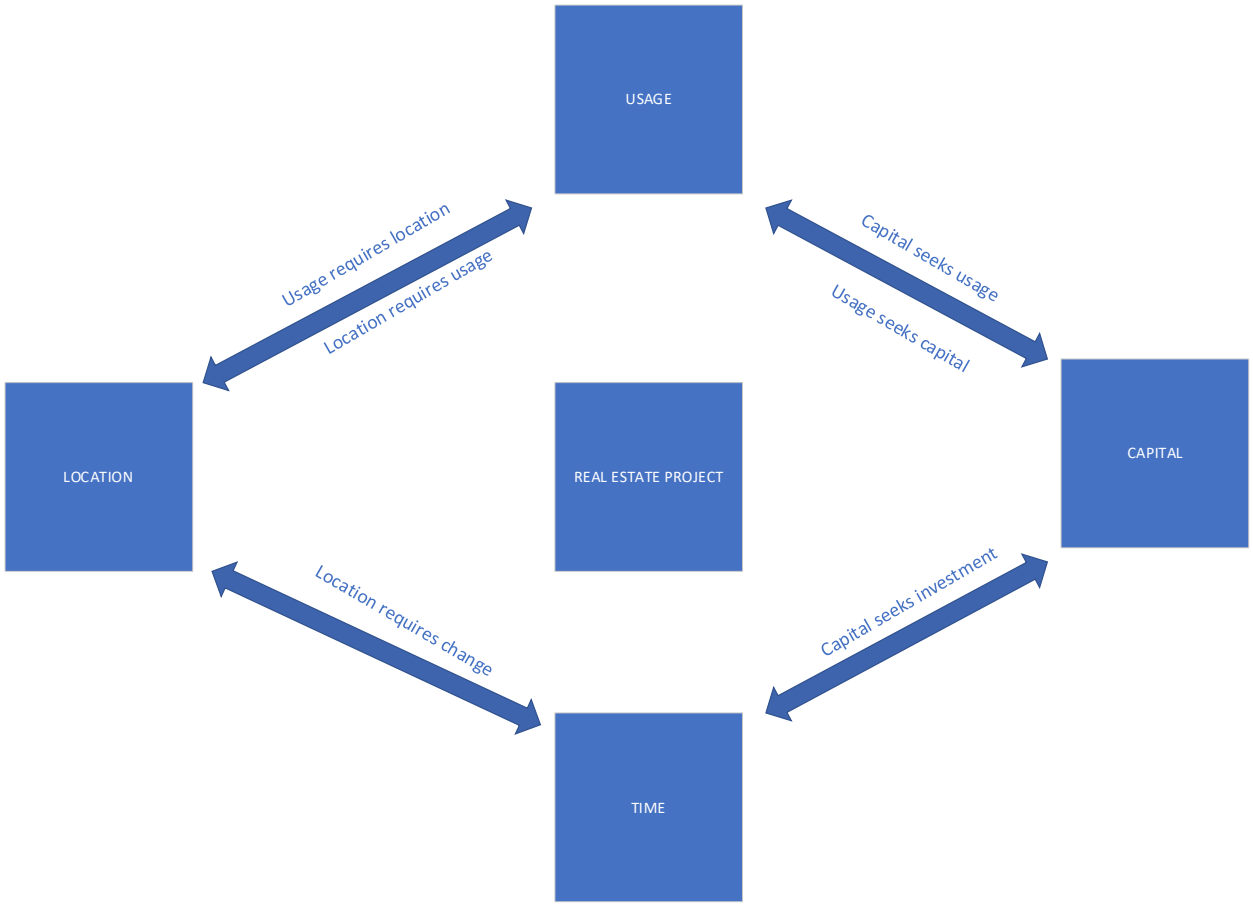

Figure 2.1: The starting points for property development
Source: Thomas (2012)

Figure 2.1 shows that the property development process does not necessarily require an open parcel of land; other variables may be sufficient. Each point of initiation, however, comes with its own inherent risks.

Thomas (2012: 43) further mentions that the main concern in the initiation phase is market research, so that the developer may understand tenant or user demand, the optimum design, the cost and the intended programme of development.

Reed (2021: 5-6), on the other hand, states the initiation phase begins with the identification of a site for a different or a more intensive use than its current use. This initiation phase can be tenant driven or site driven. Decisions with regard to these matters are subjective and depend on the experience and preference of the individual developer.

Atherton et al (2008:4) state that there is a strong body of evidence that the predicted rational models are rarely observable in practice, and that what is advised in theory may be very different from what is done in practice. This might be because the original predictive model was erroneous or that it failed to encompass the whole thought process influencing the individual developer's final decision.

Many factors will inform the developer on whether or not to put resources into the potential development and proceed. The decision should be based on mathematical calculations, but the process is not an exact science, since many variables could change and affect initial assumptions. Thus, Atherton et al (2008:5) contrast normative theories with real-world rational behavior, which ought to be based on mathematical calculations.

However, even with a rational and mathematical approach to the decision of whether or not to develop, the developer is still exposed to risk in this phase. Decisions are rarely entirely mathematically based in practice, but depend on personal and professional values, along with other variables (Atherton et al, 2008:5). Mathematical calculations, the developer's own values and a myriad other factor will suggest to a developer whether or not a parcel of land or a development has the potential to be a success, along with the parameters required to promote this success. These considerations will inform the decision of whether or not to sign an option agreement. Should the decision be tenant driven, thorough calculations allow for the de-risking of the project upfront, and the developer can thus move to the next phases of the development process. Therefore, thoroughness in this phase mitigates a big portion of the risk for the developer later on.

2.3.2 Concept development and feasibility study

To mitigate some risk, the developer will only sign a purchase agreement once the project has been de-risked through concept development and a feasibility study, the next steps in the developer process. Thomas (2012: 42–43) supports this notion, stating that if the results of the initiation phase are positive, and the land is not already in the developer's possession, he or she can secure the land via an option agreement, or acquire the land. The developer could also have an option of going into a joint venture agreement with the

current landowner. All these options of securing the land do have impact in terms of the development, financially as the pricing thereof could either make or break a development, time related due to the processes that might be involved to either make the land ready for development or transfer of the land, the servicing of the land in terms of available services to make sure that the planned development is successful, amongst others. This would be the case if the site is not tenant driven, as earlier highlighted.

The concept phase is a critical part of making an informed decision (Thomas, 2012: 44). In this phase, the developer may appoint a team of consultants consisting of the following disciplines:

- architect
- quantity surveyor
- engineers (electrical, mechanical, fire, structural and traffic)
- project manager and
- health and safety officer.

At this stage the concept is put on paper by the architect and the quantity surveyor, who further test the viability of the project. This phase is intended to answer the question of whether and in what manner the project is capable of being realised (Thomas, 2012: 44).

The developer assembles a team of professional consultants who assist in the implementation of the property development process from the onset. What is not mentioned above is that over and above the team of professionals mentioned, the developer also includes a town planner and environmental consultants who are critical upfront to determine town planning and environmental issues and approvals. The first step for the consultants is to conceptualise the development. This means translating the developer's verbally expressed ideas into drawings and costing calculations. Reed (2021: 3) said that property development is generally a high-risk activity that involves a high level of planning and co-ordination. Even the brief given to the team of consultants by the property developer carries risk, as these services are costly and at this stage it is not yet known if the project will go ahead.

Thomas (2012: 44) states that the goal of a feasibility study is to articulate a finding about the economic sustainability (feasibility) of the project under review. This is further highlighted by Reed (2021: 6), who state that the level of risk in a property development is generally commensurate with the level of return, and vice versa. Reed (2021:6) goes on to state that nowadays, the property market has benchmarks; developer is able to benchmark their property development returns with those of other assets in that class, and thus make an informed decision on the required return in relation to the level of risk. At this juncture the developer would have an idea of whether the potential property development has the potential to match the hurdle rates that would be required by the board of the company undertaking the development. This would inform them of whether or not to plough more resources into the project. The feasibility from here on will be regularly re-evaluated and monitored by the developer Reed (2021: 11).

Atherton et al (2008:3) assert that property development has a myriad uncertainty, many of which are difficult to analyse through a traditional spreadsheet. These authors reiterate the point by stating that a full analysis should include all the uncertainties in each of the variables that may affect financial outcome, such as rental, yield, costs and financing.

What is key is that feasibility studies by their nature are sensitive to input variables such as rent, costs, etc. Thus, they are open to manipulation and are risky in that they involve assumptions of future happenings. This is confirmed by Atherton et al (2008: 6-7) who state that development appraisals are, by their nature, extremely sensitive to the precision of the inputs. A small change in any of the input variables (rent, cost, yield, time or interest rate) can disproportionately affect the resultant residual figure (the value or profit), rendering the appraisal open to misinterpretation and even deliberate manipulation. The variables of rent and all-risk yield (of the completed development) are critical variables. Both are crucial to the projected income receipt (gross development value, or GDV) and yet, perplexingly, these are the two variables over which the developer has the least control. They are dependent upon the cycle of the market and will vary according to the respective demand for space in the occupational market and the corresponding view of the attractiveness of the property in the investment market.

This is highlighted by Thomas (2012: 43-44) who states that the feasibility is based on market analysis, location analysis, building code reviews, design studies, use analysis, risk assessments, competition analysis and profitability calculations. These aspects are illustrated in Figure 2.2 below.

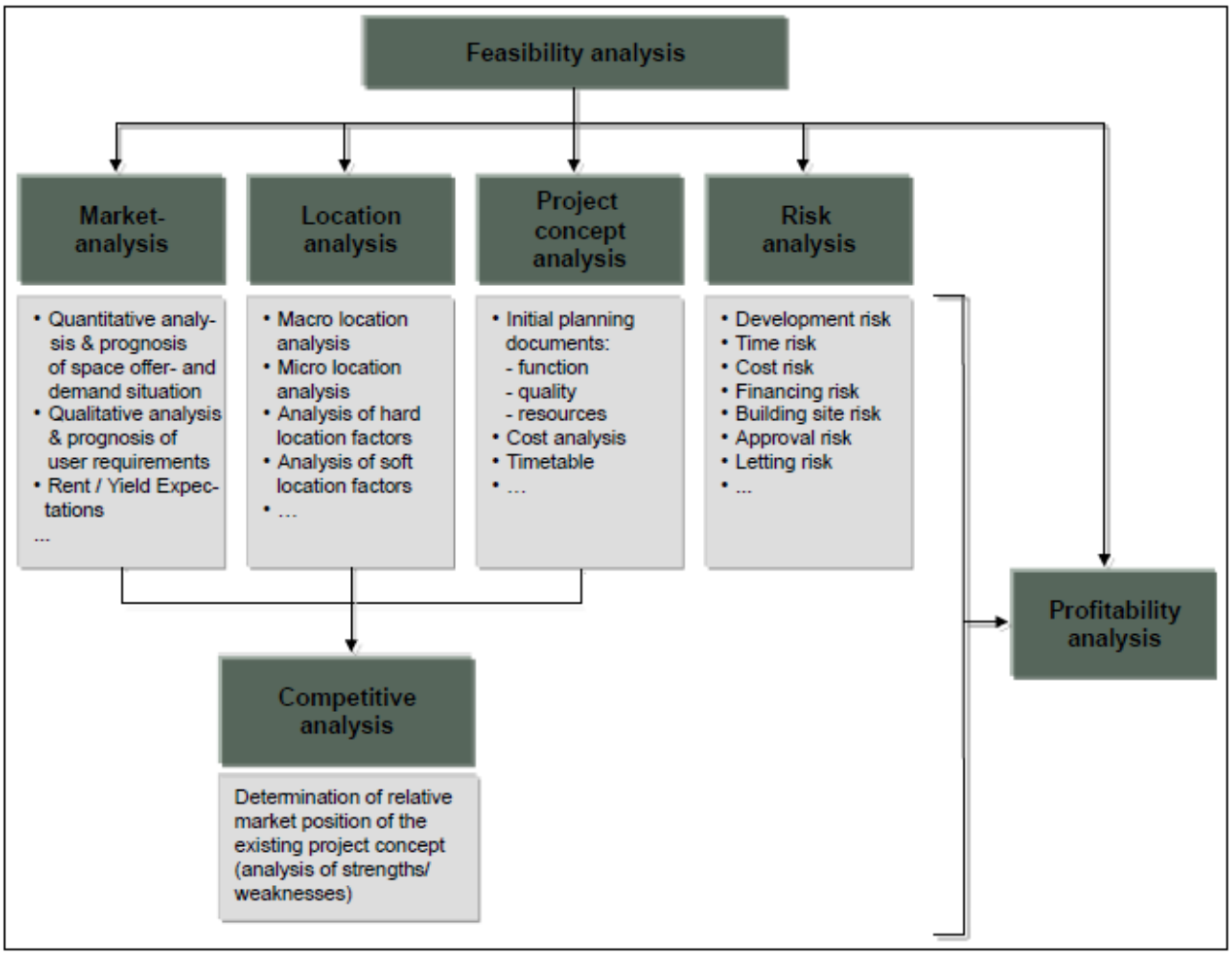

Figure 2.2: The structure of the feasibility analysis
Source: Isenhofer (1999: 66)

Thomas (2012: 43) states that the challenge at this early and uncertain phase of the project is finding a balance between costs (potentially sunk costs), project uncertainty and the necessary quality and detailed specification of the usage concept. A developer can

only ascertain the potential returns at a high level, and by the time these are made clear, they may have spent a considerable amount.

Below I examine the components of the feasibility as highlighted in Figure 2.2 above.

2.3.2.1 Market analysis

In building up a case for feasibility, the property developer needs a good understanding of the market in which they operate, including the supply and demand market forces. Thomas (2012: 44) states that market analysis yields an objective picture and assists the developer to understand market dynamics. It is fundamental, enabling the property developer to build a product that is wanted by the market and at a rental that the market can afford. The risk associated with a certain market can be quantified in the form of rentals and costs, which will translate to a value, and ultimately a return associated with the product being built. Thomas (2012:44) states that the main criteria to be considered are the requirements of potential users, how readily the project will be absorbed by the market and, subject to the effects of this absorption, the rent and property values applicable to the project.

The risk that the developer inherits is that time delays in the execution of property developments can be costly; by the time a developer is ready to execute a specific development, the market could have ‘moved’. This means that whatever was envisaged may be inadequate or unsuited to the market by the time construction is complete.

