

INVESTIGATING KEY SUCCESS FACTORS AND PERFORMANCE IN RETAIL
CONSTRUCTION

by

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ABSTRACT

INVESTIGATING KEY SUCCESS FACTORS AND PERFORMANCE IN RETAIL CONSTRUCTION

The retail sector, with its dynamic and competitive nature, plays a crucial role in shaping customer experiences, driving economic growth, and strengthening brand equity. Retail firms continuously invest in developing and optimizing their retail spaces to gain a competitive advantage, and meet evolving customer expectations. This effort brings the retail sector into intersection with the construction industry, where unique success factors emerge, highlighting the critical importance of strategic project management. Despite their significance, the critical success factors (CSFs) for retail construction projects have remained underexplored. This study addresses this gap by identifying and analyzing the CSFs that influence project success through the systematic evaluation of drivers, enablers, inputs, barriers, benefits, and impacts. The study adopts a mixed-methods approach to provide a comprehensive analysis. Accordingly, a literature review, pilot interviews with industry professionals, survey studies, and a case study of a retail construction project for a global retail chain were conducted. The findings revealed critical factors such as time sensitivity, technical expertise, the competence and structure of the project team, effective communication, alignment of stakeholder priorities, and streamlined processes. Additionally, the research highlighted the importance of focusing on improved financial performance with timely project delivery and enhanced brand image as key outcomes of successful retail construction projects. This study contributes as a bridge between academia and industry by offering a foundational framework of critical success factors for retail construction, integrating the dynamic principles of the retail and construction sectors to provide actionable strategies for enhancing project efficiency, stakeholder collaboration, and alignment with business objectives.

ÖZET

PERAKENDE İNŞAAT PROJELERİNDE KRİTİK BAŞARI FAKTÖRLERİNİN VE PERFORMANSIN İNCELENMESİ

Perakende sektörü, dinamik ve rekabetçi yapısıyla müşteri deneyimlerini şekillendirme, ekonomik büyümeyi destekleme ve marka değerini artırma konularında önemli bir rol oynamaktadır. Perakende firmaları, rekabet avantajı elde etmek ve değişen müşteri beklentilerini karşılamak amacıyla perakende alanlarını sürekli olarak geliştirmeye ve optimize etmeye yatırım yapmaktadır. Bu çaba, perakende sektörünü inşaat sektörüyle kesişen bir noktaya taşımakta ve stratejik proje yönetiminin önemini ortaya çıkaran çeşitli faktörlerle karşı karşıya bırakmaktadır. Ancak, perakende inşaat projelerinin kritik başarı faktörleri üzerine yapılan araştırmalar sınırlı düzeyde kalmıştır. Bu çalışma, proje başarısını etkileyen kritik başarı faktörlerini sistematik bir şekilde analiz ederek harekete geçirici unsurlar, kolaylaştırıcılar, girdiler, engeller, faydalar ve etkiler bağlamında belirlemeyi ve değerlendirmeyi hedeflemektedir. Çalışma, kapsamlı bir analiz sunabilmek adına karma bir yöntem yaklaşımı benimsemiştir. Bu bağlamda, literatür taraması, sektör profesyonelleriyle pilot görüşmeler, anket çalışmaları ve global bir perakende zincirinin inşaat projesi üzerinden vaka analizi gerçekleştirilmiştir. Bulgular, zaman hassasiyeti, teknik uzmanlık, proje ekibinin yetkinliği ve yapısı, etkili iletişim, paydaş önceliklerinin uyumu ve süreçlerin akıcı hale getirilmesi gibi kritik faktörlerin önemini ortaya koymuştur. Ayrıca, başarılı perakende inşaat projelerinin temel çıktıları olarak, zamanında proje teslimiyle iyileştirilen finansal performansa ve güçlendirilmiş marka imajına odaklanmanın önemi vurgulanmıştır. Bu çalışma, perakende ve inşaat sektörlerinin dinamik prensiplerini bir araya getirerek, proje verimliliğini artırmak, paydaş iş birliğini güçlendirmek ve iş hedefleriyle uyumu sağlamak için uygulanabilir stratejiler sunarak akademi ile sektör arasında bir köprü işlevi görmektedir.

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LIST OF ACRONYMS/ABBREVIATIONS

AHP	Analytical Hierarchy Process
BIM	Building Information Modeling
BOQ	Bill of Quantities
BSC	Balanced Scorecard
CEO	Chief Executive Officer
CSF	Critical Success Factor
DGNB	Deutsche Gesellschaft für Nachhaltiges Bauen
EFQM	European Foundation for Quality Management
EV	Electric Vehicle
GDP	Gross Domestic Product
GIS	Geographic Information Systems
HVAC	Heating, Ventilation, and Air Conditioning
IoT	Internet of Things
IPD	Integrated Project Delivery
KPI	Key Performance Indicator
LEED	Leadership in Energy and Environmental Design
P&L	Profit and Loss
PIT	Project Improvement Teams
PmBOK	Project Management Body of Knowledge
PMI	Project Management Institute
SPICE	Structure Process Improvement for Construction Enterprises

1. INTRODUCTION

1.1. Background of the Research

The construction sector is a highly extensive and dynamic industry that plays a central role in the global economy. Operating in different areas such as housing, infrastructure, industrial, and commercial projects, this sector is structured that directly affects the economic growth and quality of life of societies. Furthermore, the construction sector provides employment to millions of people worldwide and supports economic growth. Dainty *et al.* (2007) describe the construction sector as “one of the most people-reliant sectors”, despite recent advances in technology and management strategies (p. 501). For these reasons, the construction sector is one of the most important cornerstones of economic development and social welfare. Researchers have examined the vital role of the construction industry in world development in a variety of decades (Turin, 1973; Wells, 1984; Bon, 1990; Ofori, 2015).

On the other hand, the construction sector is one of the industries where achieving success is quite difficult due to reasons such as the size of the projects, the participation of different disciplines, the fragmented nature, and the presence of various risk factors (Fellows and Liu, 2012). Construction projects require comprehensive planning, meticulous budget management, and a high level of coordination (Abdullahi *et al.*, 2023). Therefore, effective management of project processes is essential for achieving successful outcomes in construction. The pursuit of strategies to enhance efficiency and optimize construction processes has been a longstanding focus of academic inquiry. Extensive studies in areas such as project management, quality control, and risk management have yielded valuable insights that contribute to improved success rates within the industry.

While research in construction projects has traditionally focused on fundamental areas such as quality, cost, and time management (Atkinson, 1999), it increasingly

incorporates contemporary approaches to address the evolving needs of the sector (Pollack *et al.*, 2018). In recent years, concepts such as lean construction, sustainable building practices, and the integration of digital technologies, including generative artificial intelligence, have gained increasing prominence in the literature (Amusan *et al.*, 2020). Lean construction methods help achieve project cost and time targets more efficiently by minimizing waste, while sustainable practices aim to reduce environmental impacts and conserve natural resources. The adoption of artificial intelligence and digital modeling techniques in the construction industry enables more efficient project management, contributes to the digitalization of traditional processes, and drives higher levels of automation across the sector.

The construction sector encompasses a broad range of sub-sectors, within which retail construction projects hold a significant market share. Retail construction accounts for a notable segment of the sector's total volume, covering both new store developments (also known as new store openings) and renovations (also known as remodels or reimages) of existing spaces. In the United States, commercial construction spending, which includes retail projects, accounted for a considerable portion of the total construction activity in 2024, reflecting the importance of this sector within the broader industry (Federal Reserve Bank of St. Louis, n.d.). Rising consumer demands and rapid shifts within the retail sector are driving the evolution of new store concepts and modernization efforts. For instance, retail construction projects in shopping malls and urban commercial areas influence the commercial identity of cities and shape the consumer experience (Goss, 1993). These projects not only help retail brands engage more effectively with target customers but also generate employment and contribute economically to the construction sector. Consequently, retail construction projects represent a substantial segment of overall sector activities and play a pivotal role in shaping industry trends.

The constantly evolving nature of the retail sector, together with significant shifts in consumer behavior and increasing competition, poses new challenges for managing retail construction projects. The widespread adoption of online retail after the recent

pandemic, the pressure to enhance consumer experiences, and the transformations in consumption habits demand flexibility and adaptability in retail projects (Seidu *et al.*, 2021). In this dynamic environment, the need to respond quickly to client demands necessitates meticulous planning of design and construction processes while prioritizing adaptability and flexibility. Consequently, the development of effective performance management strategies is essential for retail construction projects to achieve time, cost, and quality objectives.

The transformation of these projects is driven not only by new store openings and remodeling efforts but also by aesthetic design requirements that reflect brand identities and align with the strategic objectives of retail companies. Hence, the retail sector's need for flexibility, rapid project delivery, and budget constraints distinguish retail construction projects from traditional construction practices. Despite their substantial market share, retail construction projects have received limited attention in academic studies. Given their significant contribution to the sector, notable market share, and capacity to adapt to swiftly changing industry dynamics, the impact of retail construction projects on the broader construction industry is noteworthy.

This research aims to provide a comprehensive analysis of the development and characteristics of retail construction processes and projects. By examining the distinct attributes of the retail sector, along with the challenges encountered and management strategies essential for project success, this study seeks to illuminate the unique dynamics of retail construction projects. The findings are anticipated to expand the academic knowledge base within the sector. Additionally, the investigation into the key success factors of retail construction project practices will facilitate a deeper understanding of the field and support the development of new perspectives for future research.

1.2. Problem Statement

The construction industry encompasses multiple sectors with a vast range of application areas. It is crucial to note that each sector within the construction industry

faces unique challenges and requires tailored strategies. Consequently, different application areas must be investigated individually to make more accurate and precise assessments in both the academic community and the business world.

A similar situation applies to research and studies focused on construction management. While understanding the general dynamics and knowledge areas of construction management within broad frameworks is beneficial, it is also necessary to conduct detailed examinations at the sub-sector level. Therefore, to manage construction projects successfully and optimize their processes to the highest degree, it is essential to inspect the unique characteristics of individual projects and develop management strategies based on the specific conditions required by the project domain. A framework that examines a process by analyzing its initiating drivers, inputs, enablers, barriers, and both short- and long-term impacts can be employed to examine these unique characteristics (Ozorhon, 2013).

Although there are publications related to the construction of retail buildings in the literature, most of these focus on the sustainability of retail buildings. For example, Dangana *et al.* (2012) examine the drivers, barriers, and opportunities of sustainable retail construction, emphasizing the need for policy alignment, organizational collaboration, and innovative practices to reduce carbon emissions and enhance efficiency and brand value (Dangana *et al.*, 2012).

The paper by Lai *et al.* (2010) explores various factors essential for the success of green retailing, emphasizing the importance of sustainability in retail buildings through practices such as energy conservation, waste reduction, and eco-friendly design, which collectively contribute to the sustainability of retail environments (Lai *et al.*, 2010).

Another frequently explored topic in the literature regarding retail projects is the effect of store image. For instance, Kent and Kirby (2009) investigate the relationship between consumers' perceptions of the store environment and the resulting retail image, using a photo-elicitation approach to understand how both the interior

and exterior design influence consumer experiences and store image (Kent and Kirby, 2009). Similarly, Burt and Carralero-Encinas (2000) emphasize the importance of store image in the retail internationalization process, focusing on how strong store image contributes to competitive advantage in both domestic and international markets (Burt and Carralero-Encinas, 2000).

Alongside these, while the competitive dynamics and the pressure for advancements in the retail industry demand more effective execution of various processes (Pantano, 2014), comprehensive studies that explore the distinctive characteristics of retail projects, including their processes, success factors, expert insights, and real data, are less explored compared to other topics in the field. Identifying specific challenges encountered in the retail sector and analyzing their solutions could significantly benefit the construction industry as a whole; however, there remains a notable gap in the literature addressing this area.

This study comprehensively examines the critical success factors for the effective management of retail construction projects. It aims to investigate the elements that enhance the efficiency of retail projects, the main driving forces, the challenges encountered, and the overall impacts of these processes. While addressing the general approaches in the field of retail construction management, the thesis also demonstrates the practical applications of theoretical findings by conducting a detailed case study of a restaurant project belonging to a global chain.

1.3. Aims and Objectives

The aim of this study is to identify the critical success factors in retail construction projects and to examine the impact of these factors on the overall success of the projects. Within this scope, the objective is to support the theoretical framework through case studies specific to the retail sector, using examples from real-life applications.

To achieve this primary aim, the following objectives have been defined:

- To investigate the relationship between the retail sector and construction: Although the dynamics, needs, and impacts of the retail world have evolved and changed over time, they are expected to remain significant effects on the construction industry in the coming years. During the pandemic, restrictions on retail activities in stores and restaurants led consumers to shift to online ordering and shopping. This shift increased the demand for larger storage and warehouse facilities, thereby accelerating new warehouse construction and illustrating how the retail sector continues to impact the construction industry (Seidu *et al.*, 2021). Therefore, understanding the past and present of retail is one of the objectives in this study, as it will enable the construction industry to be prepared for the future.
- To analyze past practices and current trends in identifying critical factors that influence construction projects' success, forecast their effects on future projects, and develop strategies accordingly.
- To present a general framework that could serve as a foundation for a comprehensive field like retail, where each subfield can be examined in relation to construction projects, representing a broad area of future study.
- To establish sectoral and academic bridges to provide guidance on the criteria for project success and the determination of management strategies in retail construction projects.
- To explore the perspectives of industry professionals and observe the reflections of these ideas in practical applications by comparing theoretical knowledge with practical insights through the analysis of real projects.
- To derive new lessons for the construction industry as a whole by generalizing findings from retail construction projects to extract learnings that can be applied to other projects within the sector.

1.4. Methodology

As part of this study, a comprehensive literature review was conducted. The literature review identified the relationship between the retail sector and the construction industry, their mutual impacts, the processes involved in retail construction projects, and information related to performance management within these projects. Additionally, studies examining the critical success factors of construction projects were reviewed, resulting in the compilation of a list of success factors. To assess these factors specifically within the context of retail construction projects and identify unique success factors for such projects, a pilot study was conducted. Experts with experience in retail construction projects were consulted, and the factors were refined accordingly. The new factors identified from the pilot study were added, resulting in a final list of 60 items.

To determine whether the unique dynamics of retail construction projects differ from those of the broader construction industry, a survey was prepared. Participants were asked to evaluate these 60 factors using a Likert scale (1: not important, 5: extremely important). The survey targeted professionals with experience in retail construction projects. A total of 82 respondents participated in the survey, and their responses were subsequently analyzed to gain insights specific to the retail construction sector. Statistical Package for Social Science (SPSS) was used for data analysis and validation.

To understand how theoretical insights are applied into practical applications and to illustrate and explain retail construction processes, a real restaurant project was examined, covering the entire retail development cycle. This examination provided a detailed overview of each stage, from initial site selection and design to final implementation and the opening of the restaurant, highlighting challenges and solutions encountered along the way. The case study offered valuable insights into how theoretical success factors align with real-world practices, enriching the overall analysis and demonstrating practical implications.

Analyses based on the literature review, survey findings, and case study were conducted to identify key lessons learned. These findings were compiled to provide a holistic view of the critical elements influencing retail construction project success. The study also discussed how these insights could form a foundation for future research and contribute to the existing body of literature, paving the way for deeper exploration in related areas.

1.5. Scope and Limitations

This study covers the identification and examination of the critical success factors of retail construction projects through a questionnaire survey and case study approach. However, the retail sector comprises firms with a wide range of operations and characteristics. While some firms' physical spaces serve solely as exhibition areas, others involve production lines and complex equipment, necessitating significantly higher infrastructure requirements. These variations substantially alter the scope of architectural, mechanical, electrical, and structural projects required by the retail firm.

Consequently, detailed analyses of retail construction projects in sub-sectors such as food, technology, and apparel could yield more specific and valuable insights. Nonetheless, this study aims to establish a general framework and perspective and, therefore, does not include a detailed examination based on sub-sectors of retail.

In this research, a pilot study and surveys were conducted among professionals operating in different regions and sub-sectors. Although the sample included respondents with global responsibilities, spanning multiple countries and even continents, the majority of participants were based in Türkiye. This presents a potential limitation regarding the generalizability of the findings. Future research that draws on a broader range of countries or encompasses more diverse retail brands could provide more comprehensive and valuable contributions to the literature.

Additionally, the case study focuses solely on the opening of a restaurant project. Future research could explore other types of retail projects or investigate alternative scopes such as remodeling and reimagining, thereby offering broader and more comprehensive insights for the literature.

1.6. Organization of the Thesis

This paper is structured into five principal sections, each contributing to a comprehensive exploration of the critical success factors in retail construction projects. The first section, the introduction, sets the statement of the problem, outlining objectives and limitations, and explains the methodology of the study. The second section delves into a detailed literature review, establishing the theoretical framework that supports this investigation. By examining prior studies and industry insights, this section lays a solid foundation for understanding retail construction processes. It synthesizes existing knowledge while identifying gaps that this study aims to address.

The third section covers the research methodology, which details the design and approach used to gather and analyze data. This part explains the process of developing the questionnaire survey and the case study. In the fourth section, the paper presents the findings from the data collection and explores how they align with insights from the literature review, pilot study, and case study. The results of the questionnaire survey, including key trends, themes, and statistical outcomes, are first summarized. These findings are then synthesized through a critical discussion that integrates observations from the broader research process. By illustrating how the identified critical success factors are put into practice in a real-world retail construction project, the section provides both theoretical and practical implications for future endeavors in the field. The final section concludes the implications of these findings in the context of the research objectives. It explores the practical applications of the study's conclusions for industry professionals and offers recommendations for future research. The paper concludes with a summary of the key insights gained and the overall contribution to the field of retail construction management.

2. RETAIL CONSTRUCTION MARKET

This thesis will explore the existing literature on retail construction in Chapter 2. To establish a foundational understanding of the field, a brief introduction to the retail sector will be provided. Subsequent sections of this chapter will address the volume of retail construction, classifications of retail construction projects, processes, information on contemporary topics and the future of retail construction, and performance management practices.

2.1. Market Share

The retail sector is one of the most vibrant and impactful industries in the global economy. According to Fisher and Raman (2001, as cited in Mankodiya *et al.*, 2012), it contributes nearly 40% to the Gross Domestic Product (GDP) of the United States, as well as being the leading source of employment in the country. The retail sector is a broad and dynamic field encompassing various channels, including physical stores, mobile applications, online shops, TV, telephones, and catalogs (Beck and Rgy1, 2015). These channels can coexist through concepts such as multichannel, omnichannel, and cross-channel for retailers and retailing practices. As the retail industry has evolved, so too have the channels through which consumers engage with brands, with physical stores representing the traditional foundation of this sector. Therefore, when discussing these various channels, physical stores are referred to as traditional stores or 'brick and mortar'.

Although factors such as the COVID-19 pandemic, the increased use of digital devices, enhanced trust from consumers in online purchasing, retailers' boosted efforts in the online channel, and digital marketing expenditures have expanded the share of online channels within the retail sector and accelerated their growth, the largest share of the retail market still resides in offline retail (Centre for Retail Research, 2020; Ratchford *et al.*, 2022). The distribution of in-store and online sales within the retail

industry for 2024 is presented in Figure 2.1, with the in-store share exceeding that of online sales, accounting for approximately 75% of total sales. The figure also forecasts a yearly increase in online sales until 2028, though it is not expected to surpass in-store sales (Statista, 2024). Many studies show that the shift towards online shopping will not lead to the complete disappearance of physical retail (Nilsson, 2024). Trends such as multi-channel and omni-channel retailing underscore the importance of integrating physical and online experiences within brand growth strategies by leveraging the strengths of different channels (Avery *et al.*, 2012; Hagtvedt and Chandukala, 2023). Examples of integrated physical and digital experiences include the ability to pay for items online and pick them up in-store, order products through a mobile app while in-store to avoid queues, and access online product offerings or services within physical stores (Hagtvedt and Chandukala, 2023). Therefore, enhancing the physical retail environment remains a priority for many brands (Nilsson, 2024).

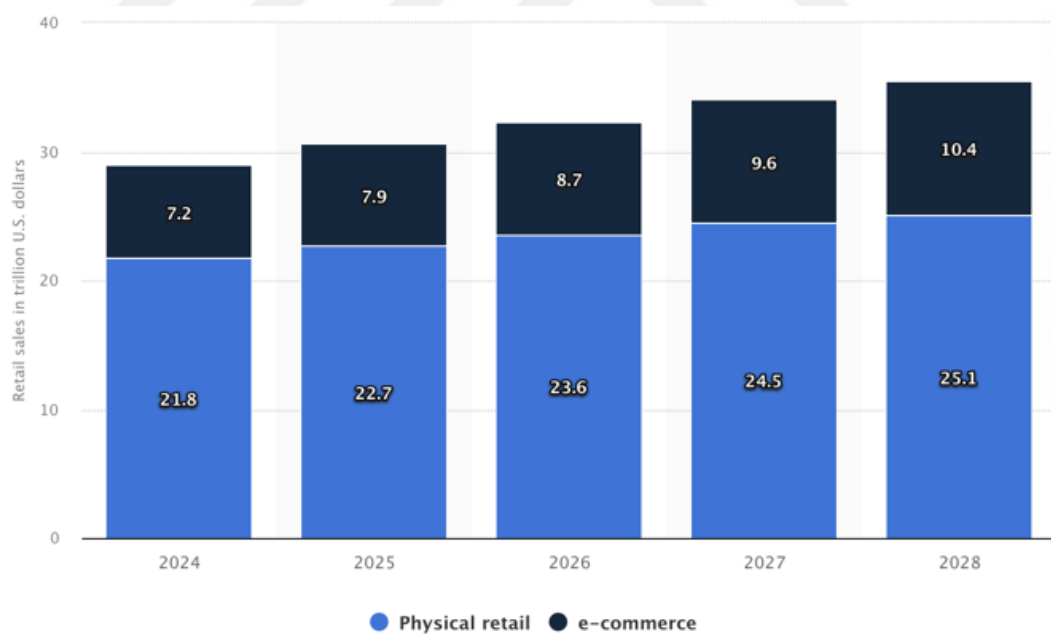


Figure 2.1. Estimated value of the in-store and e-commerce retail sales worldwide from 2024 to 2028 (Statista, 2024).

Webber *et al.* (2018) underscore the pivotal role of the retail sector in the global economy, highlighting that in Brazil, the retail sector's growth rate surpassed the nation's GDP growth in both 2014 and 2015. Similarly, in Turkiye, the retail sector has

demonstrated significant growth, with the retail trade volume increasing by 5.8% in May 2024 compared to the same month in the previous year (TurkStat, 2024).

As the retail sector continues to evolve, the significance of creating captivating and effective shopping experiences becomes more apparent, with advantages such as expanded growth, larger revenues per customer visit, enhanced back-office processes, and greater customer retention, which cultivates brand loyalty by distinguishing physical stores from their competitors (Mankodiya *et al.*, 2012). Therefore, the growth in the retail sector is directly driving the development of retail construction practices. For instance, nearly 41 million square feet of retail development, with projects either under construction or in the planning phase across the top seven cities in India, is scheduled to begin operation between 2024 and 2028 (Babar, 2024). Retail stores and shopping malls are significant components of commercial construction; therefore, an increase in this area can also provide valuable perspectives on retail construction. For instance, the size of the commercial construction sector in the United States is projected to rise from USD 171.26 billion in 2024 to USD 203.5 billion by 2029, reflecting an annual growth rate of 3.51% over the next five years (Mordor Intelligence, 2024). Moreover, as observed in the analysis of the Turkish construction market, commercial construction holds the second largest share of the market volume after residential construction, surpassing other categories such as industrial, infrastructure, energy and utilities, and institutional construction (GlobalData, 2024). Improving the physical retail experience plays a crucial role in enhancing the success of retail construction activities. These activities encompass a comprehensive process, starting from convenient site selection to store openings, followed by ongoing maintenance and repair processes within the asset management framework. Retail construction requires strong project management during the planning and implementation stages of projects. Success in this area necessitates not only attention to structural elements but also the consideration of designs that meet customer needs and optimize the user experience (Webber *et al.*, 2018). Additionally, retail construction processes should incorporate modern construction principles, including sustainability and energy efficiency (Dangana *et al.*, 2012).

2.2. Classification of Retail Construction Projects

There is no universally accepted, singular classification method for construction projects within both academic and professional domains. However, Bennett (2003) categorized general building construction projects into four main types. These broad categories contain residential, commercial, institutional, and industrial buildings. According to Bennett, retail stores, markets, shopping centers, office buildings, storage facilities, and small-scale manufacturing facilities can be classified as commercial buildings (2003). As seen by these examples, retail construction refers to the process of constructing buildings intended for commercial use, and the buildings within this category are typically designed for sales purposes.

Similarly to the lack of a universally accepted method among construction professionals for categorizing construction projects, there is no standardized approach for classifying retail construction projects. Utilizing the categorization systems inherent within the retail ecosystem may provide a useful framework for classifying retail construction projects. However, Mackaness and Chaudhry (2011) have highlighted the complexities and challenges associated with classifying retail spaces. Retail projects are often classified based on distinct attributes such as size (e.g., small convenience stores, large shopping malls), location (e.g., focused centers, off-centers), type of goods sold (e.g., food, furniture, clothing), and ownership arrangements (e.g., chain stores, non-affiliated independent stores, co-operatives) (Guy, 1998).

One approach to classifying retail construction projects is based not on the scope of the retail company but on the nature of the construction projects for the company. In this context, retail construction projects can be divided into two main categories: the opening of new stores and the remodeling of existing stores.

The processes for both types of retail construction projects are fundamentally initiated with similar retail strategies. For new store openings, the primary goal is revenue growth, which is an externally focused endeavor, with the expectation that the

revenue generated from new stores will exceed associated costs, thereby improving net performance (Srinivasan *et al.*, 2013). Similarly, remodel projects aim to enhance store performance and achieve a competitive advantage in the market compared to those that are not subject to remodeling (Webber *et al.*, 2018). Although these projects are driven by similar underlying reasons, there may be differences within the scope of construction projects.

Constructing a new store and remodeling an existing one can involve distinct construction differences. The development of a new store typically involves extensive processes such as land development, groundwork excavation, and comprehensive infrastructure work, all of which can be time-consuming. Additionally, obtaining construction permits and legal approvals adds to the timeline. In contrast, renovating an existing store involves building upon the current structure, making the process less complex and faster. Although certain permits may still be required, they are generally simpler compared to those needed for new construction projects.

From a time management perspective, constructing a new store entails lengthy planning and execution phases, potentially extending over several months and involving complex steps. Conversely, remodeling an existing store can often be completed more quickly, sometimes even allowing for phased work schedules that minimize disruption by conducting construction activities outside of operating hours. When considering costs, new store development usually incurs higher expenses due to land acquisition and infrastructure work, while renovation projects leverage existing structures, resulting in lower overall costs.

The condition of the existing structure is another critical aspect that differentiates the two processes. New store projects allow for flexibility in design and material choices as they begin from scratch, whereas renovation projects are bound by the limitations of the existing structure, which can pose challenges during the design and construction phases. Renovations may require maintaining existing load-bearing systems and adapting them to align with the new design, adding a layer of complexity.

In terms of interior and exterior layout, new stores offer the opportunity for a fully customized design to enhance customer experience, while renovations are constrained by the existing layout.

Environmental impacts also differ between the two types of projects. Constructing a new store often necessitates comprehensive environmental impact assessments and adherence to sustainable building standards to mitigate potential ecological effects. Renovation projects, however, typically have a smaller environmental footprint and can contribute to sustainability by repurposing existing structures (Hasik *et al.*, 2019). Furthermore, when considering business continuity, renovation projects can be planned in phases to minimize operational disruptions, whereas new store construction does not face such constraints since it occurs before the store's operation begins. These factors collectively influence the decision-making process regarding whether to pursue new construction or renovation in retail projects.

2.3. Retail Construction Processes

The retail construction process encompasses a series of interconnected stages, each critical to the successful development and operationalization of retail spaces. This section examines the key phases, including site selection, design, obtaining building permits, and the construction process itself, with a focus on the complexities and challenges inherent in each stage, as discussed in the relevant academic literature. For the purpose of a more comprehensive presentation, the processes of retail construction projects will be discussed in the context of new openings rather than remodel projects.

2.3.1. Site Selection

The success of a retail construction project begins with selecting a suitable location, making site selection the first essential phase. Site selection is one of the most significant drivers of brick-and-mortar retail spaces (Hunneman *et al.*, 2021). Achieving this involves defining the project scope, planning the budget, scheduling, conducting

feasibility analyses, and assessing risks. As failure to select an appropriate location in retail projects can lead to financial losses and negative impacts on brand perception and market share relative to competitors, agreements must be finalized for leasing or purchasing a new location based on these evaluations (Marasinghe *et al.*, 2018).

Site selection in retail projects is a critical component of strategic management and requires a well-defined scope, utilizing relevant data and scientific methods to inform the decision-making process (Erbiyik *et al.*, 2012). Scope definition is essential to ensure that project teams clearly understand management's expectations, setting a precise framework that guides their work (Shangle, 2006). This involves defining specific goals, deliverables, and boundaries so that the teams initiating the retail development process can begin with a clear focus and accurate targets. By establishing this clarity early on, the project aligns with strategic objectives, resources are efficiently allocated, and all teams can work cohesively toward a shared vision.

The retail development process begins with determining the desired geographic reach of the brand. Based on the brand's objectives, target locations and the density of presence are identified to establish expansion goals (Rabianski *et al.*, 2001). These tasks are typically undertaken by the company's real estate development teams, who initiate research either with internal staff or by outsourcing to specialized real estate firms and consultants. Beyond brand-centric considerations, effective retail planning and site selection also require an awareness of environmental, economic, and social impacts. This is especially critical in large-scale retail projects, such as shopping centers in urban centers, where robust physical planning and a comprehensive understanding of the surrounding environment are essential; regulatory tools like the Retail Impact Assessment (RIA) are recommended to ensure a balanced evaluation of environmental, economic, and social factors (Spilková, 2010).

To meet these objectives, real estate development teams also utilize a range of analytical tools, including data analyses, gap analyses, and specialized software, which guide location selection and planning. By integrating these tools with local and global

data sources, they can better identify focus areas that align with both brand objectives and broader regulatory and societal expectations. Together, these approaches form a rigorous framework that supports effective, responsible site selection in retail development.

The location of a retail store directly influences its success, requiring a comprehensive analysis of factors such as customer demographics, traffic flow, accessibility, local competition, and commercial potential. An optimized site selection process can benefit from network-based spatial analysis, which identifies retail store distribution patterns to inform sustainable urban development strategies (Han *et al.*, 2019). This approach ensures that the store is situated in a location that is both accessible and appealing to the target customer base and positioned to compete effectively within its local market. Proper site selection thus directly impacts customer foot traffic, sales volume, and the store's long-term viability.

Retail is one of the five main segments of commercial real estate, alongside office, industrial, residential, and a residual “other” category, and it holds a significant position within the industry (Shan *et al.*, 2017). For retail businesses, real estate serves as more than a physical asset; it is a strategic driver of success. The choice of location is crucial as it directly impacts customer access, brand visibility, and market share. For new retail chains entering a market, selecting an optimal site is essential to maximize customer attraction and ensure competitiveness (Shan *et al.*, 2017). Location optimization, therefore, requires a comprehensive approach factoring in competitor positioning, demand distribution, and accessibility.

However, the risk of cannibalization must also be carefully considered, particularly when positioning stores near existing competitors. This proximity can fragment the customer base and potentially reduce overall revenue, as customers may be divided among similar offerings in the vicinity. Consequently, location decisions should not only account for potential customer demographics but also evaluate the competitive landscape to reduce the likelihood of cannibalistic effects (Drezner, 2011).

In retail, the term “cannibalism” is also used to express concerns about the substitution effects that can occur when customers shift their business from one store to another. These effects are not only a concern among competing brands that offer similar services within close proximity but also among outlets of the same brand located near each other, where one location may draw customers away from another, thereby impacting overall profitability (Bultez *et al.*, 1989). By strategically assessing both the customer demand profile and competitive positioning, retailers can minimize these risks, supporting long-term revenue growth and operational sustainability.

Site selection in retail construction projects is often evaluated using a multicriteria decision-making framework, which allows investors to assess financial, technical aspects, and risk factors in a balanced manner when making investment decisions. As shown in Table 2.1, the authors summarize the criteria investigated for site selection in selected retail projects under the headings of location characteristics, construction variables, and economic parameters to test their model (Zavadskas *et al.*, 2004).

Table 2.1. Site selection criteria for commercial construction projects (Zavadskas *et al.*, 2004).

Site Selection Criteria		
Factors Related to Property	Factors Related to Construction	Economic Considerations
· Parking possibilities	· Facade	· Net present value
· Presence of equivalent competitors	· Utilised construction	· Internal rate of return
	· Useful area	· Profitability index
· Population within the distance of 1 km radius	· Entrance possibilities	· Profitability of investment
	· Ergonomic solutions	
	· Internal condition	· Pay-off period
· Price of the land lot	· Infrastructure of communications	
· Traffic of public transport	· Possibilities of movement inside the premises	
· Visibility from the main street		
· Supply of engineering communications		
· Changes of the neighborhood in the future		

After assessing the physical conditions, demographic analyses, and competitive environment of the target location, the next critical stage in the site selection process is the feasibility phase. During this phase, all potential expenditures must be accounted for; otherwise, longer than anticipated return periods may result (Kim *et al.*, 2020).

In retail projects, feasibility studies involve financial inputs such as the retail company's sales forecasts, real estate expenditures, and asset investment costs, including construction and equipment. This process is conducted collaboratively among the company's operations/sales, finance, and real estate development teams. Panay *et al.* (2021) successfully predicted retail performance using regression analysis, focusing on key indicators such as foot traffic, conversion rate (the proportion of visitors converted into customers), and total sales values (Panay *et al.*, 2021). The foot traffic metric, a commonly used method in sales forecasting, enables to estimate the percentage of foot traffic entering the retail store and calculates sales based on the average price of items purchased by these customers. Alternatively, sales estimation can be achieved by breaking down total sales into components like visit frequency and average spending per visit and modeling these elements with spatial data to account for variations influenced by local consumer, competitor, and store characteristics (Merino and Ramirez-Nafarrate, 2015; Ting *et al.*, 2018).

A comprehensive feasibility study for retail projects is performed by combining real estate expenditures and construction costs with sales projections. In this process, real estate costs such as land or rental prices, property taxes, and insurance, along with construction costs including design, materials, labor, and permits, are thoroughly calculated. Sales forecasts are based on market analysis, demographics, and the competitive environment. Monthly or annual projected revenue is then compared with initial costs to evaluate the project's profitability. This analysis includes calculating the payback period and annual return rate to determine if the amortization period is sufficient for feasibility. During this stage, the cost recovery period and return rate serve as key indicators of the project's financial viability.

In the case of remodel or refurbishment projects, where existing stores or restaurants may need to temporarily close, construction time planning becomes even more critical in the feasibility study. The duration of interruption in operations and potential revenue loss during this period are anticipated, and the project's feasibility is evaluated considering these losses, with return on investment planned according to the closed period duration.

Finally, long-term profitability is assessed by evaluating risk factors such as fluctuations in real estate prices and uncertainties in sales forecasts, leading to a final decision on the project. Integrating real estate and construction costs with sales forecasts provides a concrete feasibility outcome regarding the project's viability and sustainability. Legal risks are also crucial considerations in site selection, typically involving challenges in compliance with local regulations, zoning laws, or licensing processes. For instance, the zoning status of an area may not align with the project's intended use, or an unexpected regulatory change may limit the planned project scope. Additionally, delays in obtaining the necessary permits could extend the project completion timeline and increase costs. Therefore, conducting a comprehensive legal risk assessment before starting the project is essential for smooth project progression and avoiding unforeseen legal obstacles (Rabianski *et al.*, 2001). Accurately evaluating legal risks enhances the project's sustainability and success potential.

