



university of
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What are the key differences in funding strategies for mixed-use properties and their risks?

Abstract: Mixed-use real estate is a type of real estate that can be divided into two or more uses within one development. This type of property has a variety of benefits for communities and their environment; however, due to the complexity of these developments, challenges arise in the planning and development phases. This study focuses on revealing the key differences in funding strategies for mixed-use properties and their associated risks. Using information collected during interviews with stakeholders, a framework was developed to describe the different phases of mixed-use property development by examining the characteristics of risks associated with, and descriptions of mixed-use properties. The interviews revealed that each function of a mixed-use property faces unique challenges, which highlights the complexity of mixed-use properties. These complexities entail examining the financial performances of the properties, including their valuations and the risks associated with the properties. It can be concluded that mixed use remains a challenging concept in real estate, as stakeholders have difficulty dealing with the associated risks. This paper also discusses areas of improvement in developing and funding mixed-use properties and new issues to be addressed in future studies; a critical review of the current research is also included.

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Preface

I am pleased to present this master's thesis, which is the final step in my journey to earn my master's degree of Real Estate Studies. Throughout this academic research, I have immersed myself in the difficult area of mixed-use real estate. This research has been challenging but also very fulfilling. The insights learned during this study are not only academically relevant but also very practical and relevant within the real estate sector. It is great to see how everything has come together in this study.

I want to express my appreciation for the participants interviewed for this research, whose expertise and insights have added significant depth to this study.

Furthermore, I am very thankful for the help of my supervisor, Dr. M. N. Daams. I want to express my appreciation for his very valuable support, feedback, and help throughout the writing of this thesis. His invaluable advice and constructive feedback have significantly improved this thesis.

1 Introduction

In recent years, extensive research has concerned various types of real estate and has examined different risks, functions, and transformation possibilities. The real estate market is diverse, as it comprises different categories such as residential, commercial, and retail properties. Each segment varies significantly in terms of its property characteristics and requirements. For example, residential properties differ from commercial real estate and retail spaces in appearance, functionality, and specific needs. When these different real estate types are combined, such as a single building or complex that contains residential, commercial, and office spaces, the property is mixed-use (Schultz, 2024). Mixed-use properties are characterized by the variety of functionalities within a building. Metzinger (2021) assert that a property must include three distinct types to be considered mixed-use, while others maintain that having two types is sufficient (J. Rabianski et al., 2009). Rabianski and Clements (2007) have discussed these different types of mixed-use properties and their different meanings.

Each property type has its own characteristics. For example, risks, yields, and costs vary between different types of properties. Properties with a single type of user are easier to assess in terms of risks and expectations. However, some buildings have multiple functions. For instance, a healthcare complex might house elderly residents, a pharmacy, and a physical therapist. However, in the area of mixed-use properties, information is scarce. Many investors, developers, and banks avoid mixed-use properties because they are too unknown and diverse (J. Rabianski et al., 2009). Therefore, this research tries to better understand the information gap related to mixed-use real estate and how different stakeholders view mixed-use real estate.

According to Metzinger (2021), mixed-use properties, which have three or more uses within one development, have several benefits for communities, it could increase the value of the surrounding houses. However, due to the complexity of these developments, several challenges arise in the planning and development phases. Some of the challenges involve strict local regulations and insufficient financing. A 2004 survey of these challenges was repeated in 2017, and the differences between the two have been compared by Metzinger (2021). Significant differences were found in the frequencies of the challenges; mainly, the proportion of challenges has dropped in 2017 this because stakeholders are getting more used to mixed-use. However, local regulations remained the most significant challenge. The decrease in challenges suggests that regulators, financiers, and members of the community are becoming more familiar with mixed-use

developments. However, existing research does not reveal why local regulations can be so challenging. Additionally, existing research lacks discussions of aspects essential to this type of real estate, such as various risks that can arise with different stakeholders. The influences of various stakeholders need to be considered to get a better understanding of their thinking and actions, such as investors and developers. This research complements existing research.

Stakeholders are becoming more familiar with mixed-use real estate because relevant data are becoming increasingly available. Minh et al. (2022) have suggested that the increased availability of data regarding real estate, both in general and for specific types, allows for better decision-making and information. This improved data accessibility can explain why a particular investment is or is not attractive to financiers.

Other aspects of mixed-use real estate contribute to its attractiveness. Shirmohamadian et al. (2022) have highlighted the accessibility, social benefits, and environmental friendliness of mixed-use properties. They also mention that the impact of mixed-use real estate varies significantly depending on whether it appears in rural or urban areas.

Extensive research has been conducted on this type of property, which includes examining the benefits and significance of mixed-use developments (Hoppenbrouwer & Louw, 2005) as well as their impacts on the surrounding environments (Grant, 2007). Furthermore, studies have explored the practical applications of mixed-use properties and the reasons behind their growing importance in modern urban planning (Foord, 2010). However, little is known about the risks of mixed-use properties. Various studies have indicated the need for further research regarding the economic viability of mixed-use properties, investor attitudes towards mixed-use properties, and the impact of mixed-use properties on property values. DeLisle and Grissom (2013) have also stated that insufficient research has been conducted on mixed-use developments to clearly identify the associated risks.