2.3.2.2 Location analysis

Thomas (2012: 44) defines location analysis as a subjective process based on quantifiable data on the proposed use of the land to be developed. The data that is collated verifies or refutes the decision on the proposed end usage of the land, revealing aspects of the location at a micro and macro level.

The inherent risk in this regard is that the location may be detrimental to the success of a property development, once built. Also, the location poses a risk in that it might be ill-suited for a particular development. Location has the potential to influence land prices and the rentals that the property developer can command, thus affecting the return and costs associated with a development.

The common wisdom in the property industry is that location is everything, as evinced in the well-known phrase ‘location, location, location’. Location is indeed crucial to the success of development project, although commercial factors are also important. If the location is good and developed to its highest and best use, the development is likely to attract valuable tenants, making not just the location but the development itself valuable upon completion. The corollary is also true; an excellent development in a poor location may fail to fetch the return on investment that was anticipated.

2.3.2.3 Project concept analysis

Project concept analysis is an examination of the design and subsequent costs involved in a project. It is imperative that the property developer uses the land in the best way possible, in terms of efficiency and highest-value use. Thomas (2012:44) indicates that this analysis is based on market and location analysis and includes an examination of the design of the proposed building.

The risk inherent in this analysis is that the developer might not come up with the right concept for the location. The design needs to be based not only on the size of the property to be developed and the specifications of the building, but also on the needs and priorities of the surrounding community. These influence costs and rentals which affect the building’s value and returns.

The concept may be ahead of its time and inappropriate for the location chosen by the developer. The risk is that the developer loses some of the project's value, since a poorly suited concept will make it challenging to attract tenants – though the design may be good, it may well be too expensive for tenants to afford. When tenants cannot meet the rentals demanded by the developer on completion of the development, there exists a valuation gap between the tenants and the developer. This happens at times when the right location has been picked but the price is wrong (usually over-inflated). Therefore, to mitigate this issue, it is imperative that when purchasing a location, the developer does not overpay for the land. Should this happen, it becomes difficult for the developer to make any scheme work to achieve the rentals required to offset the price of the land. When rentals are not market related, one could say that they are ahead of their times.

2.3.2.4 Risk analysis

An ongoing analysis of risk is required during the development process. As mentioned earlier, risk can never be fully eliminated, since the situation in which developers work changes continuously, affecting the degree of risk incurred. However, risk can be managed by careful monitoring, and should be kept up for the duration of the project. The property developer is at all times exposed to risk relating to time, cost and quality, and needs to continually monitor these risks, as quantified by the feasibility study. Thomas (2012: 46) mentions that risk management should be continuous during any property development project.

2.3.2.5 Competitive analysis

According to Thomas (2012: 45), developers need to analyse the competition in the market, which will entail benchmarking of properties. Analysis can be done on similar property assets or property developments planned by other developers.

Competition in a market will drive demand or supply of a particular property development asset class. Information on the competition in a specific location will determine the sort of rentals that the property developer may expect, which will influence their returns. Atherton et al (2008:7) state if the demand for space is strong, rents will be high and the property will be occupied; if it is low, then the rents will be low, and the property may stagnate. Therefore, the demand for space has an impact on valuation; high rentals equate to higher valuations and vice versa. This reinforces the point made earlier about the importance of location.

2.3.3 Design and feasibility

Cadman and Topping (1995: 16) state that design is a continuous process running parallel to other stages, becoming more refined as certainty about the project increases. According to Thomas (2012: 46) as a project progresses, the types and extent of risks may change; new risks may emerge, and existing risks may change in their importance. This is because at this stage the property developer is likely to have more data on hand and thus can make more calculated risks. A market study would have been done to advise on the demographics and income levels of potential tenants and the size of the market in relation to the size of the building to be built. Once the developer has decided to go ahead with the project, the design process does not stop, but continues, with a more detailed design being produced. There are other parallel processes that the developer would run at this stage, such as engaging with local authorities and canvassing the market to gauge the demand for the project.

At this phase of the development process, the developer has decided whether or not to proceed with the development. Reed (2021:11) states that accountability and responsibility for the profits and related risks lie with the developer. Once the decision has been made to proceed, refinement of the design and costs is done with professional

consultants. The developer now has a clearer idea of what the estimated costs will be, the hurdle rate, and what is required in terms of costs and design. More inputs are given by the various consultants, and now the developer and the local authorities, along with other relevant stakeholder's, begin to interact. Thomas (2012: 52) states that at this point, at the very latest, the other parties in the project enter the development process. The developer starts to interact more with the local, provincial, and national authorities to seek the relevant authorisations to progress the development to the next phase.

While the design is being finalised, the property developer should also finalise all other legally outstanding documentation, such as the purchase agreement for the land. In general, the conclusion of the purchase agreement will be subject to thorough due diligence by the property developer, which will mitigate risks in the execution of the project. Thomas (2012: 52) supports this, stating that legal documents should be subject to a due diligence for the mitigation of execution risks.

In this phase, the question of building functionality, efficiency, flexibility of use and architectural design are discussed, according to Thomas (2012: 52). The developer needs to find a balance between the costs and the design of the building, in order to maximise the optimal use and potential profit. The feasibility is constantly being tested and refined to establish the ideal balance of these factors. Failure to balance costs with design could prove detrimental to the developer in the short to long term, as an incorrect design may dilute profits.

In addition, the due diligence must be successfully concluded. If shortcomings in this phase are overlooked, detrimental effects could be felt later on in the project. For instance, the issuing of permits by the local authorities must be secured, as failure to have the necessary permits will have an impact on costs and the timing of the project's completion. Thomas (2012: 52) states that inadequate due diligence procedures create potential post-sales risks, caused by such things as failure to properly identify environmental issues, or failure to obtain and confirm clean title of the property. The authorities will not issue the required permits without having received all the necessary documents, such as geotech reports, title deeds, etc.

2.3.4 Design development

This is the phase in which detailed working drawings are produced by the team of consultants in anticipation of construction and submission to the local authorities. These are produced with marketing and leasing in mind (Thomas, 2012: 53). During this phase, the feasibility is again checked and updated in accordance with changes that are happening.

Market analysis continues during this phase, to ensure that the designed project is in line with the market demands at that point in time. Also, competition in the same node must be monitored and analysed, since information on the competition will have an influence on matters such as the required hurdle rates. Regulatory principles must be adhered to as the design is readied for submission to the local authorities for approval. A significant risk at this stage is that the project design does not meet market needs and results in lower than anticipated rents or sales proceeds (Thomas, 2012: 53). Also, the initial project design may not address all regulatory issues. Costs to comply with regulatory requirements may reduce projected margin or return.

Cadman and Topping (1995: 16) state that there should be a full set of plans showing the layout, elevations, and section of the building, together with detailed specifications. The developer needs increasing certainty over costings to improve the quality of the financial appraisal. This shows the value that the developer's consultancy team needs to add to the initial design. The consultancy team not only helps with the submission to the local authority but is also able to bring some certainty to the developer on what the possible return and profits will be once construction is complete. At this stage, the developer is able to identify concrete timelines for the closing activities of the project and can raise finance with the financial institutions and investors with greater certainty.

2.3.5 Tender

One of the major areas of risk for a developer is the need to obtain tender bids for construction that are in line with or less than the construction costs envisaged by the quantity surveyor. The quantity surveyor will have costed the detailed drawings emanating from all the professional consultants, and the construction may now be put out to tender, either in the open market or with a select group of building contractors. The quantity surveyor would prepare a bill of quantities as per the specifications and detailed design given by the architect and engineer. This bill of quantities is issued either to potential contractors to give a price, with a closing date for submissions stipulated. Thomas (2012: 54) mentions that the usual risk during this stage is that bids from vendors or contractors may be higher, or require more time, than originally anticipated in the feasibility study, and that satisfactory vendors or contractors cannot be identified. Vendor/contractor negotiations may result in substantial revisions to the project design.

2.3.6 Construction

The developer will have submitted the site development plan (SDP) to the local authorities; once this is approved, the developer submits detailed building plans to the same local authorities. The risk here is that should the SDP not be approved by the local authorities, there would be a delay in the execution of the project, which could cause problems, since costs may rise during this time. Therefore, it is imperative that from the outset, the developer aligns the plan with the municipal regulations for such local submissions. Thomas (2012: 54) supports the notion that the developer should always co-ordinate the various aspects of the project, maintaining a strong coordination and internal reporting function. Cadman and Topping1 (995:18) also support this notion, stating that the developer must take as much interest in the running of the project as possible.

Thus, construction is triggered by the issuance of the building permits by the local authorities; only once these permits have been obtained may construction on site begin (Thomas, 2012: 54). The aim of this phase is to ensure that the project is finished within the planned time and cost constraints, without compromising quality (Cadman & Topping, 1995: 19).

Once construction has started, the risks associated with this period continue, since a plethora of factors may trigger project delays and variations in costs. Thomas (2012: 54-55) identifies the risks at this stage as:

- weather affecting building time;
- possible unreliability of vendors and contractors;
- changes in prices for materials and labour, as affected by industry trends;
- possible challenging physical characteristics of the property;
- changes to the building code;
- changes in the credit market and economic conditions which affect the financing of the project; and
- labour laws and regulations that may increase time and costs.

Delays during construction can lead to an inability to meet contractual deadlines. This would have a negative effect, in that penalties can be enforced by the contracting party. Thomas (2012: 55) states that failure to meet construction deadlines leads to penalties, and inadequate procurement and management may also cause excessive costs. If the costs increase, the potential hurdle rate and profits will decrease. Therefore, if any of the above factors persists for a prolonged period of time, the project may have to be aborted as the hurdle rates required would diminish, owing to cost increases and stagnant rentals. Management oversight plays a key role during the construction phase, as highlighted by Thomas (2012: 55).

It is crucial, even during the construction phase, that the market is constantly monitored to ensure that the product is right. If misalignments are detected, changes may need to be made to the specifications. In the case of a non-profit development, the developer must aim to contain costs while maximising the benefits of occupation (Cadman & Topping, 1995: 19). Owing to the dynamic nature of the industry, the developer should also monitor developments in the industry generally, to make sure that the product being developed is competitive with others in the market. In so doing, the developer may be able to identify attractive tenants and take steps to attract them to the development, which will improve the final product and the returns.

Tenanting during this phase is a risk, as any late tenants could cause potential monetary losses. Therefore, it is important that during the concept and design phases, tenanting plans are well advanced; this will prevent alterations having to be made during construction. Should such alterations to suit tenants have to be made, they will naturally have financial and design implications. Thomas (2012: 55) states that it is the objective of the trader developer to market the project as early as possible, as an early leasing or sale will reduce financing costs. It will also minimise the risk that specific tenants' requirements necessitate late and costly changes to design and construction.

Cadman and Topping (1995: 20) state that the development's success will depend on the ability to secure a willing occupier at the estimated rent or price, within the period originally forecast in the evaluation. In some instances, the tenant is secured by the developer and his or her team from the beginning, before the building has even begun – provided it is a single tenanted building. This is an ideal situation for any developer, as it mitigates all the risks upfront. The only risk that would remain would be delivery of the actual building. Therefore, it is always in the best interests of the developer to ensure that tenants are secured, at least to a certain degree. For instance, for a large commercial building, 75% of the tenants should be secured before commencement of the project. This allows the developer to minimise upfront costs and other related risks.

Cadman and Topping (1995: 20) state that any agent or staff employed by the developer should be included in the development from the start of the process. They further state that the agent or staff should be employed early enough to advise on the specification and the design of the scheme. The developer must ensure that the leasing agent (whether internal or external) is part and parcel of the team of consultants. Changes that emanate from the tenants affect the design. Therefore, input from the leasing agent is of paramount importance.

2.3.7 Completion

As the construction phase nears its completion, the developer takes it upon themselves to make sure that the project is appropriately marketed. Marketing needs to attract more tenants to the project to achieve the optimal tenant mix in the building. Marketing may either be undertaken by external bodies such as brokers, or by the developer's own internal resources. Thomas (2012:56) states that the earlier that leasing takes place, the better for the financial security of the whole development.

In most instances, the developer has the intention that once the project is fully completed, the building will already be fully let. However, this is not always the case. Each developer has their own leasing strategy, and how they implement such strategy differs. Some use brokers and some use their own internal resources, who have differing levels of clout with tenants in the market. Some will attract tenants with low-risk profiles and others will attract and are willingly take on tenants with high-risk profiles. The tenancy mix will be dependent on the location and property type.

Ultimately, it is the tenancy mix of any development that contributes to or reduces the ongoing profitability of a development. Good tenants' de-risk the developer's exposure to financial loss and their ability to service the debt taken from a financing institution. A good tenant mix contributes to the attractiveness of a development and the long-term sustainability of that development.

There is always the risk that the development generates an unattractive tenant mix, which affects the perceived popularity of the project and negatively affects long-term rent levels achievable by the property (Thomas, 2012:56). Therefore, if the development is not attractive to potential tenants, there is a very real and important risk to the developer. To reduce this risk, developers create incentives for potential tenants. At times these are not good for the development, as sub-optimal contracts may be entered into. This would negatively affect the required hurdle rates.

Once a development is complete, the developer either hands over the building to the new owner, sells to a prospective buyer, or keeps it within their own portfolio. The exit will be dependent on the type of return that the developer wants from the sale. If the developer

wishes to exit, they will need to weigh up the risks associated with the exit strategy. Thomas (2012: 56) explains these risks as follows:

- They may fail to exit at the right time.
- Capital tied up in excess, or underused real estate, may undermine returns and prevent the building from being recycled into higher yielding projects.
- The exit strategy may not correctly reflect market conditions, and therefore will not maximise returns. Limited access to capital markets (e.g., IPO, securitisation) may also negatively affect returns and prevent exits.
- The developer may be unable to manage the flow of information to prospective purchasers or may have insufficient contact management. This may mean that the selection of potential purchasers is sub-optimal, which could lead to lower than possible sales prices being achieved.
- There are execution risks, in the form of inadequate due diligence procedures (a post-sales risk) and mismanagement of the closing process.

2.4 External sources of risk

Property development does not occur in a vacuum. There are risks that the developer has some level of control over, as highlighted above, but there are also risks over which the property developer has no control. In this section I highlight the risks that are not within the control of the property developer but have significant impact on property development projects.