2.3.2. Design

Retail design is an essential part of retail construction projects, as it shapes how consumers interact with a space and influences their purchasing decisions. It contributes to store equity by reinforcing brand identity and perceptions. Key design elements, such as layout, signage, and lighting, create functional and memorable environments. External factors, including facade architecture and outdoor layout, also impact visibility and accessibility. Successful retail design requires effective collaboration and communication among stakeholders to align with strategic goals. This section explores the crucial aspects of retail design and its impact on retail success.

2.3.2.1. Influence of Design on Customer Behavior and Store Performance. Retail design plays a crucial role in shaping customer behavior and influencing retail performance. It captures attention, evokes emotional responses, and communicates brand identity through environmental elements (Markin *et al.*, 1976). By creating a strategic balance between aesthetic appeal and functionality, design becomes a critical component in enhancing customer satisfaction and retention. This alignment is particularly vital in retail settings, where customers expect immersive experiences that cater to their preferences and needs (Bäckström and Johansson, 2017). Effective retail design not only attracts customers but also reinforces brand loyalty and increases profitability.

2.3.2.2. Store Equity and Its Dimensions. The concept of store equity, as developed by Teixeira *et al.* (2006), highlights four primary dimensions that underpin a successful retail space:

- Loyalty, which signifies repeat visits and sustained engagement with the brand.
- Memory, which establishes a lasting impression through unique and memorable experiences.
- Quality, which is the perceived excellence in product offerings and the environment.
- Store image, which is the overall perception of the store's identity, is shaped significantly by design elements such as layout, lighting, and decor.

These dimensions demonstrate how design directly influences customer perceptions (Florêncio *et al.*, 2018). For instance, Apple's minimalist store design emphasizes innovation and simplicity, fostering a strong association with high-quality technology. Similarly, strategic lighting and decor contribute to a welcoming atmosphere, which enhances customer experiences and reinforces the store's image (Webber *et al.*, 2018).

2.3.2.3. Key Elements of Retail Design. Retail design comprises several critical components, each contributing to the functionality and appeal of the space.

- **Layout and Space Planning:** Optimal customer flow and operational efficiency are central to effective layout design. A well-planned layout ensures seamless navigation and convenience for customers while accommodating the needs of employees (Kent and Kirby, 2009). This dual focus benefits both the front-of-house (customer-facing areas) and back-of-house (employee workspaces) operations. For instance, creating distinct zones for dining and kitchen areas in quick-service restaurants enhances both customer satisfaction and operational efficiency.
- **Material Selection:** Choosing materials involves balancing durability, cost, sustainability, and aesthetic appeal. Retail spaces in high-traffic environments, such as airports, require materials that withstand wear and tear while maintaining a visually appealing design (Webber *et al.*, 2018). Moreover, in shopping malls and airports, facility management teams may mandate compliance with specific technical requirements for materials selected, particularly fire resistance classifications, and similarly, establish a unified design framework. Adhering to such design criteria and technical specifications is essential when undertaking retail design projects.

In recent years, the growing awareness of the concept of sustainability has increased the importance of selecting sustainable materials in retail construction. For instance, Arçelik has demonstrated alignment with its strategic goals by reusing existing wooden products for stand panels and suspended ceiling sections to enhance resource efficiency and reduce greenhouse gas emissions. Additionally, the use of materials with recycled content in stand and wall profiles, gypsum panels, insulation materials, carpet coverings, and furniture fabrics reflects the company's commitment to sustainability (Arçelik Sustainability Report, 2023).

- **Lighting, Decor, and Ventilation:** Lighting and decor are pivotal in shaping the mood and ambiance of a retail space (Hagtvedt and Chandukala, 2023). Warm lighting fosters intimacy, while bright, uniform lighting enhances visibility and focus. Ventilation and air conditioning, though often overlooked, are integral to customer comfort. These systems also involve close collaboration between architectural, electrical, and mechanical design teams to ensure functionality and energy efficiency.

2.3.2.4. External Design Considerations. External design is equally significant in attracting customers and establishing a store's presence. Key aspects include:

- Visibility to ensure the store is easily noticeable from a distance (Rajput and Gahfoor, 2020).
- Accessibility to facilitate convenient entry and exit points (Kent and Kirby, 2009).
- Display and sales windows to leverage visual merchandising to showcase sales points or products (Kent, 2007).

Especially flagship stores epitomize the highest standards in both internal and external design. These stores, as Kozinets *et al.* (2002) emphasize, are not just retail spaces but experiential hubs that enhance brand differentiation and foster deeper consumer connections.

Flagship stores represent a highly important concept within the retail sector, particularly in the domain of luxury retail, as they integrate a brand's comprehensive branding strategies into a cohesive physical environment, offering an immersive and strategically curated experience to customers (Arrigo, 2015).

2.3.2.5. Stakeholder Networks in Retail Design. The design process involves a wide range of stakeholders, each contributing to different aspects of the project. A stakeholder network visualized in Figure 2.2 demonstrates the interplay between architects, designers, marketing teams, and operational managers.

This collaboration ensures that the design aligns with both functional requirements and brand objectives (Kent and Stone, 2006). Including stakeholders at every stage facilitates feedback loops that refine the design and address potential challenges early.

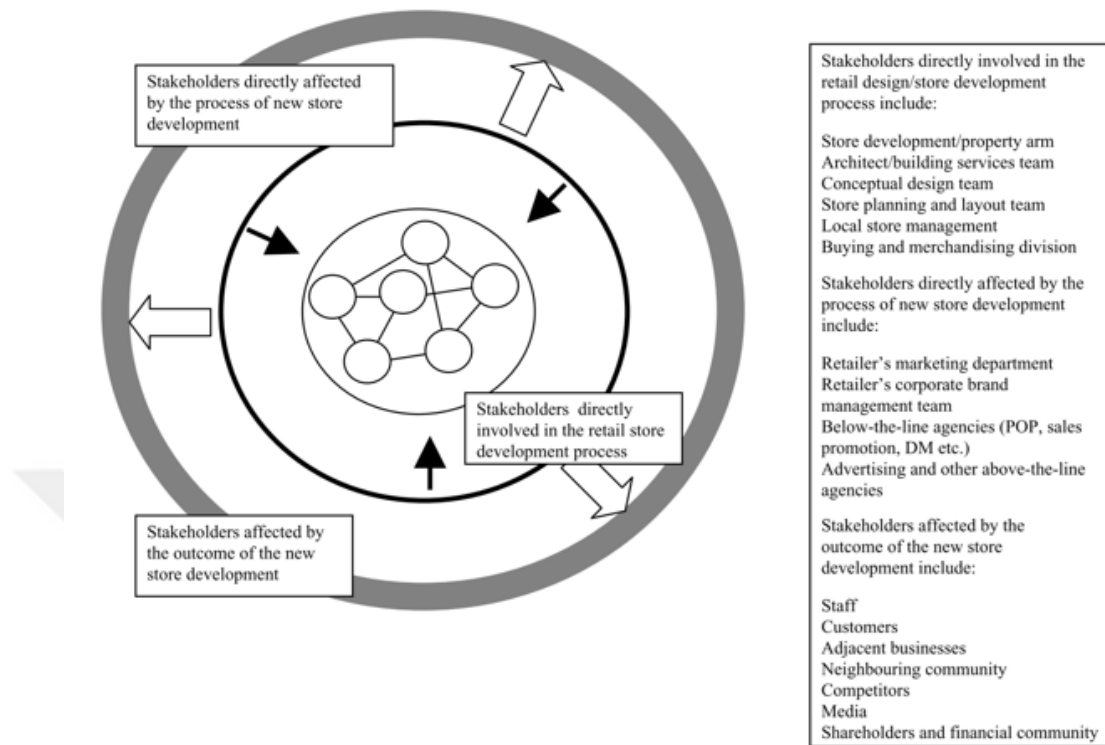


Figure 2.2. Stakeholder networks in retail design (Kent and Stone, 2006).

2.3.2.6. Design Process Communication and Approvals. The design process is iterative, involving multiple feedback and approval cycles. Communication across stakeholders ensures that designs meet operational, aesthetic, and financial expectations. Regular reviews and refinements, supported by feedback from management, front-line employees, and end-users, result in optimized design outcomes (Shockley *et al.*, 2011). These iterative steps are particularly crucial for large-scale projects, such as new builds or extensive remodels.

2.3.3. Tender and Bidding

The tendering and bidding phase, being crucial to the construction process, establishes contractual and legislative agreements among project stakeholders and begins with the completion of drawings and tender documents, which involves compiling essential documents like invitations to tender, architectural, mechanical, electrical, struc-

tural projects, bills of quantities, and health and safety agreements (Lou and Alshawi, 2009). The bidding and tendering process encompasses various stages, from receiving and evaluating bids to selecting the final contractor, making it critical for managing the project successfully in terms of cost, timing, and technical aspects. Alongside traditional methods, digitalization has made these processes faster, more efficient, and transparent (Lou and Alshawi, 2009; Patil *et al.*, 2016).

E-tendering has replaced traditional paper-based processes by digitizing tasks such as the preparation and distribution of tender documents, thereby reducing costs and minimizing human errors (Lou and Alshawi, 2009). This electronically conducted process facilitates the swift and reliable submission of bids while simultaneously enhancing transparency (Patil *et al.*, 2016). The content of the documents holds critical importance in this process. The scope, technical standards, and quantity lists outlined in the tender documents must be clearly and accurately defined, accompanied by thorough auditing. Otherwise, deficiencies and inaccuracies may lead contractors to prepare unrealistic bids (Liu, 2015).

The criteria used in evaluating bids and selecting contractors directly impact the success of the process. Traditionally conducted with a sole focus on cost, evaluation processes are now supported by multiple criteria. Factors such as technical capacity, financial stability, management skills, and past performance enable an objective assessment of bids (Ismail *et al.*, 2021). Furthermore, risk-based evaluation methods represent another crucial approach that increases the likelihood of successful project completion. This method considers factors such as contractors' technical skills, resource adequacy, and prior experience (Ismail *et al.*, 2021; Zou, 2007).

Factors specific to retail construction projects can play a decisive role in bidding processes and contractor selection. Time sensitivity is a critical factor in these projects, directly influencing the criteria used to evaluate contractors. Rather than adopting a solely cost-focused approach, criteria such as speed, flexibility, competence, attention to detail, and the availability of adequate staff and field personnel are prioritized.

While the flexibility of stakeholders is vital in contractor selection, contractors, who are typically held directly accountable for the costs of construction projects, often rank among the stakeholders most resistant to change, resulting in lower levels of flexibility (Olsson, 2006). However, in retail projects, contractors are expected to provide flexibility, particularly in terms of working hours and resource allocation. For instance, working hours are scheduled in a way that minimizes disruption to customers, especially when construction takes place in shopping malls or active retail spaces. Similarly, limited working hours in densely residential areas can pose challenges for construction teams in retail projects. Nevertheless, due to the necessity of opening stores quickly to generate revenue, strict time planning is essential in retail projects. This often requires contractors to propose and implement accelerated construction schedules.

In retail projects, the construction process encompasses not only functionality but also aesthetic considerations and the emotional experience of customers within the space. This is because consumers conceptualize the store in their minds, shaped not only by its functional attributes but also by its psychological dimensions (Florêncio *et al.*, 2018). This requires meticulous craftsmanship and careful attention to detail during the construction process. Due to brand identity and standardized design requirements, contractors who have undertaken multiple projects for a particular retail brand often gain a deeper understanding of the brand's design specifications and construction expectations. Such familiarity provides a competitive advantage, as expertise in similar projects is a key criterion in the evaluation of bidders (Ismail *et al.*, 2021).

The application of modern methods to enhance process efficiency and ensure quality control provides a more productive working environment by reducing error rates and preventing time losses (Ottou *et al.*, 2021). Additionally, digital platforms that facilitate collaboration among stakeholders enable the more organized and coordinated sharing of data and information (Lou and Alshaw, 2009).

In conclusion, the bidding and tendering process plays a fundamental role in the success of a retail construction project. Technical competence, accurate evaluation criteria, and transparency are of paramount importance in this process. The advantages offered by digitalization and the adoption of modern methods enable the process to be conducted more swiftly, effectively, and reliably. Effective collaboration among project stakeholders, meanwhile, serves as a cornerstone of this success.

2.3.4. Building Permits

The construction industry is heavily regulated to ensure public safety and adhere to zoning laws. According to Pedro *et al.* (2011), the acquisition of building permits typically involves a multi-stage process that encompasses the submission of design proposals for approval, adherence to zoning and building codes throughout the construction phase, ongoing inspections to ensure regulatory compliance, and a final inspection upon completion to issue a certificate of occupancy (Pedro *et al.*, 2011).

Building permits are classified into national and local categories, each addressing distinct regulatory requirements. National permits often focus on overarching guidelines such as compliance with structural integrity, fire safety, and environmental impact regulations. Local permits, on the other hand, cater to region-specific zoning laws, aesthetic considerations, and community impact assessments, ensuring alignment with municipal development strategies. According to Fauth and Soibelman (2022), in their study comparing the building permit processes in Germany and the United States, they stated that in both countries, permits are required at the local, state, national, and international levels. This multi-layered system ensures that construction projects adhere to both broad policy objectives and localized standards.

Construction permits are contingent upon the scope of the work to be undertaken. Different permitting processes may apply depending on whether the project involves new construction, expansion, reconstruction, repair, or relocation. Additionally, there are construction activities that do not necessitate building permits. For

instance, maintenance and repair tasks that do not impact the structural features of the building, do not involve alterations to wet areas, or encompass interior decorative changes and the repositioning of non-load-bearing partition walls typically fall outside the scope of such requirements (Herea and Ungureanu, 2018). In retail projects, the determination of necessary permits must align with the project's scope, whether it involves the refurbishment of an existing store or the construction of a new building.

Building permit processes follow a structured approach to ensure compliance with legal, technical, and environmental standards. Based on a study across 17 European countries, Fauth *et al.* (2024) identify key steps in the building permit process, including pre-consultation, administrative checks, public participation, content reviews, and final inspections. These stages involve collaboration among public and private agencies and emphasize transparency and regulatory compliance, culminating in the issuance of a construction certificate and on-site inspections to uphold safety and design standards.

Table 2.2. Building permits process.

<i>Phases</i>	<i>Processes</i>
<i>Pre phase</i>	Pre consultation
<i>Review Phase</i>	Submission
	- Confirmation of receipt of application
	Administrative check
	- Preliminary review
	- Registration of application
	- Check/request payment of taxes and fees
	Assignment (to plan checker)
	Participation of other agencies
	- Public agencies participation
	- Private agencies participation
	- Internal referral department participation
	- Involvement of review board

Table 2.2 Building permits process. (cont.)

<i>Phases</i>	Processes
	Participation of public - Neighbour participation - Public inquiry
	Content check - Planning and zoning review - Building and technical review - Committee meeting - Internal discussion
	Issuing notification letter - Completing documentation - Request further documentation - Issuance of construction certificate
<i>Post Phase</i>	Inspection

Obtaining building permits often involves significant time, cost, and numerous procedures, with global averages showing 193 days, 16 procedures, and costs amounting to 390% of per capita income according to the research conducted by the World Bank Group (World Bank, 2012). Streamlining building permits improves efficiency and transparency, as innovations like Armenia's risk-based approvals and Bosnia's digital land registries show how clear procedures and technology enhance access and reduce corruption (World Bank, 2012).

Retail construction projects often necessitate additional permits tailored to their unique operational and design characteristics. These may include specialized permits for signage, parking facilities, and accessibility features to accommodate a diverse customer base. For instance, the restrictions on window and signage dimensions imposed on tobacco shops in the United States illustrate that retail permits can vary depending on the type of products sold (Wooten *et al.*, 2013). Retail parking permits are a strategic tool to prioritize short-term parking for shoppers, supporting downtown retail activity and equitable parking resource distribution while addressing urban goals like

economic vitality and accessibility (McShane and Meyer, 1982). Retail-specific permits also address operational aspects such as waste management and the integration of service facilities, ensuring that the construction supports not only the building's functionality but also its role within the broader retail ecosystem (Dangana *et al.*, 2012). As shown in Malaysia, monitoring and controlling retail solid waste through legal frameworks that emphasize waste segregation and sustainable practices is crucial to reduce environmental pollution, as the retail sector is one of the main contributors to waste production (Mazlan and Mohamad, 2024). The requirements for these permits can vary significantly based on the type of retail establishment, its scale, and its location within urban, suburban, or rural settings.

Sustainability and energy-related permits are becoming increasingly central to retail construction, reflecting the global push towards environmentally responsible practices. Building energy conservation plans are essential frameworks aimed at reducing greenhouse gas emissions by ensuring energy efficiency in large-scale retail constructions. In South Korea, these plans, required for retail buildings over 500 square meters to obtain permits, assess compliance with energy performance standards across construction, mechanical systems, and electrical equipment, supporting national sustainability goals and promoting environmentally conscious building practices (Kang *et al.*, 2019).

In conclusion, the process of acquiring building permits in retail construction is multifaceted, involving compliance with both general and retail-specific regulations, as well as sustainability requirements. These permits not only ensure adherence to safety and zoning laws but also facilitate the integration of energy-efficient and sustainable practices. By navigating these regulatory frameworks effectively, retail construction projects can align with public policy objectives, enhance operational functionality, and contribute to broader environmental goals.

2.3.5. Construction

The construction phase in retail projects involves transforming designs into operational spaces through a series of coordinated activities. It begins with pre-construction preparations, focusing on planning and resource allocation, and if it is a new building, it is followed by foundation and structural works to establish the stability of the building core. Building systems installation integrates essential systems such as HVAC and plumbing, while interior construction shapes functional retail spaces with modern technology integration. Quality assurance ensures standards are met, alongside health, safety, and environmental management for a secure and sustainable environment. Finally, progress tracking and reporting monitor milestones to ensure successful project delivery.

2.3.5.1. Pre-Construction Preparation. Pre-construction preparations are vital for the success of retail construction projects, as they set the foundation for effective execution and timely completion. Robust planning and scheduling play a critical role in mitigating risks of delays and cost overruns, as inadequate preparation is a major contributor to project inefficiencies (Munizaga and Olawale, 2022). To address the complexities of managing multi-project environments in retail construction, a tailored planning and control approach is essential. This involves implementing hierarchical levels of planning such as long-term, stage-based, and short-term planning to manage resource allocation, overlapping activities, and project interdependencies effectively, as highlighted by agile and lean methodologies (Hamerski *et al.*, 2019). Furthermore, sustainable planning and multidisciplinary collaboration during this phase are crucial to achieving energy efficiency and low-carbon outcomes, ensuring that modern sustainability goals are met without compromising project quality or deadlines (Dangana *et al.*, 2012)

2.3.5.2. Foundation and Structural Works. In the design phase, it is essential to determine the dimensions and locations of columns and beams to facilitate the progression of architectural projects. This process is shaped by the data provided in the geotech-

nical report. Additionally, the type of foundation and structural system is determined by considering soil conditions, safety regulations, and material costs.

Various studies exist on structural selections in different retail projects. According to the study by Block *et al.* (2010), particular attention should be given to optimizing fire resistance in larger retail projects, with a focus on structural systems, such as composite steel framing, designed to account for factors like differential heating during a fire. This performance-based approach facilitates the omission of fire protection on selected beams, demonstrating how structural systems can be tailored to achieve both safety and cost-efficiency objectives (Block *et al.*, 2010).

The structural design, which progresses concurrently with the design phase, is finalized in alignment with all building projects. Given that building permits cannot be obtained without submitting structural designs and reports and that the selection of contractors cannot proceed without evaluating bids for the structural framework, all structural projects must be completed prior to the commencement of construction. For buildings being constructed from scratch, the construction phase begins with site clearance, fencing, and the execution of appropriate excavation works. Delivery methods for retail projects typically include “shell and core” or “turnkey” options. (Seidu *et al.*, 2021). If a “shell and core” agreement is made with the contractor, the contractor’s responsibility largely concludes with the completion of the structural framework, leaving the building prepared for the integration of other systems. In such cases, rough works and fine works are separated, and the fine works are handed over to the contractor responsible for finishing.

2.3.5.3. Building Systems Installation. The installation of building systems is a critical phase in retail construction, requiring meticulous planning and resource allocation to ensure successful execution. Essential systems such as HVAC, plumbing, and electrical infrastructure form the backbone of the building’s functionality and operational efficiency.

However, insufficient resource allocation, whether in terms of materials, machinery, or labor, often emerges as a recurring challenge during this phase, potentially leading to delays and cost overruns (Munizaga and Olawale, 2022).

To meet the growing demands for energy efficiency and sustainability in retail construction, modern systems are increasingly being integrated. Examples include LED lighting for reduced energy consumption, renewable energy sources such as geothermal and solar power, and advanced energy-efficient HVAC systems (Dangana *et al.*, 2012). These applications not only lower operational carbon emissions but also contribute to long-term cost savings, aligning with sustainability goals in contemporary retail projects. By combining effective resource management with the adoption of innovative technologies, retail construction projects can achieve enhanced system performance while addressing environmental concerns.

2.3.5.4. Interior Construction and Fit-Out. Interior construction plays a pivotal role in retail projects by transforming structural spaces into functional and aesthetically appealing environments that enhance customer experiences and improve operational efficiency. Refurbishment and fit-out activities are increasingly prioritized in retail construction, as they allow retailers to adapt existing spaces to meet changing market demands and consumer preferences (Dangana *et al.*, 2012).

Alternatively, retail construction projects often involve redeveloping existing buildings instead of constructing entirely new facilities. This shift reflects the industry's growing preference for redevelopment projects and ready shell-and-core contracts, which streamline the construction process and make better use of existing structures (Seidu *et al.*, 2021). Repurposing existing structures helps minimize the need for extracting, manufacturing, and installing new materials, thereby reducing embodied impacts (Hasik *et al.*, 2019). This trend is driven by the availability of vacant properties, reducing the need for new builds. Retailers, particularly those operating on high streets, are investing in redesigning and modernizing existing stores to attract and retain customers in competitive markets (Seidu *et al.*, 2021). By focusing on strategic interior

construction, retail spaces are optimized to support evolving business needs and create inviting environments for both customers and employees.

2.3.5.5. Quality Assurance. Dynamic and iterative decision-making processes contribute to maintaining compliance and delivering quality outputs (Hamerski *et al.*, 2019). Retail construction projects must embed quality assurance throughout all phases, from initial design through to the final construction, ensuring that cost-reduction efforts do not undermine the project's overall quality. According to Petrovic-Lazarevic (2000), emphasizing efficiency, innovation, and quality, while also prioritizing customer satisfaction can greatly improve the sustainability and functionality of retail spaces, ensuring they meet both environmental and health standards to stay competitive in a global marketplace.

DGNB (German Sustainable Building Council), in addition to widely recognized environmental building assessment systems such as LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Methodology), is another method that is increasingly preferred, particularly for retail buildings. Ferreira *et al.* (2023) highlight the significance of these evaluation systems in retail projects, emphasizing their role in assessing energy efficiency, operational costs, and overall sustainability performance. DGNB places a particular focus on ensuring quality assurance throughout the construction process, which is crucial for maintaining high standards (Ferreira *et al.*, 2023). This approach allows for the application of specific criteria and standards to guarantee quality in retail construction projects.

2.3.5.6. Technology Integration. Retailers are increasingly investing in technological advancements to enhance the customer experience and streamline operations within their stores. Features such as touch-screen ordering systems, smart mirrors that offer personalized shopping interactions, and checkout-free systems are becoming more common in modern retail spaces (Hagtvedt and Chandukala, 2023). These innovations not

only cater to the growing demand for convenience and efficiency but also redefine traditional shopping experiences, making them more interactive and tailored to individual customer needs.

The implementation of these technologies often requires significant modifications to the store's layout and infrastructure. For instance, touch-screen ordering systems may necessitate dedicated zones or kiosks, while smart mirrors might demand customized fitting areas equipped with advanced display technologies (Seidu *et al.*, 2021). Similarly, checkout-free systems rely heavily on sensor networks, artificial intelligence, and seamless payment integrations, which must be supported by robust technological frameworks within the store. These upgrades often require modifications to the infrastructure of traditional stores to accommodate additional equipment, cabling, and power requirements (Justino *et al.*, 2022).

Incorporating such advanced systems into retail environments goes beyond aesthetic improvements; it represents a strategic move to future-proof retail spaces in an increasingly competitive market. These investments not only attract tech-savvy consumers but also increase operational efficiency by reducing labor costs and optimizing space utilization. By aligning technology with consumer behavior trends, retailers can create environments that are not only functional but also innovative, fostering customer loyalty and staying ahead in the evolving retail landscape (Grewal *et al.*, 2017).

2.3.5.7. Health, Safety, and Environmental Management. The management of health, safety, and environmental factors is a critical component of the construction process, particularly in retail projects where regulatory compliance and on-site safety are paramount. Delays arising from evolving government regulations or unexpected site conditions can significantly disrupt safety protocols, emphasizing the need for proactive risk assessments. Identifying and mitigating potential environmental and regulatory challenges early in the construction phase ensures that the project remains on schedule while maintaining the safety of workers and stakeholders (Munizaga and Olawale, 2022).

Before a retail space is opened to the public, comprehensive safety and security controls must be implemented to ensure the environment is secure and functional. This includes thorough testing of fire alarm and suppression systems, inspection of emergency exits, and verification of surveillance and security systems. These measures not only protect customers and employees but also ensure compliance with safety standards, allowing the systems to be effectively integrated and operational at the time of opening.

2.3.5.8. Progress Tracking and Reporting. Accurate project tracking and reporting are essential for ensuring the success of retail construction projects. Hamerski *et al.* (2019) presented metrics like Percent Plan Complete (PPC) that provide a reliable way to measure planning accuracy and identify deviations from schedules. Regular review cycles are critical for identifying emerging constraints and allowing project teams to make timely adjustments, ensuring that construction activities remain on track and aligned with project goals (Hamerski *et al.*, 2019).

Traditional site checks and thorough investigations conducted by site managers remain indispensable in the tracking process. Detailed reports from site managers to the retail office provide ground-level insights into daily operations, challenges, and progress, serving as a bridge between the construction site and project stakeholders. These reports not only facilitate informed decision-making but also ensure that potential issues are identified and addressed promptly, maintaining the project's overall momentum. Chang *et al.* (2012) emphasized the importance of the site check process in construction projects and created a site checklist by thoroughly investigating the most common issues encountered, enabling a more efficient approach that reduces the time spent on site checks by focusing on the correct areas. Effective financial management is another cornerstone of project tracking. Standard methods like S-curves often fail to reflect the fluid nature of cash flow in construction, emphasizing the need for real-time adjustments and monitoring. By integrating adaptive reporting systems with traditional site inspections, project teams can better manage budgets, allocate resources, and address financial challenges effectively.

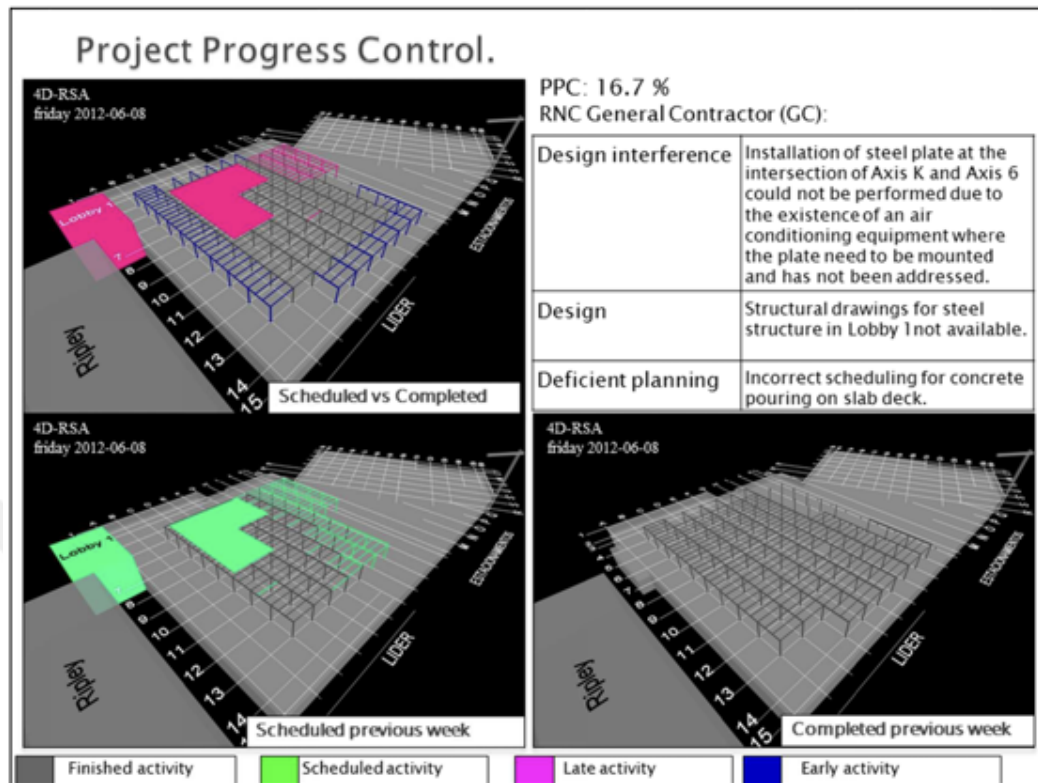


Figure 2.3. 4D model of a tracking stage of a retail renovation project (Toledo *et al.*, 2014).

Figure 2.3 from Toledo *et al.* (2014) demonstrates the integration of 4D Building Information Modeling (BIM) with the Last Planner System (LPS) to track project progress in a fast-track retail renovation project. It uses a color-coded visualization to depict scheduled, completed, and delayed activities, along with a detailed analysis of constraints such as design interferences, deficient planning, and missing structural drawings. This approach highlights the potential of 4D models to communicate project progress effectively and identify root causes of delays, improving overall project control and decision-making (Toledo *et al.*, 2014).

The combination of advanced planning tools, site oversights, and responsive financial tracking enables retail construction projects to achieve high levels of efficiency, stay within budget, and meet deadlines, ultimately contributing to their overall success.

2.4. Emerging Trends and Investment Opportunities in Retail Construction

As the retail construction industry evolves, emerging trends and innovative investment opportunities are reshaping how retailers approach expansion, renovation, and the integration of new technologies to meet changing consumer demands. Bäckström and Johansson (2017), in their study examining the changing perspectives of customers and retailers on physical store experiences over the years, have shown that retailers are placing more emphasis on technological integrations to remain competitive. However, customers still consider traditional aspects, such as staff attention, product presentation, and store layout, to be important for the store experience (Bäckström and Johansson, 2017). This suggests that retailers need to focus on combining new trends with traditional methods.

One of the key areas of consideration for brick-and-mortar retailers is becoming multi-channel by integrating online channels with physical stores (Agnihotri, 2015). The emerging trends in retail construction are deeply linked to the integration of advanced technologies. The focus is on creating more efficient, customer-centric spaces by using artificial intelligence, the internet of things, mixed reality, and omnichannel integration strategies (Ramanathan, 2024).

Phygital retail refers to the integration of physical and digital experiences, allowing customers to interact with products in both real and virtual environments, often through technologies like smart mirrors or digital kiosks, with studies showing that consumers want to experience both physical and digital interactions together in retail stores (Banik, 2021).

Another emerging trend in retail construction is the integration of green retailing practices. Green retailing refers to the adoption of environmentally friendly practices in the retail sector to reduce waste, increase energy efficiency, and minimize costs while meeting the demands of regulators, customers, and stakeholders (Lai *et al.*,

2010). Prompted by current trends, managers of non-residential buildings, especially those overseeing retail stores, are being urged to reevaluate their operational strategies and modify their establishments to align with low-energy building standards (Gimeno-Frontera *et al.*, 2018). It involves strategies such as waste reduction, green product design, energy conservation, and fostering sustainable relationships with suppliers and customers.

The growing awareness of sustainability and evolving consumer purchasing behaviors are driving the demand for mixed-use retail spaces, which has become one of the prominent trends in retail investments. To utilize underdeveloped urban areas, enhance density in the city centers, respond to shifting consumer preferences, and leverage the benefits that arise from integrating complementary functions are the main drivers for the mixed-use retail developments (Rabianski *et al.*, 2009).

The future of retail will undoubtedly witness further technological advancements; however, it can be argued that the physical experience will not disappear, and the importance of physical presence will remain a central consideration for retailers.

2.5. Performance Management in Retail Construction

This section presents a literature review on performance management in construction projects while highlighting the evident research gap specific to retail construction projects. Therefore, performance management in construction projects and performance management in the retail sector will be evaluated separately. By synthesizing these two topics, insights will be proposed on how performance management can be approached in retail construction projects. Based on the methodology outlined in detail in Chapter 3, including a pilot study, questionnaire survey, and case study, the aim is to identify key points regarding performance management in retail construction projects. Consequently, the key findings on performance management in retail construction projects will also be presented in the discussion section.

2.5.1. Performance Management in Construction

Performance is an assessment of the effectiveness of individuals, groups, organizations, or systems in achieving specific objectives, and performance measurement in projects can be defined as the process of ensuring that an organization implements methods that facilitate the successful completion of goals and objectives (Ankrah and Proverbs, 2005).

Performance management has consistently been a critical issue for companies, regardless of their field of operation, particularly in light of the escalating global competition attracting significant attention from both practitioners and researchers (Lin and Shen, 2007). Similarly, extensive research has been conducted on how performance should be managed, and it continues to be a subject worthy of investigation as evolving global dynamics and sector-specific changes shape its relevance. In the construction industry, profit margins are relatively low, and the uniqueness of projects often leads to overall performance remaining limited. Additionally, construction companies tend to focus more on monitoring and enhancing project-based success rather than corporate performance (Bassioni *et al.*, 2004). As a result, the significance of performance management in the construction industry has continued to grow, fueled by the intricate interplay of internal and external factors (Robinson *et al.*, 2005). Traditionally, performance management was predominantly conducted on a financial basis, with project evaluations focusing on their monetary outcomes. Over time, the identification of numerous other dimensions and factors influencing a project's success and performance led to the recognition of this approach as limited and insufficient. Consequently, it was concluded that, in addition to financial performance indicators, the identification of non-financial performance indicators is also necessary (Bassioni *et al.*, 2004).

In the early 2000s, the construction industry did not widely recognize or prioritize strategic management. However, over the past two decades, the construction industry has increasingly acknowledged its importance, leading to a growing awareness and a deliberate shift in focus towards this area. Performance management in construction

projects is often evaluated through the lens of the PMBoK Guide's knowledge areas, which include integration, scope, cost, time, quality, human resources, communications, risk, procurement, and stakeholder management, either in a general context or with a focus on specific domains (PMI, 2013).

2.5.1.1. Performance Management Processes. According to Robinson *et al.* (2005), the phases for performance management include three key stages: planning, operationalization, and review. The process begins with planning, which involves selecting a suitable framework of objectives to guide the performance management strategy. This is followed by operationalization, where specific performance measurements are identified, such as employee performance reports or progress reports from the construction site, to ensure actionable and measurable outputs. Finally, the process concludes with review, which focuses on assessing key performance results to evaluate the success of the implementation and identify areas for improvement (Robinson *et al.*, 2005).