This research examines the risks associated with mixed-use developments and how to manage them. It also considers the perspectives of investors and financiers. The goal of this research is to provide a realistic understanding of the potential risks and strategies involved in mixed-use real estate. This research also explores the intentions of various stakeholders, how stakeholders view this type of property, and how this type of property should be categorized to make it more interesting, this could be important for the bank to get more used to mixed-use real estate. It also is important to identify the risks of mixed-use developments and what strategies

might work for different stakeholders. To gain a better understanding of the risks will help mitigate them in the future and increase the likelihood of success.

The stakeholders considered in this research are the municipality, investors, developers, and the bank. These stakeholders were selected for this research because each plays a crucial role in the development and success of mixed-use projects. The municipality sets regulations and provides necessary approvals, investors supply the capital, developers manage and execute the projects, and banks offer financing and financial advice. Understanding their perspectives and interactions is essential for understanding the risks of mixed-use developments.

To ensure that this research is comprehensive, qualitative research methods were employed. Qualitative research is useful for answering the research question because it allows for a detailed understanding of the motivations and behaviors of the stakeholders involved. By exploring the motivations behind stakeholders' actions, this method reveals insights that quantitative data might miss. Most existing studies prefer quantitative data because it is more commonly used and easier to interpret (Throupe et al., 2012). This qualitative research aligns with the empirical approaches used in related studies, which often use qualitative methods to capture the complexity and details of stakeholder perspectives and interactions in mixed-use developments and to assess risk (Rosenthal, 2016). Interviews were conducted with the relevant parties, who addressed questions about mixed-use real estate and their common strategies. Based on the interviews with the various stakeholders, a comprehensive framework was developed to clarify the values and priorities of each party and highlight the specific facets of the processes in which they are most involved (Kallio et al., 2016). Consequently, this framework serves as the structured interview guide for this entire project to ensure that the perspectives of all stakeholders are adequately addressed. This research uses the framework to answer the following: What are the key differences in funding strategies for mixed-use properties and their associated risks?

This paper is structured as follows: First, the framework is described, along with its creation and the challenges encountered during its development. Next, mixed-use real estate is discussed; its characteristics are examined and the associated risks are described. Following this, the method is discussed, and the interview findings are presented and analyzed. These insights are then integrated into the study's results to answer the research question. Finally, areas of improvement and new issues to be addressed in future studies are presented, along with a critical review of the current research.

2 Theory

Mixed-use properties not only combine various functions but also entail different types of risks. Wardner (2014) has discussed risks related to profitability, construction costs, lenders, and permits. These risks relate to the unique characteristics of each property type. Some other important risks to examine include property management, interest rates, tenant stability, economic fluctuations, and political factors, as each of these aspects can significantly impact the success and stability of mixed-use developments (Seasons, M. 2014). Considering the variety of risks involved, diverse strategies must be considered to ensure the success of mixed-use projects. These strategies can originate from municipalities, developers, investors, and financiers. Given the unique nature of mixed-use real estate, each stakeholder group develops tailored approaches to address specific risks. Because mixed-use projects differ widely and are very dynamic, maintaining a fixed strategy can be challenging. Therefore, stakeholders must adapt their strategies to manage the evolving risks and complexities associated with mixed-use developments. The risks and their sources are also incorporated into the framework that processes the gathered information. This research is important as it focuses on the various risks and uncertainties associated with mixed-use properties. It aims to identify known risks and, through interviews, determine where these risks occur and which ones are most commonly experienced.

Real estate development combines land, capital, and project planning to create value by developing land, constructing buildings, marketing, operating, and managing. Financial analysis is crucial for these projects to assess risks and profitability. By identifying risks, companies can manage and minimize them effectively. Dede et al. (2021) have analyzed mixed-use structures in a foreign district using risk analysis. They found that the commercial and residential areas could be profitable opportunities within real estate development. They also indicated that financial analysis is more complicated and extensive for a project with multiple functions. Normally, calculations focus on one function and consider factors such as vacancy risk, return on investment, and asking price. However, when a building serves multiple functions, a financial analysis is more complex and requires a comprehensive approach. A systematic process can be used to map out this complexity and simplify process assessment. The process and its various phases are also included in the framework, with attention given to identifying where the major risks lie, which phases are more critical than others, and which strategies can be implemented to ensure its success.

Koster and Rouwendal (2012) have suggested that mixed-use arises because of European urban planning policies. European urban planning policies aim to mix land uses in compact neighborhoods. The mixing of land uses does positively affect the values of houses in the neighborhood. Koster and Rouwendal (2012) found that people were willing to pay about 2.5% more for a house in a mixed neighborhood. DeLisle and Grissom (2013) have also emphasized the significance of the environment for the success of mixed-use projects and developments. From the municipality's point of view, mixed-use development is highly beneficial (Bergsten, 2013), as it enhances the area's appeal, which increases property values. Moreover, it efficiently utilizes space by combining diverse functionalities. This research is relevant as it explores the relationship between the municipality and mixed-use developments. While this information is useful, this study will focus more on the involvement of other stakeholders rather than just the environment of a mixed-use project.