2.4.1 Municipalities and relevant authorities

Cadman and Topping (1995: 12–13) state that local authorities are involved in property development for their own occupation, for community use or for the provision of public infrastructure. Municipalities and provincial authorities play a critical role in all property development, being responsible firstly for making sure that the relevant town planning framework is being followed including development rights of a particular piece of land, for the provision of bulk infrastructure, the approval of building permits, the approval of occupation certificates, the granting of access and egress out of a particular site, etc. They play this vital role in line with their own spatial development frameworks (SDF) and

national legislation in order to create value for their immediate citizens. The National Treasury (2018: 4) encourages municipalities to identify and prepare land or property (greenfield and/or brownfield development opportunities) that can generate public value. The municipal responsibilities of zoning, infrastructure provision and granting permits are discussed below.

2.4.1.1 Zoning

Developers are at the mercy of municipalities from the outset of the property development process. The land on which a development is to be done is governed by a Municipal Town Planning Scheme, which dictates what sort of usage can be put on that land and the parameters of that usage. Whatever land a developer has identified, it must be appropriately zoned and serviced. That competency falls to the municipality. Therefore, the zoning that is attributed to a particular parcel of land is guided by that municipality's SDF, which means that when sourcing land for development, the developer must align their intentions with those of the municipality. Urban Landmark (2010: 1) states, 'Municipalities play a governance role and are mandated to ensure that the development is in line with government policies and development plans for the area.'

Cadman and Topping (1995: 15) state after acquisition of a site, the developer should establish what rights they have and what steps they need to take to acquire them. If the site is not yet zoned for what the developer wishes to do, it is imperative that they acquire that zoning and work out a timeframe for acquiring it. Any delays in acquiring the rights will have a cost implication for the entire project and could adversely affect the tenants of the project.

2.4.1.2 Infrastructure

The municipality is the provider of the bulk infrastructure that any property development requires. This comprises bulk water, sewer, electricity, power and refuse collection. The road infrastructure is provided by either the municipality or a provincial or national body, in the form of the South African National Roads Agency (SANRAL). This aspect depends on where the site is located.

Development will be hindered or delayed if any of the bulk infrastructure is not in place. Should these services not be available for a particular site, it is incumbent on the developer to satisfy the municipality concerning how they will address this problem. Therefore, constant communication is key between the developer and the municipality, and the provincial or national bodies concerned. Urban Landmark (2010:8) supports this notion, stating that many problems arise in property development as a result of lack of communication or, more specifically, the will, ability or means to communicate. Urban Landmark (2010:8) further states that initial communication between the municipality and the developer mainly focuses on the provision of bulk infrastructure.

The National Treasury (2018: 7) further stipulates

> *If the servicing requirements of a land development, that is, the provision of water, electricity and removal of wastewater and waste etc., cannot be secured, either within the urban services systems or embedded within a development within a risk management framework, the ability to create value is hindered or delayed.*

2.4.1.3 Building permits

Any development requires the permission of the local planning authority before it commences, according to Cadman and Topping (1995:16). A developer cannot start a development on their site without the approval of the local authorities; to do so would be highly irregular and against regulations or local legislation.

Besides the provision of services for development, a critical aspect of development that is outside of the developer's control is approval of building permits. These permits are granted or withheld after the submission of the SDP and, subsequently, the building plans. Cadman and Topping (1995: 16) state that the developer may make an 'outline application' before full approval is obtained. Outline planning consent establishes approval for the use of the site and the size and density of the proposed scheme. With is application, the developer needs only to provide information on the type, size, and form

of the scheme. An outline planning consent, on its own, does not allow the developer to proceed with the development scheme; further detailed planning consent is still required.

Therefore, it is important for the developer to adhere to the bylaws of the municipality concerned, in order to receive these building permits. However, lack of will and inefficiencies in municipalities pose a risk to developers, who often struggle to get their approvals in time to commence construction, as per their internal planning. Should the building permit not be granted, the entire development is under threat; there will be inevitable delays which could potentially lead to penalties from tenants and cost increases, which will reduce the developer's required hurdle rate. In most cases, the developer appoints a 'runner' to track the application and ensure that it is received within the prescribed period, as per legislation. Cadman and Topping (1995:17) state that the developer has to set realistic timeframes and costs, and factor in possible delays in obtaining the permits. It is essential that they appoint the correct 'runner' as the runner may be able to speed up the process.

Over and above the permits, the developer is also expected to sign service level agreements with the municipality. These agreements are for the provision of services by the municipality to the site. The developer must undertake to pay the fees required by the municipality for such services. Cadman and Topping (1995: 18) state that these agreements, often referred to as 'planning gains', deal with matters that cannot be covered as conditions to the planning approval. They entail the provision and maintenance of public facilities as part of a scheme.

2.4.2 Politics

In some countries, the prevailing political situation plays a particularly strong role in the success or otherwise of a development. The risk to projects that politics poses has been witnessed in South Africa recently, with the widespread looting and burning that occurred in 2021, mainly in KwaZulu-Natal but also in Gauteng, in response to political events. However, even outside of specific events such as these, the more general political climate poses a risk to the property development sector. The ideal situation for a developer is a stable political environment, which creates a sense of certainty for both the developer

and, importantly, the investors. Anchor Stockbrokers (2021: 2) state that an unstable political environment has the potential to lead to:

- higher returns required by investors;
- increased country risk premiums; and
- limited further supplies of capital.

2.4.3 Social and environmental factors

Social and environmental factors present themselves in numerous forms, such as riots and strikes (social) and unfavourable soil conditions and topography of the site (environmental). These pose a risk to the developer in that accommodating them has a financial implication, either immediately or over the medium term.

Reed (2021: 13) states that there is a need for a thorough physical inspection of the site to uncover aspects that may affect the overall viability of the project. An inspection may reveal underground complications or above ground aspects such as height permissible for the subsoil conditions. A geotech examination of the site is essential, as geotech conditions will determine the type of foundations to be built and possibly prevent future disasters, such as the collapse of the building. Through taking this measure, the developer will have essential information to correctly quantify costs, which will assist in their assessment of whether or not the project is viable.

Cadman and Topping (1995:15) support this notion, stating that a thorough physical assessment of the capabilities of the site to accommodate the proposed use should be undertaken. This will involve an assessment of the site's load-bearing capacity, access, and drainage. All existing services (electricity, water, gas and telephone) should be surveyed to ascertain their capacity to serve the proposed development.

Cadman and Topping (1995: 13) point out that property development is more than bricks and mortar; there are winners and losers, as measured financially, aesthetically, socially, emotionally or otherwise. The product that is developed may enhance the value of that area and will create jobs for the inhabitants of the area pre-construction, during construction and post construction. Therefore, socially there is an upliftment of the people

surrounding the property development event. However, residents of the area may well pose a risk to the developer; in South Africa, local residents who are excluded from employment opportunities during construction may prevent the developer from completing the development.

2.4.4 Investor and financial risks

Financial institutions play a critical role in the development process. According to Cadman and Topping (1995: 25-26), unless developers contribute 100% of the project costs from their own equity, they will need financing by a financial institution. Banks are the source of capital that assists development to take place.

These institutions provide both short- and long-term loans. Short-term loans may be provided during construction, and long-term loans post construction. This enables developers to acquire the equity capital that they must deploy to finish a project. Cadman and Topping (1995:26) state that short-term finance or 'development finance' covers the costs during the development process, and the long-term finance or 'funding' covers the cost of retaining the completed development as an investment.

According to Reed (2021: 14), the interest rate granted to a developer is dependent on the financial institution's perception of the risk profile of the developer and the project. This is not entirely true, as in practice the interest rate is based on the risk profile of the developer. The bank will require a higher yield should the risk of the development be high. This is supported by Cadman and Topping (1995: 26), who state that a bank will be persuaded to take on a higher-risk development if they are able to achieve a higher yield.

Financial institutions use the land and complete building as security for the lending of the capital required for the development. They thereby reduce their risk exposure upfront on any development. The developer, on the other hand, must provide them with a commitment to cover the loan repayment, in the form of money or assets that the developer already has. Therefore, the risk exposure of the developer is much higher. The developer also carries the delivery risk of the project, in that if the project fails, the developer will not be able to meet their financial obligations to the financial institutions, and thus will suffer loss. Cadman and Topping (1995: 26-27) concur with this, stating that

all risk passes to the developer, who must provide a financial guarantee. The bank will use the developer's property assets or the property itself as security for the loan.

Reed (2021: 123) states that the costs associated with servicing the loan will have a major bearing on the overall viability of the property development, especially for projects conducted over an extended time, i.e., several years. This is often the largest cost in the development. This is why it is so crucial that the developer monitors the income and the costs. They need to be fully aware of how they intend to service the debt from the bank. Ideally, the income that the project generates post completion should service this debt and cover for running costs of the finished development.

Financiers, investors and property developers will be assisted by a thorough assessment of the impact of a change in certain financial variables, which will affect their risk exposure and, in turn, their returns. This is the sensitivity analysis which Atherton et al (2008:13-14) describe. They maintain that is essential to look closely at the 'upside and downside' of a project, examining the best and worst scenarios in relation to the original estimates. Developers can do this by testing one or two variables.

Ahmed (2017: 90) states that the steps involved in risk mitigation need to be stated in a risk mitigation plan that will help to manage, reduce and eliminate risk to an acceptable level. It is thus inherent to the development that the property professionals assembled to execute certain tasks devise such a plan. When risk is evaluated from the onset, various scenarios are drawn up, and solutions to those scenarios are posed, to reduce or manage the risk involved in the development process. These risks are never eliminated; hence continuous monitoring and response is required during the implementation of the project. This view is supported by Ahmed (2017: 90), who states that risk-reducing plans involve options, and actions for those options, including tracking the risks.

All projects present their unique risks, with some projects carrying higher risks than others. Rigorous plans are therefore needed in some cases, while less rigorous plans may be sufficient in others. The risks also have degrees of importance, ranging from high priority risks to medium and low risks. It is thus imperative that these risks are costed as part of the capital structure of projects, which will help to reduce potential project overruns.

Therefore, project leaders need ensure that they not only have plans to reduce the risks but include such risks in their capital budgets.

There needs to be an acceptance that there are risks involved in projects, with the developer identifying such risks as clearly as possible. Continuous evaluation and assessment during a project, along with ongoing, flexible strategies to counter them, is an essential component of any property development.

2.**5 Conclusion**

This literature review has provided context to the topic of risk in property development, discussing the internal and external risks that a developer faces when undertaking a development. The proper handling of risks has a long-lasting effect on the developments they pursue. The categories of development risks in South Africa are no different from those in other parts of the world; they merely differ in their particular expression. The important role played by municipalities, financiers, designers and tenants, amongst others, necessitates regular, clear communication between the developer and each of these parties. Indeed, the developer needs to be intimately involved with each facet of the development, so that they may mitigate some of the risks involved. If these risks are not managed well, they will inevitably have an adverse effect on a development, as the literature has shown. This chapter has discussed the various risks, and ways in which to mitigate them, from the point of view of a number of authors, taking a systematic approach to the development process.

It is clear that ongoing monitoring of a project, and of the market, is a key part of successful property development. At the outset of a project, the risks are high; as the project starts to take shape, some risks will reduce.

Once the developer has identified and defined the risks, they can set parameters which will facilitate an estimation of costs, time and quality, and the returns they may expect. Having assessed and identified the risks and estimated returns, the property developer is able to assess the cashflow requirements of the development. This will enable them to make a judgement on the type of financial package they need from financiers and the financial sustainability of the investment in the long term, amongst other things.

It is also clear that risks cannot be eliminated in property development, with some projects presenting higher risks than others. Notably, the authors reviewed do not especially acknowledge the uniqueness of the communities in which property development projects take place, nor the strong role that political events may play. In South Africa and other developing countries, these aspects play a major role, as does the competence or lack of it of local municipalities. Their inefficiencies and inconsistencies with regard to the application of the legislation frequently delay projects and cost developers more money than should be the case. Most small municipalities in South Africa lack the capabilities to provide the services that in any functioning environment they would be providing. In many cases, services and their costs are borne by the developers.

The following chapter presents the methodology used in this study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology used to acquire the primary data in this study. It covers the research design, research philosophy, study population, sample and sampling method, the pilot study, the data collection instruments, the method of data analysis used, and the validity and limitations of the study. Anonymity and confidentiality were assured for all participants, and their consent to participate was sought and granted. Ethical clearance was obtained for this study.

The research was qualitative in nature, proceeding from an ontological stance, and taking a phenomenological approach. The phenomenological approach stresses the lived experiences of individuals, and the meaning that individuals ascribe to these experiences.

The nature of the research objectives and questions made the qualitative approach ideal for this study. The qualitative approach accommodates flexibility in interviews, where the focus is on the opinions, experiences and ideas of the participants. It also yields more in-depth information than the quantitative approach.

3.2 Research design

According to Akhtar (2016: 68), the research design may be considered its structure, or the ‘glue’ that holds together all the elements of the research project. Essentially, it is a plan of the proposed research work.

Maxwell (2013: 2) defines a good research design as one that flows, with all its components working together harmoniously. In a qualitative study, a good research design is flexible, adapting from time to time in response to new developments.

Research design is a critical component in any research work. It addresses the question of how and where the various activities will be carried out, and how the analysis will be conducted. Therefore, the researcher needs to design the research in such a way that it is adaptable and that the results will be easily understood by the reader. This notion is supported by Akhtar (2016: 71), who uses the analogy of a house; as with the construction

of a house, the researcher needs a plan or blueprint. In the case of a house, this is prepared by an architect. In research, it is prepared by the researcher.

3.3 Research philosophy

Saunders (2009: 124) defines research philosophy as a system of beliefs and assumptions that underlie the development of knowledge in a particular field of study. The assumptions made could concern the nature of knowledge, the approach taken to various phenomena encountered in the research, and the values of the researcher, all of which influence the research. Saunders (2009:125) argues that one's assumptions and beliefs shape one's understanding of the topic, the method one uses to collect data, and the interpretation of that data. Saunders further states that the researcher creates a credible research philosophy by thinking through and identifying their assumptions before undertaking the research.

The researcher's awareness of their belief system and assumptions can help to ensure a credible research philosophy and design. A properly worked out set of assumptions will enable to researcher to use the most efficient and effective method to gather and analyse the data. Data analysis may be strongly affected by the researcher's personal belief system and assumptions, and for this reason it is essential that the researcher has the self-awareness to recognise their belief system and assumptions. These create bias. As far as possible, the researcher should eliminate bias by bracketing their prejudices or assumptions.

Saunders (2009: 126) lists three areas in which the researcher may hold assumptions:

- Ontology
    - This concerns assumptions about the nature of reality.
    - One's ontological stance determines how one sees the world, and thus the type of research one engages in.
- Epistemology
    - This concerns assumptions about what constitutes legitimate and acceptable knowledge, and how it is communicated to others.