The planning phase is the stage where key performance indicators (KPIs), objectives, and risks are identified. In their study on performance management in stakeholder management for construction projects, Oppong *et al.* (2017) emphasized the importance of defining objectives and success factors as a foundational step in the methodology. They further outlined that performance management involves sequential stages, which include benchmarking, evaluation, monitoring, and improving performance (Oppong *et al.*, 2017). At this point, ensuring the availability of accurate data is crucial for an effective performance management process, as missing data can lead to incorrect performance assessments and potentially misguide management teams into making poor decisions. Given that performance management data is integral to decision-making processes, the system implemented must provide adequate and reliable information to support such decisions. A failure to supply this information risks misleading stakeholders involved in the process, ultimately resulting in flawed decision-making (Kulatunga *et al.*, 2007).

On the other hand, Dainty *et al.* (2003) summarized the performance management processes in construction projects based on their research on project managers' performance evaluation. These processes involve identifying relevant success factors, choosing criteria based on inputs or outputs, incorporating the perspectives of diverse stakeholders regarding project outcomes, and determining the use of either quantitative (hard) or qualitative (soft) measures to evaluate performance (Dainty *et al.*, 2003).

In performance management, assessing employee performance, examining project processes comprehensively, and evaluating their alignment with established objectives are essential steps. After these steps, the phase of analyzing performance after project handover is conducted. Measurement focuses on identifying opportunities for improvement and employs a variety of methods. These methods range from flexible, opinion-based qualitative approaches to structured, evidence-driven quantitative techniques (Robinson *et al.*, 2005).

2.5.1.2. Performance Measurement Models. Performance management frameworks serve as essential tools for crafting strategies that ensure the achievement of sustainable, long-term business objectives and as their effectiveness in driving improvements and delivering measurable benefits becomes increasingly evident, it is anticipated that a growing number of construction organizations will integrate these innovative models into their operations to foster continuous advancement and maintain a competitive edge (Robinson *et al.*, 2005). There are various performance measurement and improvement methods, including the Balanced Scorecard, EFQM, Just-in-Time (JIT), benchmarking, and activity-based management, each with distinct approaches yet capable of being implemented concurrently (Bassioni *et al.*, 2004).

The following section highlights some of the key performance management models most frequently discussed in the literature:

- **Balanced Scorecard:** Introduced by Kaplan and Norton in 1992, the Balanced Scorecard (BSC) provides a framework that integrates both qualitative and quan-

titative metrics to align short-term actions with long-term goals (Vukomanovic and Radujkovic, 2013). Model is recognized as one of the most influential business concepts of its time, and it was implemented by nearly half of the Fortune 1000 companies within a decade of its introduction (Bassioni *et al.*, 2004). By 2006, creators highlighted how the BSC addresses the limitations of traditional financial indicators by incorporating additional dimensions: investor/shareholder perspectives, client satisfaction, internal processes, and innovation and learning (Vukomanovic and Radujkovic, 2013). This comprehensive approach aims to provide a more holistic view of organizational performance. Despite its limitations, the Balanced Scorecard was a pivotal development in performance measurement, though it remains an evolving framework.

- European Foundation for Quality Management Excellence Model (EFQM): The EFQM Excellence Model is a performance management framework developed by the European Foundation for Quality Management, focusing on achieving long-term organizational excellence. It emphasizes a balance between stakeholder needs, linking organizational enablers such as leadership, strategy, and processes to results like customer satisfaction, societal impact, and business outcomes. The model promotes continuous improvement by integrating quality measures with learning and innovation to adapt to changes. It serves as a strategic tool for aligning activities and achieving measurable goals, combining financial and non-financial indicators to ensure holistic growth (Robinson *et al.*, 2005).
- The Malcolm Baldrige National Quality Award: The Malcolm Baldrige National Quality Award (MBNQA) was introduced in the USA in 1987 to promote the use of quality as a competitive strategy among organizations (Lee *et al.*, 2006). The Baldrige Award consists of seven distinct categories: leadership, strategic planning, customer and market focus, information and analysis, human resource development and management, process management, and business results (Curkovic *et al.*, 2000).
- Key Performance Indicator Framework: In 2002, the Construction Best Practice Program introduced 12 headline key performance indicators (KPIs) for measuring progress, following research that underscored the importance of setting ambi-

tious objectives in areas such as efficiency, profitability, quality, safety, and overall project outcomes (Pekuri and Haapasalo, 2011). These indicators offer critical insights into the efficiency and outcomes of construction activities, addressing aspects such as customer satisfaction with both the final product and the service provided, quality issues, cost and schedule reliability, financial returns, work efficiency, workplace safety, overall construction expenses, and project duration. This diverse set of measures serves as a foundation for assessing and enhancing the effectiveness of construction projects (Kagioglou *et al.*, 2001).

In the construction sector, performance metrics should be integrated into performance management processes, and multiple methods should be combined to create a comprehensive approach (Bassioni *et al.*, 2004). Vukamanovic and Radujkovic (2013), adopting a similar perspective, identified the complementary nature of the BSC and EFQM methods and developed a new framework by merging the two. This integrated approach responds to the challenges posed by globalization and the instability of modern markets, which have exposed the limitations of using BSC and EFQM in isolation. By combining these models, the new method allows companies to perform benchmarking and prioritize strategic objectives in relation to competitors, select the most effective KPIs for each objective, and establish a system of strategic control to navigate the complexities of today's dynamic business environment (Vukomanovic and Radujkovic, 2013).

In their study, Lin and Shen (2007) emphasized the importance of identifying best practices for performance evaluation and applied a similar approach to determine the most effective performance management method. Furthermore, as presented in Table 2.3, they compared the advantages of the four most commonly used performance management methods and found that these methods are complementary; therefore, they concluded that a new framework should be developed that combines one or more of these methods as a best practice (Lin and Shen, 2007).

Table 2.3. Comparison of popular performance measurement frameworks (Lin and Shen, 2007).

Frame-works or models	Multiple Pers-pectives	Flexi-bility	Contin-uous measur-ement	Real-time feed-back	Acces-sibility of data
Balanced scorecard	x	x	x		
The European Foundation for Quality Management Excellence Model	x			x	x
The Malcolm Bridge National Quality Award	x			x	x
Key performance indicator framework	x		x	x	x

2.5.1.3. Challenges in Performance Management in Construction. Although performance measurement offers significant benefits, such as identifying sources of waste and facilitating corrective actions, its implementation remains limited due to challenges like insufficient metrics, the complexity of the process, high costs, lengthy timelines, and the industry's project-focused nature (Ankrah and Proverbs, 2005).

Managing performance in construction projects presents challenges at various stages of the process. In the initial, strategic phase, organizations may struggle to

identify a framework that effectively aligns with their goals and motivations (Robinson *et al.*, 2005). In the construction sector, implementing new systems or change initiatives is often met with reluctance, as challenges frequently arise either during the implementation phase or in practical application (Shehu and Akintoye, 2010). During the implementation phase, issues such as insufficient leadership, inadequate resource allocation, poor communication strategies, unclear performance metrics, and structural barriers often hinder progress. In the final stages of evaluation and review, difficulties arise in creating reliable measurement processes, collecting accurate data, and utilizing knowledge management systems to develop plans for improvement (Robinson *et al.*, 2005). Broader concerns include the need to increase awareness of the value of performance management, promote ongoing enhancements in project outcomes, and integrate innovative practices through effective learning and knowledge-sharing strategies. Tackling these obstacles is critical to maximizing the benefits and effectiveness of performance management practices within construction organizations.

2.5.2. Performance Management in Retail

Performance management in the retail sector focuses on aligning individual objectives with organizational goals. This process aims to understand and manage performance within a framework of planned objectives, standards, and requirements, with the ultimate goal of improving organizational excellence and enhancing efficiency (Ateş *et al.*, 2020).

According to Astarini *et al.* (2020), performance management in retail encompasses optimizing effectiveness, profitability, and efficiency across all operational aspects. A customer-centric approach is vital, emphasizing the importance of understanding and fulfilling consumer preferences to build loyalty and satisfaction (Astarini *et al.*, 2020).

As highlighted by Amaratunga *et al.* (2005), effective performance management and measurement (PMM) in retail integrates service requirement management, risk as-

assessment, and performance monitoring, ensuring alignment with organizational goals and customer expectations. By emphasizing both measurable outcomes and internal process efficiencies, PMM drives sustainable operational improvements and a competitive advantage (Amaratunga *et al.*, 2005).

Similar to the construction industry, performance management and measurement have evolved from focusing solely on financial metrics to incorporating strategy, operations, and cultural aspects. Historical insights from retailers reveal that managing performance often depended on informal practices and cultural dynamics rather than rigid controls. Like in construction, adapting these systems to dynamic environments and ensuring alignment with strategic goals while balancing measurable and non-measurable outcomes remains a significant challenge (Hull, 2017).

The accessibility of retail buildings, the way customers are guided inside, and even elements such as interior lighting directly influence the customer journey. Consequently, these factors significantly contribute to sales performance (Kang, 2016; Yilmaz, 2018). Therefore, when evaluating the performance of retail firms, the quality of the physical environment they provide emerges as a critical factor that must also be considered. Therefore, traditional brick-and-mortar setup or the physical environment presented by the retail company is one of the most significant performance criteria in retail. Performance in retail buildings is crucial to overall retail success, as these spaces directly support core business activities and customer interactions. According to Ferreira *et al.* (2010), effective management of retail buildings through high-performance solutions like energy-efficient systems and renewable energy reduces costs, enhances functionality, and aligns with corporate social responsibility goals. These improvements not only optimize operations but also create a comfortable environment, boosting customer satisfaction and sales while promoting sustainability (Ferreira *et al.*, 2010). The above-mentioned connections establish a direct link to the conditions of the physical retail environment. This, in turn, can be associated with retail design and construction projects, which facilitate the creation of physical retail spaces. A detailed exploration of this relationship will be presented in the following chapters.

3. RESEARCH METHODOLOGY

3.1. Research Method Selection

This chapter outlines the research methodology adopted to achieve the objectives of this study. A combination of practical and theoretical perspectives is employed, integrating findings from a literature review, data collected through a questionnaire survey with construction professionals, and insights gathered from a detailed case study. By utilizing this mixed-method approach, the study aims to provide a holistic understanding of the critical success factors in retail construction projects.

The first method utilized in this study is a questionnaire survey, targeting professionals in the construction sector. This method aims to collect data regarding the critical success factors that influence the successful delivery of retail construction projects. In the process of identifying the critical success factors, they were systematically categorized and analyzed within the frameworks of drivers, enablers, inputs, barriers, benefits, and impacts. Although there is extensive literature on the critical success factors of construction projects, studies specifically focusing on retail construction projects appear to be limited. To address this gap in the literature, critical success factors derived from sources related to general construction projects were used as a foundation. However, to enhance the study's relevance and reliability, a pilot study was conducted. In this context, interviews with professionals experienced in retail construction projects were carried out, enabling a reevaluation of the critical success factors and a detailed exploration of their implications in the context of retail projects. Based on the findings, descriptions of the factors were developed, and a survey form was prepared. The survey provides a broad perspective by gathering insights from a diverse range of industry professionals in retail construction.

The second method involves a case study of a real-life retail construction project. This qualitative approach allows for an in-depth examination of all stages of the project,

from inception to completion, providing valuable contextual insights into the processes, challenges, and success factors specific to this type of project.

By integrating these two methods, the study leverages the strengths of both, offering a holistic perspective on the critical success factors in retail construction projects. The rationale behind the selection of these methods, along with their implementation, is discussed in detail in the following sections of this chapter.

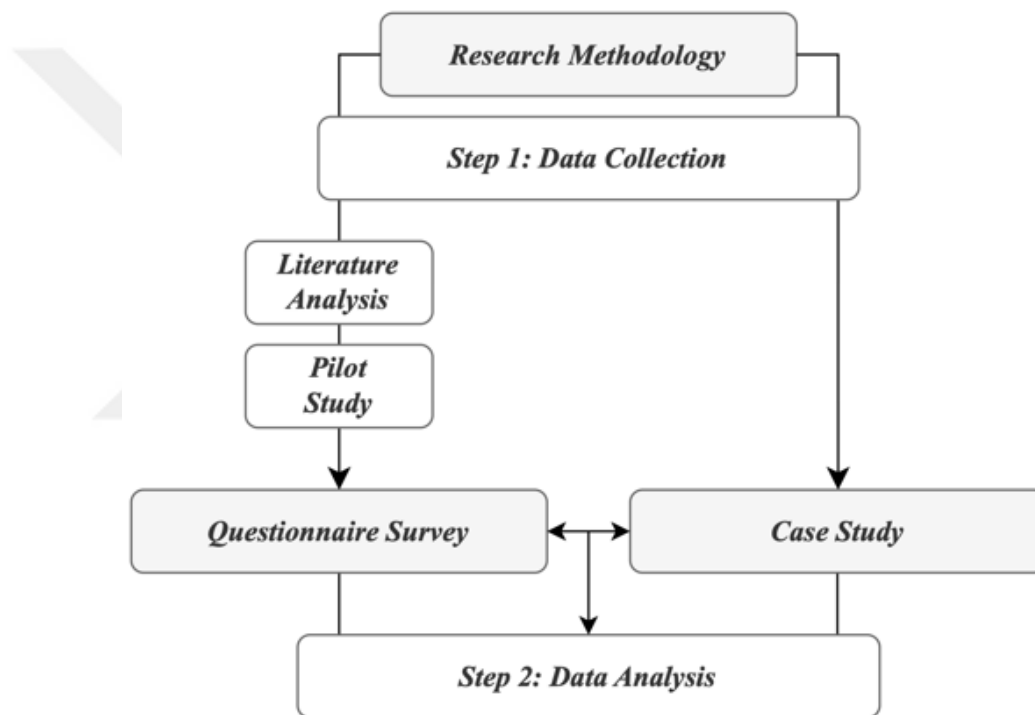


Figure 3.1. Research methodology.

3.1.1. Questionnaire Survey Methodology

The use of questionnaires is a common approach in academic research due to their effectiveness in obtaining accurate and reliable data (Taherdoost, 2016). In this study, the questionnaire survey method was employed to collect insights from professionals in the construction field, offering a means to explore critical success factors of retail construction projects through a diverse and representative sample.

This method is distinguished by its structured approach, which not only promotes consistency in responses and supports detailed statistical evaluation but also follows a systematic process. This process includes the identification of the research objectives, target sample profile, size of the sample, methods to collect data, creating the survey, and finally analyzing the collected data to derive meaningful insights (Burgess, 2001). It is also a time-efficient and cost-effective strategy, enabling researchers to gather extensive data from numerous participants within a short period (Bihu, 2021).

Conversely, challenges such as response bias may arise if participants misinterpret the questions or provide answers shaped by external pressures rather than genuine experience (Patten, 2017). Table 3.1 is presenting the major benefits and challenges of the questionnaire survey method.

Table 3.1. Advantages and disadvantages of surveys..

Advantages (Bihu, 2021)	Disadvantages (Patten, 2017)
· Enabling the application of findings to a larger population when representative samples are used.	· Allowing interviewers to give biased or incorrect answers.
· Optimizing time and resources while collecting data.	· Not keeping audience engaged, especially in longer surveys.
· Identifying correlations and relationships among variables effectively.	· Not receiving a high response rate from the target population.
· Delivering both numerical and explanatory insights through descriptive and statistical analysis.	· Capturing only a brief overview rather than detailed context and depth.
· Ensuring a high likelihood of presenting organized and clear data.	
· Utilizing refined instruments that are improved through testing and adjustments.	
· Identifying statistical patterns that can serve as a foundation for generating theories.	

The method's widespread popularity can be attributed to its potential to generate research outcomes that are not only concise but also valid, reliable, and generalizable, provided that the inherent challenges and complexities associated with its methodological framework, design structure, instrumentation process, and implementation strategies are systematically and effectively addressed (Bihu, 2021). Moreover, if the survey structure is properly designed, particularly when a research gap related to the topic exists and the aim is to create a general and introductory study, this approach can serve as a strong starting point and foundational framework, offering significant utility and valuable insights that are aimed at this research.

3.1.2. Case Study Methodology

A qualitative case study offers a structured approach to examining a phenomenon within its real-life context by drawing on multiple data sources and perspectives, enabling a deeper and more comprehensive understanding (Baxter and Jack, 2008). Yin (2014) outlines four key stages in the process, such as planning and carrying out the case study, examining the collected evidence, formulating conclusions, suggestions, and potential implications (Yin, 2014). By narrowing broad topics into focused research questions, case studies employ both qualitative and quantitative data collection techniques, allowing for a multifaceted exploration. When multiple cases are examined together, researchers can identify commonalities and differences, providing insights that are more generalizable and robust (Heale and Twycross, 2017).

The case study method requires meeting certain criteria during the research process. This approach focuses on a specific phenomenon to be studied and enables a detailed analysis of that phenomenon. Therefore, a case study must center around a specific subject or instance that is the focus of investigation. This subject should be a dynamic and complex system, analyzed within its real-world setting through diverse methods, and should address contemporary issues (Johansson, 2007).

Table 3.2. Advantages and disadvantages of using case study methodology in research.

Advantages (Heale and Twycross, 2017)	Disadvantages (Tellis, 1997)
· Offering a deeper understanding of specific phenomena.	· Producing results with limited generalizability to larger populations.
· Exploring complex issues within natural settings.	· Managing and analyzing an extensive amount of data.
· Comparing similarities and differences across cases.	· Risking researcher bias during data collection and interpretation.
· Explaining causal relations in real-life issues	· Requiring significant time and resources for completion.
· Producing reliable evidence from multiple cases.	· Facing challenges in replicating findings in different contexts.
· Supporting theory development through pattern identification.	· Struggling with the complexity of data integration and analysis.
· Broadening applicability through diverse case inclusion.	· Losing focus due to the depth and scope of the study.

While case studies offer numerous advantages, they also present certain limitations. As illustrated in Table 3.2, certain challenges are also associated with employing the case study methodology in academic research. Managing the substantial volume of data in case studies can be challenging, as it demands meticulous planning of analysis and integration strategies while also posing a risk of deviating from the primary research focus (Heale and Twycross, 2017). The concept of a case study is especially valuable for early-career researchers, offering a unique opportunity to develop a thorough understanding of a specific subject. It can also be highly beneficial for a foundational-level study, as this approach facilitates the gathering of information from various sources, which can be combined to provide a detailed perspective on the case (Baxter and Jack, 2008).

3.1.3. Using Mixed Methods

In a mixed-method study, the researcher integrates the strengths of both qualitative and quantitative data collection and analysis methods to produce an extensive comprehension of the research phenomena (Creswell, 1999). By combining generalizability and profundity of insight, this method has become increasingly popular among researchers as a means of dealing with multifaceted issues (Pole, 2007). Mixed methods enhance validity, inform data collection, and aid knowledge creation in studies, providing a broader understanding of phenomena compared to non-mixed methods (McKim, 2017). Nevertheless, it is also important to address some of the potential challenges or shortcomings of this method.

An important difficulty lies in the fact that the different epistemological and ontological assumptions of qualitative and quantitative methods complicate the integration of these methods within a single research framework and require analytical flexibility (Maggetti, 2018). Secondly, mixed methods research requires substantial time and effort, as it involves learning and applying diverse methodologies while addressing the challenges of gathering and analyzing both qualitative and quantitative data (McKim, 2017). In addition, a further challenge can arise from the fact that the researcher's communication becomes difficult by the high variety of design typologies and terminology, which also restricts the consistent development of methods. In conclusion, while mixed-methods research presents both advantages and challenges, its integration offers researchers a unique opportunity to construct more comprehensive and methodologically robust studies (Pole, 2007). By combining the strengths of qualitative and quantitative approaches, mixed-methods research enables the development of deeper insights and more reliable inferences, ultimately contributing to the advancement of knowledge across diverse disciplines.

3.2. Questionnaire Survey

In examining the critical success factors of retail construction projects, the selection of appropriate methodological approaches is essential for conducting a comprehensive and systematic analysis. In this context, the framework proposed by Ozorhon (2013), structured around six core components such as drivers, inputs, barriers, enablers, benefits, and impacts, has been identified as a suitable analytical tool for the dynamics of the innovation process of construction projects.

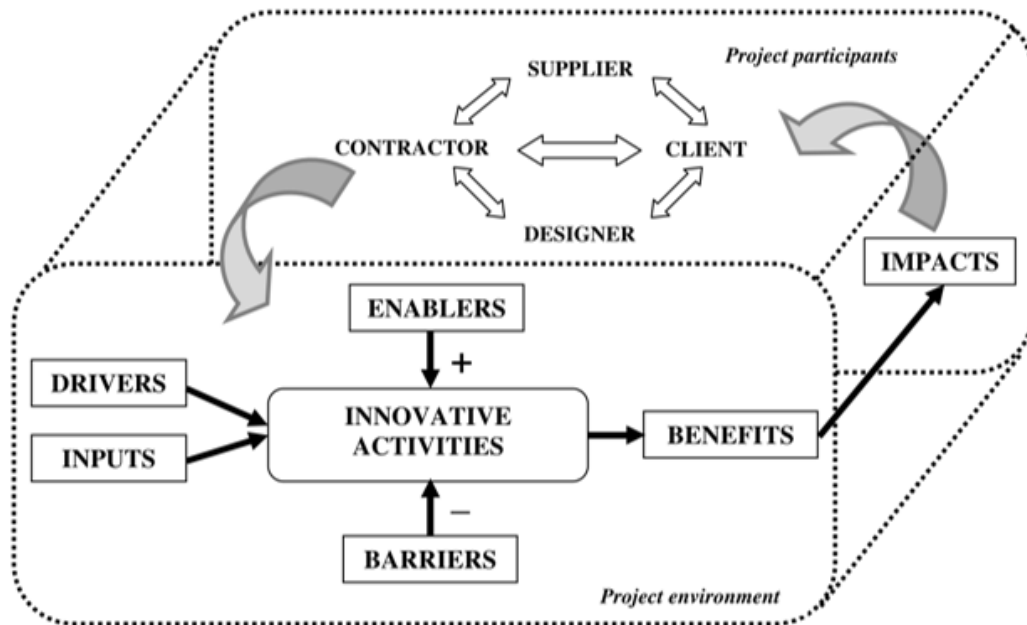


Figure 3.2. The framework that presents the innovation process in construction projects (Ozorhon, 2013).

The proposed innovation framework, illustrated in Figure 3.2, conceptualizes innovation as a system with interconnected components tied to both participating organizations and project-specific factors. These components are divided into two main aspects: the innovation process and project participants, operating within a three-dimensional project environment.

Ozorhon (2013) defines the key elements of the system as follows:

- Drivers: The principal reasons for initiating innovation processes.
- Inputs: Resources used to develop various types of innovations.
- Barriers: Difficulties that hinder innovation efforts.
- Enablers: Factors that mitigate barriers and accelerate innovation.
- Benefits: Outputs at the project level.
- Impacts: Broader and longer-term outcomes affecting project participants.

Accordingly, the framework underscores an iterative process where participants actively engage with the focal research topic, leveraging acquired insights and experiences to enhance their effectiveness and drive continuous improvement in future initiatives, making it a fundamental reference for addressing various dimensions of construction project management.

By categorizing fundamental elements and providing information on their inter-relations, the framework therefore can offer a structured basis for investigating the critical success factors of retail construction projects. Consequently, this study adopts the framework's structure and its key components to analyze the success factors of retail construction projects in a methodical and coherent manner.

As the existing literature lacks comprehensive studies directly focusing on the success factors of retail construction projects, sources that examine the success factors of construction projects in general have been utilized. The identified success factors are categorized into six main groups (drivers, inputs, enablers, barriers, benefits, and impacts), and these categories will serve as a framework for listing the respective factors. A pilot study is conducted to assess the relevance of these factors to retail construction projects, and additional factors are included if deemed necessary. The finalized list serves as the basis for a survey in which participants evaluate and rate the categorized factors based on their personal experiences.

The survey employs a 5-point Likert scale. For instance, participants who perceive a factor under the “drivers” category as not being a significant driving force in initiating retail construction projects will select “1” (not important at all). Those who perceive it as slightly important will select “2,” important will select “3,” very important will select “4,” and extremely important will select “5.”

The Likert scale is a widely used and effective method in survey research. However, as with most survey-based approaches, there is a risk of participants providing responses that reflect socially desirable behavior rather than their genuine opinions, which could affect reliability. In this study, the anonymity of responses has been ensured to minimize the negative impact of this limitation.

3.3. Data Collection for Questionnaire Survey

3.3.1. Literature Review

Critical success factors were initially conceptualized by John F. Rockart, establishing a foundational framework for understanding the key elements contributing to project achievement (Rockart, 1982). According to Rockart (1982), the effective management of project success factors is predominantly correlated with the attainment of successful project outcomes (Rockart, 1982). Subsequent research has consistently affirmed the centrality of these factors in achieving project objectives. According to Boynton and Zmud (1984), examining critical success factors (CSFs) is widely acknowledged as a valuable method for determining the key elements that underpin successful management (Boynton and Zmud, 1984). Therefore, this study aims to identify the critical success factors (CSFs) in order to provide insights into the successful execution and management of retail construction projects.

3.3.1.1. Drivers. A dynamic interplay of economic and market factors, such as fluctuations in consumer spending, conditions in the retail property market, and investment market trends, shapes the retail sector and serves as critical drivers for the initiation

of new retail projects (Tsolacos, 1999). In the retail sector, the pursuit of increased market share drives not only consumer-focused strategies but also necessitates the expansion and modernization of physical infrastructure. Similarly, for construction firms, the desire to increase market share is a critical factor driving the success of construction projects. In highly competitive markets, companies aim to differentiate themselves by developing new projects and offering innovative solutions in their existing endeavors. Dangana *et al.* (2012) explore the integration of sustainability in UK retail construction, emphasizing the benefits of sustainable practices, and highlight that the primary drivers of green retail initiatives are gaining a competitive advantage and enhancing brand equity (Dangana *et al.*, 2012). In their study on program management within construction projects, Shehu and Akintoye (2009) emphasize that industry professionals regard competitive advantage as a fundamental driver of success in project and program management, as well as in achieving strategic objectives (Shehu and Akintoye, 2009). In conclusion, the aspiration to increase market share emerges as a fundamental driver influencing investment decisions and project success in both the retail and construction sectors. This highlights that construction projects are not only shaped by sectoral dynamics but are also deeply tied to company strategies and market expectations.

While delivering competitive advantage has been identified as one of the key drivers, meeting customer expectations and ensuring satisfaction also emerge as critical factors driving the success of construction projects. Constructing new retail spaces is often seen as a strategic response to evolving customer demands, providing an opportunity to enhance customer experiences and foster brand loyalty. The success of construction projects is heavily dependent on customer fulfillment. According to Pinto and Slevin (1987), it is crucial to clearly identify the end user who will ultimately use the building upon project completion. They emphasize that the construction process should be tailored to the needs and expectations of this end user (Pinto and Slevin, 1987). Understanding the specific requirements of the target audience enables the design and execution of projects that ensure both functionality and satisfaction, thereby contributing to the overall success and relevance of the completed structure.

Seadon and Tookey (2019) emphasize that enhancing construction productivity critically depends on educating customers, accurately understanding their needs, ensuring cost accessibility, and adopting a lifecycle perspective to meet their demands. Consequently, achieving customer satisfaction is recognized as a pivotal driver in improving the efficiency and overall success of construction projects (Seadon and Tookey, 2019). In line with this argument, Ahmed and Mohamad (2016) highlight that the success of construction projects is deeply tied to customer satisfaction, which includes meeting functional and technical needs, ensuring product adoption, and incorporating customer feedback to align project outcomes with customer benefits, thereby enhancing long-term usability and effectiveness (Ahmed and Mohamad, 2016).

Another significant factor driving the initiation of successful construction projects is the imperative to reduce the life cycle costs of buildings. Reducing operational costs throughout the building's life cycle has become a critical motivator for initiating construction projects, particularly when addressing the challenges posed by aging infrastructure. Yu and Shen (2015) emphasize that corporate clients in particular, frequently decide to modify their facilities to enhance cost-effectiveness, highlighting the growing emphasis on optimizing operational efficiency as a key driver in the initiation of construction projects. Existing buildings often face issues such as decreasing structural durability, rising energy inefficiencies, and increasing maintenance and repair costs, all of which contribute to a significant financial burden over time. These challenges not only strain operational budgets but also impact the building's overall performance and sustainability. According to Dangana *et al.* (2012), some companies are targeting to reduce their building cycle costs up to 50% by integrating renewable energy systems, making sustainable material selection, and using eco-friendly water and cooling systems in their retail buildings (Dangana *et al.*, 2012). As a result, companies often initiate new construction projects to replace or upgrade outdated structures with more energy-efficient, durable, and cost-effective alternatives. By integrating advanced materials, sustainable design principles, and modern technologies, such projects aim to achieve long-term reductions in operational expenses, enhance occupant comfort, and align with environmental standards. In this context, the push for improved life

cycle cost efficiency serves as a fundamental driver for innovation and investment in the construction sector.

Dangana *et al.* also identify regulatory compliance as a critical driver for the success and sustainability of retail construction projects, alongside achieving competitive advantage and reducing operational building costs. The study emphasizes that legal regulations serve as both a motivation and a barrier for retailers and construction professionals to adopt green building practices (Dangana *et al.*, 2012). Furthermore, the constraining impact of uncertainties surrounding policies that influence construction processes will be addressed in the discussion of barriers.

Construction projects are required to comply with regulatory frameworks not only due to environmental considerations but also to meet accessibility, health and safety, and similar procedural standards (Zhang and El-Gohary, 2015). Particularly in cases where existing buildings fail to satisfy current criteria, initiating new construction projects often becomes a necessity. Consequently, the obligation to adhere to regulatory requirements emerges as a significant driver in the initiation of construction projects.

Table 3.3. Selected factors as drivers in retail construction projects.

	Factors as Drivers in Retail Construction
1	Competitive advantage / Improving corporate financial performance
2	Customer demand / Satisfaction / Loyalty
3	Reducing operational costs throughout the building's life cycle
4	Regulatory compliance requirements

3.3.1.2. Enablers. In today's dynamic and competitive environment, the construction industry is under increasing pressure to deliver projects efficiently, effectively, and within budget. Therefore, refining construction management practices has been a substantial endeavor in recent years, with the aim of elevating project success rates and ensuring the seamless execution of construction projects. Consequently, identifying the factors that directly influence the success of construction projects has also become increasingly crucial.

In the context of identifying and prioritizing factors that contribute to the successful delivery of construction projects, the study by Maghsoodi and Khalilzadeh (2018) identifies, evaluates, and ranks critical success factors for construction projects in Iran using the Fuzzy-TOPSIS method, concluding that the top three ranked factors are strategic and effective project planning, allocating appropriate funding, and having an experienced and multidisciplinary project team (Maghsoodi and Khalilzadeh, 2018). Similarly, Yong and Mustafa (2013) conducted an investigation that focused on Malaysian construction firms, exploring critical success factors within this context. Their study underscores the dual importance of both 'hard' elements, such as competence and financing, and 'soft' elements, including commitment and communication, ultimately identifying contractor competence and experience, project financing, and team leader competence as the top three determinants of project success (Yong and Mustafa, 2013). These findings collectively highlight that effective planning, skills of project participants, and robust communication are pivotal in addressing time sensitivity and ensuring the swift delivery of construction projects.

A study conducted on construction projects in Pakistan identified the three most critical success factors as decision-making effectiveness, project manager competency, and contractors' cash flow, respectively (Saqib *et al.*, 2008). These findings provide evidence underscoring the significance of experience and competence within project management teams in achieving project success. Firstly, decision-making effectiveness is directly correlated with the experience and competency levels of project management teams. Experienced teams are better equipped to make timely and accurate decisions, thereby ensuring the smooth progression of project processes. In this context, decision-making effectiveness can be considered an outcome of the competency of project management teams. Similarly, the success of the project manager is often contingent upon the overall capacity and competence of the team they lead. A well-organized and experienced team enhances the performance of the project manager, ultimately contributing to the success of the project. Thus, the competence of the team intrinsically links to the individual success of the project manager. Since these closely related factors, if included separately in the survey, increase its length and re-

duce efficiency, they will be consolidated under the heading ‘Project Leadership and Management Competence’ in the final table.

The results of Amoah *et al.* (2021) show that the success of project management in construction projects, especially in developing countries, depends a lot on how well the project teams are capable of dealing with significant concerns such as cost, communication, quality, schedule, and risk. This competence is amplified when supported by stakeholders, including governments, senior managers, and clients, who provide essential resources like systems, structures, finances, and materials while fostering an enabling environment (Amoah *et al.*, 2021). With respect to the project participants’ attributes, competency of the key personnel has been found to be the most significant factor through the use of the Analytical Hierarchy Process (AHP) (Chua *et al.*, 1999).

An appropriate organizational structure is one of the enablers of the construction projects. Silva *et al.* (2015) identified frequently cited internal and external factors but highlighted a research gap in understanding the impact of human resource management on project success. This underscores the need for tailored strategies, including appropriate organizational structures, to enhance project execution and outcomes (Silva *et al.*, 2015). An effective organizational structure should distribute workloads evenly among team members, preventing bottlenecks and reducing the risk of burnout. Proper workload management contributes to maintaining efficiency and sustaining team morale, which are vital for the timely and successful delivery of construction projects. According to Pinto and Slevin (1987), the adequate allocation of personnel ranks among the top five critical determinants for the successful execution of construction projects. Their findings highlight that addressing personnel-related aspects, such as selecting team members with the right skills, ensuring clear roles, and fostering a strong commitment to project goals, is essential for achieving successful outcomes (Pinto and Slevin, 1987).

The findings of Korkmaz *et al.* (2010) indicate that Integrated Project Delivery (IPD) and the early involvement of contractors in the design process significantly

enhance construction project success. By integrating diverse expertise across project stages, IPD facilitates collaboration and embeds sustainability and performance goals early on. This approach leverages contractors' practical knowledge, which informs design decisions, reduces constructability issues, and enhances value. Early contractor engagement ensures alignment between design and execution, optimizes resource use, minimizes rework, and streamlines the project timeline (Korkmaz *et al.*, 2010). These synergies ultimately result in improved cost efficiency, quality outcomes, and adherence to sustainability benchmarks, particularly in high-performance building projects. Even though the early involvement of contractors in project processes provides significant advantages, the effectiveness of this approach is inherently tied to the performance of contractors and subcontractors. Sanvido *et al.* (1992) point out that the performance of contractors and subcontractors is a critical enabler of project success, as it encompasses key criteria such as adherence to schedules across all project phases, achieving or exceeding quality standards, maintaining safety, fostering effective communication, ensuring client satisfaction, and minimizing unforeseen issues, all of which contribute to delivering projects within budget and meeting stakeholder expectations (Sanvido *et al.*, 1992).

Another significant factor that facilitates successful implementation of construction projects is the top-level commitment and support. Numerous studies have highlighted the critical role of this element, emphasizing its influence on aligning organizational goals, ensuring resource allocation, and fostering a culture of accountability and collaboration throughout the project lifecycle. Esmaili *et al.* (2016) conducted an extensive literature review on the critical success factors of construction projects. The paper emphasizes upper-level support as a critical enabler for project success, particularly due to its role in facilitating trust, resource allocation, and effective communication among stakeholders (Esmaili *et al.*, 2016). Commitment and assistance from senior management are essential to navigating challenges, ensuring alignment of objectives, and fostering a collaborative project environment, which collectively enhance the likelihood of successful outcomes. Additionally, Chua *et al.* (1999) underline the critical importance of top management support not only from the client or contrac-

tor firms but also from all project stakeholders, including consultants, subcontractors, and suppliers, emphasizing the significance of top-level commitment within each stakeholder organization.