The various phases of the real estate process allow stakeholders to weigh risks and strategies. At the beginning of development, there are typically more risks and strategic options compared to later stages (Ratcliffe et al., 2021). While there are many different phases in development, this research focuses on the following: concept development, design and planning, permits and regulations, construction, marketing and sales, and operational management. Each of these phases has its own unique risks and strategies. To ensure a robust framework, these phases were incorporated. This approach provides a better response to identifying the various strategies and risks involved and determining the phases in which these aspects are discussed.

It is challenging to obtain data on financing, risks, and other strategies associated with mixed-use real estate. Hard data is scarce due to the dynamic nature of real estate, which varies significantly across regions and countries. For instance, comparing real estate in Twente with that in the Randstad is difficult. This study focuses on the Twente region, and all stakeholders interviewed are involved in the Twente region. This approach partly defines the scope of the study but can also be viewed as representative of the Netherlands as a whole. Thus, this research is qualitative, as qualitative research methods allowed the most information to be gathered from the key stakeholders. This qualitative research is supported by insights from interviews with stakeholders. These interviews provide valuable firsthand information and perspectives that illuminate the subject.

3 Methodology

3.1 Qualitative approach

To achieve clear and reliable results, qualitative research was conducted through interviews with stakeholders. This approach was chosen because qualitative data provides deeper insights into the reasoning behind decisions. It enables a comprehensive understanding of various risks, strategies, and perspectives on mixed-use real estate from different stakeholders (Lanka, 2020). To effectively process the qualitative data, a comprehensive framework was developed. The purpose of this framework was to identify, describe, and interpret significant patterns within and across the cases of interest to ensure a structured approach to understanding the data, facilitate deeper analysis, and permit more meaningful insights. This system permitted trends to be recognized, comparisons to be drawn, and conclusions to be derived (Goldsmith, 2021). Such a framework requires expert validation to ensure the research's credibility by incorporating insights from field specialists. Without this expertise, the research lacks validity and the framework is incomplete (Pitchforth & Mengersen, 2013). To clearly develop the framework, stakeholders were asked about the various phases of mixed-use developments and their perspectives on them. After receiving some feedback, several changes were made to the framework to improve its clarity and organization. This also allowed the obtained information to be better processed, which resulted in a more comprehensive framework. Additionally, during the interviews, all stakeholders were presented with the framework and asked in which phase they placed the most value and why. They were also asked where they believed the most significant risks were located.

3.2 Elaborating the framework

The framework is based on the perception of the investor. The information obtained through the interviews can be incorporated into this framework to achieve a framework that is as complete and reliable as possible. This framework covers all parts of both new developments and redevelopment projects, including working with municipalities for regulations and banks for financing. On the left side of the framework, it shows what kind of topics are important, the framework considers the phases, parties involved, costs, kind of property, and likelihood of success. By working out the various aspects according to the different phases, insights can be gained into what is important to investors and areas for potential improvement. By focusing on the area around Twente, local stakeholders must be interviewed to ensure the findings are relevant and specific. This focus on Twente ensures the framework is practical and concrete and helps us

understand the unique dynamics of the area. This approach provides a useful tool for analyzing and addressing challenges and opportunities in mixed-use real estate projects.

The framework allows us to determine the current phase of a project. This helps us formulate relevant questions for the stakeholders, resulting in more comprehensive answers from investors compared to banks or municipalities. The project phases are structured according to the phases outlined by Peca (2009): First, concept development involves generating ideas and sketches, which may lead to engagement with multiple parties. This phase explores the feasibility of the project and the establishment of initial connections. The second phase, design and planning, involves formalizing the concept on paper. This includes conducting a volume study to explore possibilities and working towards a concrete plan. Detailed planning and design work are crucial at this stage to ensure the project is viable and aligns with regulatory requirements. Next, in the permits and regulations phase, stakeholders engage with the municipality to secure necessary zoning changes or other permits. This involves navigating the regulatory landscape to ensure the project can proceed without legal obstacles. Next, the construction phase is when the project starts to take physical form and becomes a tangible reality. Construction management is essential to keeping the project on schedule and within budget. Once the building is completed, the marketing and sales phase begins. This is when the project is introduced to the market to attract investors or tenants using strategies such as sell-and-leaseback arrangements or fully leasing the property before selling it as an investment. Effective marketing and sales strategies are vital to ensuring the project's financial success. Finally, if the property remains under its own ownership, it requires operational management. This phase involves maintaining the building, ensuring tenant satisfaction, and preserving the property's value. Proper operational management is key to sustaining long-term profitability and stakeholder satisfaction. Working through these phases horizontally reveals what is important to investors and uncovers potential areas of improvement. This comprehensive approach allows us to address critical issues at each stage and adapt the appropriate strategy to meet the needs of different stakeholders.