- Axiology
    - This concerns the values of the researcher and those of the research participants.

The researcher's ontological stance can make research quite subjective, and their epistemology may affect what they consider legitimate knowledge, and how to communicates it. Therefore, these areas of assumption are a major influence on how a researcher undertakes and later frames their research.

Saunders (2009: 135–143) further discusses the five philosophies that apply to business and management, but which can equally apply to research.

- Positivism

This is an approach or philosophy that recognises only that which can be verified by the senses. In research, it may involve using existing theory to stimulate testing, via a set of research questions which can be answered only through the gathering of data.

- Critical realism

This philosophy focuses on the lived experiences of the researcher, in terms of what they see and experience.

- Interpretivism

Interpretivism is concerned with the experiences of people within organisations and draws on their experiences and interpretations thereof. According to Saunders (2009: 141) phenomenologists focus on the participants' lived experiences.

- Postmodernism

Postmodernism is interested in the power relations between people and the language used to maintain the power balance.

- Pragmatism

Pragmatism is the approach used by the researcher who seeks to solve a problem to prevent it from happening in the future.

As can be seen from the above, interpretivism is in line with the ontological paradigm, as they both take into account the lived experiences of people. In this research, I was interested in the lived experiences of developers and experts in related fields, which can be used as a lesson for others.

Young and Hren (2017: 9) assert that qualitative research is underpinned by ontological and epistemological assumptions; that is, it investigates the nature of reality and asserts that qualitative data can generate meaningful knowledge about the world.

This study made use of the ontological and interpretivist philosophies, as defined by Saunders. The lived experiences of the property developers and other participants were considered an important part of the research.

3.4 Research approach

Kakulu (2014: 7) lists five main strategies in qualitative research. These are:

- phenomenology
- biography
- grounded theory
- ethnography and
- the case study.

Kakulu (2014: 7) further states that the two recommended strategies in real estate research are phenomenology and the case study. Below is a brief discussion of what these two strategies entail.

Kakulu (2014: 7) states the phenomenological approach involves understanding the lived experiences of several individuals in relation to some central concept or phenomenon. This requires an in-depth discussion or interviews with multiple subjects in order to yield

a mix of views which will be representative of the target population. For such discussions or interviews, a set of questions will need to be prepared, so that the data gathered will relate to common questions. The interpretation or analysis of the data will be the same for all the interviewees.

Individuals will interact with the interviewer differently for various reasons. This could be because of personal reasons – some may have had stressful day and be unwilling to talk much – or because the questions may be interpreted differently. For this reason, it is essential to state the questions clearly, and to conduct a pilot study, in order to test their clarity. The interviewer's manner may also influence the kind of responses they receive.

3.5 Research methods

The scientific methods used by a researcher to conduct research are known as research methods (Goundar, 2012: 10). These assist in the collation of data during a research project. As Goundar (2012: 10) further states, research methods call for explanations based on collected facts, measurements and observations, and not on reasoning alone. The researcher should accept only those explanations which can be verified by experiments.

Goundar (2012: 20) distinguishes between qualitative and quantitative research. According to him, qualitative research is interested in participants' lived experiences. It requires that the researcher immerses themselves in the topic or setting to understand the context. This type of research is fairly straightforward in terms of data collection, since there is no need for a large sample. Because it is premised on people's lived experiences, the findings will be subjective, and possibly not represent the views and experiences of everyone in the target population. However, although there may be differences in the way the individuals in the sample respond, there are unlikely to be outright errors.

Quantitative research measures attitudes, behaviour and performance and provides results in percentages that are easy to interpret. Quantitative research will often yield data that is projectable to a larger population (Goundar, 2012: 22). Thus, quantitative research is numeric in nature. Errors are possible in numeric data, and a much larger sample is

needed than in qualitative studies. Quantitative research yields data that is rigid and lacks depth, but it is useful for gauging responses to a uniform set of closed-ended questions.

In this study, information from the literature was reviewed, organised and analysed, and interviews were conducted with participants involved in property development. Thereafter, analysis was conducted that attempted to reconcile the data gathered from the literature with data gathered from the interviews.

As highlighted earlier, Young and Hren (2017: 9) ask the question of what reality is and how we generate meaningful knowledge from it. In this research, I examined the subjective reality of property developers and those who work with them, assessing the risks that are involved in property development. This was conducted through individual interviews with each participant. The interviews were flexible in nature and allowed for the participant to share their lived experiences without being confined by a rigid schedule of questions, although prepared questions were used. Their input allowed me to formulate a view and generate meaningful knowledge.

The combination of the two systems of data gathering allowed for both a systematic approach and a flexible approach, thus yielding greater insight than might have been gained by either method alone.

Interviews lasted about 45 minutes each. Once the interviews were concluded, they were transcribed and analysed. Common themes emerged, and it became possible to arrange information into various categories. Because the qualitative methodology was used, it was subjective, but the researcher was able to pick up certain themes running through the responses of all participants. The differing views of the participants enriched the study and added to the insights drawn from them.

3.6 The target population

The target population is the specific, conceptually bounded group of potential participants in whom the researcher is interested and who represents the nature of the population of interest (Casteel & Bridier, 2021: 344). In simple terms, the target population is a group of people who are of interest and who will add value to the research topic. They are an exclusive group of individuals in that they have the required knowledge to answer the research questions. They may be experts in the field of interest. According to Casteel and Bridier (2021: 345), their geographical and discipline-specific distribution is important, in that a good mix of participants fosters responsible research.

In this instance, the target population constituted individuals involved in the property development sector in Johannesburg.

3.7 The sample

Casteel and Bridier (2021: 345) state that a sample is a smaller group of individuals drawn from the population, and representative of it.

In this study, 14 individuals constituted the sample and were interviewed. The number was sufficient to yield a wide range of experiences and opinions with regard to property development risks and possible means of mitigating such risks. The individuals in the sample worked in both retail and commercial property development and therefore had first-hand experience of the challenges, risks and rewards of working in this sector. Developers were targeted in the main, as they are at the forefront of these risks. To supplement their input, other property practitioners were interviewed to obtain information from different perspectives. This made the sample balanced and ideal for the purposes of this study.

3.7.1 The sampling method

Marshall (1996: 523) indicates that there are three broad approaches to selecting a sample for qualitative research. He names these approaches as follows:

- Convenience sampling

Marshall (1996: 523) states that this involves the selection of the most accessible subjects and the lowest cost to the researcher, in terms of time, effort and money, but may result in poor quality data. Convenience sampling may lack intellectual credibility.

- Judgement sampling

This is the most common and productive of techniques. Here the researcher chooses the most productive subject to answer research questions (Marshall, 1996: 523). Marshall (1996: 523) recommends selecting a wide range of subjects (a maximum variation sample), outliers (a deviant sample), subjects who have specific experiences (a critical case sample) or subjects with special expertise (a key informant sample). Subjects may be able to recommend other useful potential candidates for study, which would bring in snowball sampling – where each participant recommends someone else to be interviewed.

- Theoretical sampling

With this form of sampling, the researcher builds a theory by interpreting the data (Marshall, 1996: 523).

In this study, judgement sampling was done. The individuals in the sample were selected on the basis of their property development expertise or exposure – thus they constituted key informants, as defined by Marshall (1996: 523).

3.7.2 The sample's composition

The sample comprised the following categories of participants:

- property developers
- professional consultants and
- asset managers.

The researcher needed to ensure that the sample comprised decision makers in the property development value chain, who would be knowledgeable about the risks involved in property development.

3.8 Interview site for the study

The spatial surroundings and other external influences were taken into account when the interviews conducted. Surroundings and the many distractions they present have the potential to influence responses, as does time of day. Most of the interviews took place at the place of work of the participants. Where they had to be conducted telephonically or via electronic media, the researcher asked that they pick a time and place that they could be alone and comfortable. This was an attempt to keep the environment neutral and consistent.

3.9 The data collection instrument

There are many ways to collect data when conducting research. Instruments differ and depend on whether the researcher in engaged in qualitative or quantitative research. This research was qualitative and thus made use of specific data collection instruments suited to qualitative studies.

Kabir (2016: 208) lists the following main instruments of data collection in a qualitative research project:

- questionnaires
- interviews
- focus group discussions
- observations

- surveys
- case studies
- diaries
- activity sampling
- memo motion studies
- process analysis
- link analysis
- time and motion studies
- experimental method and
- the statistical method.

The data collection instrument used in this research was the interview. Interviews were conducted with property development professionals in the main, as well as those involved in other aspects of the sector.

Interviewing involves asking questions and obtaining answers from participants (Kabir, 2016: 211). Interviews may be conducted face to face, over the phone or electronically. There are three types of interviews, according to Kabir (2016: 211): structured, semi-structured and unstructured. Each is described below.

- Structured interviews

In a structured interview, the interviewer asks a set of standard, predetermined questions about a topic, in a specific order. The order and wording of the questions are not changed, and no extra questions are asked (Kabir, 2016: 211–212).

- Semi-structured interviews

Kabir (2016: 212) states that in a semi-structured interview, the interviewer engages with the respondent in a formal interview using an interview guide. The guide contains questions, but the interviewer may adapt them according to the responses received, and probe for more detail. Occasionally, the interview may diverge from the topic, but the interview guide helps to keep the interview on track.

- Unstructured interviews

According to Kabir (2016: 212), in this form of interview, the interviewer has a clear plan and goal, but no pre-determined schedule of questions The interviewer focusses on building rapport with the respondent so that they feel free to speak openly and express themselves in their own way. The questions can be open ended, allowing the respondent to engage thoroughly, so that there is the possibility of more in-depth responses.

The semi-structured interview was considered ideal for the purposes of this study. A basic interview guideline was prepared, but I was prepared to deviate from it at any point. I had a foundation of understanding on the topic but was open to revising this understanding in light of participants' responses to questions.

3.10 The advantages and disadvantages of interviews

Abawi (2013: 14) states that interviews have both advantages and disadvantages.

The advantages of interviews are:

- One can collect comprehensive information and gain a clear understanding of the topic;
- They allow for a high response rate;
- They are more personal than the use of questionnaires or focus group discussions;
- There is control and flexibility in the order of the questions;
- They allow for follow-up questions that would not be possible with a questionnaire.

There is only one real disadvantages of interviews, and that is that the analysis of interview data can be laborious and time consuming.

In this study it was advantageous to use interviews, as they enabled the researcher to draw out a great deal of information that might not have been possible with other methods. The interviews were cost effective, since they could be conducted either in person, electronically or via telephone.

3.11 Conducting the interviews

The researcher emailed all the identified participants in the research. The email informed the potential participants about the purpose of the study and requested their help in answering certain questions. It was made clear that the participants could choose their preferred medium for the interviews. Once responses to the email had been received, dates and times for interviews were arranged with each participant.

An interview guideline was prepared in order to ensure that all topics were covered.

3.13 The pilot study

Lowe (2019: 117) states that a pilot study is crucial to avoid flaws in a research topic. She further states that pilot studies are designed to answer specific method questions rather than the research questions. The pilot study reveals if there are any problems with the wording of questions and allows the researcher to amend these as necessary before the study begins.

In this study, five individuals were selected to participate in the pilot study.

3.13 Data analysis

Interviews were conducted in person, online and telephonically. Telephonic and online interviews were transcribed as they progressed, while the in-person interviews were recorded and then transcribed.

Having transcribed all the interviews, I began the process of identifying themes and sub-themes in the data. I read each transcript several times, coding units of data according to the similarities or themes that emerged from them. Similar themes were then grouped together and cross referenced to check whether there were points of contradiction, or possible sub-themes.

3.14 The validity of the study

The validity of a study depends on the trustworthiness of the data presented. In this study, four aspects helped to ensure the trustworthiness of the data and the study's validity; the credibility of the data (based on the reliability of the participants who were interviewed), the rigorous nature of data analysis, triangulation, and the elimination of bias.

3.14.1 Credibility of the data

Judgement sampling helped to ensure the credibility of the data received. The study's validity therefore rests mainly on the credibility of the participants, whose personal experiences and views were authoritative and reliable.

3.14.2 Method of analysis

The method used to analyse and report on participants' responses was rigorous and methodical, helping to ensure that the final report reflected their input accurately. These two aspects – the use of reliable informants and an accurate method of analysis – are central to ensuring a study's validity. This notion is supported by Daytner (2006: 3), who states that validity depends on the trustworthiness of the data, which may be directly linked to the methodological and analytical processes of the research project.

3.14.3 Triangulation

How one uses an instrument and the methods one uses to analyse it will ultimately determine the level of trustworthiness in a research project. To further enhance trustworthiness, triangulation was used. Researchers need safeguards such as triangulation to ensure that their findings are trustworthy.

Daytner (2006: 4) lists four triangulation methods:

- source triangulation
- investigator triangulation
- theory triangulation and
- methodological triangulation.

Trustworthiness is increased when there are multiple data sources, theories, investigators, and methods to confirm an interpretation or conclusion. Therefore, if a

researcher makes use of one of the above triangulation methods, the trustworthiness of their research is increased.

In this study, I used source triangulation. I interviewed multiple sources to gain a variety of views, and then identified common themes.

3.14.4 Elimination of bias

Bias can exist in any research project, especially when it contains qualitative data, as in this study. Researcher bias can affect the trustworthiness and validity of a research project. The use of a reliable sample and triangulation of the data helped to eliminate bias in this study.

3.15 Limitations of the research

The study's main limitation was the fact that most participants were retail property developers; thus, not all categories of property professionals were interviewed. In addition, the study took place in one city of South Africa. It is possible that other sub-segments of the property industry and a wider geographical location would have yielded a different mix of responses.

3.16 Ethical considerations

Researchers are required to observe certain ethical principles in research. Below are the most important steps taken to ensure that this study was conducted ethically:

- All participants were informed about the nature of the study, and all gave their written consent to participate.
- All discussions and information shared by participants was confidential, and their anonymity was upheld throughout the research period and in the final report.
  Interviews were conducted in a professional and respectful manner and no participants were pressurised or intimidated.

3.17 Conclusion

This chapter has focused on the methodology used to obtain reliable information. The chapter has examined the research design, philosophy, population, sample and sampling methods, method of analysis, steps to ensure the study's validity, ethical aspects and

limitations of the study. The study was qualitative, making use of data collected from interviews. These allowed for the researcher to examine the lived experiences of the participants. The philosophy underlying the study was ontological and the strategy used was phenomenological.