Risk management plays a pivotal role in ensuring the successful delivery of construction projects, especially given the inherent complexities and uncertainties in the industry. By systematically addressing potential challenges, it serves as a foundation for achieving project objectives while minimizing disruptions. Williams (2016) identifies risk management as a critical enabler in construction projects by emphasizing early risk identification, proper allocation, and proactive mitigation strategies, which enhance predictability and reduce disputes. Similarly, Sarshar *et al.* (2004) defined risk management as one of the process enablers in construction projects. Effective risk management helps organizations allocate resources efficiently, track potential threats, and implement solutions that support project success, which is derived through the application of the SPICE (Structure Process Improvement for Construction Enterprises) framework (Sarshar *et al.*, 2004). By focusing on early risk detection and continuous evaluation, this approach ensures that risks are well-managed across various stages of a construction project, fostering smoother execution and stronger alignment with project goals.

Effective communication within team members, combined with a supportive organizational culture and conflict resolution mechanisms, enables construction projects by enhancing teamwork, reducing misunderstandings, and ensuring timely decision-making, which together streamline project execution and improve overall project efficiency. The importance of effective communication has been highlighted in numerous studies, and within the scope of this research, it was identified as the most frequently mentioned enabling factor among the papers analyzed to determine success factors in construction projects.

A checklist developed by Parfitt and Sanvido (1993) highlights open communication, structured kickoff meetings, and contingency planning for key roles. By promot-

ing transparency, collaboration, and clarity in project objectives, this approach minimizes misunderstandings, strengthens teamwork, and enhances overall project success (Parfitt and Sanvido, 1993).

Effective communication within different teams of a firm, such as IT, operations, procurement, and others, is critical to ensuring the seamless coordination required in construction management. These departments, while operating with specialized functions, must collaborate to achieve overarching project goals. For instance, IT teams may need to provide digital tools and data-sharing platforms that facilitate real-time updates, while procurement teams ensure timely delivery of materials, and operations teams focus on on-site execution. Without clear communication channels and shared understanding among these groups, misalignments can occur, leading to delays, budget overruns, or compromised project quality. Integrated communication strategies, such as centralized project management platforms and regular inter-departmental meetings, help bridge gaps between teams. Robinson *et al.* (2005) highlight that construction companies utilize communication techniques such as workshops, task teams, and steering committees to enhance coordination and align strategies with execution. Additionally, methods like employee and customer surveys, regular data sharing through project reviews, and appointing promoters foster transparency, gather feedback, and drive performance improvements effectively (Robinson *et al.*, 2005). Establishing protocols for reporting progress, raising concerns, and escalating issues ensures that every team contributes effectively to the project. Clear communication also fosters a culture of accountability and teamwork, where each department recognizes its role within the larger framework of the construction project.

While communication within a firm's teams is essential, it is equally important to extend this focus to managing external stakeholders. In construction projects, stakeholders include not only internal teams but also external parties such as clients, contractors, suppliers, regulatory authorities, and end-users. Communication in stakeholder management ensures that all these diverse parties are aligned, engaged, and working toward a common vision. Yang *et al.* (2010) conducted a study on the management of

stakeholders in construction projects and evaluated 15 factors influencing the process. The study concluded that establishing effective communication with stakeholders is one of the two most critical factors (Yang *et al.*, 2010).

Stakeholder management involves identifying and prioritizing stakeholders' needs, addressing concerns proactively, and maintaining productive relationships throughout the project lifecycle. For example, timely updates to clients ensure transparency, while regular collaboration with suppliers helps address material shortages. Similarly, clear communication with regulatory authorities ensures compliance, avoiding potential delays. By prioritizing effective communication both within internal teams and across external stakeholders, construction managers can build a cohesive environment that minimizes misunderstandings, promotes collaboration, and ensures the successful delivery of projects. Building on this, Oppong *et al.* (2017) highlight the value of a systematic approach to managing stakeholders by proposing a conceptual framework for stakeholder management performance attributes. This framework incorporates performance goals, critical success elements, and key performance measures, offering a structured method to evaluate, track, and enhance stakeholder satisfaction (Oppong *et al.*, 2017). Implementing such a framework enables construction managers to align stakeholder expectations more effectively, assess progress accurately, and achieve improved project results.

Supply chain management in construction projects serves as a critical enabler for enhancing efficiency and reducing costs. It offers an effective solution to address the complexities arising from the multi-stakeholder nature of construction processes and to bridge gaps across different project phases. As highlighted in the study by Kim and Nguyen (2022), the effective integration of the supply chain promotes information sharing and strengthens collaboration, thereby supporting the timely and budget-compliant completion of projects. Similarly, Chen *et al.* (2021) focused on identifying factors that facilitate coordination, which in turn streamlines construction project processes through efficient supply chain management. According to the findings of their study, advanced digital tools, collaborative integration, relational agreements fostering

mutual trust, timely material delivery strategies, proactive supplier engagement during planning, efficient knowledge-sharing systems, and lean methodologies collectively enhance construction project supply chains by optimizing resource flow, minimizing costs, accelerating timelines, and ensuring seamless coordination across processes (Chen *et al.*, 2021).

Overall, effective project planning functions as the cornerstone for fostering the presence and alignment of all enabling factors within the project ecosystem. By orchestrating these elements in a structured and cohesive manner, it not only ensures their integration but also enhances their collective impact. This inherent inclusivity underscores its pivotal role as a multidimensional and comprehensive mechanism in driving project success. Effective project planning requires setting precise goals, crafting detailed plans, making realistic estimations, and developing comprehensive schedules. These components are vital for steering the construction process, optimizing resources, and ensuring that timelines and objectives are met.

A critical foundation for achieving these planning goals lies in establishing a clear scope of work during the briefing phase. Pinto and Covin conducted an extensive study on the critical success factors of construction and R&D projects, and as a result of their research, they identified the “project mission” as the most important determinant of success in construction projects (Pinto and Covin, 1989). By clearly defining project mission, requirements, deliverables, and limitations from the outset, the scope of work serves as a roadmap that aligns all stakeholders and provides the clarity needed for accurate estimations and effective resource allocation. This structured approach not only reduces the likelihood of misunderstandings or changes in scope but also ensures that the project remains on track, seamlessly connecting the planning process to the successful execution of construction projects. According to Kog and Loh (2012), the ranking of critical success factors varies significantly across architectural, civil, and mechanical-electrical works. Regardless of the project component, adequacy in planning and specifications consistently ranks among the three most influential factors for achieving success in terms of schedule, budget, and quality (Kog and Loh, 2012). The

success of a project heavily relies on the sufficiency of plans, the clarity of specifications, and the constructability of designs, all complemented by clearly established objectives and well-defined goals.

Table 3.4. Selected factors as enablers in retail construction projects.

	Factors as Enablers in Retail Construction
1	Project leadership and management competence
2	Appropriate organizational structure
3	Integrated project delivery
4	Top-level commitment / Top management support
5	Risk management
6	Collaborative working and effective communication
7	Cross-functional collaboration
8	Project planning
9	Clear scope of work and briefing
10	Supply chain efficiency
11	Stakeholder engagement
12	Streamlined construction and similar designs
13	Contractors' and subcontractors' performance
14	Employee motivation and job satisfaction

3.3.1.3. Inputs. A comprehensive understanding of the factors influencing the success of retail construction projects necessitates a thorough examination of the critical inputs that contribute to project outcomes. These inputs will be explained in this part.

The facilitative impact of project financing and suitable funding was mentioned in the preceding section. However, these factors have been frequently examined in the literature as resources. Maghsoodi and Khalilzadeh (2018) emphasize that the availability of sufficient financial resources is a fundamental pillar for the success of construction projects. Capital costs encompass not only the budget required at the project's inception but also the additional financial resources that may be needed at various stages throughout the process. In this context, the accurate planning of funds

allocated for materials, labor, equipment, and unforeseen expenses ensures the seamless progression of the project while minimizing the risks of failure.

Reviews and feedback from peers, stakeholders, and customers provide valuable input to the project process. These mechanisms can enable the early detection of errors in the construction process and facilitate the swift implementation of corrective actions. Periodic review meetings and site inspections play a critical role in identifying process gaps and driving continuous improvement. These mechanisms foster communication among project stakeholders and enable all parties to achieve their objectives more effectively. According to Kulatunga *et al.* (2007), reviews that are conducted effectively within the project teams can play a significant role in internalizing the company's common goals and developing its internal competencies (Kulatunga, 2007). From a complementary standpoint, obtaining customer feedback can serve as a critical resource for future project improvements. For instance, a study investigating the critical success factors of lean construction by Meshref *et al.* (2022) considered customer feedback as an input and predicted that evaluating this feedback would increase customer satisfaction.

A significant body of research highlights the pivotal role of a project team's experience in a similar domain in achieving construction project success. Teams with experience in similar projects exhibit improved risk management, decision-making, and overall project quality. Gudienė *et al.* (2013), conducted a survey that examined 71 critical success factors and identified the project management team's relevant experience as the sixth most significant success factor overall and the foremost factor related to the management team. Building upon this foundation of prior experience, continuous training and skill development programs are essential for maintaining and enhancing project team competencies. The complexity of construction processes necessitates the continuous acquisition of new skills and the updating of existing knowledge by project teams. Training programs aim to enhance the competencies of both field workers and management. Shehu and Akintoye (2010) emphasize that training and skill development significantly accelerate knowledge transfer, and their absence can negatively impact project success. They mentioned that workshops, certification pro-

grams of relevant institutions, and similar initiatives can effectively address this need (Shehu an Akintoye, 2010).

Lastly, technological advancements in construction, such as BIM software, drone-based site inspections, and automation systems, have significantly enhanced the sustainability of construction projects in terms of both cost and time. The strategic use of technology not only accelerates processes but also minimizes errors. Seadon and Tookey (2019) support this finding, emphasizing that technological advancements and innovation, alongside skill development, contribute to increased efficiency in construction projects. As such, technological advancements facilitated by digitization and automation are categorized as valuable resources for construction projects.

Table 3.5. Selected factors as inputs in retail construction projects.

	Factors as Inputs in Retail Construction
1	Capital costs and investments
2	Technical expertise
3	Feedback and review mechanisms
4	Training and skill development
5	Technological advancements

3.3.1.4. Barriers. Construction is widely regarded as one of the most challenging industries due to its inherent complexity. Over time, projects in this sector have faced numerous difficulties, including fragmentation, inefficiencies, low productivity, delays, budget overruns, and ongoing conflicts and disputes (Hai *et al.*, 2012). Meanwhile, confronted by a growing number of new competitors in both local and global markets, the retail sector is compelled to reevaluate and redesign its operational and marketing strategies (Mankodiya *et al.*, 2012). Consequently, this intensified competitive environment may give rise to various barriers during the planning and implementation stages of the retail development processes. This section examines, based on a review of the literature, the principal barriers that can hinder the success of retail construction projects.

Firstly, Shehu and Akintoye (2010) considered the lack of commitment from business leaders as a critical barrier that can adversely affect management practices in construction projects. If the upper management team does not exhibit adequate commitment to the project process and objectives, the necessary resources may not be allocated appropriately, and the project team's engagement cannot be sustained (Shehu and Akintoye, 2010).

On the other hand, the lack of knowledge and skills emerges as a barrier to the successful implementation of construction projects. In Rahman's study on the barriers to adopting modern methods in construction projects, it is highlighted that the low rate of innovation adoption in the construction industry can act as an obstacle to achieving success through the implementation of advanced methods (Rahman, 2014). Furthermore, the lack of knowledge and skills not only impacts the adoption of advanced construction methods but also significantly influences the performance of contractors and subcontractors. Effective project execution relies heavily on their ability to meet quality, time, and cost expectations, yet performance deficiencies in these roles often stem from inadequate technical expertise and a lack of alignment with project requirements.

Kog and Loh's (2012) study provides significant insights into the sub-factors contributing to deficiencies in contractor performance. For instance, factors such as the capability of the contractor's key personnel and the project team, the contractor's turnover rate, top management support, track record, and level of service are identified as potential sources of contractor-related performance issues (Kog and Loh, 2012). It is also noted that these sub-factors are equally relevant for the subcontractors. Given that retail firms are highly dependent on contractors to achieve their physical expansion goals, deficiencies in any of these factors can have a substantial impact on the success of construction projects. Performance shortcomings among contractors can severely hinder the timely and within-budget completion of projects, the achievement of quality standards, and the realization of operational objectives.

Effective communication and coordination are critical to the success of retail construction projects, yet various barriers in these areas often impede progress. Communication and coordination problems may occur within the project team, between different departments of the company, or between the company and its stakeholder organizations. According to Esmaeili *et al.* (2016), these challenges share common roots in mismanagement of information flow, unclear responsibilities, and fragmented collaboration. Such problems often lead to schedule delays, difficulties in settling disputes, financial overruns, legal actions, and a competitive rather than cooperative environment (Esmaeili *et al.*, 2016). Each department has different goals, priorities, and areas of expertise, which can create gaps in collaboration and coordination. For instance, the construction team may not fully understand operational requirements, while the IT team may lack knowledge of the practical details of the construction process. These gaps can result in misunderstandings and ultimately reduce project efficiency. Therefore, it is crucial for these teams to communicate effectively, sharing each phase and requirement clearly to ensure smooth coordination.

Another barrier that can be faced during retail construction is issues related to the design package. In the comprehensive literature review conducted by Maseko (2017), risk factors discussed in studies published between 2007 and 2017 were categorized, and the most significant risk factors in each category were identified. Among these categories, the technical risks category highlighted key factors such as changes in project scope, incomplete design deliveries, inadequate site supervision, and deficiencies in design outputs (Maseko, 2017). Initiating projects with clear objectives from the outset, conducting comprehensive site investigations to identify necessary project notes, and ensuring that project teams are well-informed with accurate briefs throughout the process can minimize scope and design changes, thereby preventing delays in the project timeline and, consequently, the construction duration. Design packages that begin with this process will also possess adequate levels of designability, constructability, and operability, which are identified as critical success factors in construction projects in the study by Sanvido *et al.* (1992).

One of the key barriers in construction projects is the lack of sufficient data and performance metrics. A well-defined project brief plays a crucial role in bridging the strategic goals with the practical aspects of construction. It outlines the performance expectations for each project component, ensuring that all parties involved have clear guidelines to follow (Yu *et al.*, 2006). Without this, project teams may struggle to align their efforts, leading to potential inefficiencies and challenges in meeting performance targets.

According to Maseko (2017), another challenging factor during construction is accidents on construction sites, alongside issues like shortages of equipment and material theft. This highlights the importance for companies to prioritize health and safety measures, as failure to do so could result in legal consequences or even loss of life, and to be able to mitigate these risks, firms must enforce strict safety protocols and ensure that workers adhere to these rules (Maseko, 2017). Similarly, site conditions and limitations, such as poor soil quality, weather conditions, or space restrictions, can complicate construction efforts and require unexpected adjustments. Both barriers necessitate thorough planning, risk assessments, and adaptive strategies to minimize their effects on the overall project timeline and budget. Site limitations and conditions can also be barriers in construction projects. According to Chua *et al.* (1999), these factors, including the location and specific constraints of the site, directly influence the selection of construction methods and the availability of resources. As a result, they play a crucial role in determining the quality of work on-site, as the project's success depends on how well these limitations are addressed and managed throughout the process (Chua *et al.*, 1999).

According to Dangana *et al.* (2012), the lack of proper regulation and incentives for action, along with insufficient focus from policymakers, exacerbates the challenges, particularly in specialized projects like sustainable buildings. In such projects, unclear policies and regulations can create significant barriers, as developers may face uncertainty regarding compliance requirements, incentives, and long-term sustainability goals (Dangana *et al.*, (2012). This lack of clarity can delay project approval pro-

cesses, increase costs, and hinder the effective implementation of sustainable practices, ultimately affecting the success and viability of these projects. Political instability, categorized under socio-political risks, is identified by Maseko (2017) as the most influential risk factor in construction projects. This factor can lead to unpredictable changes in laws, regulations, and government priorities, all of which create an uncertain environment for construction activities (Maseko, 2017).

Political instability affects economic processes, leading to currency fluctuations. This results in increased costs for raw materials and supplies, making unit prices unpredictable. Additionally, policy changes can drive up construction project costs, creating challenges in budget planning. The high initial investment cost is already a significant challenge in construction projects. Moreover, in recent years, projects involving high-performance buildings, which take into account the entire building life cycle performance, tend to incur even higher costs (Korkmaz *et al.*, 2010). In such a volatile environment, accurately predicting project costs from the outset becomes crucial. Therefore, a lack of proper feasibility analysis can be identified as a barrier in the literature, potentially leading to low project profitability and ultimately resulting in an unsuccessful project outcome (Williams, 2016; Maseko, 2017).

Table 3.6. Selected factors as barriers in retail construction projects.

	Factors as Barriers in Retail Construction
1	Lack of commitment from leaders
2	Limited knowledge and skills
3	Contractors' and subcontractors' performance
4	Lack of communication and coordination within the project team
5	Lack of integration and coordination between partnering organizations
6	Lack of cross-functional communication within the company
7	Insufficient data and performance metrics
8	Changes in design and scope
9	Incomplete design package and Lack of constructability
10	Inadequate site investigation

Table 3.6 Selected factors as barriers in retail construction projects. (cont.)

	Factors as Barriers in Retail Construction
11	Accidents on construction site
12	Site conditions and limitations
13	Political instability
14	Local legislations and building permits
15	Legal and contractual risks
16	Higher capital costs
17	Economic volatility
18	Improper project feasibility

3.3.1.5. Benefits. Successful construction projects not only stand out at the time of completion but also offer significant benefits throughout each phase of the project. These benefits create substantial positive effects for the construction industry and its stakeholders, both in the short term and the long term. This section outlines the short-term, project-specific benefits.

Seadon and Tookey (2019) emphasize that improving construction project productivity through critical success factors such as integrated life cycle approach, utilizing tools like BIM, better work planning, standardization, and alternative financial products leads to enhanced project delivery by reducing inefficiencies and rework, while also boosting financial performance by lowering costs and mitigating financial risks.

According to Yang *et al.* (2010), successful construction projects result in greater stakeholder satisfaction in the short term by effectively managing communication and understanding stakeholders' needs. Key factors, such as properly identifying stakeholders and fostering strong relationships, ensure stakeholder expectations are met, leading to their increased satisfaction (Yang *et al.*, 2010).

Another benefit of successful construction projects, as highlighted by Korkmaz *et al.* (2010), is the enhancement of user comfort and satisfaction through improve-

ments in building quality, energy efficiency, and indoor environmental quality, all of which contribute to a better overall experience. These enhancements lead to increased comfort, positively affecting the satisfaction of both employees and customers.

By creating enhanced working conditions and providing support, successful construction projects lead to improved staff performance in the short term. This results in increased productivity and efficiency, fosters team motivation, improves communication and collaboration, and streamlines work planning, ultimately leading to more efficient project execution (Seadon and Tookey, 2019).

According to Riadi and Machfudiyanto (2023), incorporating sustainable procurement practices, which improve construction efficiency, reduce waste, and ensure the use of cost-effective, environmentally responsible materials, leads to better operational performance throughout the building life cycle and results in longer-lasting assets, benefiting both clients and the environment.

Table 3.7. Selected factors as benefits in retail construction projects.

	Factors as Benefits in Retail Construction
1	Improved project delivery and financial performance
2	Greater stakeholder satisfaction
3	Greater user comfort and satisfaction
4	Improved staff performance
5	Enhanced building life cycle performance

3.3.1.6. Impacts. The effective execution of retail construction projects not only yields immediate benefits but also generates long-term and wide-ranging effects. These outcomes play a key role in fostering sustainable growth and development across the construction industry and among the company's stakeholders. One significant result is the improvement and enhancement of the customer's perception of the brand. A successful retail project can positively influence the company's long-term brand image and public perception, enhancing its reputation, brand value, and equity, attracting customers,

and fostering trust and loyalty within the community (Dangana *et al.*, 2012). One of the long-term impacts of the successful retail construction projects is the competitive advantage, as it contributes to a stronger market position, allowing the company to differentiate itself from competitors, improve operational efficiency, and sustain long-term growth and profitability (Shehu and Akintoye, 2010). Lastly, with the updated retail projects, companies ensure that their buildings are more accessible, fire-resistant, and sustainable, aligning with the latest regulatory requirements and environmental standards. According to Korkmaz *et al.*, (2010), higher building performance contributes to long-term operational stability, reduced legal risks, and a positive environmental impact.

Table 3.8. Selected factors as impacts in retail construction projects.

	Factors as Impacts in Retail Construction
1	Brand image / Public perception
2	Enhanced competitive advantage
3	Regulatory compliance

3.3.2. Pilot Study

In this research, a pilot study was conducted to enhance the evaluation of critical success factors and obtain more reliable results within the specific context of retail construction projects. The pilot study involved semi-structured interviews with experienced professionals in the field. These interviews were designed to assess the applicability of factors derived from the general construction project literature to retail projects and to understand how these factors are interpreted by industry professionals.

The pilot study process comprises the following stages:

- **Participant Selection:** To provide a comprehensive insight into the retail construction sector, professionals with experience in at least two of the following roles, which are retail firm, contractor firm, design firm, or project management firm,

were selected as participants. These individuals represented diverse professions and positions within the industry. Despite the limited number of participants, their extensive experience allowed for a thorough evaluation of sector-specific factors. Table 3.9 indicates the roles of the companies where the selected experts have worked in retail construction and their levels of experience within the industry. Furthermore, it was observed that the perspectives of all participants complemented each other rather than contradicted one another.

The experts chosen for this pilot study bring relevant and diverse professional experience, which supports the study's objectives effectively. This chosen group provides a strong representation of professionals with extensive experience in the field, with an average of almost 20 years of experience in retail construction. Their expertise spans multiple disciplines, including architecture, mechanical engineering, civil engineering, and electrical engineering, providing a multidisciplinary view of retail construction projects.

The range of activities in their careers, including design, construction coordination, and management, reflects the diverse roles typically encountered in retail construction. Additionally, their current leadership positions indicate their active engagement in the industry, potentially providing an updated perspective on retail construction practices.

Their retail construction experience spans a wide range of projects, including clothing stores, shopping malls, restaurants, telecommunication and technology company outlets, and bank branches. Notably, all the experts have worked internationally at some point in their careers, which allows them to provide insights that account for both local and global practices in the retail construction sector.

This combination of professional diversity, practical experience, and international exposure ensures that the expert selection is well-aligned with the study's requirements and objectives.

Table 3.9. Pilot study expert group profile.

	Profession	Experience in Retail Construction (Years)	Previous Experience Areas in Retail Construction	Current Position
Expert 1	Architect	19	Mall Management, Retail Company Design Coordination, Architectural Design	Design Firm Owner and Lead Architect
Expert 2	Architect	25	Real Estate Development, Architectural Design, Construction	Contractor Firm Owner
Expert 3	Mechanical Engineer	21	Construction, Retail Company Design and Construction Coordination	Construction Manager
Expert 4	Architect	20	Architectural Design, Retail Company Design and Construction Coordination	Design and Construction Director

Table 3.9 Pilot study expert group profile. (cont.)

	Profession	Experience in Retail Construction (Years)	Previous Experience Areas in Retail Construction	Current Position
Expert 5	Architect	18	Architectural Design, Construction, Retail Company Design and Construction Coordination	Design and Construction Manager
Expert 6	Civil Engineer	16	Construction, Retail Company Design and Construction Coordination	Construction Manager
Expert 7	Electrical Engineer	17	Construction, Architectural, Electrical, and Mechanical Project Coordination	Retail Projects Manager
Average (Years)		19,43		

- Development of Questions: The interviews were semi-structured around critical success factors identified from the literature, with in-depth questions designed to explore their relevance, significance, and applicability within the industry. The interviews were conducted face-to-face and lasted between 45 minutes and 1 hour. Here are some of the questions:
- Do these factors provide an adequate framework for capturing the dynamics of retail construction projects?
- How do these factors contribute to the success of retail projects?

- What are the practical challenges and limitations associated with implementing these factors?
- Are there any other significant factors, overlooked in the literature review, that should be considered in retail projects?
- Data Analysis and Refinement of Factors: Based on the findings of the pilot study, the critical success factors were revisited and redefined to align with the specific context of retail construction projects. In this process, in addition to the factors identified in the literature, new suggestions and perspectives derived from field experiences were also incorporated. Consequently, some factors were added, while the descriptions of others were updated and expanded to enhance their clarity and relevance for industry professionals. This process strengthened the sectoral context of the study and enhanced the reliability of the research.

One of the most significant insights from the expert interviews highlights the critical role of time sensitivity and associated pressures as one of the primary drivers for successful retail construction projects. The efficiency of the construction process intrinsically depends on the urgency of meeting deadlines. This stems from the fact that retail construction outcomes, such as physical stores or facilities, represent one of the main revenue-generating channels for the initiating retail firm. In systems where revenue generation is directly tied to the physical output, retail companies are often driven to expedite construction timelines to begin capitalizing on their investments at the earliest opportunity.

The interviews further revealed that the desire to enhance service efficiency and operational effectiveness fuels the demand for better physical infrastructure in the retail sector. To improve customer experience, facilitate employee productivity, and optimize operational workflows, companies are increasingly investing in enhanced designs and construction processes, all of which ultimately contribute to improving organizational efficiency. For instance, upgrading a store's interior design can significantly enrich the shopping experience and boost sales, while reconfiguring operational spaces can streamline logistics, reduce costs, and accelerate processes.

These considerations position new construction and remodeling efforts as strategic investment opportunities for retail firms. Enhancements in operational spaces, such as improving layout functionality, can increase customer retention and service speed, thereby elevating satisfaction and driving higher sales volumes. Such outcomes act as strong motivators for retail companies to allocate resources toward new construction projects or facility upgrades. Moreover, the ability to offer a differentiated in-store experience not only strengthens customer loyalty but also creates a competitive edge, further incentivizing investment in retail construction.

Retail firms' expansion strategies, particularly the opening of new branches or chains, identified another notable driver during the interviews. This growth imperative often brings about an increased need for workforce expansion as companies seek to reach a broader customer base while simultaneously scaling their employee ecosystems. Each new retail outlet typically integrates a substantial number of employees, reflecting an intersection between physical expansion and employment generation. For large retail chains, this emphasis on workforce growth aligns with broader corporate social responsibility goals, positioning employment creation as a secondary but meaningful driver of retail construction projects.

This indirect link between physical expansion and employment growth highlights the broader strategic rationale driving retail firms' investments in construction. By addressing both immediate revenue opportunities and long-term competitive positioning, retail construction projects emerge as pivotal in the operational and strategic frameworks of the industry. During the pilot study, interview participants emphasized that teams based at the corporate headquarters of retail firms play a central role in coordinating and supervising the construction operations of local teams. In cases where the company is internationally based, they noted the presence of specialized teams dedicated to managing and supporting international operations. These teams closely resemble the Process Improvement Teams (PITs) discussed by Sarshar *et al.* (2004). According to Sarshar *et al.*, the primary mission of PITs is to identify and institutionalize best practices across the organization. These teams develop organizational

process libraries, which are utilized as standardized benchmarks for best practices. These standards provide a reference framework that guides project teams in defining their specific project processes, ensuring that processes are implemented consistently and efficiently.

These teams oversee and manage all stages of the process, from site selection to design, construction, and opening. Consequently, these teams typically consist of professionals from diverse disciplines who have extensive experience in various fields. Their involvement in the process is considered a facilitating factor, as it not only incorporates local practices but also provides global expertise and know-how.

These teams can offer proven and successfully implemented solutions to recurring challenges. Additionally, they can proactively warn project teams about potential problems and deliver training on frequently encountered issues. Moreover, their understanding of the retail firm's management-level objectives enables them to ensure that the architectural and construction processes they oversee align with the company's strategic goals. While the involvement of these teams may have the potential to delay projects due to specific approval processes, considering all these factors, their inclusion in the process has been categorized as an "enabler."

Teams responsible for developing and managing processes across various operational domains compile best-practice examples as guideline manuals to establish a unified language within corporate retail. The outputs derived from these experiences serve as reference materials and resources during the design and construction phases of projects initiated for new investments. Consequently, these guidelines have been included as one of the inputs within the scope of this research.

One of the points highlighted by professionals with expertise in construction management as a contractor and construction manager during the interviews was the strategic use of advance payments. In construction projects, advance payments are considered a vital tool for optimizing project timelines, as they enable the early pro-

curement of the most time-intensive and costly materials and equipment. This approach ensures the timely availability of resources needed at the initial stages of the project, thereby reducing the risk of delays in subsequent phases.

Advance payments to contractors not only improve cash flow but also support the uninterrupted progress of projects. Early procurement of materials, equipment, and workforce planning often requires substantial financial resources. By facilitating these upfront costs, advance payments allow contractors to execute projects efficiently. Moreover, providing contractors with financial security minimizes the impact of unforeseen challenges during the project and helps maintain a steady workflow.

Such incentives also enhance contractors' motivation to deliver on time and as planned. The pre-ordering of long-lead items significantly contributes to reducing project timelines and improving cost efficiency. For instance, ordering specific materials or equipment well in advance, despite extended delivery times, ensures seamless project progress and prevents delays at critical stages. This capability offers a strategic advantage, particularly for retail firms aiming to meet strict deadlines and accelerate operational readiness.

Advance payments also function as a trust-building mechanism between retailers and contractors. By providing financial support, contractors not only enhance their operational efficiency but also gain confidence in the employer's commitment to the project. This mutual trust strengthens collaboration between parties and facilitates smoother project management.

In conclusion, the strategic use of advance payments emerges as a highly effective method for not only supporting contractors' cash flow but also optimizing project timelines and costs. This practice is recognized as a critical enabler that helps retail firms complete their projects on time, within budget, and to high quality standards.

Another facilitating factor in retail construction projects, suggested by experts during the interviews and recommended for inclusion in the list, is consultancy services. Since the core business of retail firms typically does not encompass architecture and construction, these areas emerge as fundamental processes that can be outsourced and supported through consultancy. Retail firms often employ architects, engineers, and other professionals to manage design and construction processes, but managerial and financial considerations typically discourage the creation of in-house teams for specialized tasks like legal compliance, permitting, architectural and regulatory assessments of leased spaces, or real estate valuation reports. As a result, it is common for firms to seek external consultancy services to identify and implement the most accurate solutions for retail development processes, which includes construction management.

Consultancy services not only streamline processes but also bring deep expertise in specific areas, reducing the risk of errors, offering innovative solutions, and enabling the integration of industry best practices into projects. Particularly in projects involving complex processes, consulting services contribute to faster completion, delivering time and cost advantages. Additionally, these services play a critical role in ensuring compliance with local and international regulations, enhancing the knowledge and capacity of in-house teams, identifying risks at an earlier stage, and providing an independent perspective to projects. Furthermore, consultancy services offer scalability and flexibility during peak periods, providing assistance to firms in managing various projects more effectively.

Considering all these factors, the inclusion of consultancy services has been identified as an “enabler” that contributes to the efficient and successful execution of projects. These services are regarded as a key tool not only for achieving short-term success but also for realizing long-term strategic objectives.

International retail chains aim to establish a unified language to ensure consistent standards and quality across their branches in different countries. This focus on standardization is well understood by the experts consulted during the interviews, as

all of them have had periods in their careers working internationally. Their extensive experience with global retail chains has provided them with in-depth knowledge of the construction project processes involved, further highlighting the complexities and critical factors associated with such projects.

Several experts highlighted that company-issued guidelines often prioritize not only the design and implementation processes but also the consistent use of preferred suppliers in procurement. The construction supply chain operates in a volatile and uncertain production environment, which makes managing projects effectively particularly challenging, and to navigate these complexities, implementing strong strategies is crucial for minimizing risks and maintaining operational continuity (Kim and Nguyen, 2018). Additionally, sourcing from common suppliers is believed to offer several benefits, such as ensuring product quality consistency, strengthening brand identity, and achieving long-term cost advantages. However, despite these benefits, reliance on global suppliers introduces various challenges, particularly in construction projects.

This dependence on global suppliers can lead to significant barriers, such as extended delivery times and logistical issues. For instance, sourcing specific materials and products from global suppliers for retail projects often results in prolonged delivery timelines and scheduling uncertainties due to the extended supply chain. Furthermore, transportation-related challenges, including delays in international shipping and rising freight costs, exacerbate these issues. Customs processes also impose additional costs and delays, further straining project budgets and disrupting planning.

In addition, adapting the products supplied by global vendors to local needs poses another area of difficulty. The necessity to maintain international standards while aligning with local regulations and customer expectations can create complexities in both costs and processes. For example, customizing a construction material to meet local market requirements without compromising its quality standard often demands additional time and expenses, with any errors in this process potentially causing significant project delays.

These challenges not only complicate the timely and budget-compliant completion of projects but also adversely affect the company's brand perception and operational efficiency. Supply chain disruptions introduce unforeseen risks, emerging as critical barriers that threaten the successful execution of projects. Therefore, effective supply chain management and minimizing these issues are essential for ensuring the success of retail construction projects and must be regarded as a critical success factor.

All the experts consulted have experience working on retail projects within shopping malls. Notably, one of the experts had worked on a shopping mall management team, overseeing and supervising the fit-out projects of all retail tenants within that mall. Drawing from their experiences, experts highlighted the restrictions on construction work hours in shopping malls as a significant barrier.

In existing buildings, shopping malls, or storefronts in neighborhood complexes, limited working hours and restricted working days often lead to excessive workloads and compressed construction schedules. This scenario frequently results in inefficiencies and delays in project completion. Therefore, these challenges are not exclusive to shopping malls; they also arise in densely populated residential areas, where regulatory requirements and construction time restrictions outlined in building complex management plans intensify the problem. Such constraints can increase workload, compromise work quality, extend project timelines, and reduce team motivation. Collectively, these factors are recognized as a barrier that impacts the efficiency of construction processes.

Finally, some of the experts during the interviews provided a perspective that complements the literature, recognizing that public opposition or the need to secure public approval can emerge as a barrier for retail construction projects. This factor can lead to project delays, modifications, or, in some cases, complete cancellations. Public opposition is often rooted in concerns about environmental, social, or economic impacts, which can significantly influence project timelines and outcomes.

Additionally, the prevailing political climate can shape public perception of brands, impacting not only public reactions to projects but also investment decisions through changes in consumer purchasing behavior. Perceptions shaped by political processes can increase risks associated with projects, prompting brands to reassess their investment strategies to minimize such risks. Thus, negative perceptions driven by political dynamics and their effects on investors are critical considerations in construction projects. For instance, if a construction project is initiated during a period of heightened public sensitivity to environmental or social responsibility issues, public attitudes toward the project can shift dramatically. In such cases, efforts to protect brand reputation may result in project delays or cancellations. Furthermore, the impact of social dynamics on investor confidence affects not only public perception of the projects but also directly influences the long-term strategic goals of retail brands.

To address these challenges, adopting an effective communication strategy, participatory planning processes, and an approach that accounts for perception changes driven by the sociopolitical climate is essential. These measures indirectly affect retail construction projects by influencing retail investments. Such strategies facilitate smoother project execution, enhance social acceptance, and play a critical role in protecting brand reputation and strengthening investor confidence. Moreover, minimizing the impact of sociopolitical processes on consumer preferences and investment decisions is a key step toward ensuring the long-term sustainability of projects.

3.3.3. Finalizing Data Table and Survey Form

Initially, a comprehensive literature review was conducted to gather the critical success factors in construction projects. Subsequently, a pilot study was carried out to identify the unique dynamics specific to retail construction projects, ensuring the research's relevance and applicability. This pilot study allowed for a precise understanding of how the factors identified in the literature review are perceived within the retail context, and it also led to the inclusion of certain factors that are rarely discussed in the existing literature.