In the various phases of a mixed real estate project, multiple components can significantly influence the outcome (Tiesdell, 2011). For these components, take into account stakeholder attitudes and the various associated risks. Key stakeholders involved in these phases include municipalities, developers, investors, tenants, architects, contractors, and banks. Each phase incurs different costs, such as preparatory costs, design costs, construction costs, marketing costs,

operational costs, and the revenue and returns. The financial timeline is critical, which emphasizes the importance of identifying when financing occurs within the process (Team, 2024). The type of property determines many aspects of the project. Whether it is a new development or an existing building, a project presents risks and opportunities. Risk assessment is vital when evaluating the likelihood of success in each phase and identifying influential factors (Chen 2009). This risk assessment influences investors' strategies. The project's trajectory must be examined to understand the decisions and strategies involved, which provides insights into how investors navigate the process and make informed choices. Overall, the framework is intended to clarify the project's lifecycle, the critical decisions required at each stage, and the potential strategies investors may adopt to mitigate risks and maximize returns.

4 Results

The following section examines the strategies and risks of mixed-use properties. It investigates the challenges investors, banks, developers, and municipalities face and their implications for strategies and risks. For improved readability, relevant quotations are primarily presented in tables that summarize the topic, provide the quotation, and specify the participant.

A representative of the municipality (1) acknowledged the relevance of the questions, as they frequently encounter complex mixed-use cases. According to their policies, they utilize mixed-use properties, as they believe it enhances neighborhood value more than single-use buildings. They referenced studies demonstrating the positive impact of mixed-use developments on surrounding areas. However, they cautioned about the need to strike a careful balance. They expressed concern that an excessive focus on mixed use could compromise the quality they strive to maintain and deter investors and developers from engaging with the city.

The bank (2) mentioned that they must follow strict guidelines for project financing. If a project does not fit these guidelines, it is difficult for the project to secure funding. When properties are mixed use, this process becomes even more complex. The bank acknowledged that they are working harder nowadays to handle these challenges. However, because mixed-use buildings vary widely, it can be difficult to establish clear guidelines for financing these projects. The bank still finds it more difficult to finance mixed-use properties than single-function ones.

From the interview with the municipality, it is evident that their preference for mixed-use developments is primarily driven by their positive impact on their surroundings; this aligns with

previous literature. They emphasized that mixed use tends to enhance property values and contribute to better living environments for residents. The municipality also acknowledged the challenges faced by developers, banks, and investors in such projects. Nevertheless, they expressed that “these stakeholders should be challenged. In today’s increasingly densely populated world, solutions must be found for utilizing smaller plots of land with mixed-use developments serving as a prime example.”

This research reveals the different strategies and risks of mixed-use properties, primarily from the perspective of investors. This study aims to uncover the reasons behind various parties’ choices and the bases on which they are made. Information obtained through interviews is utilized to construct a clear picture of this section. The most significant responses are organized in a table for clarity. Each interviewee is assigned a numerical identifier within the table. The framework completed using the results of the interviews is included below.