In the following chapter, the data collected from the participants is presented and discussed.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The chapter presents and discusses the data gathered from the interviews. Contributions by interviewees are reported verbatim, and presented according to the themes and sub-themes that were extracted after analysis. Findings are discussed throughout the chapter.

The data analysis process involved transcribing all the data collected from the interviews and identifying the themes and sub-themes that emerged. The findings helped to answer the following research questions:

- What are the property development risks in modern South Africa?
- What is the impact of these risks on property development projects?
- What recommendations can be made to mitigate these property development risks?

4.2 Participant profiles

The participants were all individuals involved in the property development industry in South Africa. They included property financiers, property market researchers, quantity surveyors, property developers, engineers, leasing consultants and heads of property development entities. They interact with the property development industry daily and thus were able to share a wealth of knowledge on the property development risks that they experience individually.

Participants were all senior executives in their different disciplines in their diverse organisations. Each had a minimum of ten years' experience in the property sector. They were thus able to provide a wholistic and balanced view of issues under investigation. Below is a profile of the individual participants.

Participant 1 – managing director of leasing company
Participant 2 – senior property finance institution relationship manager
Participant 3 – head of property (development company)
Participant 4 – director of a listed company
Participant 5 – executive in a property finance institution

Participant 6 – head of property development in his company
Participant 7 – director of a listed company
Participant 8 – director of market research company
Participant 9 – chief operating officer of a property development company
Participant 10 – a property development manager
Participant 11 – chief investment officer of a property development company
Participant 12 – chief executive officer of a property development company
Participant 13 – a senior quantity surveyor
Participant 14 – director of a consulting engineers company.

Initially, the plan was to interview 15 people, but in the end, only 14 were available. This translates to 93% of planned participants and was still considered a good sample size. The sample was chosen deliberately to include variety and different perspectives on the phenomenon under review.

These were all extremely busy people, and some could not spare the time for face-to-face interviews. These individuals were either interviewed telephonically or sent a list of questions to answer as best as they could. Participants who were issued with standard questions equated to 33% of the sample population. This means that almost 60% of the interviews were conducted face to face.

The following section presents the findings of the semi-structured interviews, with discussion following each sub-section.

4.3 Presentation and analysis of data

Analysis, transcription, coding and extracting of themes and sub-themes was performed on the raw data. Certain themes began emerging early on in the data. Ideas that seemed similar were grouped together and cross referenced to check whether there were any contradictions in what the participants had said. These themes were also cross checked with the original research questions and grouped accordingly. Table 4.1 below indicates the main themes that emerged from the analysis of the data.

The rest of this chapter in arranged in three parts:

- Presentation and analysis of the data collected
- Formulation and grouping of themes
- Conclusion

Table 4.1 below shows a summary of the themes that emerged from the data in relation to the research questions.

Table 4.1: Research questions and themes

Research questions	**Themes**
What are the property development risks in modern South Africa?	1. Political and socio-economic factors, and municipal inefficiencies. 2. Social unrest 3. Increases in municipal costs, materials and Eskom.
What is the impact of these risks on property development projects?	4. Increased capital costs and reduced returns. 5. Capital flight 6. Social unrest
What recommendations can be made to mitigate these property development risks?	7. Subsidies for bulk infrastructure. 8. Upfront payments to fix the purchase of materials with long lead times. 9. Stakeholder engagements early in the development process. 10. Government and Municipal engagement. 11. Making sure that contractors have capacity. 12. The use of technology. 13. Programming the risks within the development programme. 14. Local communities' participation in developments. 15. Pricing in potential increases in costs. 16. Municipal rebates.

The first research question was: ‘What are the property development risks in modern South Africa? The themes that emerged were:

- political, socio-economic, and municipal inefficiencies
- social unrest
- increases in municipal costs, materials, and Eskom.

Two verbatim responses to the question were:

Participant 4:

> *You’ve got cost risks. I mean, steel prices – no one knows where it is and where it’s going. So obviously, that’s going to impact on your return. In fact, all costs, so labour costs have increased, obviously steel has increased … political risks, all these community forums and all those sorts of things, will delay you and make schemes not workable … We should think about what happened in July … the costs of rates and taxes. I mean, a lot of them have gone up by 20%. Over the years electricity has gone up. So, all these things make schemes unaffordable.’*

Participant 8:

> *‘Global economic and geo-political risks – the Russia/ Ukraine conflict – and the impact on oil prices and subsequent impact on petrol and diesel prices pushing higher inflation. Higher inflation forces higher interest rates which in turn will risk the financial feasibility of a project.’*

The second research question was, ‘What is the impact of these property development risks on property developments projects?’ The themes that emerged were:

- increased capital costs and reduced returns
- capital flight; and
- social unrest.

Verbatim responses were:

Participant 7:

> *‘The main one being the investors not getting the return as anticipated or the project being incomplete, etc. This will mean that they can invest the money elsewhere, or overseas, meaning there is capital flight out of South Africa and thus impacting on the job creation agenda.’*

Participant 13:

> *‘Time is money. The longer it takes for a project to start, the more cost increases will arise and loss of rentals. Anchors or nationals may look at a different site in meantime, which means you can lose a big tenant. It can have a negative impact on your ROI where you could have invested the money on a different scheme. It becomes the client’s problem to sort out the latent defects, out of his own pocket. Therefore, also a cost issue.’*

As explained in Chapter Three, I identified themes and sub-themes by going through the transcriptions several times and coding the data.

Table 4.2 below presents extracts of data (i.e. verbatim quotes) and the theme that each one supports, with each theme coded. The table summarises the themes that emerged and shows that they are closely related to the interview responses. As can be seen in Table 4.2, many participants said similar things.

Table 4.2: Codes and themes

Themes	**Codes**
' … supply of electricity is becoming more and more of a challenge as well.' (Participant 3) *' … political risks, all these community forums and all those sorts of things, will delay you and make schemes not workable … ' (Participant 4)* *' … the costs, rates and taxes, I mean, a lot of them have gone up by 20%.' (Participant 4)* *' … now steel prices, no one knows where it is and where it's going. In fact, all costs, so labour costs have increased, obviously steel has increased.' (Participant 4)* *' … I think the political risk is a big thing in that South Africa, you can just see, look at the poverty … the risk is the government might not be able to pay social grants.' (Participant 5)* *' … taxi associations. They've got big political power. And it's interesting how they decided which centres can be rioted and which cannot.' (Participant 5)*	**Risks** 1. Political and socio-economic factors, and municipal inefficiencies. 2. Social unrest. 3. Increases in municipal costs, materials and Eskom.

' … getting rights to the property quick enough or within reasonable time, there's obviously a risk in that as well.' (Participant 6) *'The latest risk we have is the bulk services cost risk, where it's now getting to a point where it has become quite difficult to box the bulk service cost and the charges costs, because of some councils … ' (Participant 6)* *' … the big, fluctuating one nowadays is steel and steel pricing.' (Participant 6)* *'Councils are also not the most proactive when it comes to approvals.' (Participant 10)* *'Material price increases during a project have an impact on budget if you haven't allowed for it. The recent steel price increase was a big factor, at about 40% increases. We saw Perspex also had a big increase.' (Participant 10)* *'Strikes during a project are also a big risk, not necessarily the onsite staff, but any company providing materials to site that strikes impacts the productivity of the site.' (Participant 10)* *'Municipal performance and service/ infrastructure availability.' (Participant 8)*	
' … you don't know if you can have power anymore … obviously that pushes up the cost of the development, as you have to have all the backup in place.' (Participant 3) *' … now steel prices, no one knows where it is and where it's going. In fact, all costs, so labour costs have increased,*	**Impact of risks** 4. Increased capital costs and reduced returns.

obviously steel has increased. So obviously, that's going to impact on your return.' (Participant 4) *'Over the years, electricity has gone up, so all these things make schemes unaffordable.' (Participant 4)* *' … cost of doing business in South Africa is increasing. It has increased to the extent that now you need to gauge, where do I allocate capital in South Africa, or do I go overseas and put money overseas.' (Participant 4)* *' … things like interest rate movements during construction obviously impact your carry-on costs. (Participant 6)* *' … that affects your steel structures, it affects your air conditioning … mismatch between your estimation of escalation and what actually is happening on the ground … ' (Participant 6)* *' … last year with the riots, but it's something that's been ongoing forever.' (Participant 4)* *'So, in our buildings we're installing solar panels … ' (Participant 4)* *' … we have to have meetings with the communities ...' (Participant 4)* *' … they must be educated … how to get them involved is to give them incentives … ' (Participant 5)* *'We secure government grants through the bulk infrastructure programme – DTI – or negotiate rebates for bulk contributions with council. This is a way for the developer to recover the costs expended in providing bulk*	5. Capital flight **Solutions** 6. Subsidies for bulk infrastructure. 7. Upfront payments to fix the purchase of materials with long lead times. 8. Stakeholder engagements early

infrastructure, which is the responsibility of the government.' (Participant 9) *'Stakeholder interviews. This includes discussions with local municipal workers, especially in the town planning department, as well as discussions with real estate agents, etc.' (Participant 8)* *'To deal with or mitigate these risks, you have to always remember to programme this in with your overall construction programme … ' (Participant 10)* *'In tendering a project you need to make sure you appoint the correct contractor for the job, make sure they have the capacity for the size of the job, make sure they have a good reputation in the market, as well as have the proper contracts in place to cover everyone in terms of delays and penalties etc. ' (Participant 10)* *'Upfront payments to fix certain materials on/off site.' (Participant 13)* *' … allow for enough time and budget to allow for these risks, as well as do proper planning on procurement.' (Participant 10)* *'Planning and procurement is very important, especially with a fast track project. Long lead items need to be tendered and appointed or ordered very soon in the project. Items like lifts etc. can have lead times up to 8 months, so if this is not ordered up front you will definitely have a very long delay on the project.' (Participant 10)*	in the development process. 9. Government and Municipal engagement. 10. Making sure that contractors have capacity. 11. The use of technology. 12. Programming the risks within the development programme. 13 Local communities' participation in developments. 14. Pricing in potential increases in costs. 15. Municipal rebates.

4.3.1 Research Question 1

What are the property development risks in modern South Africa?

From the data analysed, it became clear that the main risks to property development in South Africa were political and socio-economic factors, and municipal inefficiencies. Other risks included increases in material prices, municipal costs, and Eskom, as discussed below.

The following extracts support these themes.

Participant 4:

> *' … you've got cost risks. I mean, steel prices – no one knows where it is and where it's going. So obviously, that's going to impact on your return. In fact, all costs, so labour costs have increased, obviously steel has increased … political risks, all these community forums and all those sorts of things, will delay you and make schemes not workable … We should think about what happened in July … the costs of rates and taxes. I mean, a lot of them have gone up by 20%. Over the years electricity has gone up. So, all these things make schemes unaffordable'*

Participant 8:

> *'Global economic and geo-political risks – the Russia/ Ukraine conflict – and the impact on oil prices and subsequent impact on petrol and diesel prices pushing higher inflation. Higher inflation forces higher interest rates which in turn will risk the financial feasibility of a project.'*

4.3.1.1 Theme 1: Political and socio-economic factors, and municipal inefficiencies

The stability of the political and socio-economic landscape of any country is critical to the development of that nation. Political stability is affected by the will of the ruling party to uplift communities. This sort of will was demonstrated in Rwanda after the genocide of 1994. Political will and action results in improvements to people's living standards, which

translate into improved socio-economic conditions, which in turn fosters a stable political and social environment in which business can flourish. Improved conditions create a positive atmosphere and result in improved revenue collections at local, provincial and national levels. Much of this is then distributed back into communities through improvements to infrastructure and other municipal services. In this country, political will appears to be lacking.

Municipalities play a critical role in the development of nations at the local level, as they are the conduits through which political will, or the lack thereof is clearly illustrated. In the case of South Africa currently, many municipalities are dysfunctional, lacking not only political will but funding, capacity and skills transfer. Their incapacity is evident in decaying infrastructure and poor service delivery, all of which drive people to protest and further disrupt the political stability of the country. Currently one could justifiably say that there is a total disconnection between the powers that be and the communities they are supposed to serve.

Most interviewees saw political instability as a major risk to property development.

Participant 5 said:

> *'I think the political risk is a big thing is that South Africa. You can just see: Look at the poverty of people in the rural areas, and the risk that government might not be able to pay social grants. That would have a severe impact on everything. I think the government of South Africa is responsible for that … a big issue is the social unrest. taking place. And that's coupled with the political instability of the government, government of the country, of the ANC.*
>
> *'We've got a local ANC, the governing party, instability within the party … there are factions within, and in the areas, we move in, different directions within these factions.'*

These views were also supported by Participant 8 whose response highlighted global geo-politics.

> *'Global economic and geo-political risk, i.e. Russia/ Ukraine conflict – and the impact on oil prices and subsequent impact on petrol and diesel prices pushing higher inflation. Higher inflation forces higher interest rates which in turn will risk the financial feasibility of a project'.*

Participants 10 said:

> *'So, if you need to complete a building within a certain timeframe, for example you have a signed agreement with a tenant, you are already on the back foot due to town planning. Councils are also not the most proactive when it comes to approvals. The city of Cape town have done an amazing job of getting this right, getting everything online, getting the right people in the right positions, but JHB and Tshwane is lacking very far behind.'*

The government is either failing or is too slow to implement its own legislation and programmes in the advancement of the country. This is particularly the case with regard to infrastructure programmes, which are critical for economic growth and job creation. Their tardiness and lack of will has direct and indirect effects on property development projects in South Africa.

Budgets are being cut, critical infrastructure advancement is not being budgeted for, and very little is being maintained. Infrastructure is crumbling in many towns of the country, with no plans to overhaul it. Bureaucracy inhibits progress in the implementation of government programmes and there is a lack of a sense of urgency from government to deal with this issue.

It also clear that government corruption plays a part. Many government employees prioritise their own needs and take critical resources that are meant to help low-income communities. Money that is meant for critical projects is frequently redirected into the

hands and coffers of those who have political links or power. This is evident in ongoing newspaper reports on corruption, and the infrastructure crisis that is evident in every province. Commissions are appointed to investigate these, but they move slowly, and it appears that only a small percentage of the culprits are prosecuted. This creates dissatisfaction amongst people and raises the likelihood of mass action against the government, as has been seen in strikes and protests across the country. Poverty is exacerbated, as people are not receiving any form of empowerment.

With very little spent on infrastructure development, jobs that might have been created are lost, further exacerbating the poverty of communities. Political instability also makes investors unsure of whether to invest in the country, according to Angor Stockbrokers (2021: 2).