Table 3.10. Critical success factors in retail construction projects from the literature review and pilot study. (cont.).

CRITICAL SUCCESS FACTORS IN RETAIL CONSTRUCTION	REFERENCES																															
	REFERENCES																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	EXPERT OPINION	
Barriers																																
1	Lack of commitment from leaders																															
2	Limited knowledge and skills			X	X	X																										
3	Contractors' and subcontractors' performance		X											X								X										
4	Lack of communication and coordination within the project team			X	X																X											
5	Lack of integration and coordination between partnering organizations	X						X												X	X									X		
6	Lack of cross-functional communication within the company			X																												
7	Insufficient data and performance metrics	X		X	X			X													X			X	X							
8	Changes in design & scope		X	X	X																X		X									
9	Incomplete design package & Lack of constructability		X																													
10	Inadequate site investigation			X	X									X									X									
11	Accidents on construction site			X																												
12	Site conditions and limitations			X									X										X				X					
13	Supply chain difficulties																			X												
14	Limited working hours																															
15	Political instability			X	X								X		X	X																
16	Local legislations and building permits							X					X																			
17	Public Opposition / Public acceptance													X													X					
18	Legal and contractual risks													X	X						X								X			
19	Higher capital costs		X	X		X	X																X									
20	Economic volatility		X									X																				
21	Improper project feasibility		X								X			X								X										
Benefits																																
1	Improved project delivery & financial performance			X																							X					
2	Increased organizational efficiency			X				X												X												X
3	Greater stakeholder satisfaction			X				X																								
4	Greater user comfort & satisfaction					X		X																								
5	Improved staff performance																		X													
6	Enhanced building life cycle performance																															
Impacts																																
1	Brand image / Public Perception		X			X	X		X																							
2	Enhanced competitive advantage			X		X	X													X												
3	Regulatory compliance		X			X	X																					X				

As a result, the final version of the factors to be used in the questionnaire survey was developed. Table 3.10 shows the final list of critical factors with the related sources from the literature review and the pilot study. In the survey, there were two sections. The first section was designed to collect general information about the survey participants, while the second section aimed to rank critical success factors in retail construction projects based on their level of significance. Since the study was anonymous, great care was taken to avoid any questions that could potentially identify individuals. In Part 1, titled 'General Information,' the following details were collected:

- Company role in retail construction
- Number of employees in the company
- The country/countries in which the company operates
- Experience in the construction industry
- Experience in retail construction
- Title/position within the company

Table 3.11 presents a list of citations from various sources referenced in the research for the collection of the critical success factors. Each entry is numbered sequentially from 1 to 30, providing the names of the authors followed by the year of publication for each source.

Table 3.11. Reviewed literature sources.

#	Literature Sources
[1]	Sarshar <i>et al.</i> , 2004
[2]	Dangana <i>et al.</i> , 2012
[3]	Maseko, 2017
[4]	Shehu and Akintoye, 2010
[5]	Sanvido <i>et al.</i> , 1992
[6]	Korkmaz <i>et al.</i> , 2010
[7]	Riadi and Machfudiyanto, 2023
[8]	Atkinson, 1999
[9]	Esmaeili <i>et al.</i> , 2016
[10]	Saqib <i>et al.</i> , 2008

Table 3.11 Reviewed literature sources. (cont.)

#	Literature Sources
[11]	Williams, 2016
[12]	Amoah <i>et al.</i> , 2021
[13]	Ahmed and Mohamad, 2016
[14]	Maghsoodi and Khalilzadeh, 2017
[15]	Yong and Mustaffa, 2013
[16]	Silva <i>et al.</i> , 2015
[17]	Gudienė <i>et al.</i> , 2013
[18]	Meshref <i>et al.</i> , 2022
[19]	Seadon and Tookey, 2019
[20]	Kim and Nguyen, 2020
[21]	Hai <i>et al.</i> , 2012
[22]	Rahman, 2014
[23]	Kog and Loh, 2012
[24]	Yu and Shen, 2015
[25]	Yu <i>et al.</i> , 2006
[26]	Chua <i>et al.</i> , 1999
[27]	Pinto and Covin, 1989
[28]	Pinto and Slevin, 1987
[29]	Parfitt and Sanvido, 1993
[30]	Yang <i>et al.</i> , 2010

3.4. Information on Survey Respondents

The target population for the survey was determined to include professionals who are actively involved in retail construction projects or have extensive experience in the field. To achieve this, organizations to which retail companies are members were researched, and efforts were made to contact individuals working in these companies who are engaged in retail construction projects. The institutions considered included:

- Turkish Federation of Shopping Centers and Retailers,
- Food Retailers Association,
- Council of Shopping Centers,
- Turkish Retailers Federation

Information regarding relevant professionals was gathered from publications and events organized by these institutions, as well as from participating companies. Furthermore, various networking platforms were utilized to identify individuals working in the construction teams of retail firms, and attempts were made to contact them. These platforms also provided opportunities for international networking, enabling outreach to professionals in different countries. Specific searches were conducted using key terms such as retail development, real estate development, retail construction, design, procurement, asset management, and facility management to connect with professionals responsible for managing construction projects of corporate retail chains across multiple countries and continents.

The survey sample consisted of 82 participants. Among these, the majority (52.4%) are employed by retail companies, followed by 25.6% working in architectural, mechanical, electrical, or structural firms. Contractors accounted for 22.0% of the responses. Table 3.12 presents the distribution and number of participants according to their company roles.

Table 3.12. Distribution of survey participants by company role in retail construction.

Company Role in Retail Construction	Frequency	Percentage
Retail Company	43	52.4%
Architectural / Mechanical / Electrical / Structural Firm	21	25.6%
Contractor	18	22.0%

Table 3.13. Distribution of respondents' experience in construction and retail construction.

Experience in Construction				
Years	Average Year of Experience in Construction	Frequency	Percentage	Average Year of Experience in Retail Construction
0-5	4.0	22	26.8%	3.0
6-10	9.2	17	20.7%	5.5
11-20	17.0	28	34.1%	14.2
20+	26.3	15	18.3%	21.3
Total	13.6	82	100.0%	10.7

Table 3.13 provides data on the participants' experience in construction, categorized by years of experience in construction and their relative experience in retail construction. The majority of the participants (34.1%) have 11-20 years of experience in the construction industry, with an average of 17 years in construction and 14.2 years in retail construction projects. The average years of experience in the construction industry for all participants is 13.6 years, with a standard deviation of 8.46, while their average experience in retail construction projects is 10.7 years, with a standard deviation of 8.23.

The distribution of respondents' job titles, their experience level in construction, and their average working years can be seen in Table 3.14. Among the participants, project managers have the highest frequency of respondents (13) and they have an average of 9.2 years of working experience in construction. Other prominent roles include design specialist (10), with an average working experience of 5.2 years, and construction manager (11), with an average of 18.7 years of working experience. Director and firm owner roles have relatively few respondents, but their average working years stand out.

Overall, the data highlights that the most common roles are those related to project management and design, while executive positions like directors and firm owners are less frequent but generally have higher average working years. The variation in experience within these roles further emphasizes the diverse range of professional backgrounds in the sample.

Table 3.14. Distribution of roles and experience.

Job Title	Experience in Construction				Frequency of Respondents	Average Working Years
	0-5	6-10	11-20	20+		
Project Specialist	2	1	1	1	5	12.8
Design Specialist	9	0	1	0	10	5.2

Table 3.14 Distribution of roles and experience. (cont.)

Job Title	Experience in Construction				Frequency of Respondents	Average Working Years
	0-5	6-10	11-20	20+		
Civil Engineer	6	2	0	0	8	4.8
Mechanical Engineer	0	2	1	0	3	12.0
Project Manager	4	6	3	0	13	9.2
Design Manager	0	3	2	1	6	15.0
Construction Manager	1	1	6	3	11	18.7
Construction and Procurement Manager	0	0	1	0	1	13.0
Real Estate Manager	0	1	4	0	5	15.4
Development Manager	0	1	1	1	3	20.3
Property, Design and Construction Director	0	0	1	0	1	20.0
Development Director	0	0	2	2	4	22.0
Construction Director	0	0	2	0	2	15.5
Contractor Firm Vice President	0	0	0	1	1	24.0

Table 3.14 Distribution of roles and experience. (cont.)

Job Title	Experience in Construction				Frequency of Respondents	Average Working Years
	0-5	6-10	11-20	20+		
Design Firm Owner	0	0	0	4	4	24.0
Contractor Firm Owner	0	0	3	2	5	19.6

Table 3.15. Distribution of companies by role in retail construction and number of employees.

Company Role in Retail Construction	Number of Employees		
	0-50	51-100	100+
Retail Company	3	2	38
Architectural / Mechanical / Electrical / Structural Firm	12	6	3
Contractor	11	4	3
Total	26	12	44
Percentage	31.7%	14.6%	53.7%

In Table 3.15, data is categorized based on survey respondents' company roles and the size of their respective organizations. The majority of the survey participants (53.7%) are employed by large companies with more than 100 employees. Small companies (0–50 employees) account for 31.7% of the participants, while medium-sized companies (51–100 employees) represent the smallest group, constituting 14.6%. Among participants working for large companies, the majority are employed by retail firms, with 38 respondents (representing 46.3% of the total participants and 86.4% of those working in large companies).

Table 3.16. Distribution of respondents by country or region.

Country/Region	Frequency	Percentage
Turkiye	72	87.80%
MEA Region (Middle East and Africa)	4	4.88%
Global	4	4.88%
Europe	2	2.44%

The table presents the distribution of respondents by country or region. The majority of the respondents, 87.80%, are from Türkiye, with a total of 72 participants. The remaining 12.20% of respondents come from various regions, including 4 participants (4.88%) from the MEA region (Middle East and Africa), 4 participants (4.88%) listed as global, and 2 participants (2.44%) from Europe. Despite the limited number of respondents from outside Türkiye, the inclusion of these regions adds valuable diversity to the data.

3.5. Case Study: Restaurant Development for a Global Retail Chain

Retail development and construction are intricate domains, influenced by evolving consumer behaviors, rigorous regulatory frameworks, and the multifaceted demands of globalized markets. In accordance with Flyvbjerg's (2006) argument that a single, well-chosen case can provide generalized insights, the specific retail project under investigation was intentionally chosen rather than chosen at random (Flyvbjerg, 2006). This approach was intended to reveal nuanced understandings and critical factors in retail construction. By concentrating on a particular case, it is anticipated that the resulting insights will not only illuminate this one project's dynamics but also inform the larger academic discussion and professional practices in the retail construction sector. Consequently, this investigation directly confronts the intricate, real-life situations of stakeholders, thereby enhancing academic investigation with practical, evidence-based observations.

In order to examine the complex interplay between organizational processes and outcomes within the retail development and construction sector, a preliminary case study has been designed, focusing on a leading international retail company. The dynamics of the fast-food sector make the retail development process just as fast-paced as the sector itself, creating a need for speed and cost-effectiveness. This company is not just one of the global leaders in the quick-service segment but also in the real estate and construction processes involved in opening its restaurants, which is why it was selected for this study. The name and identifying characteristics of the organization have been deliberately withheld to prevent any potential exposure of proprietary trademarks or brand identifiers. This approach ensures that the examination remains centered on the underlying processes and structures, thereby contributing to the broader academic research rather than serving as a promotional vehicle for a specific entity.

The primary objective of this case study is to provide a comprehensive analysis of the retail construction process, spanning from the earliest conceptualization phases through to final implementation stages. To achieve this, both primary and secondary data will be employed. Primary data will include interviews and discussions conducted with a range of project stakeholders, such as project managers, architects, engineers, procurement specialists, and employees on the frontlines. These qualitative insights are expected to reveal key success factors, decision-making rationales, resource allocation strategies, and communication dynamics. In parallel, secondary data will be collected through an in-depth review of existing project documentation, including plans, reports, cost analyses, and schedules. This combination of data sources is anticipated to yield a comprehensive, layered understanding of the retail construction lifecycle that would be difficult to capture through a literature review or surveys alone.

By incorporating field-based observations and empirical data into the literature review, the case study aims to bridge the gap between theoretical models and their practical execution. Such a contextualized understanding is intended to reveal how retail construction projects evolve within the constraints of budgets, timelines, and stakeholder expectations. The overall findings are expected to generate insights that

can inform future research, refine existing theoretical frameworks, and offer pragmatic guidance to both industry professionals and the academic community. Ultimately, the outcomes of this investigation are intended to contribute meaningfully to the understanding of retail development and construction processes, thereby enhancing the body of knowledge in this interdisciplinary domain.

3.5.1. Company Information

The company under study is a leading multinational corporation operating primarily in the quick service restaurant sector, characterized by a standardized menu, a globally integrated supply chain, and an extensive network of retail locations spanning multiple continents. Over several decades, it has refined its operations to ensure consistent product quality, rapid service, and an accessible customer experience. In parallel, significant attention has been directed toward the planning and execution of its retail expansion and construction efforts. Stringent location selection criteria, standardized construction guidelines, and close coordination with contractors and suppliers have enabled the company to efficiently establish outlets that adhere to its operational standards.

This emphasis on meticulous construction planning and retail development has been instrumental in maintaining a uniform brand presence and meeting varying market demands. In Türkiye, the company operates over 200 restaurants staffed by more than 5,000 employees, collectively serving tens of millions of customers annually. This notable presence within a key regional market highlights its capacity to adapt global standards to local conditions while sustaining high levels of service efficiency and brand consistency.

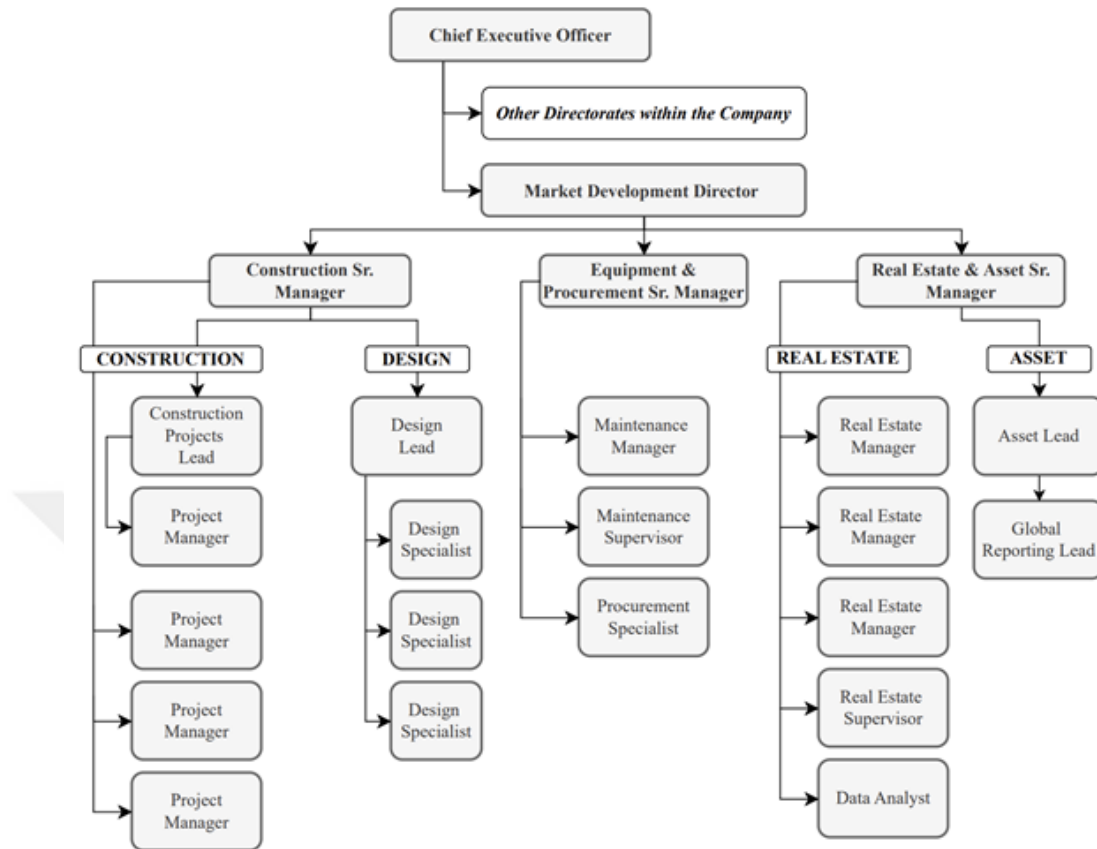


Figure 3.3. Organization scheme of the case company.

Figure 3.3 shows the organizational chart outlines the company's organizational structure, beginning with the Chief Executive Officer (CEO) at the top. The CEO oversees all directorates and directly supervises the Market Development Director, who manages the key operational divisions such as construction, design, real estate, and asset management. Each division operates under the leadership of senior managers who oversee specific roles and responsibilities.

The Construction Division is led by the Construction Senior Manager, with the Construction Projects Lead reporting directly to this role. Supporting the construction process, there are Project Managers who are responsible for overseeing projects from initiation to completion. Their role extends beyond general project delivery, as they must ensure that all construction activities adhere to brand design criteria, global guidelines, and the company's brand image standards. Project Managers work closely

with the suppliers and the contractors to guarantee the successful execution of construction projects, ensuring compliance with quality standards, timelines, and budgets.

Under the leadership of the Design Lead, the Design Division assumes responsibility for maintaining the design integrity and overseeing project management on behalf of the retail brand. While the Design Lead manages the overall planning and execution of projects, ensuring effective coordination among both internal teams and external partners, the team actively participates in all stages of the design process, from layout preparation to creative implementation. Their primary focus is guiding global and local designers, as well as project teams, to produce outputs that consistently adhere to the brand's standards and uphold its quality. Within this framework, the Design Specialists support the Design Lead by sharing oversight and project management responsibilities for the retail brand. They also contribute creatively, ensuring that the resulting designs both enhance the brand's visual identity and satisfy aesthetic and functional requirements.

The Equipment and Procurement Division is overseen by the Equipment and Procurement Manager, who manages the operational and logistical needs of the company. The Maintenance Manager and Supervisor ensure that equipment and systems are maintained to support ongoing projects, while the Procurement Specialist focuses on acquiring all the resources and materials needed to deliver projects successfully.

The Real Estate and Asset Management Division, led by the Real Estate and Asset Senior Manager, is divided into Real Estate and Asset Management functions. The Real Estate Managers and Real Estate Supervisor handle the acquisition, development, and management of properties to support the company's growth and operational goals. Additionally, the Data Analyst plays a key role in analyzing property-related data, providing insights into market trends and performance to support informed decision-making in real estate strategy and planning. Meanwhile, the Asset Lead and Global Reporting Lead oversee the company's asset management strategies and ensure compliance with global reporting requirements.

3.5.2. Retail Development Process in Company

3.5.2.1. Resource Allocation. Discussions have been held with the entire market development team and the director, and several findings have been derived from these meetings. Relevant documents have been reviewed. According to the findings, the primary driver for initiating retail construction projects is the company's desire to expand in a specific market. If decision-makers, such as investors or top-level management, have identified potential in the market and are capable of providing the necessary funding, they inform the relevant departments about the targeted investment amount. Along with the investment decisions, it is anticipated that there will be an increased workload across all processes, which requires appropriate responses to this intensity. In order to effectively manage this increased workload, it is necessary to make organizational adjustments and allocate resources in addition to preparing the budget.

The main goal of the market development team's managers is to effectively manage the increased complexity associated with real estate development and construction that comes with the investment. As a result, they focus on organizational adjustments and bringing in new professionals who can adapt to the fast pace of the industry. Given the influx of new team members, a rapid orientation plan is put in place to ensure quick adaptation. One of the most significant elements identified during this process is the uniqueness of the orientation procedure. The company ensures that all new hires, regardless of their role (such as architects, engineers, or junior/senior positions), undergo a mandatory orientation that requires them to work in the company's restaurants.

New employees are expected to observe kitchen operations, familiarize themselves with both back-of-house and front-of-house areas, understand the daily workflow of the restaurants, and learn about the teams working there and their job descriptions. They are even required to experience these tasks for a few weeks as part of the orientation. This policy, applied even to C-level executives, ensures that employees understand how their work and roles contribute to the core business by seeing the final outcomes firsthand.

Following this pragmatic orientation process, employees undergo soft skills training. They attend programs where they learn about the company's goals and principles, as well as guidelines and best practices related to both the local company in Türkiye and the global brand. Some of these training sessions may be held abroad, or global experts may come to Türkiye for training, facilitating the transfer of international experiences and reinforcing the perception of being part of a global brand.

With the investment decisions made, the organizational structure established, necessary roles filled, and essential training completed, resource allocation is largely defined.

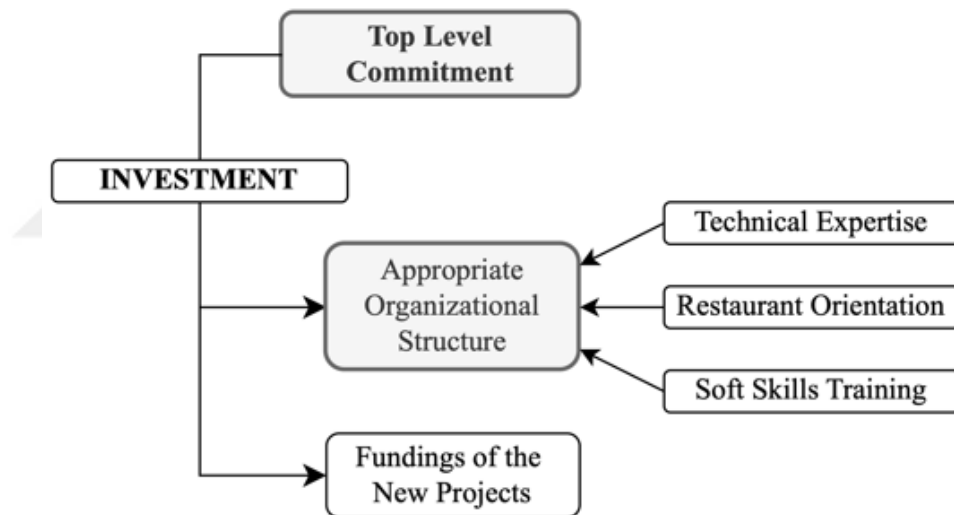


Figure 3.4. Organizational preparation framework for new retail projects in the company.

Figure 3.4 summarizes that the investment decision process involves a top-level commitment to allocate funds for new projects. This commitment drives the need for an appropriate organizational structure, which includes ensuring technical expertise, providing restaurant orientation and soft skills training to the team. The preparation for these projects not only requires sufficient funding but also the alignment of resources and personnel to effectively manage the increased workload and complexities that come with the investment.

3.5.2.2. Real Estate Development. One of the key initial steps in the creation of retail construction projects is the identification and development of suitable land. To avoid wasting time in the search for appropriate locations and to enable targeted screening, the real estate team primarily conducts analyses in collaboration with the company's marketing teams. At this stage, the customer profile/segment that prefers the brand can be identified based on the company's ongoing experiences and data. By considering the company's overall objectives, the real estate team aims to determine the potential customer base in the country, using the number of people in the target population as a reference. The number of identified customers provides insights into the necessary market footprint for the brand in that country. If it is considered that there is still a gap in the market and the brand has not yet reached market saturation, an optimal restaurant capacity is determined. In these processes, the company may also collaborate with outsourced data providers or consulting firms.

Once the target number of restaurants is determined, a prioritization process for new locations is conducted. According to this, the areas with the highest target population density are prioritized, followed by cities, and then trade areas within these cities. These trade areas are often analyzed through a process known as mini-market research.

The prioritization process is relatively an administrative decision. In this phase, more profitable projects, which are likely to have a lower payback period, are preferred. Once priorities are determined through management decisions, the prioritized areas are assigned to professionals in the real estate development team. Real estate managers are responsible for identifying suitable locations for the company's new restaurants. During the case study, actions taken to make the process more efficient were researched by interviewing department heads and responsible individuals. One notable detail is that, in order for the location identification processes to operate as efficiently as possible, the company has chosen real estate managers based in priority cities. Depending on priority status, these individuals may be required to be located in the prioritized regions. The main reason for requesting these individuals to be based in priority regions is to

enhance communication and coordination with both internal and external stakeholders, such as property owners and restaurant teams in the area. These findings highlight the importance of facilitators in retail projects, such as collaborative working and effective communication, stakeholder engagement, and cross-functional collaboration, as mentioned in the literature review.

At this stage, members of the real estate team may also seek consultancy services from local real estate firms, underscoring the importance of consultancy. It is believed that the expertise and guidance of individuals who are familiar with the region, not only commercially but also socially, will contribute to the process.

After identifying a suitable location in the prior trade area, a near-site analysis is conducted for this specific location. Figure 3.5 demonstrates the near-site analysis for the case location. During this analysis, an area surrounding the location is surveyed, and traffic generators such as schools, hospitals, transportation centers, other public institutions, residential areas, etc., are analyzed. The number of vehicles and pedestrians passing through nearby roads is observed. An analysis of competing firms in the vicinity is also carried out. In addition to competitors, supporting firms are also identified. Supporting firms refer to those brands that are frequently consumed together. For example, if the customers of a particular supermarket chain are also part of the target population of a restaurant brand, the proximity of these firms could increase each other's sales.

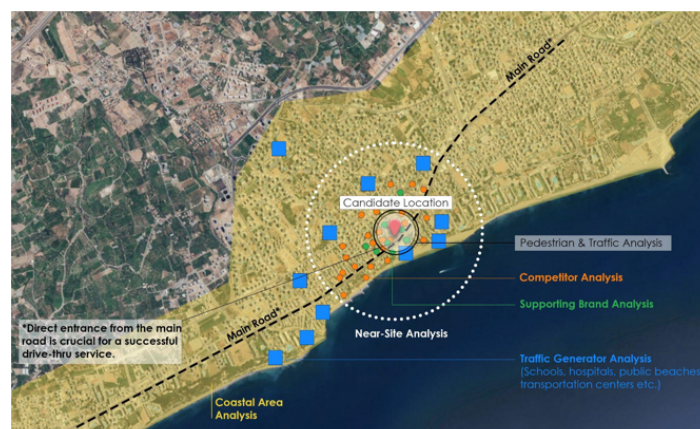


Figure 3.5. Multi-factor analysis for coastal drive-thru site selection.

Once an area with accessible and visible traffic density for vehicles and pedestrians is identified, the real estate team requests valuation reports for the location. These valuation reports analyze the area within the framework of zoning laws, and the necessary documents from the relevant municipalities are obtained. Data such as land zoning plans, zoning regulations, building placement boundaries, setbacks, existing plans, and other technical details are gathered through municipal consultants, real estate appraisal firms, or directly from property owners. This data plays a critical role in initiating the construction team's project processes, as the design does not commence until the real estate team has provided this technical data for the respective site. These processes progress concurrently and influence each other. After the valuation reports and real estate analysis of the area, the construction team visits the site and conducts a site check. They examine the physical characteristics of the site, such as infrastructure, to ensure that architectural, mechanical, and electrical projects can be prepared appropriately. To provide data for the feasibility process, a conceptual draft of the layout is created. When the design team works on this layout, they will determine the approximate building area and the size of the lobby area. These data points will be reflected in the feasibility as follows: the building's square meter information is used to calculate construction costs, while the lobby area information helps to determine the seating capacity. This capacity provides an indication of the potential sales volume and the maximum number of customers the restaurant can accommodate. In addition to the design and construction team's checks and efforts, other data is also used in the prepared feasibility reports. For example, the sales channels planned for the restaurant at this location are defined. In the case study project, the restaurant has a drive-thru service. The breakdown of sales channels, such as the percentage of sales from drive-thru, in-store customers, takeout, etc., is incorporated into the feasibility reports. Based on sales forecast data from the operations and real estate teams, the finance team prepares a cash flow statement, incorporating financial variables such as sales growth, inflation, and exchange rate fluctuations over the coming years. Following the review of the report by the finance team, operations, market development director, and ultimately the CEO, the real estate team proceeds to finalize the commercial agreement.

Scenarios such as leasing or purchasing the site are evaluated. In the case study project, the site is leased. In this case, the real estate team designs rental strategies to ensure an optimal agreement for both the company and the stakeholders. The legal team provides consultancy on all stages of the lease agreement. Legal checks are conducted, not only for the land but also for participants, such as property owners, within the framework of the company's global compliance guide. Based on all the gathered data, the approval process is initiated. In addition to internal approvals, as the company is a global corporation, approval is also sought from the global management. An approval package is prepared for this purpose, which includes presentations explaining the location and analyses, draft layouts prepared by the design team, the rent deal, feasibility report, P&L statements, and other related documents. Once both global and local management approvals are obtained, the real estate team finalizes the lease agreement negotiation with the property owner.

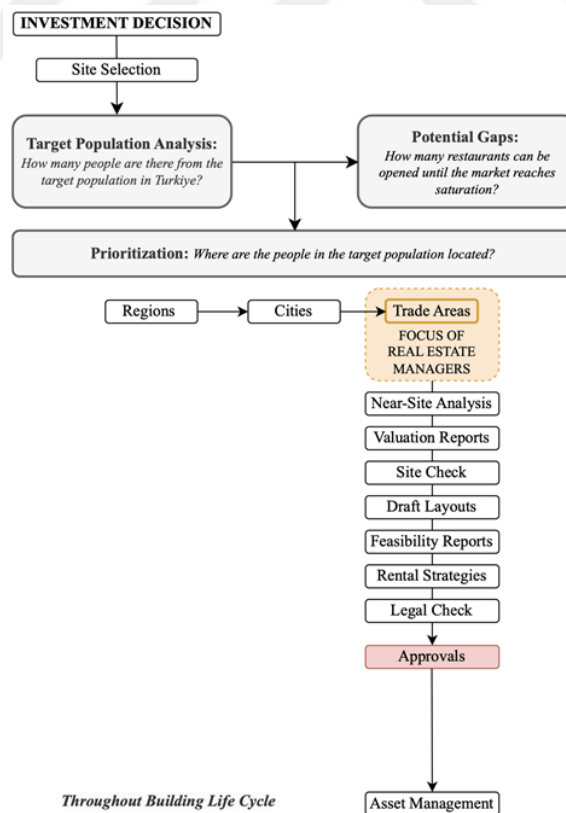


Figure 3.6. Real estate development process.

Figure 3.6 presents a diagram summarizing the stages of the real estate development process. In addition to the real estate development process diagram, Figure 3.7 presents a stakeholder analysis, which outlines all the key stakeholders involved in the process. Each stakeholder is analyzed in terms of their role and responsibilities throughout the various stages of the project. The diagram highlights which stages of the real estate development process each stakeholder is involved in, providing a clear overview of their influence and contributions to the project's success. This analysis serves to emphasize the interconnectedness of various teams and external parties, ensuring a comprehensive understanding of the stakeholder landscape within the project.

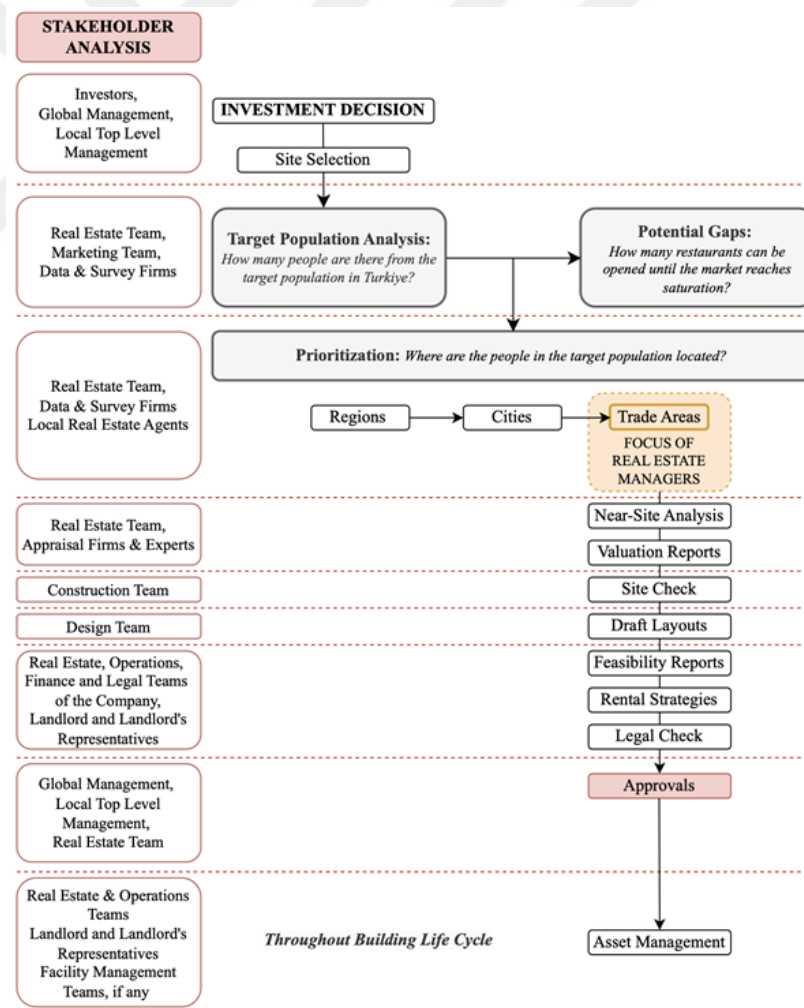


Figure 3.7. Real estate development process with stakeholder analysis.

An essential observation in Figure 3.6 and Figure 3.7 is the role of asset management throughout the entire building life cycle. The asset management team aims to enhance profitability and operational efficiency through the effective management of the store portfolio. This involves analyzing the performance of stores, warehouses, and real estate properties to make strategic decisions, such as opening new stores, closing underperforming ones, or determining whether to remodel existing stores. The negotiation and renewal of lease agreements are crucial for controlling costs. Furthermore, the planning and execution of regular maintenance and repair processes ensure the long-term value of assets while improving the customer experience. In addition, investment projects are evaluated, and return-on-investment analyses are conducted to allocate resources efficiently. Throughout these processes, risk management is implemented to safeguard assets and ensure the sustainability of operations.

During interviews conducted with division heads for the case study, three key performance indicators (KPIs) for all project processes and three key attributes sought in the team were discussed. Interviews were also conducted with the real estate senior manager to identify the key factors behind the successful execution of the process outlined in Figure 3.8 and the creation of positive outcomes for the company. In these discussions, it was communicated that a successful real estate development and site selection process can be identified by three main criteria.

The first criterion is location. A location in the right commercial area with high accessibility and visibility is defined as one of the most important factors for the success of the project. The second criterion is the physical conditions of the site. It was emphasized that a project located in the right location but failing to meet the required physical conditions will significantly reduce the project's success. For instance, constructing a building with insufficient capacity in an area with high sales expectations will lead to low performance, falling below the potential sales volume. The final criterion is the proper structuring of the rent deal. A rent deal that creates an advantage for the company will ease the work of all project teams in terms of both project duration and costs.

To achieve these three success criteria, the leaders in this field expect three fundamental qualities from professionals in their teams: foresight, negotiation skills, and company know-how. In location selection, it is important not only to correctly analyze the current conditions of the location but also to be aware of its future potential. For example, being a pioneering brand in an undeveloped area can provide a market advantage to the company in the future. Real estate teams need to be able to foresee the potential future development and changes of the area.