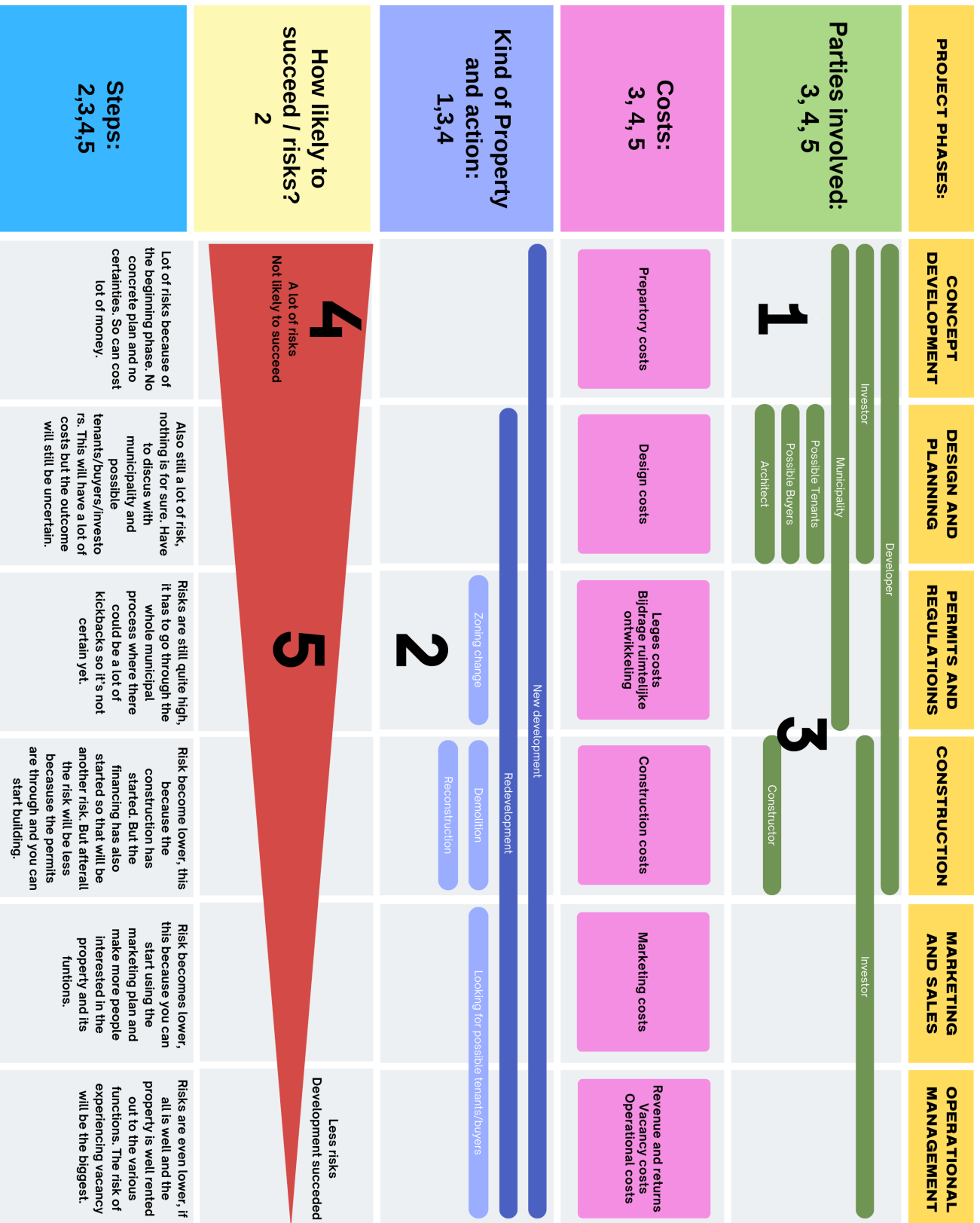


Figure 1: Framework according to the interviews.

Starting by identifying the parties involved in the various phases. This was answered mainly through the following questions: “Are there parties you collaborate with during this process? And when do you encounter these parties?” The participants significantly valued other stakeholders with whom they must collaborate. They all acknowledged the interdependence required for surviving as a business and emphasized the importance of occasionally helping one another. However, the investor (5) indicated that they often join discussions with the municipality later and therefore miss some details. The municipality (1) also expressed a desire to engage with the investor early to understand their identity and underlying intentions regarding the property.

Topic	Quote	Participant ID
Collaboration	"It is very important for us as a municipality to seek collaboration with various parties. Only in this way can we enhance the beauty of the region; working against each other serves no purpose."	1
Business wise	"Of course, we are interested in collaborating with investors seeking financing. This is also a business model for us, so we must contribute and help. However, it must be realistic and entail manageable risks."	2
Team	"I always like to operate from a team perspective, comprising the municipality, (potential) investors, and other relevant stakeholders. Working together as a team can lead to excellent outcomes."	3
Network	"The most enjoyable individuals to collaborate with are those you already know; you can assist each other swiftly and pivot rapidly. However, it's crucial to leverage that familiarity effectively."	4
Trust	"For me, it's essential to have trust in the various parties at the table. Additionally, maintaining a positive atmosphere is crucial; you always encounter each other again in the field of work. The real estate world isn't that big."	5

Table 1: Quotes regarding involved parties.

The participants were asked how they perceive costs. Are these factored in early, or is there a significant reliance on risk-taking? Additionally, how do they perceive the project’s likelihood of success? Do they discern this early on, or does it become clearer over time? In the present scenario, all parties, aside from the municipality, have costs that often prove unrecoverable. To render a project feasible, its viability and various expenses must be investigated. Even financial institutions (2) must evaluate the feasibility of extending financing upon request. In summary, a multitude of costs are related to the initiation of a project, and these directly impact the probability of the project’s success. When costs are elevated and uncertain, the likelihood of success diminishes. Nevertheless, this process is indispensable for advancing and rendering projects viable.

As the probability of success increases, risks correspondingly decrease, according to both investors (5) and developers (3, 4).

Topic	Quote	Participant ID
Opportunities	"I understand that there are various risks associated with high costs for mixed-use real estate. However, we also believe that it presents many opportunities, making it potentially very compelling."	1
Difficult	"For us, it remains challenging to assess the various risks. The safest option for us is to finance a single function. However, with the right justification, we are open to deviating from this approach. Typically, by the time they approach us, significant costs have already been incurred, and the plan is often feasible."	2
Difficult	"As developers, we often face challenges and incur significant sunk costs. However, we must take these risks to make projects feasible and bring them to life. Nonetheless, it is difficult for us to prioritize effectively."	3
Network	"We have no choice, most costs are often incurred by us in the preliminary stages, in the hope that a viable plan emerges from which we can proceed."	4
Less risk	"When I am involved early in a project, I often assume the costs. However, I will not commit to a plan if it's not feasible. Typically, a business case has already been developed, reducing the risk. Consequently, the project should be viable, and the costs may still be manageable."	5

Table 2: Quotes regarding risks, costs, and chances of success.

The bank (2) described the phases of development as a gradual journey from high risk and a low likelihood of success to lower risk and a higher likelihood of success. They explained that this shift occurs as they better understand a project and can assess the project's risks more accurately. As the project progresses, potential tenants or buyers may start showing interest, which makes it easier for the bank to understand the planned mixed-use concept. This progress boosts the project's likelihood of success. Therefore, the triangle representing the phases gradually evolves from having a broad base with high risk and a low likelihood of success to a narrower base with a higher likelihood of success and reduced risk. This also improves the likelihood of securing financing as the project develops.