Participant 5 highlighted the lack of infrastructure development.

> *'When you do a development, you must build roads, you must bring electricity, things that local government should have capacity to do, but they don't do it. Because they take the money somewhere'*

Current legislation on infrastructure supply is inadequate or insufficiently enforced by government. For instance, the Rural Development Disposal Policy is exclusive and cumbersome, in that developers' applications for leases may take 18 months to be processed. Furthermore, town planning laws that were developed more than 20 years ago are still being used, with no urgency to address their inadequacy for current realities. This legislation does not seem to have been revisited by government to check whether it is fit for purpose in modern South Africa, and to promote economic growth in the country. National Treasury (2018: 7) states that the lack of provision of services hinders the creation of value through developments, or delays such creation, thus depleting value.

Participant 10 said:

> *'Councils are also not the most proactive when it comes to approvals.'*

Participant 3 supported this view:

> *' … to get approvals quickly enough to act in time, you know, you get certain timeframes from tenants if you are building for them, they need to be in on a certain date. If you cannot get town planning in time, there is a. You may not be able – either you can't deliver on time, or you're going to go and build illegally and try to pull stuff out later.'*

Participant 12 said:

> *'Municipalities are a mess. We have people in the municipalities that don't even understand their own legislation and, more worryingly, how to implement it. This causes unnecessary delays, as we now have to educate people that are being tasked with giving us the direction we need.'*

Factional battles in the ANC play themselves out in the public domain, with the party's instability filtering into municipalities. The interests of politicians are destabilising even the currently functioning segments of municipalities, with political interests put ahead of community interests. This naturally affects investments in such areas.

In recent years this phenomenon has manifested in an explosion of what has been termed by developers the 'construction mafia'. People organise themselves in the form of a forum to demand equity stakes or work on construction sites; when their demands are not met, they put a stop to all work through vandalism and violence. This is political, driven not only by the socio-economic challenges, but by local politicians such as ward councilors who stir up these activities in the areas where construction is taking place. Many projects have been forced to stop because of these strong-arm tactics. The halting of projects scares capital away from areas that really need the capital to create jobs and alleviate poverty and unemployment.

Participant 12 supported this view:

> *'The construction mafia is becoming the norm on all our sites. This not only poses risk to our workers in the sites but also puts pressure on the cost structures of the developments, as now we have to make allowances for such disruptions.'*

Participant 12 went on to say that where they have encountered such construction mafias, their actions were politically motivated; local politicians wanted to personally benefit from the construction.

> *' … cases where our plans would not be approved because some politician in the municipality has issued an instruction for them not to be approved until we cave and give in to their demands for 30% equity. We have had to make sure we use our legal routes to counter this and work closely with people that are pro development in local authority, and who understand the impact of the developments we bring.'*

Participant 10 supported this notion:

> *'One of the major risks at the moment are the local forums [construction mafia]. They come in and demand whatever they want, and if you don't comply, they threaten you, destroy property and materials on site, and ultimately delay the project. This is also a huge risk in terms of possible loss of life, as they will come onto site with weapons.'*

The lack of political will to create conditions that promote investment, from the top of the national government down to executives and officials in municipalities, seriously affects development in the country. Among many other failings, they seem to make little effort to ensure that building applications are timeously processed.

Participant 6 said:

> *‘ … we didn’t mention getting rights to the property quick enough or within reasonable time. There is obviously a risk in that, as well … someone’s got to pay for it somewhere. And that’s what puts pressure on the rentals as well.’ (Participant 6).*

Participant 13 said:

> *‘SDP plan approvals are a big risk and thus to mitigate this risk one should appoint a runner to go irritate the council to make sure plans are approved in time,’*

Municipalities are failing to provide basic services, not only to communities but to new property developments. Developers are faced with challenges and end up having to provide the projects with municipal services that are the local municipality’s responsibility. This has an impact in terms of their cost structure and thus a negative impact on their return on investment. It also dis-incentivise any form of investment. Investors looks for stability, especially political and socio-economic stability. Thus, one sees in South Africa the very opposite of the contention made by Cadman and Topping (1995: 12–13); that local authorities should be involved in property development for community use or the provision of public infrastructure.

Participant 3 said:

> *‘People will take it into their own hands, you know. They’ll try and not rely on and count on municipality supply for water and in relation to power they will get off the grid.’*

Participant 3 was of the view that developers should aim for self-sufficiency in their development, not relying on municipal services. Such an approach is costly, and of little use to surrounding communities.

4.3.1.2 Theme 2: Social unrest

With increasing corruption, the rising cost of living, lack of service delivery, crumbling infrastructure and poverty, to name a few ills, township dwellers and rural people in South Africa have become despondent about the country's leadership and the prospect of change. The lack of leadership and will to change the plight of the people in this segment plays itself out in the form of constant protests and the riots that took place in July 2021.

National Treasury (2018: 7) stipulates that it is the function of the municipalities to ensure that land is serviced for development to take place. This has not been happening because of political instability, as highlighted above. Therefore, developers' capital costs rise and return on investment becomes more difficult. Some projects have been delayed by years, and others have been altogether abandoned. There is a dire need for infrastructure projects, of which property development is an integral part. Infrastructure projects create jobs, and jobs raise standards of living, so that protest action and unrest become less likely. In addition, property development projects give the communities access to retail services and critical infrastructure that they may never have had. Infrastructure is supposed to be provided by government, funded by taxes. Instead, it is often left to developers to provide.

Participant 4 said:

> *'South Africa was very stable, but of late it's been quite unstable to be frank … last year the riots … but it's something that's been ongoing forever and it's got a lot to do with lawlessness, corruption, and exploitation … '*

Participant 12 said that over 20 of their assets were affected by the July unrest. This shows how unrest directly affects property development, and how restless the people of the country are. There is an urgent need for the government to create an environment that is stable and business friendly, so that private businesses can create jobs. Participant 12 stated that the riots of 2021 were an indication of how 'hungry' people are on the ground. This view was supported by Participant 1, who said that there was a risk of more

riots happening if employment figures did not improve. He said that both government and private sector developers needed to be inclusive in term of employment, ensuring that the communities surrounding development projects had the opportunity to work on such projects.

It is clear that people in rural and township areas feel left out of property development projects. They feel that in existing structures, big corporates 'parachute' people in and out to do jobs that should be ring fenced for locals. It is not only the responsibility of government to create an enabling environment for businesses; it also the responsibility of property developers to make efforts to employ and skill communities in which they operate. Developers can be instrumental in creation of jobs, and the formation of empowerment structures, through which locals can participate in developments. This is clearly supported by Cadman and Topping (1995: 13) who state that property development is more than bricks and mortar; there are winners and losers financially, aesthetically, socially, emotionally and otherwise. Products developed in certain areas enhance the value of those areas, and create jobs for the inhabitant's pre-construction, during construction and post construction. Therefore, socially there is an upliftment of the people surrounding the property development event.

4.3.1.3 Theme 3: Increases in municipal costs, materials and Eskom

Participant 3 drew attention to the high rates, the costs of materials, and the huge cost of loadshedding in the country, saying:

> *'I mean, all the utilities and you know, rates and taxes, all those things have gone crazy with the big costs, which make it difficult to make things work … '*

This view was shared by all participants. The recent hike in municipal rates and related costs is proving a real challenge for developers. Many are failing to reach their targeted returns on investment because of these increases. The increases have had such an adverse effect on developments that industry bodies have called on government to intervene, as the increases are stifling economic growth, with investors not rolling out any

new developments. This has a downstream effect on communities, where jobs are not being created and services are not upgraded or provided. This in turn has an adverse effect on the revenue collection of municipalities. With declining revenue collection, municipalities are not able to maintain existing infrastructure, creating a vicious cycle that results in infrastructural decay and economic stagnation.

Participant 12 also spoke of ever-increasing municipal costs:

> *‘ … yields are under pressure as costs are increasing. Steel increased recently, municipal rates increased, and the increases are such that we can no longer pass those costs to the tenants, as their rentals are becoming unsustainable and unaffordable … ’*

These sentiments with regard to municipal costs are concerning, suggesting that in the long run developers will look elsewhere to develop, which will compound unemployment and related ills. Many will not be able meet their targeted returns on investment and therefore other areas will become more attractive for them. This would lead to a decline in construction activity and possibly a decline in municipal revenues, as the tax base would decrease even further. The values of properties will also decline if municipalities lack the financial means to maintain any infrastructure. Developers will inevitably pull out if costs begin outstripping the income that they are able to collect.

The unilateral increase in municipal costs demonstrates a lack of capacity among municipalities, revealing that there is little understanding of how interconnected infrastructure systems are. There is clearly a lack of communication from the top down in municipalities, in that no community engagement takes place, so that they remain out of touch with what sudden large rates hikes do to values of property and property development activity. Their actions go against the idea mentioned under Point 2.4.1 by Urban Landmark (2010:8), who stated that many problems arise in property development as a result of lack of communication or, more specifically, a lack of will, ability or means to communicate.

In addition, ongoing electricity blackouts by Eskom were a major risk concern for all interviewees. Most shared the sentiment that electricity blackouts are negatively affecting property development, in that tenants who cannot afford alternative power supplies are forced to close trade, which reduces their turnover. Suppliers are affected, as the money value chain is disrupted by these blackouts. A particular concern was increases, year on year, in the number and duration of blackouts. Lack of a reliable electricity supply creates an added line item in the cost structure of developments, as developers turn to generators and other means to stay operational. Blackouts add more pressure on the development yield, as income increases are outstripped by operational expenses.

Participants 2 and 3 said:

> *‘ … we have the challenge of Eskom, who will just spike rates to 25% at any time and maybe three times in a year … We got rates and taxes, we got water problems.’*
>
> *‘The supply of electricity is becoming more and more of a challenge as well.’*

In addition, recent increases in the prices of steel, aluminium and other construction materials are also having an adverse effect on property developments. Developers get many of their materials locally and order some of them internationally. Uncertainties caused by the current war in Ukraine have added pressure to their cost structure; COVID-19 added another layer, delaying the supply of materials. The stability of the rand has assisted a little, but the constantly increasing costs of doing business and increases in inflation have added to the increase in prices of items required by developers.

Material price increases add another layer of costs to a development’s feasibility. The challenge is that developers need these materials to construct buildings and cannot do without them. What exacerbates the situation is that many price increases for materials happen when the developer has already fixed their income structure through the negotiation of leases, which cannot be changed. Thus, these unexpected increases eat into the return on capital that the developer can expect.

Participant 12 said:

> *‘ … you’ve got cost risk. I mean, steel prices – no one knows where it’s going. So obviously it’s going to impact on your return.’*

Participant 12 added:

> *‘COVID has created havoc for us, in that we had things stuck in the ports, meaning we could not get to complete our developments in time. As you know, naturally you would incur penalties, but due to the pandemic most of our tenants understood, and thus we just delayed the opening dates. … prices are going through the roof. Steel is the major one. This adds to an ever-increasing cost structure. ’*

Data received from the participants through interviews corroborated the facts and opinions expressed in the literature.

It was clear that there are common themes running through the comments of interviewees.

What emerges strongly from all the interviews and from the literature is that political and socio-economic factors, social unrest, an unreliable power supply and increases in municipal costs and material costs are the main risks to profitability among property developers in South Africa. These views were shared by all participants, who spoke from the point of view of different fields or disciplines.

4.3.2 Research Question 2

What are the impacts of these risks on property development projects?

The impact of these risks on property development projects are discussed below. They include increased capital costs of projects and reduced returns, unfeasible development projects and the abandonment of projects.

4.3.2.1 Theme 4: Increased capital costs and reduced returns

Cadman and Topping (1995: 19) stipulate that the developer must contain costs while endeavouring to maximise the benefit of occupation. With the constant increases in development costs, added to by increasing operational costs, it is becoming difficult for developers to maximise the benefits of having their properties tenanted. This applies whether or not the developer retains ownership of the development in the long term. Poorly occupied properties have an adverse effect on the value of the property.

> *'Suddenly, it's becoming very expensive for the developer' (Participant 2).*

Most of the participants – Participants 3, 4,5, 6, 7, 9, 10, 12 and 13 – articulated that rising production costs were having a negative effect on their returns. The steep increase in the steel price was a major concern for most. The concern was increases in general labour and related costs, which add more costs onto the already burdened cost structure of developments. What compounds the issue is that tenants' rentals are seemingly flat and are not necessarily escalating at the same rate as construction costs. This has a downstream effect on the returns on investment required by developers.

During the COVID-19 pandemic, South Africa saw reduced interest rates, but these did not necessarily encourage developments to accelerate, in light of the many risks discussed under Point 4.3.1. The country appears to be back on an upward trajectory in terms of the interest rate cycle, but this adds to increasing capital costs for developers, impacting their return on investment. Therefore, some have resorted to not proceeding with planned developments in South Africa or halting them.

Participant 6 said:

> *‘ … things like interest rate movements during construction, obviously, will impact your carry-on costs. And thereafter the interest rate will influence your long-term debt position as well … I think there is a foregone conclusion there’s going to be interest rate hikes … we know inflation is there and is going to go up and everyone’s hoping that those escalations filter through to your rentals … I think that’s going to be lagging … escalation coming through on building costs, more so on imported materials. You know there’s a bit of fluctuation there … the big, big fluctuating one nowadays is steel and steel pricing. That affects your steel structures … So there’s a knock-on effect on the other aspects as well. And during construction you find you have a mismatch between your estimation of escalation and what is happening on the ground, and what you’re closing.’*

Similar comments were made Participant 12, who identified constantly increasing development costs as having a negative effect on investment. However, his view was more positive than that of Participant 6.

> *‘ Yes, steel and all other costs are increasing. We are committed to this country, and we will continue to find ways to make our costs work and our projects progress in the midst of all these ever-increasing costs.’*

Increasing development costs cannot always be passed on to tenants, who are already absorbing high development and operating cost structures, which have been increasing year on year above inflation. Cadman and Topping (1995: 200) concur that it is difficult to secure tenants who can afford rentals that give developers the return on investment that they aim to achieve.

Participant 3 said:

> *'You know, you can come up with different ways to make things work. I mean, we have some tenants who have expired leases and over this difficult time they were saying no, look, we can't stay, we can't afford, we need less space. And we say to them, you know what, maybe a bit little lesser rental and renew for a year and we see from there on.'*

The above illustrates how the changing environment in property development has put pressure not only on developments and developers, but also on tenants. Tenants are feeling the effects of increasing costs which are passed on to them. This affects their business model, in that they either close or downsize because of affordability issues.