Negotiation skills serve as a powerful tool in commercial agreements. These skills help protect the interests of the parties in lease agreements, allowing them to secure more favorable terms. For example, a good negotiator can better align the lease duration, rental price, additional charges, or maintenance responsibilities to the company's advantage. Moreover, by offering flexibility, they can increase satisfaction for both parties and contribute to establishing a stable long-term landlord-tenant relationship.

Lastly, the real estate manager's know-how about the company and a solid understanding of the company's goals and vision provide guidance in strategic decision-making processes, enhancing efficiency. This situation facilitates employees' understanding of what and why things are being done, supporting quick and effective solutions to problems. As a result, the company becomes more competitive, flexible, and better positioned for long-term success. Figure 3.8 summarizes the top three key performance indicators of successful real estate development and the top three expected attributes of real estate teams.



Figure 3.8. Top performance indicators of the real estate development and top attributes of the real estate team.

3.5.2.3. Design. The processes were analyzed through discussions with the company's design team and the construction manager to whom the design team reports. According to the collected data, it shows that in retail construction projects, the design process is relatively shorter and more compact compared to the general construction industry. The efficiency in this process results from well-defined roles within multiple teams, global standards, and the development of similar types of projects. This section aims to identify how the process unfolds, the stakeholders involved, and the key factors for successful execution through the case project.

In the case study, discussions with the design team revealed that specific data is required to initiate the design process. The design team has created a checklist of the data they need, and once the necessary information is provided by the relevant teams, the layout work can begin. The contents of this checklist are as follows:

- Sales expectation
- Peak hour sales expectation
- Customer profile
- Estimated number of customer groups
- Specific requests of the property owner, if any
- Sales channels
- Physical analyses of the location
- Facades with the highest advertising value
- Pedestrian and car flows
- Major focal points around land
- Sewage system and water infrastructure
- Electrical and energy infrastructure
- Drawing files of the land
- Zoning laws, setback boundaries and other requirements of the land

At this stage, the answers do not need to be completely accurate, as the process moves forward with predictions and estimates. These forecasts and estimates are de-

rived from benchmarking the company's other restaurants, making them reliable data sources for the design team. A preliminary layout is created before the rent deal is finalized. As mentioned in the site selection section, the building layout is roughly completed at this stage. To better understand the design process, the building can be thought of as consisting of two main functional parts: the back of house (BOH), which includes areas not visible to customers and where operations and production take place, and the front of house (FOH), which contains spaces such as the cash registers, seating areas, and restrooms where customers have their experience. In the site selection phase, priority is given to the back-of-house layout. Particularly in a project with a drive-thru function, like the case study example, the drive-thru lane requirements are addressed first. Figure 3.9 illustrates the key considerations on customer flow and zoning during the preliminary layout design process.

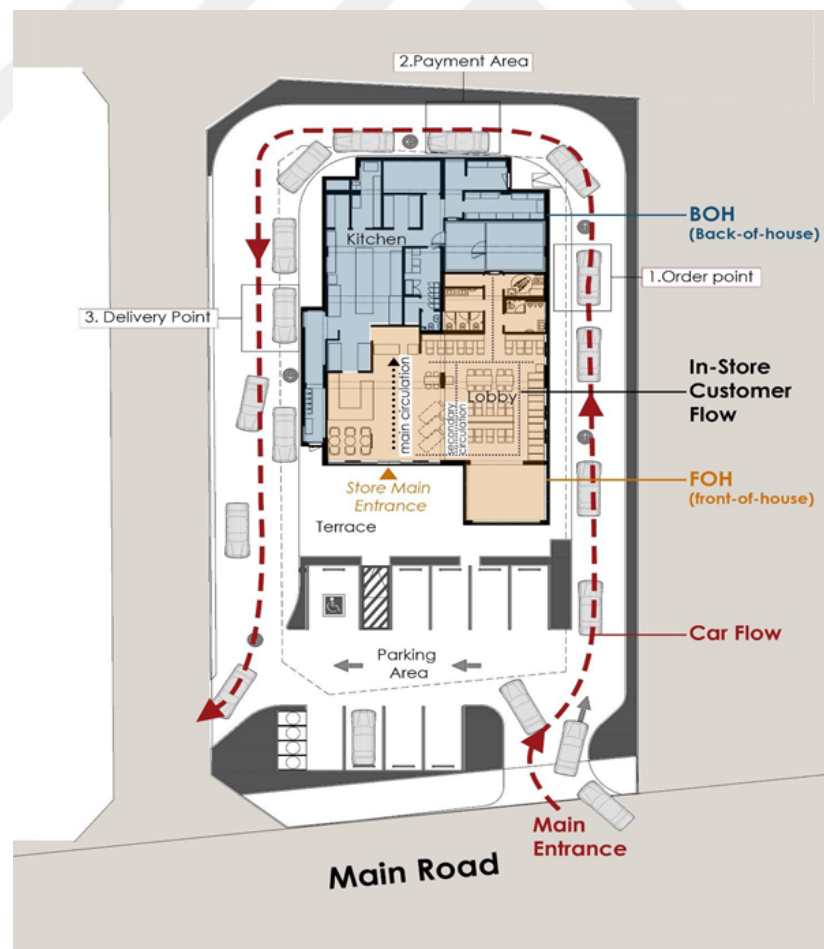


Figure 3.9. Case study project layout: Integration of drive-thru and in-store circulation.

The following section outlines the architectural details of the case project:

- Located in Mediterranean Region of Türkiye,
- Total land area of 1,700 square meters,
- Building area of 420 square meters (200 square meters BOH, 230 square meters FOH),
- Single-story building,
- Ceiling height of 450 cm (slab to slab),
- Includes indoor and outdoor lobbies, playgrounds, and parking areas.

The company has certain standard distance criteria for projects with a drive-thru function. These standards are developed through various analyses by global teams to achieve operational excellence. For example, the drive-thru operation starts when the customer places an order at a speaker, and during this time, the product begins to be prepared by the operations team. The next stage is the payment for the ordered products, followed by the final stage, where the customer receives the prepared product. The restaurant's menu items and preparation times are standardized globally. Based on these global timings, there was a need for building design to ensure that customers do not have to wait for the product. As a result, the company planned to create different stops for customers inside the restaurant, thus allowing time for product preparation. Based on product preparation times, it is necessary to create certain lengths of car queues and maintain a certain distance between order stages.

During the leasing phase, the building is placed on the land in the most suitable way according to these functions. A certain distance must be maintained between the initial order area at the speaker and the entrance to the land. This distance is designed to prevent vehicles using the drive-thru service from blocking the streets of the city when queuing. Similarly, after the order windows are positioned according to global standards, the kitchen layout is created. The production line starts with the kitchen layout. The last station where the prepared product is finalized should be near the service window for cars, the counter serving customers inside, and, if

applicable, the counter for take-out deliveries to motorcycle drivers. There are also standard measurements for the placement of stations in the production line. These measurements are based on standard production techniques and operational processes, developed through the research conducted by global R&D teams. For example, the more steps a person takes to collect multiple products and assemble them on a tray, the longer the operational process will be, and the later the product will be delivered to the customer. To prevent this, the number of steps must be limited at certain points, which is why the distances between stations are carefully planned. An increase in distance can lead to more steps, while too short a distance can create a narrow space that may lead to accidents or collisions between workers. Following the design of the production area, the next step involves determining the placement of storage areas. The most important factor in the layout of storage areas is proximity to the service door and efficiency in kitchen circulation. A flow of goods from the storage areas to the production area that is visible to customers should be avoided. After the storage areas are arranged, other requirements for the back-of-house area, such as crew rooms, dishwashing areas, technical spaces for water treatment, electrical rooms housing panels, data cabinets, and regulators, are placed. Each of these volumes has specific design criteria, and maximum adherence to these criteria is ensured.

The design process in the countries where the brand operates does not involve the same stakeholders across all locations. A common requirement for all is the need to get the final design package approved by global management or coordination teams working under these managements. These approvals help ensure that the brand's standards are maintained consistently across countries. In the Türkiye operations of the case study, the layout work during the leasing phase is conducted either by the design team led by the company's design lead or by local architecture firms coordinated by this team. Once the kitchen layout is finalized, the relevant layouts and technical specifications are shared with the real estate and operations teams after global approvals are obtained.

Once the real estate team completes its processes and signs contracts, the design team works on several processes simultaneously to shorten the project timeline. For

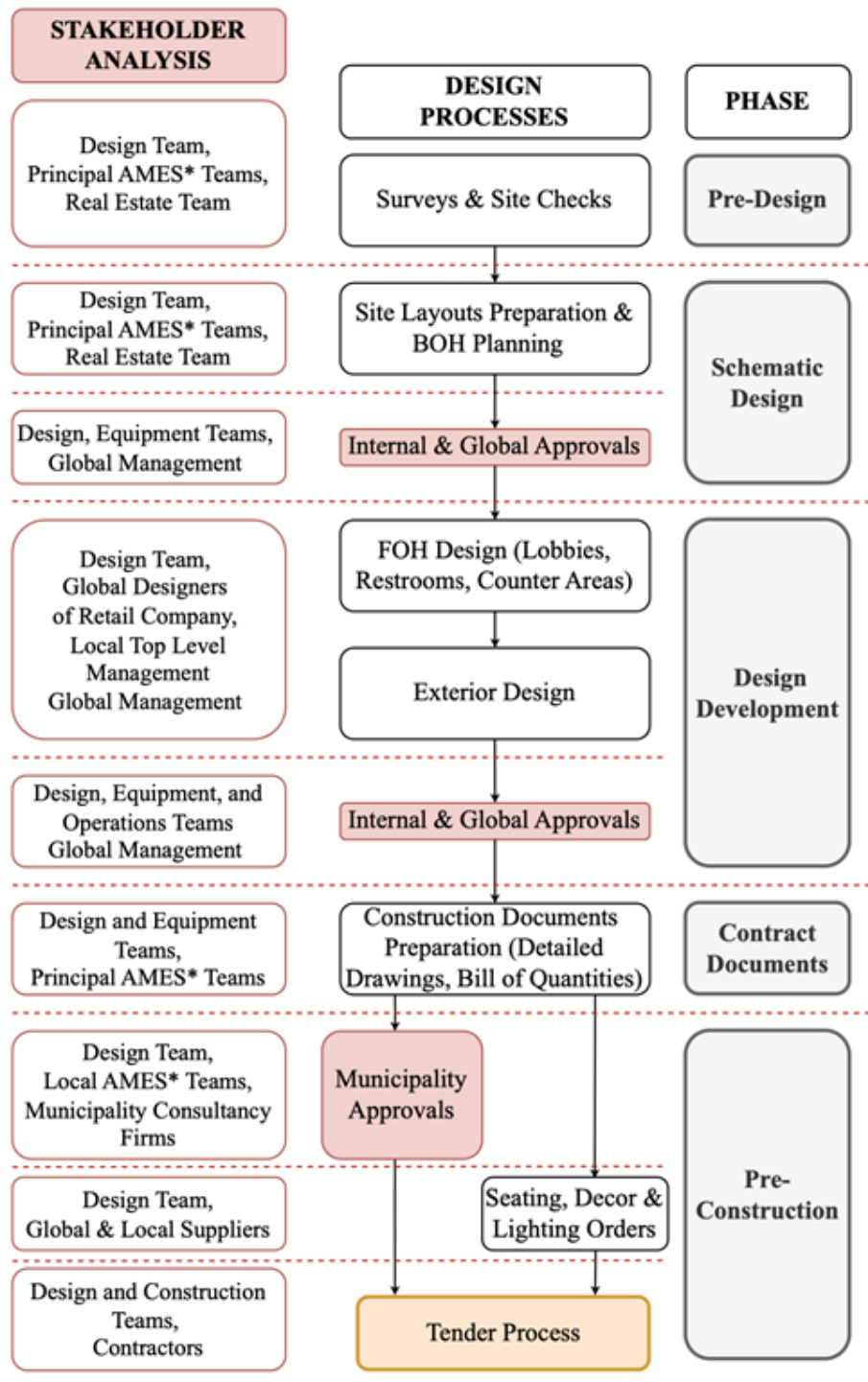
instance, the soil investigation process is initiated to obtain samples from the site. As the land area where the building will sit has already been determined in the preliminary layout, the areas for soil sample collection are identified. While waiting for the soil report, architectural teams coordinate with outsourced structural firms to create preliminary column and beam layouts, and projects are sent to global designers for lobby and exterior design. The front of house areas are designed according to the company's key concepts by global designers. This process is expected to be completed in two weeks, with proposals for seating layout and exterior design submitted at the end of the first week. The company's design team, based on customer preferences and dynamics specific to their country, guides global designers with necessary revisions to localize the projects. If any issues or shortcomings related to the constructability of the design are identified, they provide guidance at this stage, as the brand's design teams work closely with procurement and construction teams. Therefore, they must conduct a comprehensive evaluation, considering the lead times, costs, and implementation details of the materials included in the design. At the end of the two-week period, the completed design set is delivered to the company's design team. The team then forwards it to local architectural, mechanical, electrical, and structural firms, requesting the detailed preparation of the application project files and project estimates. The timeframe set for this process is also two weeks. After these two weeks, the project, along with all the details and BOQ (bill of quantities) files, is handed over to the company's construction team for tendering. In newly developed projects, the process involves applying for municipal construction permits, while remodel projects require obtaining renovation and revision permits from the relevant authorities. For restaurant projects located in areas such as shopping malls or airports, approvals for design revisions must also be secured from the technical teams managing these retail areas.

For the case project, which involves a newly constructed building, the company extended its scope beyond local firms traditionally employed in Istanbul. It partnered with architectural, mechanical, electrical, and structural engineering firms in the city where the project is located. These firms adapted the project designs in accordance with the local municipal guidelines. The design team played a critical role in bal-

ancing corporate design standards with local regulatory requirements throughout the process. After the local design firms completed their revisions, the updated designs were reviewed by the internal design team and submitted for municipal approval. During this process, any revision requests from the municipality were addressed, and the designs were resubmitted for final approval. Once approved, the finalized designs were reviewed by the design team of the company and reworked again by the main project teams based in Istanbul. This ensured alignment with corporate standards, and tender packages were subsequently updated to reflect the approved designs. Construction projects lead reviews the projects and initiate the tender process. Gathering and finalizing price offers through several rounds takes approximately two weeks. At the end of these two weeks, the contractor is selected. The selected contractor is given one week to prepare to take over the site, and after this period, the construction process begins.

In parallel, the design team also managed the procurement of furniture, lighting, and other decorative elements. Since creative decisions affecting architectural components might be required, the procurement process was overseen by the design team rather than the procurement team. Orders were carefully planned and placed with global suppliers or locally approved equivalents. This ensured that the necessary materials were delivered to the construction site at the appropriate time, aligning with the updated project revisions.

Figure 3.10 summarizes the stages of the design process in schematic form, with an analysis of the project stakeholders involved in each process.



*AMES: Architectural, Mechanical, Electrical and Structural Firms

Figure 3.10. Retail design process with stakeholder analysis.

3.5.2.4. Construction. The construction phase of a retail project is critical to ensuring its timely, cost-effective, and high-quality completion. It involves a series of coordinated

steps where careful planning, resource management, and adherence to brand guidelines are essential. This section outlines the key processes involved in retail construction of the case project, focusing on the roles and responsibilities of both the retail firm's internal construction team and the general contractor.

The process begins with the site handover, where the team initiates ground-breaking activities to prepare the site for construction. During this phase, the general contractor is responsible for overseeing the practical work and ensuring the effective coordination of all activities. The general contractor's role encompasses managing the workforce, procuring materials, and organizing equipment to maintain the project's schedule and budget.

The retail firm's construction team, which includes project managers and a lead, plays a vital role in ensuring that the project runs efficiently. They are tasked with optimizing timelines, ensuring that construction milestones are achieved without compromising quality, and managing costs effectively. These project managers are also responsible for maintaining strict adherence to the brand guidelines throughout the construction process, ensuring that the final product aligns with the company's vision and standards. An essential element of process improvement in this context is the establishment of an in-house construction management team by the retail firm. Rather than leaving all aspects of the project under the control of external contractors, this team focuses on optimizing and improving the construction processes. They continuously monitor the project, make adjustments where necessary, and implement improvements to ensure that the project is completed efficiently, on time, and within budget while upholding high-quality standards.

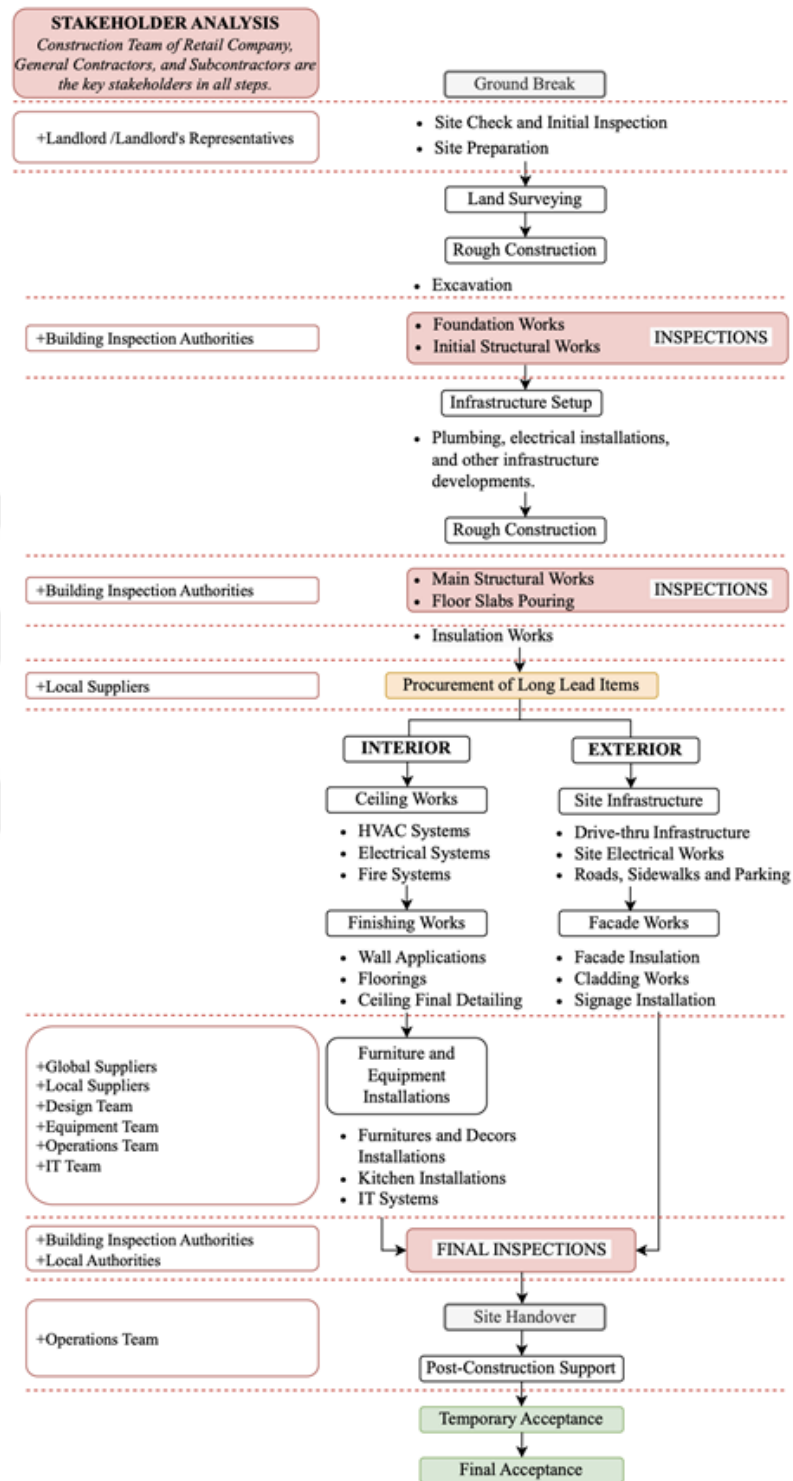


Figure 3.11. Retail construction process with stakeholder analysis.

In summary, the construction phase in retail projects requires effective collaboration between the general contractor and the retail firm's in-house construction team. The combination of process optimization, careful management of resources, and adherence to brand standards ensures that the project is successfully delivered, meeting both time and quality expectations.

As can be seen in Figure 3.11, the case of the single-story drive-thru restaurant project, the construction process follows a structured sequence of phases. The order and types of construction activities generally do not differ significantly from those found in a typical construction process. However, the retail construction process stands out in terms of project management and decision-making mechanisms, where faster decision-making and closer coordination between teams are crucial for optimizing the timeline and ensuring adherence to specific brand guidelines. Project managers ensure that each task is completed efficiently to meet the final operational needs of the restaurant. The initial phase begins with site handover, where surveying teams establish the required elevations, followed by excavation and sub-foundation fill work. This is followed by foundational activities, such as formwork preparation, grounding, and the pouring of the foundation concrete.

Once the foundation work is complete, attention shifts to the construction of the structural elements, including the pouring of the floor slab and columns, with a necessary curing period before the terrace slab is laid. As the rough construction progresses, work on surrounding infrastructure, such as roads, sidewalks, and essential utilities, begins. This phase also includes the installation of electrical infrastructure required for the drive-thru functionality, including street lighting and an EV charging station.

After the rough structure is in place, finishing work begins with insulation installation and the application of walls. Ceiling systems and various mechanical systems, such as HVAC ducts, are installed next. Flooring and wall tiling are applied, followed by the installation of suspended ceilings. As the finishing work progresses, interior fur-

niture is installed, and external landscaping and facade work are completed, including the installation of signage.

As the construction nears completion, the equipment team begins deliveries, setting up the kitchen and other operational systems. The IT team ensures that the necessary technological infrastructure is activated to support the restaurant's operations. Once all teams have completed their respective tasks, the site is handed over to the operations team, which arranges for cleaning and final touches in preparation for the restaurant's opening.

In the context of a retail construction project in this firm, a single project manager is appointed for each project, overseeing the entire construction process. This manager ensures that all phases, from initial planning to final handover, are executed efficiently and in compliance with the project timeline and budget. One significant aspect of this process is the active involvement of municipal-appointed building inspection and control companies. These authorities monitor key stages of the construction, especially structural works such as foundation work, concrete pouring, and reinforcement, ensuring that each phase meets regulatory standards. Written, visual, and video documentation is provided to local authorities, and the construction team cannot progress to the next phase without receiving the necessary approvals from the inspection authorities.

A key factor in optimizing the construction process is the coordination between teams and the rapid decision-making mechanisms in place. The project manager emphasized that certain material choices and techniques, such as using early-setting concrete additives, were available to minimize construction time. However, since the project was located in southern Türkiye and built during the summer months, these particular additives were not required.

The project manager further explained that one of the critical strategies for accelerating construction in standalone retail buildings is the parallel execution of in-

terior work and site arrangement. If groundwork and infrastructure can be prepared in advance, the facade work can start earlier, thus reducing delays. However, if site preparation is delayed, facade work must wait until the ground works are complete, extending the overall timeline.

Interviews with department managers revealed that minimizing delays and completing the project within the planned timeframe depended heavily on the project manager's competency and their ability to make quick and effective decisions. According to the senior construction manager, two additional factors played a crucial role in shortening the project timeline. The first was setting clear construction durations and opening dates at the outset of the project, which allowed the construction team to prepare a work schedule that anticipated the contractor's workload. This proactive approach eliminated the need to wait for the contractor's schedule, ensuring that planning was done in advance. Furthermore, the construction schedule provided by the contractor was closely reviewed, and improvement methods were suggested to further reduce project duration.

According to the construction team's reports, the work schedule initially set by the contractor at 150 days could be reduced to 100 days as a result of the project manager's detailed investigation and deep knowledge of brand processes. For example, due to certain furniture pieces having standardized concepts, wall-mounted furniture finishes could be completed before the furniture even arrived at the site. This proactive approach, facilitated by the project manager and the design team, allowed workers to prepare for installation without waiting for the physical furniture to be delivered. Similarly, when zoning the site, the project manager's familiarity with the processes allowed for more effective zoning and scheduling, ensuring that tasks could be executed simultaneously and reducing project duration further.

Project managers in this firm possess significant construction knowledge due to their experience with similar techniques and global guidelines within the company. Having encountered various risks in previous projects, they are well-equipped to iden-

tify and mitigate potential issues. This accumulated knowledge, combined with best practices shared over time, enables the team to foresee problems, minimize risks, and make fast, informed decisions when challenges arise.

One of the facilitating factors for the rapid progression of this retail firm's construction projects, such as the single-story case example, is the fact that the projects are typically constructed with a maximum of two stories. This approach keeps the project scale manageable. For instance, time losses associated with waiting for concrete to set for multiple floors are not a concern in these projects. Additionally, the smaller scale of the project also helps minimize accidents on site, as there are fewer complex structural elements and less coordination is required between multiple levels. Furthermore, due to similar designs and streamlined processes, contractors and subcontractors gain experience with repetitive tasks, making them better prepared for subsequent projects. This becomes a facilitating factor in optimizing the construction process and preventing site accidents.

The procurement of materials and structural elements with long production lead times is a critical factor in preventing delays in retail construction projects. To mitigate this, the procurement team plays a key role in placing orders for these materials well in advance. This proactive approach ensures that production times do not extend the overall project schedule. Additionally, to streamline the procurement process, bulk orders are often placed, which can include multiple quantities of materials or components needed for various phases of the project. This approach not only reduces lead times but also helps to secure better pricing and ensures the timely availability of materials, thus minimizing disruptions to the construction timeline. The collaboration between the procurement team and construction team is crucial in managing these orders efficiently and maintaining the project's pace.

In retail construction projects, the commercial agreement of the location by the real estate team is also a crucial factor. For instance, the real estate team may negotiate with the landowner such that the landowner takes responsibility for the rough

construction. In this scenario, however, the retail design and construction team would still be responsible for overseeing the entire project, ensuring that rough construction aligns with the design requirements, and ensuring that all necessary permits are obtained. In the case project, an agreement was made with the landowner where both the rough and fine works would be fully managed by the retail firm. Each of these two scenarios presents its own set of advantages and disadvantages.

The advantage of the first scenario, where the landowner handles rough construction, is that it can reduce initial capital investment and speed up certain phases, especially the preliminary site work. However, the retail firm would still need to closely monitor these initial works to ensure alignment with their design and regulatory requirements, potentially adding complexity. On the other hand, by taking full responsibility for both the rough and fine works, as demonstrated in the case project, the retail firm maintains greater control over the process, ensuring consistency and a streamlined approach. However, this might come at a higher initial cost and potentially longer lead times for construction, as the firm needs to manage all aspects of the project internally.

Finally, an important factor in process improvement is the close collaboration between the construction and design teams of the retail company, both of which report to the same manager. Regular coordination meetings foster mutual feedback between the teams, ensuring that design packages are feasible and can be physically implemented on-site. The construction team also gains insights into what design elements need attention and receives support in solving on-site issues from the design team. This collaborative environment facilitates continuous learning and improvement, leading to numerous shared gains from each project.

As illustrated in Figure 3.12, key performance indicators (KPIs) are jointly defined for both the design and construction teams. This shared understanding of performance expectations encourages each team to focus on what they can do within their area of responsibility to meet these targets. The necessary attributes for both teams, as identified through discussions with their respective managers and directors,

are also outlined in Figure C, ensuring that all teams are aligned in their approach and objectives.

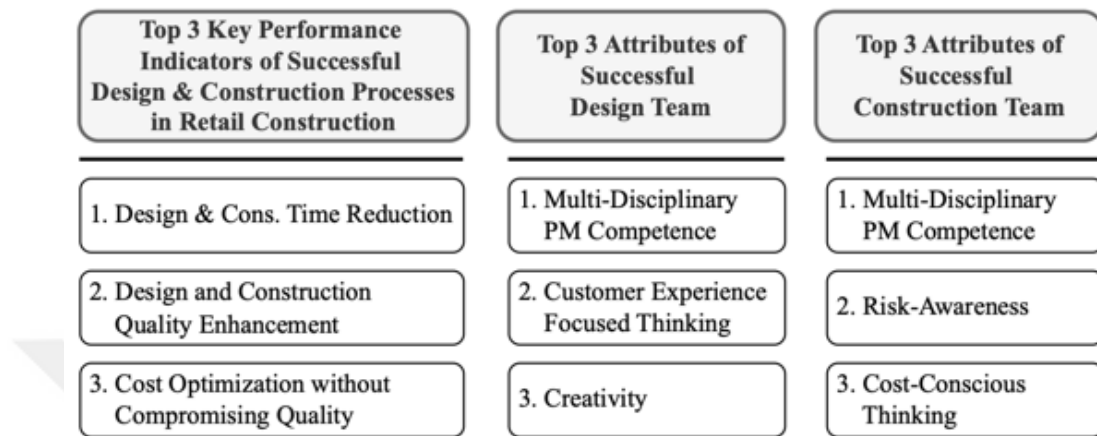


Figure 3.12. Top performance indicators of the design and construction processes and top attributes of the design and construction teams.

The successful design and construction processes in retail construction are driven by three key performance indicators. First, reduction of design and construction time focuses on minimizing the time spent on both the design and construction phases, which is critical for meeting tight deadlines. The second performance indicator emphasizes the importance of improving the quality of the design and construction work while maintaining efficiency. The last indicator highlights the need to balance cost-efficiency with high standards, ensuring that the project stays within budget without sacrificing quality.

The design and construction teams in retail construction must demonstrate multi-disciplinary project management (PM) competence, which involves coordinating the needs of multiple teams within the company. This includes managing various disciplines such as architectural, mechanical, electrical, and structural elements. Effective coordination ensures that all aspects of the project align with each other, allowing for a seamless integration of design and construction phases. This ability to handle diverse responsibilities and collaborate across different areas is essential for maintaining the efficiency and quality of the project.

The design team plays a critical role in ensuring the success of a retail construction project. One of their key attributes is customer experience (CX) focused thinking, which ensures that the design aligns with customer needs and the brand's vision. This approach helps create spaces that enhance customer satisfaction and support the brand's goals. Additionally, creativity is a crucial attribute for the design team, as it allows them to develop innovative solutions to design challenges while maintaining functionality and aesthetic appeal.

The construction team, on the other hand, must focus on different key attributes to ensure the project's smooth execution. Risk-awareness is essential for the construction team, as it allows them to anticipate potential issues and address them proactively, minimizing delays and disruptions. Furthermore, cost-conscious thinking is vital for the construction team, enabling them to manage project costs efficiently without compromising on quality, ensuring that the project remains within budget and is completed to the required standards. These attributes are crucial for the construction team to deliver successful outcomes on time and within budget.

3.5.2.5. Procurement. The team managed by the Equipment and Procurement Senior Manager oversees two primary areas: Procurement and equipment/installation.

The Procurement process involves managing various purchasing activities with both global and local suppliers. This team is responsible for researching, identifying suppliers, and negotiating agreements to meet the needs of operations, the construction team, and other departments. As the company is a global chain, there is a focus on maintaining consistent product and service quality across all regions, including ensuring standard menus worldwide. Consequently, equipment for kitchen areas must often be sourced from global suppliers. These suppliers operate in regions such as America, Europe, and the Far East, which introduces intercontinental import processes. Additionally, customs procedures play a critical role in this process. Coordination of these global procurement processes is handled by this team.

Several barriers encountered during these processes include delays in transportation due to international imports, customs duties, and approval procedures. For instance, imported products must be tested for compliance with Turkish standards, which may involve sampling and conducting tests. These processes can cause delays as products may be held in customs for approval. If the product is kitchen equipment, it must be delivered to the construction site on the scheduled date, and all installations need to be completed on time for the restaurant to open as planned. To ensure this, the team must be well-versed in the financial, regulatory, and operational import processes. A key stakeholder in this process is global logistics companies. In particular, for international procurement, the team works with logistics firms to manage the transportation and customs procedures, ensuring seamless execution of these complex processes.

This department is not only responsible for sourcing products for newly opened restaurants but also for managing the replacement of equipment in existing locations. The team monitors the equipment replacement process, including obtaining approvals and placing new orders. Approximately 20% of the cost of a new retail investment is attributed to the products sourced by this team, which means that they manage a significant budget. Effective management of this budget is one of the key performance indicators for this team.

To execute this management process more effectively, the team adopts a cash flow-focused planning approach. The budget allocated for this area is tracked through monthly and annual cash flow statements to ensure that investment costs are distributed efficiently throughout the year. In this process, the team works directly with finance teams. For example, ordering all required equipment at the beginning of the year could lead to storage issues and would also neglect the time value of money for equipment investments that won't be used in the early part of the year. Therefore, the team continuously monitors critical stock levels to maintain a balance between storage capacity and investment while alleviating the company's financial burden.

Additionally, the team shares investment costs with the real estate and finance teams, ensuring that the data is included in feasibility reports prepared during the site selection process. This allows for a detailed understanding of the financial implications of the equipment and its impact on the overall budget.

The equipment/installation process involves the installation of procured equipment and ensuring its maintenance and repair during its operational life. In Türkiye, the company outsources maintenance, repair, and service operations to external firms. The team works in coordination with the construction team to develop action plans for new openings, remodeling projects, or maintenance and repair activities. This process also involves managing asset management specific to equipment.

Another important responsibility of the team is conducting negotiations with suppliers regarding annual price adjustments, inflation, and renewing commercial agreements. Furthermore, the team develops storage strategies for all procured or planned products and ensures the optimization of storage spaces. By collaborating with local third-party firms, they utilize warehouse tracking programs to monitor the entries and exits of inventory. This allows them to manage stock and inventory control effectively, providing support for planning by other teams.

In Figure 3.13, the operational flow of this division and the key stakeholders involved in the processes are illustrated. During discussions with the division head, the top three key performance indicators (KPIs) for this team were identified. As shown in Figure 3.14, the most important KPI for the team is comprehension of the dynamics in the food sector, the retail market, and suppliers within these markets. It is believed that success in managing these processes is directly linked to this knowledge and expertise. The second KPI is effective time and financial planning. Throughout all stages of the process, the company's cash flow, financial burdens, and time constraints, such as opening deadlines, must be carefully considered when making decisions. Lastly, a critical KPI for success is the commitment to following technological advancements in local and global markets, as well as staying aware of new products and services.

Additionally, as illustrated in Figure 3.14, the division and department heads emphasize three key attributes they seek in professionals working within this team. The first is global competence. Employees in this department are expected to be multilingual and possess expertise not only in local markets but also in global markets. The second attribute is interpersonal competence. Due to the team's processes, it is necessary to maintain frequent communication with dozens of domestic and international suppliers. Managing stakeholder relationships effectively is essential for successful process management, making interpersonal skills crucial. As the company operates as a global chain, it has established significant know-how and strategies for stakeholder management. To demonstrate the importance it places on suppliers, the company focuses on a three-pillar system, which emphasizes the equal importance of the company itself, its customers, and its suppliers. In this context, supplier management is a global success factor for the company. People who manage interpersonal relationships well are also believed to possess resilience under pressure, which is another desired trait for members of this team. Finally, employees in this team are expected to be innovative individuals who are open to new ideas, discoveries, and developments. Their curiosity drives them to search for better operational and procurement process solutions, and this characteristic is considered a vital contributor to the company's success.