Based on the framework, it can be concluded that developers (3, 4) and investors (5) are most knowledgeable about the involved parties in a mixed-use development. It appears that these parties are engaged throughout almost the entire project lifecycle. Their involvement from start to finish incurs costs, which entail risk. Since the likelihood of success is initially low in the early stages, these costs pose a significant risk. As mentioned by the bank (2), their perspective on

financing changes as a mixed-use project progresses. As the project advances and the bank better understands the project, the bank's enthusiasm for financing increases. However, in the early stages, when only a concept exists, the project represents significant risk for the bank, as it is unfamiliar territory.

Regarding property types and associated actions, insights were provided by the municipality (1), which strictly adheres to procedural guidelines. Developers (3, 4) also highlighted differences between new developments and redevelopments, particularly concerning existing zoning and the time-consuming nature of potential zoning changes. Redevelopment can also be costly due to the need to demolish or renovate existing structures for new ideas. From the results and qualitative data, it is evident that mixed-use properties remain challenging, especially from the perspectives of banks and financiers (2). Developers (3, 4), however, perceive them as a current challenge that they actively embrace. Additionally, the municipal (1) encouragement of mixed-use functions is crucial, as it positively impacts the surrounding environment.

The numbers 1 through 5 within the framework represent key moments. These can be significant points highlighted by the interviewees or moments where substantial information converges and aligns in the same direction. During point 1 in the framework, ideas begin forming and plans are developed to assess the project's feasibility. According to a developer (3), "this phase is critical because out of 20 projects, maybe only one succeeds." During this phase, the developer evaluates financial feasibility, market supply, and whether the municipality supports the direction. The municipality (1) said that they often have a direction in mind at this stage, but their plans can change slightly if someone presents a strong idea. This step is vital to the framework because it can determine whether a project succeeds or fails.

Point 2 is especially important for developers (3,4). At this point, the plans can become a reality if a zoning change is approved by the municipality (1). Only with approval does the likelihood of a project's success increase, thereby making construction almost certain. According to the bank (2), "the seeking for financing starts only after this phase, as the earlier stages are considered too uncertain." In this stage, the municipality can enable or hinder the process, which could make or break the project.

Point 3 encompasses permits, regulations, and construction. Financing often affects this phase. The risks are reduced at this stage since the necessary permits have been obtained and any required zoning changes have been made. This resolves many uncertainties. According to the bank

(2), “the remaining uncertainties at this stage are typically related to the type of project. For mixed-use developments, it can be challenging to fully identify future tenants, and the project often still needs to be marketed.” Thus, the bank’s concerns shift from regulatory and permitting issues to the project’s viability and market acceptance. When a building has a single user, it is relatively easy to find a tenant or owner. This allows for a quick assessment of the associated risks for that particular function. However, the bank (2) noted, “it is much more difficult to assess risks in advance when a building contains multiple functions.”

Point 4 was identified as encompassing the most significant risk for mixed-use developments because, at this stage, costs are already being incurred, but revenue is still far off. Consequently, all participants agreed that this phase represents the greatest risk. The developers (3, 4) indicated that they aim to exit this high-risk phase as quickly as possible. They attempt to mitigate the risk through agreements with municipalities and by bringing investors to the table early in the process.

Finally, during point 5, when the project is approximately halfway completed, the risk has diminished. As mentioned above, the goal is to have the permits/regulations in place to decrease this risk. However, the next step involves finding users for the mixed-use project. Once this phase is successful and there is significant demand for the project, the risk decreases substantially, as the bank sees that there is minimal risk to financing the project. It was often noted that this is the stage when a private investor may decide to seek financing for the construction of the project. The developers (3, 4) indicated that, in many cases, the earlier phases and risks up to this point are managed by the developer or, preferably, by a private investor. Subsequently, at this stage, the decision can be made to continue developing with personal funds or to seek financing.

5 Conclusion

A property is defined as mixed use when two or more functions coexist within a building. However, each type of real estate carries different risks. The coexistence of different functionalities, with their respective risks, within a building poses challenges for developers, investors, and financiers when assessing and committing to projects. This complexity introduces more uncertainties, which make it difficult for stakeholders to proceed with confidence. To explore the major risks and challenges involved in developing and financing a mixed-use project, different

stakeholders were interviewed for this study. The data from the interviews were analyzed and organized into a framework to make it more understandable and insightful.

When examining the qualitative data integrated into the framework, it becomes evident that mixed-use developments are actively promoted by a municipality. The city encourages mixed-use developments, as the municipality recognizes their potential positive impacts on the environment. However, the municipality acknowledges the challenges involved in developing and realizing such projects, which could be framed as opportunities for developers.

For developers, mixed-use properties have become more prominent considerations, since municipalities are increasingly favoring mixed-use developments to stimulate neighborhoods. Moreover, municipalities highlight various risks associated with mixed-use properties, such as political, interest rate, tenant, economic, and property management risks. Addressing these risks requires adjusting strategies and developing sound plans to secure financing.