As we have seen in recent times, increased costs have also meant that smaller tenants are not able to afford rentals and thus are not able to occupy the shops they have rented in the developments. COVID-19 showed how overly exposed both tenants and landlords are to economic pressures. It redefined the work environment, with many people staying away from offices to work remotely. The pandemic revealed the need to boost the use of technology in property development and to repurpose existing properties. Properties have had to evolve as the property sector begins to think differently about the world of work and how to adapt in the future. Soon after COVID-19 lockdowns were implemented, tenants lost business and were unable to afford their rentals. Landlords, too, had difficulties meeting their financial commitments. The hardest hit tenants were the smaller entrepreneurial businesses rather than the bigger, corporate tenants.

Participant 1 said:

> *'National tenants, some of them are leaders and a lot of them are followers, and they are much more influenced by the economy, what's been going on, the riots, COVID, closures, things like that.'*

> *'Businesspeople haven't actually been able to come forth with the money and take up, say, a franchise … because we want national franchises and national names to make up those percentages. They are sort of going that route, but they don't understand the depth of the liability they are taking … '*

In many cases, even bigger tenants were forced by increasing costs and declining revenues to make financial decisions about closure or downsizing. The after-effects of this are still being felt, with the pool of tenants having shrunk as a result of the pandemic.

Even pre-COVID-19, most developments had seen a decline in the tenant pool because of increased costs and the declining business environment in South Africa. COVID-19 merely accelerated the shrinking of the tenant pool and added further costs to the cost structure of developments. This is because interest accrued over the period when no building activity took place. Also, long-lead items that were imported were stuck in ports and could not be delivered to site timeously. This was mentioned by Participants 3 and 12 who said they received imported items four months after they were expected on site. Participant 3 said that the costs of keeping a container in the ports more than doubled, adding more pressures to the capital structure of their development.

4.3.2.2 Theme 5: Capital flight

Participant 4 said:

> *'The cost of doing business in South Africa is increasing. It has increased to the extent that now you need to gauge where do I allocate capital in South Africa - or do I go overseas and put money overseas? Because the cost of doing business in South Africa is too high and getting higher.'*
>
> *'Secondly, we in South Africa have political risks, all these community forums and all those sorts of things … they delay you and make schemes not workable. You can't actually get to the site physically. So that's a big, big issue actually, at the moment. We should think about what happened in July. A lot of money was lost. So it impacts on investor sentiment, too. I put my mind in South Africa … do I go to Poland?'*

These remarks by Participant 4 confirm that it is becoming more difficult for developers to justify doing business in South Africa. Some are looking at no longer deploying money in the country because of increased instability and the lack of predictability of political and socio-economic issues. Lower interest rates are to be found overseas and are becoming an attraction over and above the more stable political landscape enjoyed in some countries.

The current government is not instilling confidence among developers about continuing to invest money in the country.

4.3.3 Research Question 3

What recommendations can be made to mitigate the property development risks?

Property development risks cannot be fully eliminated but can be managed or mitigated. The industry has inherent risks that can be mitigated through effective management of property development projects. The recommendations made by participants are presented and discussed below.

4.3.3.1 Theme 6: Subsidies for bulk infrastructure

Participant 9 said:

> *'We secure government grants through the bulk infrastructure programme – DTI – or negotiate rebates for bulk contributions with councils. This is a way for the developer to recover the costs expended in providing bulk infrastructure which is the responsibility of the government.'*

The government at local, provincial and national level has to play a critical role in making sure that infrastructure is available and functioning. Since it lacks the capacity to implement infrastructure projects at the scale required, it should use property development projects as a catalyst for such projects, ensuring that critical infrastructure is laid in communities. This can be done through providing subsidies for bulk infrastructure. This would incentivise developers to invest more in certain nodes and boost the creation of jobs and the alleviation of poverty in the medium to long term.

4.3.3.2 Theme 7: Upfront payments to fix the price of materials with long lead times

The purchase of long lead-time items assists property developers to reduce fluctuations in their price. It also secures such items in time for delivery to projects and prevents delays, which are costly for projects. Upfront payment of long lead-time items assists in making sure that set budgets are adhered to.

This point was illustrated by Participant 10:

> *'Long lead items need to be tendered and appointed or ordered very soon in the project. Items like lifts, etc. can have lead times of up to eight months, so if this is not ordered up front you will definitely have a very long delay on the project.'*

4.3.3.3 Theme 8: Stakeholder engagement early in the development process

Property development involves various stakeholders who can either make or break a project. These range from local authorities to financial institutions, investors and local people in the area where a project is undertaken. It is critical that all stakeholders are kept informed of what is to happen in the area and how a particular project will assist or transform the area. Developers require stakeholder buy-in to realise their vision.

Participants 4 and 5 said:

> *' … we have to have meetings with the communities..' (Participant 4)*

> *' … they must be educated … how to get them involved is to give them incentives … '*

4.3.3.4 Theme 9: Government and municipal engagement

Participant 8 raised the issue of government and municipal engagement in projects:

> *'Stakeholder interviews includes discussions with local municipal workers, especially in the town planning department, as well as discussions with real estate agents, etc.'*

As with stakeholder engagements, local government engagement is crucial. Local municipalities are the facilitators of projects in terms of the provision of services and the granting of permits. There is a need to make sure that local government officials are thoroughly acquainted with what is planned and that plans comply with their regulations and by-laws. These discussions allow for alignment with the authorities thus aligning with the policies of the authorities, increasing the likelihood of any approvals that may be required, thus reducing early-stage risks exposure around the land.

4.3.3.5 Theme 10: Making sure that contractors have capacity

Participant 10 said contractor incapacity could delay projects, and that developers had to make sure they appointed the right people:

> *'The right construction contractors should be chosen for the right job. The developers must ensure that the contractors have the required skill, liquidity, manpower and equipment to execute a particular job. Anything less could prove disastrous for the developer and the project.*

> *'In tendering a project you need to make sure you appoint the correct contractor for the job, make sure they have the capacity for the size job, make sure they have a good reputation in the market, and have the proper contracts in place to cover everyone in terms of delays and penalties etc. '*

4.3.3.6 Theme 11: The use of technology

In the ever-evolving world of technology, it is critical that property development projects integrate technology into their operations. This would enable faster delivery of projects and allow for more efficient ways of doing things in the property development sector. The use of technology also allows for data to be studied, so that orders may be placed in time, streamlines future processes, and adds value to the final product.

4.3.3.7 Theme 12: Programming the risks in the development project

Participant 10 said:

> *'To deal with or mitigate these risks, you have to always remember to programme this in with your overall construction programme … '*

Not all risks are evident at the outset, but those that are inherent to the property development process should be factored in. This would help mitigate delays and their cost implications in projects.

4.3.3.8 Theme 13: Local community participation in developments

Local communities are also stakeholders. In order to ensure support for a particular asset within a node, it is critical that the local community is brought in as a partner in developments. This would protect the asset in the future from issues that have caused problems in South Africa in the past, such as vandalism and riots.

Development projects should also have a certain element of local participation in the procurement process, so as to ensure that the locals benefit from the project in the immediate term.

4.3.3.9 Theme 14: Pricing in potential increases in costs

Participant 3 said:

> *'For example, when you do a feasibility, you look at the interest rate cycle that is currently on the table, I think one would be short sighted not to allow those basis point clips increases in your cycle at the times that are predicted during your construction.'*

Developers have to price in possible increases during the development phase. This can be done through understanding and predicting the interest rate cycle, putting in a margin on the interest rate budgeted for, and allocating a percentage of costs for contingencies. In this way, developers are able to protect the integrity of the property development project.

4.3.3.10 Theme 15: Municipal rebates

Several participants said that municipalities should offer rebates to developers in order to drive development. This could be in the form of special economic zones in which there are tax breaks for certain development investments. This would encourage developers to invest more in those municipalities, and thus create jobs and infrastructure.

4.4. Conclusion

From the interviews, it is clear that the property development industry is currently experiencing turbulence. This turbulence is caused by many factors, some of which are internal and inherent to the industry, and some of which are external and beyond developers' control.

It emerged that South Africa's political and socio-economic climate is a big stumbling block for the advancement of the industry. Internal factions and fighting in the ruling party of South Africa has cascaded down to local municipalities which are supposed to be conduits for services to communities and property development projects. These battles have also played themselves out nationally, with the effects seen in the July 2021 riots that affected not only existing property development projects but planned developments, too.

Municipalities have been brought to a state of paralysis by the political battles of the ANC, so that in many areas, delivery of services to developments is non-existent. This has caused major social unrest in communities, which feel the effects of political fighting at national, provincial and local level. Services are not delivered, and development projects are not going ahead, with direct effects for job creation. Infrastructure that is essential to developments has been left to decay, and there appear to be no plans to fix it, and little communication with the property development community on working together to upgrade it. Developers have had to provide services for their projects at their own cost that previously would have been provided by the municipality. This problem has been compounded by the increasing costs of municipal services, even though in many cases they are entirely inadequate. These costs make it difficult to get property developments off the ground, since developers are not able to meet their targeted returns when costs are excessive. The costs are a function of the inefficiencies at municipal level.

In addition, the country's power supplier, Eskom, is unable to guarantee a steady supply of power, creating a big risk for all business activities and affecting both the developer and prospective tenants.

The rapidly rising price of fuel (determined by the oil price) also affects developers, causing increases in the costs of materials. Fluctuating international exchange rates as a result of world events are another factor, and equally beyond their control.

All these factors are cumulative in effect and dilute value for property developers, who are unable to achieve the expected return on investment for their projects.

Instability and constantly increasing costs could cause some developers to consider the overseas market, where conditions are more stable and less risky, and where better returns may be expected. The loss of developers would add to the high unemployment rate already causing serious problems in South Africa. Also, business confidence in this asset class would drop if many developers left; fewer businesses would be able to afford tenancies in existing buildings and thus communities would suffer, as there would be a shortage of retail and other services, and hence jobs. In the long run, the consequences of political and socio-economic instability are severe. Municipalities are already unable to collect much revenue because of high unemployment. If the situation becomes much worse, the South African Revenue Authority (SARS) will also see a decline in their revenue collection, leading to further decay in the already dilapidated infrastructure of the country.

Internal property development risks are also a factor, differing from site to site. Proper planning and management of the many factors discussed in this chapter are essential to successful property development, since many of these factors can be catastrophic if not managed. Developers need a keen awareness of the risks inherent to their area and site, and should prioritise matters, as some factors are interconnected; if one is dealt with, it has the potential to affect another.

The property development industry plays a major role in the growth of the South African economy and the upliftment of its people. With political will and stability, this industry could continue to bring an enhanced quality of life to all, through infrastructure renewal and employment.

CHAPTER5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study set out to understand the property development risks in modern South Africa and their impact on property development projects. Based on the data presented and discussed in Chapter Four, a summary of the findings, conclusions and recommendations are presented in this chapter.

The study sought to answer the following questions:

- What are the property development risks in modern South Africa?
- What is the impact of these property development risks on development projects?
- What recommendations can be made to mitigate these property development risks?

The data provided by interviewees confirmed that the property development industry is inherently risky, subject to internal risks and the widespread economic, political and social problems that prevail in South Africa. The severity of these risks has not been well defined and property developers find it difficult to manage and mitigate many of them. The property development sector is dynamic, and developers are hard pressed to anticipate many of the risks. However, to ensure return on investment, they have to factor in these risks as far as possible. Planning will not fully mitigate the risks but can soften the adverse impacts.

The study revealed that there is not a fixed number of risks for property developers; rather there is a constantly changing scenario, with some risks being site and location based, and others outside of the developers' control. The study shows that the respondents were concerned about the current risks that the industry faces and are considering alternatives to counter them.

5.2 Reflection

The property development industry is currently experiencing turbulence, whether with new buildings being constructed or with existing buildings. This turbulence is caused by various factors, some of which are internal to the industry, and some of which are external and beyond its control. These factors have been a major contributor to the slow progress of property development projects and have lowered the value of the investments that property developers are prepared to make in South Africa.

South Africa's political and socio-economic climate is a stumbling block for the advancement of the industry. Internal factions and fighting in the ruling party have affected local municipalities which are supposed to provide services to communities and to property development projects. Property development projects are often hijacked by party political agendas at the local level. Services that municipalities are supposed to provide are either non-existent or erratic.

In addition, local political infighting and factions frequently spill over to the property development sector, with local politicians having the power to determine whether projects proceed or not. Through 'construction mafia' consortiums, local politicians make demands on property developers, having the power to cause havoc when their demands are not met. These sorts of risks are well documented in the South African property development sector.

The increasing cost of living and of municipal costs are further risks facing the property development sector. In the post-COVID era, we have seen a continuous increase in interest rates and inflation. This has made borrowing and the price of materials for property development projects even more expensive. The rising rate of inflation is due mainly to global issues and reduces the value of the spend of the average person. Russia's invasion of Ukraine has been a major contributor to rising fuel prices, which affect every other aspect of life. It is now tougher for developers to meet their returns, as they have to factor in enormous costs in their capital budgets. These risks raise serious questions for developers about the viability of continuing to invest in South Africa. Many are now considering taking their money offshore.

Factional political battles have played themselves out nationally, as is evident in the July 2021 riots that affected both existing properties and planned development projects.

Municipalities have been brought to a state of paralysis by the political battles of the ANC, so that delivery of services to developments is non-existent or poor. The delays in the approval of town planning applications, non-provision of services has caused major social unrest in communities, as they are affected directly by this political fighting at national, provincial and local level. Every development project that is not built is a loss of employment opportunities for communities. Local municipalities also lose out when building projects are hindered; they experience loss of potential revenue, which in turn exacerbates the problems they already have with providing services.

Infrastructure that is essential to developments has been left to decay. In many municipalities, there appear to be no plans to fix it, and little attempt to work with the property development sector to upgrade it. Developers have had to provide services for their projects at their own cost. Yet municipalities continue to charge for these services, with rates and other services now costing so much that it is becoming difficult for developers to meet their hurdle rates. Increasing cost structure risks have prevented many projects from going ahead and have contributed to the capital flight that we already see. The situation that prevails in local municipalities is counterproductive and contrary to the stated goals of the current administration, which uses the rhetoric of alleviating poverty and unemployment.

The rising price of fuel, determined by the oil price, increases the cost of materials, as do fluctuating international exchange rates, with both beyond the control of developers. Eskom is also unable to guarantee uninterrupted electrical supply to South Africa, creating a big risk for all businesses.