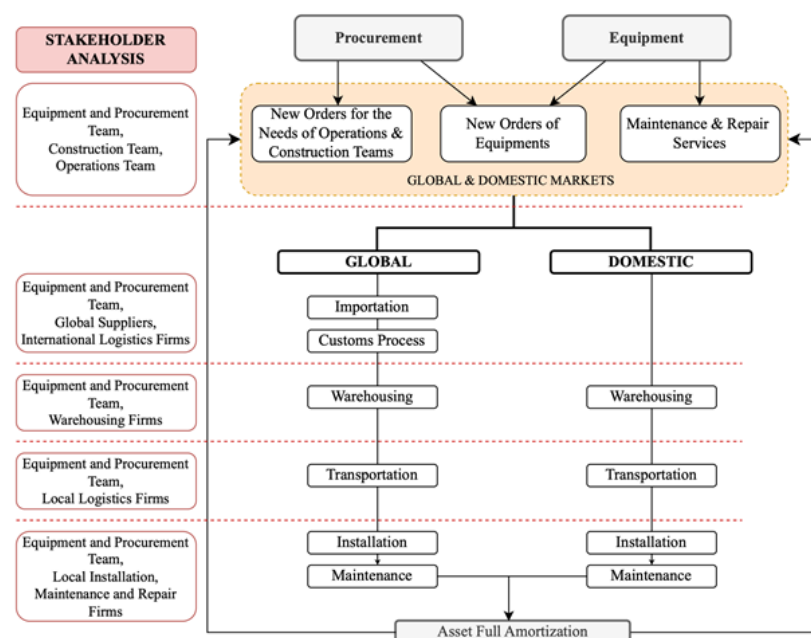


Figure 3.13. Procurement process with stakeholder analysis.

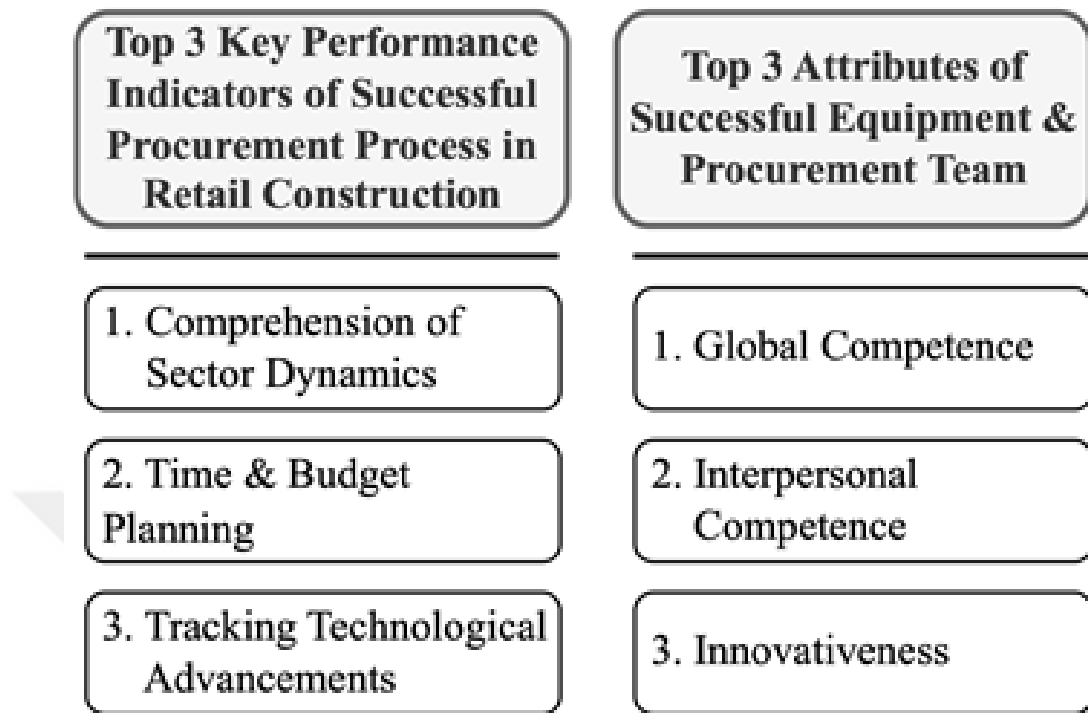


Figure 3.14. Top performance indicators of the procurement process and top attributes of the equipment and procurement team.

3.5.2.6. Retail Development Process Summary. This case study exemplifies the strategic approach of the company for its logical business decisions and a focus on value engineering throughout its processes. By continually refining its methods, the company has achieved the ability to open up to 50 new restaurants annually in Türkiye, thereby maximizing its market presence. The architectural teams, leveraging streamlined processes, are able to handle layout designs for up to 100 projects per year, contributing significantly to brand enhancement through modernized designs. Furthermore, the construction and procurement teams have consistently demonstrated their expertise in cost-saving initiatives. These advancements, underpinned by their robust operational framework, highlight the company's commitment to optimizing new developments while ensuring long-term success and profitability. The trajectory of the company's retail development team throughout the aforementioned processes is summarized in Figure 3.15. This figure encapsulates the streamlined stages the team adopts, from real estate development to design, construction, and procurement.

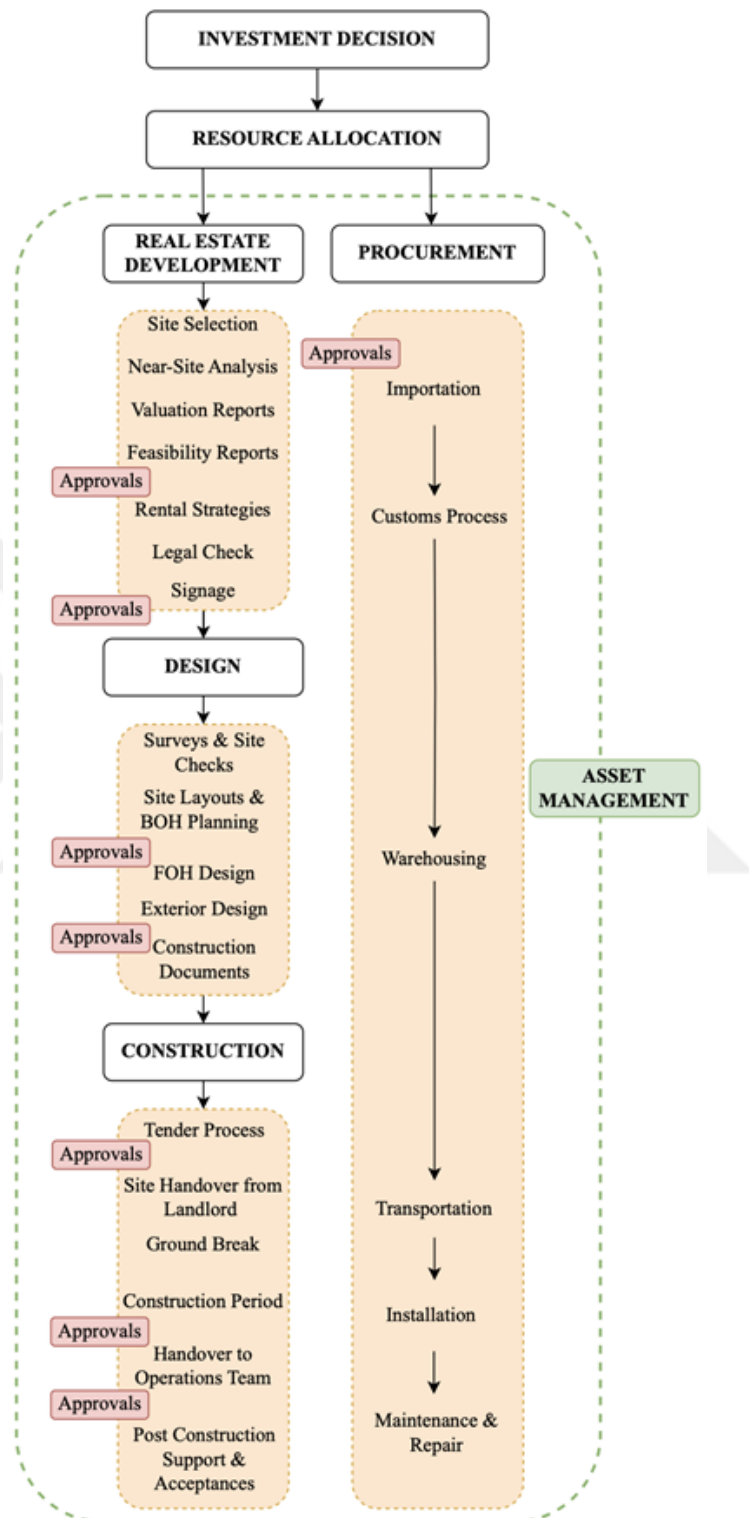


Figure 3.15. Summary of retail development processes.

4. RESEARCH RESULTS AND DISCUSSION

This chapter presents the findings collected from the research, offering an in-depth analysis of the critical success factors identified for retail construction projects. The results are discussed in relation to the research objectives, emphasizing the key drivers, enablers, inputs, barriers, benefits, and impacts in retail construction. The insights gained from the data are critically analyzed and compared with the existing literature to identify patterns, discrepancies, and practical implications. Furthermore, the findings from the case study are integrated with the survey results to provide a more comprehensive and multidimensional understanding of the critical success factors. This approach aims to offer deeper insights into the factors influencing retail construction success, bridging theoretical frameworks with real-world applications, and contributing to both academic knowledge and industry practices.

4.1. Survey Results

The survey results reveal the rankings of key drivers in retail construction. As can be seen in Table 4.1, the highest-ranked driver, time sensitivity and delivery speed (D1), not only received the highest ranking but also had the lowest standard deviation of 0.758, with a mean score of 4.28. Following closely, customer demand/satisfaction/loyalty ranked second with a mean of 4.12 and a standard deviation of 0.93.

Table 4.1. Rankings of the key drivers.

Ranking	Factor ID	Drivers in Retail Construction	Mean	Std. Dev.
1	D1	Time sensitivity and delivery speed	4.28	0.758
2	D4	Customer Demand / Satisfaction / Loyalty	4.12	0.894
3	D3	Operational excellence and productivity	4.01	0.896
4	D5	Competitive advantage / Improving corporate financial performance	3.96	0.867

Table 4.1 Rankings of the key drivers. (cont.)

Ranking	Factor ID	Drivers in Retail Construction	Mean	Std. Dev.
5	D6	Regulatory compliance requirements	3.76	1.072
6	D2	Reducing operational costs throughout the building's life cycle	3.73	0.930
7	D7	Providing employment	3.33	1.055

Operational excellence and productivity secured the third position with a mean of 4.01 and a standard deviation of 0.896. In fourth place, competitive advantage and improving corporate financial performance achieved a mean of 3.96 with a standard deviation of 0.894. The remaining drivers included regulatory compliance requirements (mean = 3.76, standard deviation = 0.867), reducing operational costs throughout the building's life cycle (mean = 3.73, standard deviation = 1.072), and providing employment (mean = 3.33, standard deviation = 1.055). The drivers exhibit relatively high mean scores, with varying degrees of response dispersion, as indicated by the standard deviations.

Table 4.2. Rankings of the key enablers.

Ranking	Factor ID	Enablers in Retail Construction	Mean	Std. Dev.
1	E1	Project leadership and management competence	4.33	0.787
2	E8	Project planning	4.17	0.886
3	E9	Clear scope of work and briefing	4.12	0.948
4	E6	Collaborative working and effective communication	4.10	0.989
5	E3	Integrated project delivery	4.06	0.822
6	E16	Employee motivation and job satisfaction	4.04	0.936

Table 4.2 Rankings of the key enablers. (cont.)

Ranking	Factor ID	Enablers in Retail Construction	Mean	Std. Dev.
7	E14	Contractors' and subcontractors' performance	3.98	0.875
8	E5	Risk management	3.95	0.888
8	E12	Stakeholder engagement	3.95	1.005
10	E11	Supply chain efficiency	3.94	0.894
10	E13	Streamlined construction and similar designs	3.94	1.023
12	E2	Appropriate organizational structure	3.91	0.919
13	E17	Consultancy / External knowledge	3.82	0.877
14	E7	Cross-Functional Collaboration	3.77	0.960
14	E10	Process improvement teams of the organization	3.77	0.920
16	E4	Top-level commitment / Top management support	3.74	0.900
17	E15	Incentives / Advance payments	3.70	1.002

The 4.2 indicates the rankings of key enablers in retail construction. The highest-ranked driver, project leadership and management competence (E1), received a mean score of 4.33 with a standard deviation of 0.787, making it both the highest-ranked driver and the one with the lowest variation in responses. Following closely, project planning (E8) ranked second with a mean of 4.17 and a standard deviation of 0.886. Clear scope of work and briefing (E9) ranked third with a mean of 4.12 and a standard deviation of 0.948. The fourth position was occupied by collaborative working and effective communication (E6), which had a mean of 4.10 and a standard deviation of 0.989. Other notable drivers included integrated project delivery (E3) with a mean of 4.06, employee motivation and job satisfaction (E16) with a mean of 4.04, and contractors' and subcontractors' performance (E14) with a mean of 3.98.

Contractors' and subcontractors' performance (E14), and risk management (E5), tied with a mean score of 3.95. Similarly, supply chain efficiency (E11) and streamlined construction and similar designs (E13) also shared the same mean score of 3.94, with standard deviations of 0.894 and 1.023, respectively. Cross-functional collaboration (E7) and process improvement teams of the organization (E10) have the same mean score of 3.77. Furthermore, incentives/advance payments (E15) ranked last with mean scores of 3.70.

Table 4.3. Rankings of the key inputs.

Rank	Factor ID	Inputs in Retail Construction	Mean	Std. Dev.
1	I2	Technical expertise	4.17	0.867
2	I1	Capital expenditures and investments	4.09	0.858
3	I6	Guidelines and best practices within brand	3.87	0.947
4	I3	Feedback and review mechanisms	3.80	0.968
5	I4	Training and skill development	3.79	0.920
6	I5	Technological advancements	3.78	0.856

In Table 4.3, the key inputs in retail construction projects are presented according to their mean values and standard deviations. The results highlight that technical expertise (I2) and capital expenditures and investments (I1) are considered the most important drivers in retail construction projects with the mean values 4.17 and 4.09, respectively. The two most important factors also have low standard deviations, indicating a high level of agreement among respondents regarding their importance. In contrast, technological advancements (I5) and training and skill development (I4) are ranked lower, although still recognized as important.

The variation in standard deviations across factors indicates varying degrees of agreement among the respondents, with some factors showing more divergence in their perceived importance.

Table 4.4. Rankings of the key barriers.

Rank	Factor ID	Barriers in Retail Construction	Mean	Std. Dev.
1	B4	Lack of communication and coordination within the project team	4.09	0.844
2	B2	Limited knowledge and skills	4.04	0.833
3	B8	Changes in design and scope	4.01	0.876
4	B19	Higher capital costs	3.98	0.869
5	B9	Incomplete design package and lack of constructability	3.95	0.882
6	B10	Inadequate site investigation	3.94	0.902
6	B20	Economic volatility	3.94	0.929
8	B1	Lack of commitment from leaders	3.88	0.902
9	B5	Lack of integration and coordination between partnering organizations	3.87	0.777
10	B3	Contractors' and subcontractors' performance	3.85	0.885
11	B13	Supply chain difficulties	3.84	0.833
12	B21	Improper project feasibility	3.82	0.939
13	B6	Lack of cross-functional communication within the company	3.78	0.870
14	B7	Insufficient data and performance metrics	3.76	0.863

Table 4.4 Rankings of the key barriers. (cont.)

Rank	Factor ID	Barriers in Retail Construction	Mean	Std. Dev.
15	B16	Local legislations and building permits	3.74	0.895
16	B12	Site conditions and limitations	3.65	0.980
17	B14	Limited working hours	3.56	1.149
18	B18	Legal and contractual risks	3.52	1.003
19	B17	Public opposition or public acceptance	3.43	1.116
20	B11	Accidents on construction site	3.40	1.167
21	B15	Political instability	3.30	1.032

Table 4.4 presents the barriers in retail construction, ranked by their mean scores and standard deviations. The highest-ranked barrier, lack of communication and coordination within the project team (B4), received a mean score of 4.09 with a standard deviation of 0.844, making it the most significant barrier with relatively low variation in responses. Following closely, limited knowledge and skills (B2) ranked second with a mean score of 4.04 and a standard deviation of 0.833. Changes in design and scope (B8) ranked third with a mean of 4.01 and a standard deviation of 0.876.

The lowest-ranked barriers were political instability (B15) with a mean of 3.30 and a standard deviation of 1.032, accidents on the construction site (B11) with a mean of 3.40 and a standard deviation of 1.167, and public opposition or public acceptance (B17) with a mean of 3.43 and a standard deviation of 1.116. These barriers, while still relevant, were considered less significant in comparison to the higher-ranked factors.

Table 4.5. Rankings of the key benefits.

Rank	Factor ID	Benefits in Retail Construction	Mean	Std. Dev.
1	Be1	Improved project delivery and financial performance	4.11	0.796
2	Be4	Greater user comfort and satisfaction	4.09	0.927
3	Be2	Increased organizational efficiency	3.98	0.826
4	Be5	Improved staff performance	3.85	0.899
5	Be6	Enhanced building life cycle performance	3.82	0.926
6	Be3	Greater stakeholder satisfaction	3.78	0.937

Table 4.5 presents the rankings of key benefits in retail construction. The highest-ranked benefit, improved project delivery and financial performance (Be1), received a mean score of 4.11 with a standard deviation of 0.796. This indicates that improved project outcomes and financial results are viewed as the most significant benefit, with relatively low variation in responses. Following closely, greater user comfort and satisfaction (Be4) ranked second, with a mean of 4.09 and a standard deviation of 0.927. This shows that enhancing user experience is also highly valued, although there is slightly more variability in the responses. Finally, greater stakeholder satisfaction (Be3) ranked sixth, with a mean of 3.78 and a standard deviation of 0.937. While stakeholder satisfaction is still considered important, it was ranked the lowest among the listed benefits.

Table 4.6. Rankings of the key impacts.

Rank	Factor ID	Impacts in Retail Construction	Mean	Std. Dev.
1	Im1	Brand image / public perception	4.02	0.841
2	Im2	Enhanced competitive advantage	3.96	0.847
3	Im3	Regulatory compliance	3.95	0.949

Table 4.6 presents the rankings of the key impacts in retail construction. The highest-ranked impact, brand image/public perception (Im1), received a mean score of 4.02 with a standard deviation of 0.841, indicating that maintaining and enhancing brand image and public perception is seen as the most significant impact, with relatively low variability in responses.

Following closely, enhanced competitive advantage (Im2) ranked second, with a mean score of 3.96 and a standard deviation of 0.847. This suggests that improving competitive positioning is also highly valued, although it has slightly more variability compared to the top-ranked factor.

Regulatory compliance (Im3) secured the third position, with a mean of 3.95 and a standard deviation of 0.949. This indicates that while regulatory compliance is an important impact in retail construction, it is ranked slightly lower than the first two factors, with a higher level of variability in responses.

4.2. Statistical Examination

4.2.1. Normality Test

This study will utilize data analysis methods such as ANOVA and t-tests, which are based on the assumption of normal distribution of the data. Therefore, before performing these tests, a normality test was first conducted using SPSS software. The normality test is necessary to ensure the validity of the results. If the data does not follow a normal distribution, non-parametric tests may need to be used instead of parametric tests.

As a result of the normality test, the skewness and kurtosis values of all variables were examined. According to George and Mallery (2003), values between -2.0 and +2.0 are considered sufficient for maintaining the assumption of normal distribution. Thus, assuming normal distribution, the T-test and ANOVA tests were carried out.

4.2.2. ANOVA and T-Test

Analysis of Variance (ANOVA) is a statistical method employed to compare the means of three or more groups to determine whether there are any statistically significant differences between them (Black, 2010). This technique evaluates the variance within groups versus the variance between groups to assess whether the observed differences in sample means are larger than what might be expected by chance. ANOVA is particularly useful when multiple group comparisons are needed, and it helps identify whether any group deviates significantly from others in terms of the variable under investigation. In cases where ANOVA indicates significant differences, post-hoc tests can be conducted to determine which specific groups differ from one another.

On the other hand, the t-test is used to compare the means of two independent groups to determine if there is a statistically significant difference between them (Kim, 2014). This test is commonly applied when the researcher is interested in assessing whether two distinct groups exhibit different average values for a particular variable. The t-test is particularly suited for simpler comparisons, such as those involving two groups, and provides a clear determination of whether any observed differences are likely to be real or due to random variation.

In the present study, ANOVA and t-tests were utilized to investigate potential statistically significant differences in responses across various stakeholder groups within the retail construction sector. Specifically, the analysis aimed to identify whether there were significant differences in responses between the retail companies, architectural, electrical, mechanical, and structural firms, and contractor groups. The objective was to investigate whether the responses from these distinct groups reflected any meaningful disparities, particularly in relation to the factors driving retail construction processes.

Additionally, the study explored the influence of different levels of experience and where the company operates on participant responses. It was hypothesized that professionals from different regions or operating environments might exhibit divergent

perspectives on the drivers of retail construction. Comparative analyses were conducted to assess whether responses varied based on factors such as the size of the company, the participant's experience, and the geographical location where the company operates.

To facilitate these analyses, ANOVA was used for comparisons involving three or more groups, while t-tests were employed for pairwise comparisons between two groups. The data for these tests were processed using SPSS software. The findings from these tests are presented and examined in the discussion parts.

4.2.3. Reliability Test

Cronbach's alpha, developed by Lee Cronbach in 1951, is a commonly used measure of reliability in social and organizational research, evaluating the consistency of responses across multiple items, such as questionnaire surveys (Bonett and Wright, 2015). According to George and Mallory (2003), alpha coefficients above 0.7 are considered acceptable, while values above 0.9 are categorized as excellent. In this study, the Cronbach's alpha coefficient is 0.983, indicating excellent reliability, as shown in Table 4.7.

Table 4.7. Reliability statistics.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.983	0.984	60

4.3. Discussion on Drivers

In this section, the findings of the research are discussed in light of the results obtained and compared with existing studies in the literature. Additionally, the relationships between the factors identified in the research and their impacts on projects have been thoroughly examined.

The data obtained during the pilot study and case study process are also used to support this discussion, and all information gathered throughout the process will be synthesized for a more comprehensive evaluation.

To determine whether there is a statistically significant difference between the groups being compared in an ANOVA test, the level of significance must first be identified. This is done by performing an F test, where the F value is calculated by dividing the mean square between groups by the mean square within groups. During the calculation of the mean squares, the degrees of freedom are taken into account. As a result, if the significance level is greater than 0.05, it can be concluded that the data is homogeneously distributed. However, if the significance level is less than 0.05, it is accepted that there is a statistically significant difference between the data of the compared groups.

Given the scope of the study, a fundamental analysis was aimed at, and therefore, various factors were compared and their relationships were thoroughly examined in this section. In this context, based on the results of the ANOVA test, evaluations were made regarding the causes of different means even for factors where the significance level did not fall below 0.05, aside from the groups where significant differences were found.

Based on the analysis of the survey results presented in Table 4.8, time sensitivity and delivery speed received high scores from all stakeholder groups, securing the top position with an overall average of 4.28. Notably, contractors and retail companies prioritized this factor due to its direct impact on financial performance and operational start dates, while architectural and engineering firms also acknowledged its importance, primarily focusing on customer demand and satisfaction.

As highlighted by professionals multiple times during the pilot and case studies, the profits of retail companies can only begin once the core business operations are underway. Therefore, maintaining speed in construction and minimizing delays to open retail stores are essential for ensuring the financial viability and success of the

project. Seidu *et al.* (2021), while investigating the dynamics between the retail and construction sectors, emphasized the need for more advanced, smooth-running, and cost-effective processes to establish a virtual presence of retail brands. In this context, the necessity of speed to maintain a visual presence in the dynamic and competitive world of retail has been recognized as a key driver of retail construction projects, which aligns completely with the survey results and case study.

Table 4.8. Key drivers in retail construction by stakeholder perception.

Key Drivers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank		
D1	Time sensitivity and delivery speed	4.28	1	4.43	1	4.11	1	4.28	1
D2	Reducing operational costs throughout the building's life cycle	3.60	6	4.00	3	3.72	2	3.73	6
D3	Operational excellence and productivity	4.16	3	3.95	4	3.72	2	4.01	3

Table 4.8 Key drivers in retail construction by stakeholder perception. (cont.)

Key Drivers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank		
D4	Customer demand, satisfaction, loyalty	4.21	2	4.43	1	3.56	6	4.12	2
D5	Competitive advantage and improving corporate financial performance	4.12	4	3.95	4	3.61	4	3.96	4
D6	Regulatory compliance requirements	3.79	5	3.81	6	3.61	4	3.76	5
D7	Providing employment	3.21	7	3.43	7	3.50	7	3.33	7

Table 4.9. One-way ANOVA test results for the key drivers.

One-Way ANOVA						
Key Drivers		Sum of Squares	df	Mean Square	F	Sig.
Time Sensitivity and Delivery Speed	Between Groups	0.977	2	0.488	0.847	0.433
	Within Groups	45.572	79	0.577		
	Total	46.549	81			

Table 4.9 One-way ANOVA test results for the key drivers. (cont.)

One-Way ANOVA						
Key Drivers		Sum of Squares	df	Mean Square	F	Sig.
Reducing Operational Costs Throughout the Building's Life Cycle	Between Groups	2.207	2	1.104	1.284	0.283
	Within Groups	67.890	79	0.859		
	Total	70.098	81			
Operational Excellence and Productivity	Between Groups	2.564	2	1.282	1.622	0.204
	Within Groups	62.424	79	0.790		
	Total	64.988	81			
Customer Demand / Satisfaction / Loyalty	Between Groups	8.077	2	4.038	5.626	0.005
	Within Groups	56.704	79	0.718		
	Total	64.780	81			
Competitive Advantage / Improving Corporate Financial Performance	Between Groups	3.241	2	1.621	2.221	0.115
	Within Groups	57.649	79	0.730		
	Total	60.890	81			
Regulatory Compliance Requirements	Between Groups	0.490	2	0.245	0.209	0.812
	Within Groups	92.632	79	1.173		
	Total	93.122	81			
Providing Employment	Between Groups	1.351	2	0.675	0.601	0.551
	Within Groups	88.759	79	1.124		
	Total	90.110	81			

Another key driver identified in the analysis is customer focus. Customer demand, satisfaction, and loyalty ranked second overall with an average score of 4.12. It received the highest score (4.43) among architectural, electrical, and structural firms, indicating that improving customer experience is a strategic priority for these stakeholders. For instance, ensuring suitable environmental conditions such as ventilation systems, lighting, accessibility, décor, and material selection naturally align with these firms' areas of expertise, thus prioritizing customer-centric scenarios, which is in direct accordance with the observations made by Kent and Kirby (2009) regarding retail design and brand image. Similarly, this driver ranked second among retail companies (4.21), underscoring the importance of projects that enhance customer loyalty in the retail sector. However, for contractors, this factor ranked sixth (3.56), reflecting their focus on operational objectives and delivery timelines.

To assess the influence of different company roles on the responses regarding the driver factors, an ANOVA test was conducted. As seen in Table 4.9, among the 7 driver factors, only D4, which refers to customer demand, satisfaction, and loyalty, showed a significance level lower than 0.05. This difference has been identified in the posthoc tests presented in Table 4.10, which revealed that it stems from the distinctions between the contractor companies and other company roles. There is no statistically significant difference between the responses of project firms and retail companies.

Table 4.10. Posthoc test results for customer demand.

Multiple Comparisons			
Dependent Variable: Customer Demand / Satisfaction / Loyalty			
	Company Role in Retail Construction	Company Role in Retail Construction	Sig.
Tukey HSD	Retail Company	Contractor	0.020
		Architectural/Mechanical/ Electrical/Structural Firm	0.597

Table 4.10 Posthoc test results for customer demand. (cont.)

Multiple Comparisons			
Dependent Variable: Customer Demand / Satisfaction / Loyalty			
	Contractor	Retail Company	0.020
		Architectural/Mechanical/ Electrical/Structural Firm	0.005
	Architectural/Mechanical/ Electrical/Structural Firm	Retail Company	0.597
		Contractor	0.005
The mean difference is significant at the 0.05 level.			

The literature review frequently highlights how the physical conditions of projects significantly influence the end-user experience. In retail projects, where the end-user is effectively the customer of the retail company, the impact extends beyond mere satisfaction to potentially enhancing sales, a core aspect of the retail business. Consequently, these findings establish a foundation for the relationship between elements such as store design and customer demand and their direct correlation with sales performance. Florêncio *et al.* (2020) emphasize that the physical attributes of a store play a critical role in shaping customer perceptions and satisfaction, which in turn influences customer loyalty and overall store performance. This relationship may help explain the ranking differences observed between project firms and contractors, as project firms may place greater emphasis on customer-centric design elements, which are closely tied to overall sales performance.

Furthermore, as observed in the case study, the retail company begins its retail development processes by understanding its potential customers. This approach aligns design concept choices with the customer profile and tailors additional services offered within the restaurant to the target profile. This can be supported by the literature, as Rabianski *et al.* (2001) suggest that by integrating community-oriented studies with company-oriented studies, companies can ensure they are not only meeting operational needs but also providing an optimal environment for customer experience and engagement right from the site selection phase. This highlights how customer demands and

the intended sense of satisfaction among customers serve as fundamental drivers in decisions made during the most critical project stages. The difference in focus between retail companies and contractors could explain the ranking disparity, as retail companies prioritize customer experience and sales performance, whereas contractors are typically more focused on the construction process and timeline.

Operational excellence and productivity ranked third on average across stakeholders (4.01). This factor gains importance in optimizing operational processes and improving long-term service quality. All stakeholder groups value it similarly, but it trails behind time sensitivity and customer satisfaction.

Competitive advantage and improving corporate financial performance, ranked fourth for retail companies (4.12). This reflects efforts to enhance competitiveness through new store openings and operational improvements. However, architectural firms and contractors approach these drivers from perspectives shaped by their respective roles and objectives in the projects. Retail companies, particularly those internationalizing their operations, prioritize competitive advantage as a critical driver because they view it as essential for achieving long-term strategic goals, supporting customer satisfaction, and driving financial gains (Burt and Carralero-Encinas, 2000). This broader vision leads them to place greater importance on competitive advantage. In contrast, project firms and contractors may not share this same vision. Their focus is typically on making design choices that maximize building performance and ensuring proper execution on-site, which may explain why they do not prioritize competitive advantage to the same extent. Instead, they prioritize reducing operational costs throughout the building's life cycle and regulatory compliance requirements. However, retail firms ranked reducing operational costs as sixth, indicating that while it offers long-term benefits, it is deprioritized in favor of more strategic goals and market positioning. Similarly, regulatory compliance (3.76) was generally perceived as a basic requirement rather than a critical success factor. Nevertheless, contractors placed greater emphasis on this factor compared to other stakeholder groups due to their roles and responsibilities in projects.

While the survey results indicated that regulatory compliance is only prioritized by contractors, findings from the case study underscore that regulatory compliance should not be viewed solely as the contractors' responsibility. Retail and design firms also play a crucial role in ensuring compliance. Retail firms, for example, often consult with experts to stay updated on legal requirements and integrate these into their projects. In cases involving shopping malls or managed building complexes, retail teams are directly responsible for addressing additional requirements from management. Collaborative efforts with local teams to streamline approval and revision processes from local authorities exemplify how compliance depends on coordination among all stakeholders. Similarly, Riadi and Machfudiyanto (2023) emphasized that, given the increasing need to comply with regulations, especially environmental ones such as sustainability, it is a critical success factor for companies to prioritize these concerns during project planning. While contractors often assume an operational leadership role in this area, retail and design firms provide vital support, emphasizing that regulatory compliance is a shared responsibility.

Finally, providing employment was ranked as the lowest-priority factor by all stakeholder groups (3.33) as a driver to initiate retail construction projects. This reflects a predominant focus on economic and operational benefits over societal contributions, such as job creation, particularly when short-term project objectives are emphasized.

Table 4.11 shows how respondents rated the drivers based on their experience in the construction sector. According to the mean rankings, no major differences were found between different experience levels. The highest and lowest ranked factors were the same for all groups: time sensitivity and delivery speed, and providing employment, respectively. These findings were confirmed through ANOVA tests, where the significance level did not fall below 0.05. However, a change in the mean value was observed only for the factor of providing employment, with a difference noted between those with 10 years or less experience and those with more than 10 years of experience.

Table 4.11. Drivers in retail construction by experience.

Key Drivers		Experience in Construction (Years)								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
D1	Time sensitivity and delivery speed	4.09	1	4.47	1	4.18	1	4.53	1	4.28	1
D2	Reducing operational costs throughout the building’s life cycle	3.73	5	3.71	6	3.75	6	3.76	5	3.73	6
D3	Operational excellence and productivity	3.82	4	4.41	2	3.93	4	4.00	4	4.01	3
D4	Customer demand, satisfaction, loyalty	3.91	2	4.12	3	4.07	2	4.53	1	4.12	2
D5	Competitive advantage and improving corporate financial performance	3.91	2	3.82	4	3.89	5	4.33	3	3.96	4

Table 4.11 Drivers in retail construction by experience. (cont.)

Key Drivers		Experience in Construction (Years)								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
D6	Regulatory compliance requirements	3.55	6	3.76	5	3.96	3	3.67	6	3.76	5
D7	Providing employment	2.95	7	3.18	7	3.71	7	3.33	7	3.33	7

More experienced professionals may recognize that social and economic benefits, such as job creation and the generation of new employment opportunities, are crucial for ensuring the long-term sustainability of a project's success, thus perceiving these factors as significant drivers. In contrast, less experienced individuals may place less emphasis on such factors, focusing more on technical and operational success, which reflects a shift in priorities and perspectives influenced by years of experience.

In conclusion, time sensitivity, customer satisfaction, and operational excellence needs stand out as prior drivers for the success of retail construction projects. However, stakeholder priority varies based on their roles and strategic objectives. These findings underline the need to balance stakeholder needs and ensure effective communication and coordination at all project stages to achieve success.

4.4. Discussion on Enablers

As demonstrated in Table 4.12, project leadership and management competence (E1) stands out as the highest-ranked enabler, with an overall mean score of 4.33, highlighting its critical role in ensuring the success of retail construction projects. This enabler factor is frequently encountered in the literature review, being identified as one of the top success factors in numerous studies (Maghsoodi and Khalilzadeh, 2017; Yong and Mustafa, 2013; Saqib *et al.*, 2008). On the other hand, this result also

aligns closely with case study findings, which emphasize the importance of dedicated retail development and construction departments established by retail firms to oversee and manage the entire project process. While various stakeholders are involved in the process, this department remains the central authority, taking responsibility for all phases and ensuring seamless coordination among stakeholders. As observed during the case study, this team is recognized by all project participants as the central decision-making body, which underscores their indispensable role in the project's overall success.

In the case study, senior management from the retail firm shared an insightful observation by indicating that when this factor is successfully achieved, all other enablers can be integrated into the process as a direct result of the team's competence and initiatives, further enhancing the project's efficiency. This statement is reflected in the survey results, where retail firms assigned the highest score (4.42) to this enabler, demonstrating the recognition of project management teams as the cornerstone of success in retail construction.

Strong project leadership not only addresses direct responsibilities such as time, resource, and quality management but also facilitates the implementation of other enablers, such as clear scope of work and briefing (E9) and collaborative working and effective communication (E6). The consistency of decisions and communication among stakeholders is deeply tied to the central role played by these project management teams. Furthermore, the structured approach of these teams enables other stakeholders to better understand their roles within the process, allowing for more effective contributions to the project.

Table 4.12. Key enablers in retail construction by stakeholder perception.