To address the main question regarding the differences in funding strategies for mixed-use properties and their associated risks, the interview data must be analyzed. Participants revealed that each type of real estate within a mixed-use property presents unique challenges, with mixed-use properties standing out as particularly complex. Participants highlighted the difficulty of establishing stability for mixed-use properties. However, despite the challenges inherent in this type of real estate, the risks associated with mixed-use properties are indeed significantly higher than those for properties with a single function. This heightened risk comes from several factors. For instance, mixed-use projects often take longer to attract tenants or buyers due to the diverse nature of their offerings. Additionally, financial institutions, such as banks, are reluctant to finance such ventures due to their inherent complexity and associated uncertainties. Nevertheless, banks are willing to finance mixed-use projects under certain conditions. These conditions typically include the provision of a well-defined and clear business case that demonstrates the project's viability and potential for success. Moreover, banks may also seek assurance through comparisons with similar projects that have achieved success in the past. These measures mitigate the perceived risks associated with mixed-use properties and provide banks with the confidence needed to extend financing. In essence, while mixed-use properties present greater risks compared to their single-function counterparts, they also offer substantial opportunities for innovation and profitability. By carefully crafting a comprehensive business case and showcasing successful references, developers can have fewer concerns and secure the necessary funding to realize these projects.

6 Discussion

This research can significantly contribute to the field of mixed-use projects by engaging with a broader range of stakeholders and systematically gathering and analyzing their input. This approach clarifies specific bottlenecks within the overall development process of mixed-use properties. It also identifies areas where stakeholders encounter challenges, particularly in project financing. For instance, developers are more prone to facing these challenges compared to private investors. Moreover, financial institutions continue to find mixed-use projects complex and heterogeneous, posing ongoing difficulties in their assessment and support. However, it is important to note that certain points remain open to discussion and further investigation.

Several aspects of this research warrant further study. For instance, more interviews should be conducted, especially with representatives from different banks and not only the Rabobank that is mentioned in this research. Such interviews could provide unique insights into how mixed-use developments are financed, which might differ from the perspectives of individual investors. Additionally, according to Arnold et al. (2019) real estate funds often operate on a larger scale with different investment strategies than individual investors, so it is important to understand their perspectives as well because this can also influence how they assess risks. Furthermore, quantitative analyses should appear alongside qualitative data, which could involve examining the financial performances of mixed-use properties, including their valuations and risk factors. Quantitative research will support and complement qualitative findings. In addition, more research should explore the environmental impact of mixed-use developments. These projects are often chosen to reduce urban traffic congestion by consolidating different activities in one area. Exploring how mixed-use developments contribute to environmental sustainability and urban planning strategies is important, because the development of mixed-use projects stems from the surrounding environment and the demand for them. Metzinger (2021) conducted quantitative research on the environmental impact of mixed-use developments, with a primary focus on the increase in value of surrounding properties. This finding can be further supported by a qualitative study, allowing for the validation of claims made by investors, municipalities, and other stakeholders. Municipalities may prioritize incentivizing neighborhoods, whereas investors and banks may not consider this a primary motivation for pursuing mixed-use developments.

There is also potential for improvement in terms of positioning. For instance, exploring the perspective of the municipality in a follow-up study could be insightful. This stakeholder faces

numerous trade-offs: The city aims to enhance the neighborhood while ensuring the feasibility of development. Additionally, environmental considerations hold greater significance for the municipality compared to risks and financing. The focus should be shifted from the risks primarily experienced by developers, financiers, and investors to the risks faced by municipalities when planning mixed-use developments. According to interviews, a municipality prioritizes mixed-use properties due to their positive environmental impacts. However, future research should explore the risks that municipalities encounter. Karadimitriou et al. (2015) research suggests that municipalities may face greater long-term risks due to increased vacancy rates and potential negative impacts on neighborhood dynamics over time. Nevertheless, in the short term, municipalities are likely to face fewer risks since initially establishing a mixed-use destination typically involves minimal costs for them. However, it remains crucial to thoroughly assess municipal risks and consider their implications in relation to other stakeholders. Effective risk mitigation strategies should be explored in this context.

Research should examine the evolution of mixed-use development and contemporary perceptions of mixed-use properties. Research should also explore whether perceptions of mixed-use properties have become less favorable due to stricter regulations; such research should explore the reasons behind these positive or negative developments. Have perspectives shifted due to the increased availability of data, as indicated in this study, or are people becoming more used to mixed-use properties? Metzinger (2021) indicates that challenges of mixed-use properties have decreased over the past decade, attributed to the availability of recent data. However, specific details regarding the nature of this data, which could provide insights into the factors contributing to the gradual reduction of challenges, were not mentioned.

Additionally, future research should investigate the utilization of mixed-use developments across various regions and countries. This approach might involve examining the diverse impacts of mixed-use properties on their respective environments. Research could explore whether the impacts significantly differ for a mixed-use property located in a less developed country compared to one in a highly developed country. Sackey (2009) explored the appeal of mixed-use properties in urban areas of developing countries. This research is important as it investigates the potential impact of mixed-use development in developing countries. However, future studies should examine whether these findings are applicable to developed cities as well. Exploring the variations and similarities, as well as the diverse roles of mixed-use developments across different cities and

countries, will be crucial in understanding its functions comprehensively. Research could also consider the requirements set by higher authorities, which can create programs that municipalities must follow. This can push municipalities toward mixed-use developments. In conclusion, more research is needed regarding mixed use and its related aspects, which includes exploring different perspectives and policies related to mixed use. Additionally, qualitative and quantitative research should be combined to provide more robust insights.