The effects of these factors are cumulative and value diluting for property development projects and have an adverse impact not only on the sector but the country as whole, which suffers when there is a dearth of building projects. Jobs are not created, which causes a vicious cycle socially and economically, with municipalities unable to collect the revenue they need to upgrade infrastructure and improve service delivery.

The impact of the risks to property development projects can be seen in social unrest in the country, such as the July 2021 riots which adversely affected the property development industry. Social unrest is clearly both a result and a cause of risk in the sector.

These risk factors increase the capital cost structure of property developments and lower the targeted return on investment. Currently in South Africa, there is a high risk of further social unrest owing to the political issues facing the country. Thus, a property developer in present-day South Africa is inclined not to invest further in property development projects. Developers are likely to look at markets where there is more stability, and which offer better returns or a better balance between risk and return. Capital flight is one of the most serious impacts of the risks faced by property developers.

Inevitably, the loss of property developers in the country would add to an already huge unemployment problem. Business confidence in this asset class would diminish, with fewer businesses able to afford rentals. In the long run, the consequences would be severe, as municipalities and SARS would obtain less revenue, causing further decay in already dilapidated infrastructure.

The property development industry is central to the development of South Africa's economy and the upliftment of its people. With political will and the return of some stability, the industry could play an especially key role in economic and social upliftment.

In democratic South Africa, developers have had to look for alternative measures to mitigate the impact of risks on their development projects. These measures include the provision of alternative sources of electricity, with some making use of solar power in their projects. Solar power installations are exceedingly costly and have to be factored into the costs of projects. There is a great push by developers to produce their own power so as not to lose tenants to the scourge of blackouts that prevail nationwide.

Many developers are having to ensure that the sites they buy or build on are self-sufficient in terms of the supply of electricity, water and sewer lines. Becoming self-sufficient is

costly, with costs eating into return on investment. Many developers cannot afford these costs, as the initial capital outlay is huge.

These are some the steps that developers have taken to mitigate some of the fundamental risks. Others include surrounding themselves with sound professional teams and contractors who can execute the project within budget and time constraints to the required standard.

The objectives of the study were met. Below, the findings on each risk, impact and recommendation are summarised.

5.3. Property development risks in modern South Africa

The study has shown that property development risks vary, with some being inherent to the industry and others being beyond developers' control.

5.3.1 Political factors

The instability of the political landscape is risky, and in many cases determines where developers are prepared to put their money. Infighting in the ruling party has created a vacuum in councils, with property development either delayed, neglected or non-existent. This has had a direct impact on the appetite of developers to develop in South Africa and has caused many to consider investing elsewhere.

The global political landscape also influences the South African property development landscape, as seen in the effects of the invasion of Ukraine by Russia. This has destabilised the supply of fuel and caused an increase in fuel prices. The fuel price affects every aspect of property development projects.

5.3.2 Socio-economic factors

The political chaos has created dissatisfaction and distrust, with resources meant for the masses often directed to party-related issues or to the personal bank accounts of politicians. The result has been a lack of funds for maintaining infrastructure, and hence a lack of development, and, in turn, a loss of potential jobs for communities. This leads to social unrest and a high level of disruptive action such as protests and riots. Dissatisfaction and unemployment are fertile grounds for public disorder, which we now

see on a daily basis in almost every city of the country. The instability this creates prevents projects from happening. Thus, social unrest is both a result of the lack of development, and a cause.

5.3.3 Municipal inefficiencies

Poor delivery of municipal services is dis-incentivising for property developers, causing them to invest in places where they will not have to carry the costs of the basic services they need.

Municipal inefficiencies go beyond the non-provision of services and include unnecessary administrative delays. Developers struggle to obtain zoning permission and building permits, with the delays proving extremely costly and frustrating. Inefficiencies indicate a lack of political will. Municipalities have the potential to be engines of change, driving infrastructure development in the country, and contributing to the upliftment of its people. They are failing to fulfill their economic and development potential, barely able to provide the most basic of services.

5.3.4 Material price increases

Political realities both locally and globally have affected economic levers such as interest rates and inflation, causing a rapid rise in both, and raising the costs of development projects. Recent increases in the price of steel price and aluminium are a major concern for developers, as they are essential components of construction. The increase in these two commodities alone has significantly raised capital costs.

5.3.5 Municipal costs

Government continues to mismanage the economy and has randomly increased the costs of both municipal services and taxes. This has had an adverse impact on planned developments. Increased costs dis-incentivise developers from investing further in the country, since they are forced to pay higher operational costs and their expected returns are not made. This has a downstream effect on the entire country in that potential job creation is diminished. Government seems unable to create the kinds of conditions that would give rise to confidence and hence to development.

5.3.6 Eskom

The continued disruption and uncertainty of South Africa's electrical supply by Eskom has meant that developers have had to provide their own power or walk away from developments. The high cost of alternative sources of power is prohibitive for many, as it diminishes return on investment. What is of concern is that the blackouts are accompanied by frequent hikes in the price of electricity by Eskom.

Electricity outages and high costs also affect tenants, many of whom cannot trade during blackouts. This naturally affects their turnover and ability to pay rentals. This in turn increases the risk for developers, in that they stand to lose tenants, thus further reducing their return on investment.

5.4 The impact of property development risks on development projects

The impact of the property development risks on development projects have been well documented in this study. A summary follows.

5.4.1 Increased capital costs, reduced returns and capital flight

As documented in the study, increased property development risks increase the capital costs of property development projects. This means that developments cost more, which reduces developers' required returns on investment. Developers have to seriously calculate the risks as best they can, and weigh the risks against the possible rewards, with many opting not to go ahead with projects where the risks are too high. The danger of capital flight is real, with many having already chosen to invest in property development where conditions are more stable, and their costs are more predictable.

5.4.2 Social unrest

As has been shown, social unrest is both a cause of risk and indirect result of risk, in that social unrest grows from unemployment, which property development could help alleviate. Social unrest contributes to low investment in the country, which means that government at the local, provincial and national level collects less revenue in the form of rates and taxes. This in turn means there is less revenue with which to develop and maintain municipal infrastructure. Broken infrastructure and poor service delivery creates

a disgruntled public, which then starts demanding services, causing further social unrest. The situation is a vicious cycle.

5.5 The research proposition

The research proposition was Property development risks in South Africa are poorly defined, and thus developers find it difficult to manage and mitigate these risks.

This study has shown that property development risks comprise both micro factors unique to each project and macro factors that are political, economic and social in nature. Risks that may be unique to a specific location include the topography of a particular site, local politics and the demographics of the area. Each property development site presents a different challenge and risks for each property developer. In Kwazulu-Natal, for instance, the construction 'mafia' is more prevalent than in some areas. It is also more prone to sporadic social unrest, as evident in the riots that occurred in various parts of the province – and elsewhere – in 2021. It is difficult for property developers to use a one-size-fits-all approach in managing property development projects, as each site presents its own risks. Property developers are not able to fully mitigate property development risks, as the market is dynamic and each site, province or location presents the developer with its own unique challenges and risks.

The participants in the study concurred that the macro factors are common to all development projects and mostly beyond their control. Where the participants differed, their differences had to do with the risks they experienced in specific locations. This makes it difficult for the risks to be clearly defined, and necessitates that developers engage in thorough feasibility studies before they embark on development projects. The fact that many of the participants interviewed came from different disciplines in the property sector validates the finding that the risks are multifaceted and difficult to define. However, the study has gone some way to exposing the nature of these risks.

5.6 Recommendations

The property development industry in South Africa plays a crucial role in the advancement of the economy. It creates jobs and requires infrastructure which, when provided, boosts the economy and improves living conditions for communities in which development takes place. The risks highlighted indicate that for the property development industry to remain sustainable, the chaotic state of all tiers of government cannot continue. The political landscape needs to be more conducive, not only to property development but to business in general, so that the private sector can do what it is capable of doing in terms of job creation.

The participants in this study made several recommendations that, if adopted, would alleviate some of the financial stress experienced by property developers and contribute to the advancement of the economy. Subsidies or municipal rebates for bulk infrastructure would encourage developers to develop more, and potentially contribute to the economy.

This idea is supported by National Treasury (2018: 7), which states:

> *If the servicing requirements of a land development, that is, the provision of water, electricity and removal of wastewater and waste etc., cannot be secured, either within the urban services systems or embedded within a development within a risk management framework, the ability to create value is hindered or delayed.*

Other recommendations made by participants are the following:

5.6.1 Upfront payments

Upfront payments are needed to fix the purchase price of materials with long lead times. This will alleviate the uncertainty surrounding the capital costs of projects. Therefore, it is critical to purchase long lead time materials upfront to mitigate this risk.

This notion is supported by DeLisle (2004:98), who stated

These external forces make real estate vulnerable to unknown forces that can create windfalls (i.e., unexpectedly high returns) or wipe-outs (i.e., erosion of capital and exposure to residual risks).

5.6.2 Greater stakeholder engagement

Stakeholder engagements in the form of government and municipal engagement are a crucial aspects of successful development projects. Engagement means ongoing two-way communication between the developer and these two parties, both of which need to be apprised of what is planned and what the administrative and infrastructural needs will be. It is crucial that developers engage with the stakeholders earlier in the development process, informing them about the development and educating these stakeholders on the process and what it could mean for the local community. Eliminating early risks within the development process by engaging municipalities around issues of town planning, geotechnical investigations, traffic impact assessments and environmental assessments is key as well. This is key in that it can either determine whether a development goes ahead or not, including time frames related to the delivery of that particular development.

This view is supported by Thomas (2012: 52), as cited in Chapter 2 of this study:

At this point, at the very latest, the other parties to the project enter the development process. The developer starts to interact more with the local, provincial, and national authorities to seek the relevant authorisations to progress the development to the next phase.

The idea is further supported by Cadman and Topping (1995: 12 -13) who sate that local authorities are involved in property development for their own occupation, community use or for the provision of public infrastructure.

National Treasury (2018: 4) concurs, encouraging municipalities to identify and prepare land or property (greenfield and/or brownfields) development opportunities that can generate public value.

Urban Landmark (2010: 1) supports the critical role of municipalities in the development process, stating that municipalities play a governance role and are mandated to ensure that developments are in line with government policies and development plans for the area. Urban Landmark (2010:8) states that many problems arise in property development owing to lack of communication, and more specifically, lack of the will, ability and means to communicate. Urban Landmark (2010:8) further states that initial communication between the municipality and developer mainly focuses on the provision of bulk infrastructure. The study has found that this communication needs to be ongoing.

5.6.3 Increase contractor capacity

Developers need to ensure that contractors appointed have the capacity to carry out the work in the required time frame and to the required standard. This idea is supported by Thomas (2012: 54), who states that the usual risk is that vendors/contractors require more time and/or money than originally anticipated in the feasibility study, and that satisfactory vendors/contractors cannot always be identified. Vendor/contractor negotiations may result in substantial revisions to project design.

5.6.4 Enhanced use of technology

Developers should integrate technology in both their operational processes and the final product. A shrewder use of technology would enhance the data they are able to collect about their projects and improve their efficiency.

5.6.5 Programming the risks in development projects

The idea of factoring in risks was raised by most participants and concurs with findings from the literature, as discussed in Chapter Two. However, Atherton (2008:4) suggests that the predictive rational models are rarely observable in practice. What people should do in theory is often very different from what they do in practice. This might be because predictive models contain fatal flaws, or because they fail to encompass all aspects of a given situation, and thus are inadequate for the final decision made. Each developer needs to conduct a thorough feasibility study in order to know whether a planned project will yield the returns that make it a worthwhile proposition. This decision of the developer

will be based on mathematical calculations, and a consideration of many variables that are not entirely predictable. The process is therefore not an exact science.
Reed (2021:6) states that nowadays the property market has benchmarks, and that the developer should be able to benchmark their expected property development returns with those of assets in the same class. This would help them to make informed decisions on the required return based on the level of risk.

Atherton et al (2008: 6-7) support this, stating that development appraisals are, by their nature, extremely sensitive to the precision of the inputs. A small change in any of the input variables (rent, cost, yield, time, or interest rate) can disproportionately affect the resultant residual figure (value or profit), rendering the technique open to, at best, misinterpretation and, at worst, deliberate manipulation. The variables of rent and all-risk yield (of the completed development) are critical variables. Both are crucial to the projected income receipt (gross development value or GDV). Yet, perplexingly, these are the two variables over which the developer has the least control. They are dependent upon the cycle of the market and will vary according to the respective demand for space in the occupational market and the corresponding view of attractiveness in the investment market.

Cadman and Topping (1995:17) concur, stating that developers need to make realistic timeframes and allow for the time it takes to obtain permits. The people they appoint to expedite this could be cost effective where planning challenges are envisaged or encountered.

5.6.5 Improve community participation in developments projects

Cadman and Topping (1995: 13) support the idea that community involvement in projects helps to ensure the success of the project. They state that a product developed in a certain area enhances the value of that area and in most instances creates jobs for the inhabitants of that area, pre-construction, during construction and post construction. Therefore, there is social and economic upliftment of the people surrounding the property development event.

5.6.6 Factor in potential increases in costs

Most participants in this study mentioned how important it is to factor in potential increases in costs. The idea is supported by Thomas (2012: 55), who states that the trader developer should begin marketing the project as early as possible, as an early leasing or sale will reduce financing costs and minimise the risk that tenants' requirements necessitate late and costly changes to design and construction.

Cadman and Topping (1995: 20) state that the development's success will depend on the ability to secure a willing occupier at the estimated rent or price, within the period originally forecast in the evaluation.

5.7 Conclusion

The study has examined the property development risks in South Africa, using a comprehensive literature review and research methodology. The research took a qualitative data approach in which interviews were conducted with respondents to collect the data. Analysis of the data revealed that the risks in property development are numerous and varied, and that while some can be predicted, others are completely outside the developer's control. The study has discussed the various ways that the risks may be mitigated, based on the input of participants and discussed in the light of findings in the literature.

It is clear that there needs to be a collaborative effort between all players in the property development industry, developers, municipalities, communities and various professionals. All need to be brought in and apprised of the planned development upfront, before construction begins. In addition, developers should negotiate fixed prices for materials upfront, and order materials early, to avoid escalations and delays in the ports. These are among the many recommendations made by participants in this study.

The property development industry plays a major role in the growth of the South African economy and the upliftment of its people. With political will and stability, this industry could continue to bring an enhanced quality of life to all, through infrastructure renewal and employment.

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