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8 Appendix: Interviewees and Interview Questions

To provide information for the framework, several interviews were conducted with key stakeholders. Since this research focuses on Hengelo, which is in the Twente region, stakeholders from this area were interviewed. The first interview was conducted with (anoniem) from the Municipality of Hengelo. This initial discussion aimed to gain insights regarding the municipality's perspective on mixed-use real estate. The representative of the municipality was interviewed again after all other interviews were completed to present the results from the other stakeholders. An interview was also conducted with (anoniem), who works at Rabobank Twente and specializes in real estate financing within the region, particularly for large-scale business ventures. Interviews were also conducted with real estate developers: (anoniem), the director of the real estate developer Ska-pa, and (anoniem), a project developer that works at Ska-pa. Additionally, a private investor, who wished to remain anonymous, was interviewed. These interviews provided valuable insights and essential data for constructing the framework to ensure that it accurately reflected the perspectives and considerations relevant to the Twente region.

The collected data were organized, analyzed, and interpreted. Coding played a vital role in categorizing the interview responses according to their relevance to specific questions and identifying any overlaps or distinctions. The qualitative data were processed using open coding, as many questions led to extensive discussions. Stakeholders' responses varied widely in depth, which led to a detailed analysis that uncovered various themes and patterns. Open coding was used to easily label information obtained from the interviews. This method made it simple to effectively process data and extract key findings. For example, the information was coded using terms such as risks, difficulties, opportunities, funding, and collaborations.

The following stakeholders were interviewed, and their respective titles are also noted.

1. Anoniem (Programmamanager Binnenstad Hengelo)
2. Anoniem (Senior Accountmanager Grootzakelijk)
3. Anoniem (Director, Real estate developer, Ska-pa)
4. Anoniem (Real estate developer, Ska-pa)
5. Anoniem (Owner Private Real Estate investor)

The questions asked during the interviews are listed below. Adjustments were occasionally made to better suit the interviewed stakeholder. This approach generally ensured that relevant answers were obtained for this research.

Introducerende vragen:

1. Op wat voor een vastgoed richten jullie je vooral?
En op waar wordt op gestuurd vanuit de gemeente? Strategie en/of beleid?
2. Wat is je ervaring in het vastgoed? Trends? Dingen die opvallen?
3. Hoe ervaar je het proces van een vastgoedontwikkeling? En wat is uw rol hierin?
4. Zijn er partijen waarmee je samenwerkt binnen dit proces? En wanneer kom je deze partijen tegen? (Hou de fases erbij)
5. Hoe ervaart u de risico's binnen de huidige vastgoedmarkt en nieuwe ontwikkelingen?
6. Wat zijn de uitdagingen binnen bepaalde types vastgoed? (Vraag naar Mixed-use)
7. Wat is een veelvoorkomende valkuil binnen het (her)ontwikkelen van projecten en het gehele proces hierin?

Hoofdvragen:

8. Hoe ervaart u mixed-use vastgoed? (vraag naar positief of negatief en waarom?)
9. Hoe kijkt u tegen de gemeente aan wanneer het gaat om mixed-use vastgoed? Zijn deze meewerkend om te schakelen of streng beleid?

(Voor gemeente: Hoe ervaren jullie dat er wordt omgegaan door mixed-use vastgoed en hoe wordt er door ontwikkelaars/investeerders aangekeken? Zijn jullie veel met elkaar in contact?

10. Waarom is er een beleid van mixed-use? Vanuit verschillende standpunten belangrijk. Omgeving, waarde, strategie/beleid gemeente. Zit er verder nog een doel achter? Vanuit de kant van de gemeente?
11. Hoe ontstaan de financieringen en in welke fase ontstaan deze gewoonlijk?
12. Wat zijn volgens u de eisen voor het verkrijgen van een financiering? En heeft dit veel invloed op het project?
13. Wat is in uw mening het grote verschil tussen mixed-use vastgoed en vastgoed dat een functie betreft? (vraag waarin dit verschil zich het meest uit)
14. Wat is het meest interessant op het gebied van mixed-use voor beleggers/ontwikkelaars?
15. In hoeverre hebben de locatie, markt en omgeving invloed op het financieren van een mixed-use project?
16. Hoe zou u mixed-use vastgoed omschrijven? Positief? Negatief? Waarom?
17. Welke soorten gebruik zijn vooral van belang voor mixed-use vastgoed? Wat is het beste en wat wordt als zeer slecht ervaren?
18. Kunt u aangeven wat uw rol is op het gebied van samenwerkingen in het vastgoed? Denk hierbij aan nieuwe ontwikkelingen of al reeds bestaande projecten.
19. Hoe worden de kansen ingeschat op het slagen van een project en waar wordt dit veelal op gebaseerd? (vraag bij gemeente om inschatting)

20. Wat zijn volgens u nog belangrijke stappen om te nemen wanneer het draait om mixed-use vastgoed? (Hoe kijkt u aan tegen de gemeente?)

21. Favoriete mixed-use projecten? Welke functies?