Key Enablers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural /Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
E1	Project Leadership and management competence	4.42	1	4.38	1	4.6	2	4.33	1
E2	Appropriate organizational structure	3.95	9	4.05	11	3.67	9	3.91	12
E3	Integrated project delivery	4.09	5	4.10	8	3.94	3	4.06	5
E4	Top-level commitment / Top management support	3.72	16	3.67	16	3.89	5	3.74	16
E5	Risk management	4.2	6	3.67	16	4.11	1	3.95	8
E6	Collaborative working and effective communication	4.35	2	4.10	8	3.50	15	4.10	4
E7	Cross-Functional Collaboration	3.74	15	3.90	13	3.67	9	3.77	14
E8	Project planning	4.23	3	4.24	3	3.94	3	4.17	2

Table 4.12 Key enablers in retail construction by stakeholder perception. (cont.)

Key Enablers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural /Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
E9	Clear scope of work and briefing	4.23	3	4.29	2	3.67	9	4.12	3
E10	Process improvement teams of the organization	3.79	14	3.90	13	3.56	14	3.77	14
E11	Supply chain efficiency	3.91	12	4.19	5	3.72	8	3.94	10
E12	Stakeholder engagement	4.00	7	4.10	8	3.67	9	3.95	8
E13	Streamlined construction and similar designs	3.95	9	4.14	6	3.67	9	3.94	10
E14	Contractors' and subcontractors' performance	3.95	9	4.14	6	3.83	7	3.98	7
E15	Incentives / Advance payments	3.70	17	3.90	13	3.44	17	3.70	17
E16	Employee motivation and job satisfaction	4.00	7	4.24	3	3.89	5	4.04	6

In conclusion, project leadership and management competence (E1) is not only an independent enabler but also a catalyst that supports the successful integration of other enablers into the process. The strategic role of the retail development teams, as evidenced in the case study, aligns with the survey findings, highlighting their pivotal influence on the overall success of retail construction projects.

In conclusion, project leadership and management competence (E1) is not only an independent enabler but also a catalyst that supports the successful integration of other enablers into the process. The strategic role of the retail development teams, as evidenced in the case study, aligns with the survey findings, highlighting their pivotal influence on the overall success of retail construction projects.

Clear scope of work and briefing (E9), ranked third overall (mean score: 4.12), further emphasizes the necessity of precise communication and alignment among stakeholders. Clearly defined goals and objectives establish a precise and comprehensive scope, which plays a pivotal role in preventing revisions and delays throughout the process. The critical importance of this factor is well-documented in the literature, where it is consistently highlighted as one of the most significant contributors to project success (Gudienė *et al.*, 2013). Both retail companies (4.23) and architectural firms (4.29) see this as fundamental to minimizing misunderstandings and ensuring project success. Contractors, however, rank it ninth (3.67), which might reflect their focus on adhering to predefined scopes rather than contributing to their development. As evidenced during the case study, contractors receive a highly detailed tender set containing all project-related files. This set includes comprehensive architectural, mechanical, electrical, and structural designs, bill of quantities, site photographs, and site check reports, global design packages, municipal permit plans, large-scale master plans, approvals for site access from relevant authorities, and details illustrating the special project elements. All decisions previously discussed with landlords and management are finalized by the time the tender set is issued. Therefore, contractors are provided with a well-defined and finalized scope of work, leaving little ambiguity in their responsibilities.

However, the case study also highlighted that from the initial stages, retail firms must navigate significant uncertainties and resolve various decisions to clarify the project's direction. These challenges often involve differing opinions from landlords, the retail firm's executive management team, and its internal departments, leading to potential shifts in the project scope. Such changes can force project teams to revise their work, extend delivery timelines, or, in time-critical scenarios, increase workloads. These complications directly impact not only the retail firm's internal teams but also the architectural firms involved in design processes. This dynamic explains why retail companies and architectural firms rank clear scope of work and briefing among their top three enablers, while contractors, who typically deal with an already clarified scope, place it in the middle tier. The difficulties encountered by retail and design teams in finalizing the scope during the early phases of the project, as observed in the case study, provide valuable context for understanding the survey results.

Enablers such as collaborative working and effective communication (E6) and integrated project delivery (E3) also play a significant role in fostering team alignment and reducing inefficiencies. Both rank among the top five enablers, with collaborative communication (mean score: 4.10) slightly ahead of integrated project delivery (4.06). The relatively higher scores from retail companies and architectural firms highlight the importance of creating a cohesive team environment to address challenges dynamically, especially in fast-paced retail construction projects.

Interestingly, appropriate organizational structure (E2) and cross-functional collaboration (E7) are among the lower-ranked enablers, with mean scores of 3.91 and 3.77, respectively. This implies that while these factors are important, they may not be seen as critical compared to other drivers. This contrast is noteworthy, as in the case study, an appropriate organizational structure was identified as one of the most significant success factors. Furthermore, Omrani and Zarei (2018) emphasized that an appropriate organizational structure directly affects organizational agility. As organizational agility enables swift decision-making, efficient resource allocation, and adaptability to changing conditions and challenges, ultimately increasing the likeli-

hood of successful outcomes, these organizational advantages suggest that appropriate organizational structure (E2) might have been expected to rank higher.

The fact that cross-functional collaboration is not viewed as a key enabler in retail firms can be explained by the case study. The case study revealed that in retail companies, teams contributing directly to the core business, such as operations and sales, are actively involved in the business development process. These teams are responsible for running operations or driving sales, making their role central to the project's ultimate objective, which is improving companies' profitability by increasing sales. On the other side, retail development teams play a supportive role, assisting the core business functions while aiming to create the physical environment that facilitates profitable sales. As such, they frequently seek feedback and guidance from operations and sales teams. This feedback loop significantly influences the project timeline and outcomes. For instance, frequent revisions due to scope changes or major adjustments, such as alterations to the investment budget aligned with sales projections, can impact the construction project. Consequently, ensuring effective cross-functional collaboration is essential for aligning the goals and actions of different departments within the retail company. However, if this collaboration proves challenging to implement, retail companies may not view it as a key enabler, as their focus tends to be on mitigating problems arising from this challenge.

To achieve this alignment, it is crucial to confirm that all departments are working toward the same corporate objectives. For example, if the company's primary goal is to minimize construction costs to increase profitability and accelerate return on investment, the operations team should refrain from requesting additional expenses such as expanded storage areas or extra equipment if those are not essential needs. Similarly, if the company has limited physical space, IT teams should refrain from purchasing oversized technical equipment that could unnecessarily restrict it. Another example is when tight project timelines and specific opening dates are involved. If the real estate team has negotiated commercial agreements with landlords based on a planned opening date, the procurement team must align production and delivery

schedules with suppliers to meet this deadline. All of these examples can serve as tools to enhance the role of cross-functional collaboration as an enabler of the project's success in retail companies.

Stakeholder engagement (E12) and supply chain efficiency (E11) fall in the mid-range, with mean scores of 3.95 and 3.94, respectively. Stakeholder engagement is vital for aligning objectives and fostering collaboration across disciplines, while supply chain efficiency ensures the timely availability of materials to prevent delays. These enablers are particularly relevant for architectural and engineering firms, given their role in harmonizing design intent with construction realities. This high average value of stakeholder engagement (E12) aligns with the findings of Amoah *et al.* (2021), who emphasize the critical role of stakeholder management in construction projects in developing countries.

On the other hand, case study findings revealed that retail firms employ several methods to mitigate potential challenges within their supply chains that could negatively impact project success. For major purchases that directly impact operational quality and customer perception, working exclusively with globally approved suppliers helps establish a standardized supply chain framework. Due to their international operations, these firms bring valuable experience in managing cross-border risks, simplifying risk management processes.

Additionally, bulk orders are planned at the beginning of the year in alignment with company objectives, reducing uncertainties regarding product quality due to global controls. Case study insights further highlight that localization efforts, supported by approved brands, can significantly shorten production and delivery timelines while minimizing customs costs. Retail firms also actively recognize and appreciate the successes of their suppliers, fostering well-structured relationships and enhancing motivation to achieve shared goals. This collaborative approach strengthens both supply chain efficiency and supplier engagement, ensuring a smoother execution of retail construction projects.

Risk management (E5), with a mean score of 3.95, emphasizes the ability to anticipate, identify, and mitigate risks that could disrupt construction processes. The importance of this enabler is particularly evident in fast-paced retail construction projects, where managing potential delays, budget overruns, and safety concerns is key to maintaining project timelines and overall quality.

Additionally, contractors' and subcontractors' performance (E14), with a mean score of 3.98, underscores the importance of selecting skilled professionals who can execute quality work while adhering to timelines. On the other hand, employee motivation and job satisfaction (E16) (mean score: 4.04) highlight the critical role of fostering a motivated team environment, which directly influences productivity and retention in retail construction projects.

Top-level commitment and support (E4), with a mean score of 3.74, highlights the importance of active involvement and decision-making from senior management. This relatively low ranking contrasts with both the literature and the case study findings, where it is emphasized by Ahmed and Mohamad (2016) as a critical factor for ensuring project success and achieving alignment across all levels of the organization. Furthermore, the case study findings suggest that top-level leadership is critical for resolving high-stakes issues, aligning objectives across departments, and securing the necessary resources to overcome challenges from the beginning of the retail development process. From a different perspective, as previously discussed, achieving alignment between different departments is crucial. When this alignment is not fully realized, top-level support emerges as a vital enabler, playing a key role in resolving cross-functional disagreements and ensuring that decisions align with the company's overarching goals and strategies. Looking at this from a broader perspective, beyond the management teams, the involvement of the company's investors in such frameworks can significantly influence project outcomes. For instance, their decisions to make substantial investments or push for aggressive growth in operational markets can expedite processes and facilitate project completion. Top-level stakeholders can significantly contribute to the project lifecycle, highlighting their crucial role as essential enablers that require consideration.

Conversely, in scenarios where investment decisions are paused or cost reduction measures are implemented, construction projects, along with other capital investments, may face significant barriers. These challenges can act as clear impediments to progress, highlighting the dual role of top-level stakeholders as both potential enablers and barriers. This dynamic will be explored in further detail in the section explaining barriers.

Among the remaining enablers, process improvement teams of the organization (E10) and streamlined construction and similar designs (E13) play noteworthy roles in ensuring consistency and efficiency. With mean scores of 3.77 and 3.94, respectively, these enablers focus on optimizing internal processes and standardizing design and construction elements to reduce redundancies and accelerate project delivery, aligning with the findings of Meshref *et al.* (2022), who highlighted that daily observation and standardization of tasks are among the most commonly implemented lean practices. During the case study process, the involvement of global process improvement teams, serving as an approval and feedback body throughout each stage of the project, led to the expectation that this factor would rank higher in retail firms. However, it ranked 14th, which was below the anticipated position.

Furthermore, consultancy (E17), with a slightly lower ranking of 3.82, underscores the importance of incorporating external expertise to tackle complex challenges and improve decision-making. While these enablers received varying levels of prioritization across stakeholders, their collective contributions remain indispensable for achieving project success. Lastly, incentives/advance payments (E15) are ranked the lowest overall (mean score: 3.70). While contractors see its value in securing timely execution and reducing financial risks, the result reflects a focus on long-term project outcomes rather than immediate financial relief for contractors.

Table 4.13. One-way ANOVA test results for collaborative working and effective communication factor.

One-Way ANOVA						
Key Enabler		Sum of Squares	df	Mean Square	F	Sig.
Collaborative Working and Effective Communication	Between Groups	9.143	2	4.571	5.153	0.008
	Within Groups	70.077	79	0.887		
	Total	79.220	81			

Table 4.14. Posthoc test results for collaborative working and effective communication factor.

Multiple Comparisons			
Dependent Variable: Collaborative Working and Effective Communication			
	Company Role in Retail Construction	Company Role in Retail Construction	Sig.
Tukey HSD	Retail Company	Contractor	0.005
		Architectural/Mechanical/Electrical/Structural Firm	0.572
	Contractor	Retail Company	0.005
		Architectural/Mechanical/Electrical/Structural Firm	0.127
	Architectural/Mechanical/Electrical/Structural Firm	Retail Company	0.572
	Firm	Contractor	0.127
The mean difference is significant at the 0.05 level.			

Table 4.15. Enablers in retail construction by experience.

Key Enablers		Experience in Construction (Years)								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
E1	Project leadership and management competence	4.14	1	4.41	1	4.29	1	4.60	1	4.33	1
E2	Appropriate organizational structure	3.59	11	3.88	9	3.86	11	4.53	4	3.91	12
E3	Integrated project delivery	4.05	2	3.88	9	3.93	9	4.53	4	4.06	5
E4	Top-level commitment / Top management support	3.55	14	3.59	16	3.82	12	4.07	13	3.74	16
E5	Risk management	3.91	3	3.94	8	4.00	4	3.93	16	3.95	8
E6	Collaborative working and effective communication	3.68	9	4.35	3	4.07	3	4.47	8	4.10	4
E7	Cross-functional collaboration	3.77	5	3.53	17	3.79	13	4.00	14	3.77	14
E8	Project planning	3.73	7	4.35	3	4.18	2	4.60	1	4.17	2

Table 4.15 Enablers in retail construction by experience. (cont.)

Key Enablers		Experience in Construction (Years)								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
E9	Clear scope of work and briefing	3.77	5	4.41	1	4.00	4	4.53	4	4.12	3
E10	Process improvement teams of the organization	3.59	11	3.88	9	3.79	13	3.87	17	3.77	14
E11	Supply chain efficiency	3.55	14	4.06	6	3.93	9	4.40	10	3.94	10
E12	Stakeholder engagement	3.50	16	4.60	6	4.00	4	4.40	10	3.95	8
E13	Streamlined construction and similar designs	3.73	7	4.24	5	3.64	17	4.47	8	3.94	10
E14	Contractors' and subcontractors' performance	3.68	9	3.88	9	3.96	7	4.53	4	3.98	7
E15	Incentives / Advance Payments	3.36	17	3.82	14	3.71	16	4.00	14	3.70	17
E16	Employee motivation and job satisfaction	3.86	4	3.88	9	3.96	7	4.60	1	4.04	6

Table 4.15 Enablers in retail construction by experience. (cont.)

Key Enablers		Experience in Construction (Years)								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
E17	Consultancy / External knowledge	3.59	11	3.71	15	3.79	13	4.33	12	3.82	13

To determine whether the company role has a statistically significant impact on the enabler evaluations, tests were conducted. As shown in Table 4.13, a statistically significant difference was found only for the factor of collaborative working and effective communication. Further posthoc analyses in Table 4.14 revealed that the source of this difference lies between the responses of retail firms and contractors. While retail firms place more emphasis on operational goals and customer-focused outcomes, contractors focus on the construction process and time management. As a result, they may approach collaboration and communication from different perspectives, with retail firms adopting a more integrated approach to projects while contractors may prefer to work more independently.

Another comparative analysis was conducted based on experience level. Table 4.15 displays key enablers in retail construction according to respondents' experience in the construction sector. It was found that in 82% of the responses, participants with more than 20 years of experience had higher mean rankings compared to other experience groups. The results of statistical analysis also support this finding. For all the factors presented in Table 4.16, a significant difference was observed between participants with less than 5 years of experience and those with over 20 years of experience in the construction sector.

Table 4.16. Posthoc test results for variables based on experience in construction.

Multiple Comparisons				
Test	Dependent Variable	Experience in Construction	Experience in Construction	Sig.
Tukey HSD	Appropriate organizational structure (E2)	0-5 years	20+ years	0.010
	Project planning (E8)			0.015
	Supply chain efficiency (E11)			0.021
	Stakeholder engagement (E12)			0.036
	Contractors' and subcontractors' performance (E14)			0.018
The mean difference is significant at the 0.05 level.				

The significant differences in evaluations between participants with less than 5 years of experience and those with more than 20 years of experience for the five factors, such as appropriate organizational structure (E2), project planning (E8), supply chain efficiency (E11), stakeholder engagement (E12), and contractors' and subcontractors' performance (E14), can be attributed to varying levels of expertise and exposure. Participants with more experience tend to have a broader understanding of how these factors impact project success, leading them to place greater emphasis on their importance. Those with less experience, however, may focus more on immediate, operational tasks rather than the long-term strategic value of these factors. Experienced participants, often in managerial roles, are more aware of the complexities of organizational processes, supply chain management, and stakeholder engagement, which influences their perception of these factors as critical. In contrast, less experienced participants may not yet have encountered the full range of challenges that highlight the significance of these aspects, resulting in different evaluations based on their roles and responsibilities.

Finally, during the statistical analysis, a significant difference was identified in the top-level management category. Since there was a notable difference between the numbers of respondents from Türkiye and those from outside Türkiye (10), Tukey's test was deemed insufficient, Scheffé and Hochberg's GT2 posthoc tests were also performed. The results revealed a statistically significant difference between respondents operating in Türkiye and global respondents. According to the survey, all professionals working in globally operating companies gave a perfect score of 5, indicating that they considered top-level commitment and top management support to be extremely significant enablers in retail construction projects. In contrast, the average score for respondents from Türkiye was 3.63. The difference in ratings for top-level commitment and support could be due to varying organizational cultures and expectations, with globally operating professionals possibly experiencing stronger leadership support and resources. In contrast, Turkish respondents may perceive this factor as less significant due to different business contexts or a relatively lower emphasis on leadership commitment in their organizations.

Table 4.17. Key inputs in retail construction by stakeholder perception.

Inputs		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural /Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank		
I1	Capital expenditures and investments	4.09	2	4.10	3	4.06	1	4.09	2
I2	Technical expertise	4.12	1	4.43	1	4.00	2	4.17	1

Table 4.17 Key inputs in retail construction by stakeholder perception. (cont.)

Inputs		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural /Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
I3	Feedback and review mechanisms	3.74	5	4.24	2	3.44	5	3.80	4
I4	Training and skill development	3.77	4	4.05	5	3.56	4	3.79	5
I5	Technological advancements	3.72	6	3.95	6	3.72	3	3.78	6
I6	Guidelines and best practices within brand	3.95	3	4.10	3	3.39	6	3.87	3

The inputs category, as presented in Table 4.17, highlights the key resources and mechanisms contributing to the success of retail construction projects. The survey results emphasize the critical importance of technical expertise (I2), ranked first overall with a mean score of Table 4.17. Architectural and engineering firms particularly value this input, assigning it the highest rank (4.43), reflecting the necessity of technical knowledge and problem-solving capabilities to address complex design and construction challenges. Contractors also recognize its importance (4.00), albeit slightly less than architectural firms, as technical expertise ensures smooth execution and alignment with construction standards. As shown in Table 4.17, technical expertise was also identified

as the most frequent critical success factor, further aligning these findings with the literature.

Capital expenditures and investments (I1) is ranked second overall (mean score: 4.09), underscoring the essential role of financial resources in facilitating high-quality project execution. Contractors place the highest priority on this input (4.06), likely due to their reliance on adequate funding for equipment, materials, and labor. Similarly, retail companies (4.09) and architectural firms (4.10) regard financial investment as critical, especially when considering advanced technologies and sustainability-focused design implementations.

Guidelines and best practices within brand (I6), ranked third (3.87), highlight the significance of adhering to established frameworks and brand standards during construction. Architectural firms (4.10) and retail companies (3.95) view this input as a valuable resource for ensuring consistency and alignment with brand identity across different locations. In contrast, contractors rank it lower (3.39), likely due to their focus on practical execution rather than brand-oriented decision-making. As identified in the case study, retail firms often develop detailed guidelines that reflect their company strategies, encompassing everything from design concepts and implementation methods to supplier selection. These guidelines specify details such as where parking should be located in relation to the building, the placement of the main entrance, customer flow patterns, recommended floor, ceiling, and wall materials, as well as the required corridor and queue distances.

Process improvement teams within retail firms monitor compliance with these guidelines through regular online and on-site reviews of local project management teams. These guidelines serve as a roadmap for maintaining uniformity and coherence under the brand's portfolio, as they are the product of extensive research and development processes. This structured approach ensures that all locations adhere to the brand's identity and operational standards, making these guidelines indispensable for retail management teams overseeing projects. The fact that this factor ranks within

the top three for retail companies reflects the strong alignment between survey findings and case study insights, underscoring the critical role of these guidelines in driving project consistency and success.

Feedback and review mechanisms (I3), with a mean score of 3.80, emphasize the importance of iterative evaluation processes for identifying project risks, resolving inefficiencies, and refining designs. Architectural firms rank this input highly (4.24), suggesting that feedback loops play a crucial role in improving design outcomes and stakeholder communication. Contractors (3.44), however, may view such mechanisms as secondary to meeting deliverables, which could explain their relatively lower ranking. There is also a statistically significant difference between the mean values of the respondents from architectural firms and contractors.

The case study findings highlight how feedback and control processes are integral to the operations of project and retail firms. For example, in the studied case, global design firms first obtain approval from the global management team, revising their designs based on their feedback before submitting them to the local project management team. The local team then evaluates these designs, not only in terms of brand standards but also with country-specific parameters in mind and provides additional feedback for revisions.

Local project teams receive the revised design and prepare detailed implementation plans and tender documents. These teams assess the constructability of the designs, addressing any gaps identified during the review process. Throughout this iterative workflow, the retail firm's project management team actively guides the local teams to ensure all plans align with the company's latest decisions and strategic goals. Finally, the completed plans are handed over to contractors, who also provide feedback regarding constructability and other practical concerns. This feedback is often incorporated into future projects as inputs, improving the efficiency and effectiveness of subsequent deliveries. As a result, feedback and review mechanisms are deeply embedded within the retail construction process, explaining why this input ranks second

for project teams. The iterative nature of this workflow, as demonstrated in the case study, aligns strongly with survey findings and underscores the centrality of structured feedback loops in achieving successful project outcomes.

Training and skill development (I4) and technological advancements (I5) rank fifth and sixth overall, with mean scores of 3.79 and 3.78, respectively. These inputs, while slightly lower in priority, remain essential for building team capabilities and integrating innovative tools into construction workflows. Retail firms and project firms show a stronger emphasis on these inputs compared to contractors, as they focus on long-term improvements in workforce performance and operational efficiency.

Table 4.18 demonstrates the key inputs in retail construction by respondents' experience in construction. There is a significant difference in the guidelines and best practices within the brand (I6) factor between respondents with more than 20 years of experience and those with 0-5 years or 11-20 years of experience. Similarly, the significant difference in technical expertise (I12) between respondents with more than 20 years of experience and those with 0–5 years could be due to the advanced technical knowledge and specialized skills that come with years of experience in the construction industry. Professionals with experience in construction for more than 20 years are likely to have more in-depth expertise, which makes technical expertise a more crucial factor for them compared to those just starting in the field.

Table 4.18. Inputs in retail construction by experience.

Inputs		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
I1	Capital expenditures and investments	3.82	2	4.35	1	4.00	2	4.33	3	4.09	2

Table 4.18 Inputs in retail construction by experience. (cont.)

Inputs		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
I2	Technical expertise	3.86	1	3.88	3	4.32	1	4.67	1	4.17	1
I3	Feedback and review mechanisms	3.59	4	3.53	6	3.93	3	4.20	4	3.80	4
I4	Training and skill development	3.55	6	3.76	4	3.86	4	4.07	5	3.79	5
I5	Technological advancements	3.73	3	3.76	4	3.75	5	3.93	6	3.78	6
I6	Guidelines and best practices within brand	3.59	4	4.00	2	3.68	6	4.47	2	3.87	3

4.5. Discussion on Barriers

According to the results of the survey, as shown in Table 4.19, lack of communication and coordination within the project team (B4) ranked first overall with a mean score of 4.09. Effective communication is essential for aligning objectives and avoiding misunderstandings that could lead to inefficiencies. Architectural firms (4.29) and retail companies (4.09) rank this barrier the highest, emphasizing the need for strong coordination among multidisciplinary teams to ensure project success. For example, the case study highlighted that the retail firm addressed this challenge and organized a system to overcome it by holding weekly recap meetings. These meetings involved the department director, along with managers from real estate, construction, design, equipment, procurement, and asset teams, as well as representatives from consultancy firms.

Instead of limiting discussions to individual areas of responsibility, all topics were discussed collectively in a summarized manner. This approach ensured that the project team was aligned on both major and minor issues, enabled the early identification of risk factors by all stakeholders, and facilitated the development of comprehensive solutions leveraging the expertise of all positions.

Another related barrier is the lack of integration and coordination between partnering organizations (B5), with a mean score of 3.87, highlighting the difficulties in managing expectations and aligning objectives between external stakeholders, such as contractors and clients. According to Zarewa (2019), ineffective stakeholder management increases the risk of project failure. In line with this, the findings of this study reveal that the lack of relationship and coordination with other project stakeholders emerged as one of the top 10 barriers, which is consistent with Zarewa's (2019) findings. Lack of cross-functional communication within the company (B6) further underlines the challenges of aligning internal departments, such as procurement, operations, and real estate, with strategic project goals. These communication barriers collectively emphasize the need for robust leadership and streamlined workflows to mitigate inefficiencies.

Table 4.19. Key barriers in retail construction by stakeholder perception.

Barriers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank		
B1	Lack of commitment from leaders	3.88	6	3.90	12	3.83	7	3.88	8

Table 4.19 Key barriers in retail construction by stakeholder perception. (cont.)

Barriers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank		
B2	Limited Knowledge and skills	3.98	4	4.29	1	3.89	4	4.04	2
B3	Contractors' and subcontractors' performance	3.86	7	4.10	4	3.56	17	3.85	10
B4	Lack of communication and coordination within the project team	4.09	1	4.29	1	3.83	7	4.09	1
B5	Lack of integration and coordination between partnering organizations	3.79	12	4.05	8	3.83	7	3.87	9
B6	Lack of cross-functional communication within the company	3.86	7	3.81	13	3.56	17	3.78	13

Table 4.19 Key barriers in retail construction by stakeholder perception. (cont.)

Barriers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank		
B7	Insufficient data and performance metrics	3.84	10	3.71	15	3.61	16	3.76	14
B8	Changes in design and scope	4.00	2	4.14	3	3.89	4	4.01	3
B9	Incomplete design package and lack of constructability	4.00	2	4.00	9	3.78	11	3.95	5
B10	Inadequate site investigation	3.95	5	4.10	4	3.72	14	3.94	6
B11	Accidents on construction site	3.42	18	3.33	20	3.44	20	3.40	20
B12	Site conditions and limitations	3.56	16	3.71	15	3.78	11	3.65	16

Table 4.19 Key barriers in retail construction by stakeholder perception. (cont.)

Barriers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank		
B13	Supply chain difficulties	3.77	13	3.95	10	3.89	4	3.84	11
B14	Limited working hours	3.49	17	3.76	14	3.50	19	3.56	17
B15	Political instability	3.09	21	3.33	20	3.78	11	3.30	21
B16	Local legislations and building permits	3.70	15	3.67	17	3.94	3	3.74	15
B17	Public opposition or public acceptance	3.42	18	3.43	19	3.44	20	3.43	19
B18	Legal and contractual risks	3.40	20	3.67	17	3.67	15	3.52	18
B19	Higher capital costs	3.86	7	4.10	4	4.11	1	3.98	4

Table 4.19 Key barriers in retail construction by stakeholder perception. (cont.)

Barriers		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
		Mean	Rank	Mean	Rank	Mean	Rank		
B20	Economic volatility	3.84	10	4.10	4	4.00	2	3.94	6
B21	Improper project feasibility	3.74	14	3.95	10	3.83	7	3.82	12

Table 4.20. Barriers in retail construction by experience.

Barriers		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
B1	Lack of commitment from leaders	3.91	3	3.71	11	3.86	5	4.07	9	3.88	8
B2	Limited knowledge and skills	3.86	4	3.88	5	3.96	4	4.60	1	4.04	2
B3	Contractors' and subcontractors' performance	3.86	4	3.47	17	3.79	10	4.40	3	3.85	10

Table 4.20 Barriers in retail construction by experience. (cont.)

Barriers		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
B4	Lack of communication and coordination within the project team	3.86	4	3.94	3	4.18	1	4.40	3	4.09	1
B5	Lack of integration and coordination between partnering organizations	3.73	13	3.71	11	4.04	3	3.93	12	3.87	9
B6	Lack of cross-functional communication within the company	3.68	15	3.76	7	3.86	5	3.80	16	3.78	13
B7	Insufficient data and performance metrics	3.77	12	3.76	7	3.68	16	3.87	15	3.76	14
B8	Changes in design and scope	3.82	9	4.00	1	4.11	2	4.13	7	4.01	3

Table 4.20 Barriers in retail construction by experience. (cont.)

Barriers		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
B9	Incomplete design package and lack of constructability	3.82	9	3.94	3	3.82	8	4.40	3	3.95	5
B10	Inadequate site investigation	3.86	4	3.76	7	3.79	10	4.53	2	3.94	6
B11	Accidents on construction site	3.73	13	3.35	18	3.04	21	3.67	19	3.40	20
B12	Site conditions and limitations	3.68	15	3.29	19	3.79	10	3.73	18	3.65	16
B13	Supply chain difficulties	3.86	4	3.71	11	3.86	5	3.93	12	3.84	11
B14	Limited working hours	2.91	21	3.71	11	3.79	10	3.93	12	3.56	17
B15	Political instability	3.45	19	3.24	21	3.32	19	3.13	21	3.30	21

Table 4.20 Barriers in retail construction by experience. (cont.)

Barriers		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
B16	Local Legislations and building permits	3.68	15	3.76	7	3.64	17	4.00	11	3.74	15
B17	Public opposition or public acceptance	3.45	19	3.53	16	3.14	20	3.80	16	3.43	19
B18	Legal and contractual risks	3.55	18	3.29	19	3.64	17	3.53	20	3.52	18
B19	Higher capital costs	4.05	1	4.00	1	3.82	8	4.13	7	3.98	4
B20	Economic volatility	4.00	2	3.88	5	3.71	15	4.33	6	3.94	6
B21	Improper project feasibility	3.82	9	3.65	15	3.79	10	4.07	9	3.82	12

Lack of knowledge and skills (B2) emerges as a critical issue, ranked second overall with a mean score of 4.04. This barrier highlights the importance of adequately trained project teams who can adapt to changing project requirements. Architectural and engineering firms assign the highest priority to this barrier (4.29), reflecting their reliance on specialized expertise to navigate complex project requirements. Contractors also recognize its significance (3.89), albeit to a slightly lesser degree, as practical execution depends on having skilled teams in place. Interestingly, within the enabler factors, the competence of the project management team was identified as the top-

ranked enabler. Here, the largest barrier being identified as a lack of technical skills further reinforces the idea that the capability of the project management team is one of the most critical success factors. This dual confirmation, both as an enabler and, as a barrier, underscores the pivotal role that technical expertise and competence play in ensuring the success or failure of retail construction projects.

Changes in design and scope (B8), ranked third overall (mean score: 4.01), underscore the challenges posed by frequent alterations in project plans. These changes often lead to delays, increased costs, and disruptions to construction timelines. Retail companies (4.00) and architectural firms (4.14) emphasize this barrier, as they frequently deal with evolving needs, operational constraints, and market conditions that necessitate adjustments to designs and specifications. Rahman (2014) conducted a study in which he identified inflexibility to unforeseen design changes as the primary barrier to the implementation of modern methods in construction projects. Given that retail construction projects often necessitate the application of modern methods to streamline processes, it is plausible that this factor could have emerged within the top three barriers.

Insights from the case study further emphasize that deviations from initial design and scope are common occurrences in retail construction projects. These changes, whether related to design or scope, directly impact project budgets and timelines, becoming significant factors influencing overall project success.

Design changes often arise from the evolving needs and expectations of clients or the brand itself. These modifications can include updates to both interior and exterior spaces, addressing aesthetic factors like material selection, color schemes, or furniture layout, as well as functional changes aimed at enhancing user experience, such as expanding seating areas or reorganizing payment zones. Additionally, adjustments driven by updated brand standards, redesigned technical systems, or compliance with local regulations are frequently observed. On the other hand, scope changes typically occur when the project boundaries are expanded or reduced. Examples include enlarg-

ing or downsizing the store or restaurant area, adding new functionalities, or altering materials and technologies initially planned.

These changes are often the result of internal management decisions within the retail firm, driven by forecasts of shifting customer demands and adjustments in financial strategies due to market conditions or technical challenges encountered during construction. External factors, such as rising material costs, supply chain disruptions, local authorities' approval requirements, or competitive pressures, can also necessitate changes in project scope. Moreover, unexpected technical issues during the construction process, such as environmental conditions or infrastructure problems, may require significant alterations to the design or scope.

The case study highlighted that managing these changes is critical to the successful completion of projects. Effective change management involves thoroughly analyzing the impact of changes on cost, time, and quality, ensuring clear communication and collaboration among stakeholders, and accurately documenting formal change requests to enhance the efficiency of change management processes. One of the key findings from the case study was the company's commitment to developing better planning strategies to minimize changes. The company emphasized the importance of data-driven standardization as a key factor in achieving this goal. For example, accurate analysis of data such as sales expectations, distribution of revenue across different sales channels (e.g., delivery, drive-thru, dine-in), expected customer traffic, and peak hours would help inform clear decisions during leasing, design, and construction phases. This standardization was seen as a crucial step in preventing frequent changes in design and scope, as case study findings highlighted that design changes required the company to make additional payments to project teams, leading to significant challenges by delaying the project timeline and increasing overall costs.

Incomplete design package and lack of constructability (B9) follow closely, with a mean score of 3.95, underscoring the challenges caused by insufficiently detailed designs that require extensive revisions during implementation. These barriers emphasize the

importance of thorough planning and standardized processes to reduce inefficiencies and mitigate the risks of frequent changes. According to the findings of Kog and Loh (2012) and Esmaeili *et al.* (2016), the sufficiency of plans, specifications, and constructability are key determinants of project success, aligning with the literature's emphasis on these factors. Insights from the case study also revealed that while project sets provided by global designers often align closely with the company's brand identity and aesthetic requirements, they frequently lack the level of detail required for on-site implementation. This shortfall can be attributed to the conceptual design nature of these sets, which prioritizes high-level aesthetics over constructability.

Local project firms, with their expertise in countrywide regulations and construction details, tackle these gaps by identifying and incorporating the necessary project solutions. However, the case study also highlighted that local project teams can occasionally overlook critical details, leading to issues identified only during the construction phase. Such omissions can result in the emergence of additional work items outside the initially agreed scope, which, due to unit pricing agreements, may incur significantly higher material and labor costs. These unexpected costs can substantially increase the overall project budget if not carefully managed. As emphasized during the case study, managing this barrier is critical to maintaining budget control and ensuring the smooth execution of retail construction projects.

Higher capital costs (B19) (mean score: 3.98) and economic volatility (B20) (3.94) also pose notable challenges, particularly in an era of rising material costs, inflation, and fluctuating exchange rates. Contractors rank these barriers the highest, as their operations are directly affected by increased costs and unpredictable market conditions. Retail companies and architectural firms, while also recognizing these issues, may have broader strategies to absorb or mitigate these financial risks.

Inadequate site investigation (B10) (3.94) highlights the risks of inadequate site evaluations, leading to cost overruns and delays due to unforeseen environmental or structural conditions. The case study findings clearly demonstrate that site investiga-

tion is not only a critical part of the construction process but also an indispensable component of the overall real estate development cycle in retail projects. This is because the most reliable metrics for evaluating new locations proposed by the real estate team stem directly from these investigations. For example, determining whether the ground conditions, sewage system infrastructure, electrical capacity and infrastructure, and other physical requirements align with the firm's operational standards is vital for project feasibility.

For instance, a plot located one meter below the main road level appeared highly desirable to the real estate team due to the parcels' visibility and accessibility. However, observations made by the architectural and construction teams during site investigations can reveal that the site's conditions would require extensive fill across the entire parcel, significantly increasing construction costs and potentially impacting the project's financial feasibility. Alternatively, the option to leave the building at a lower level to avoid additional costs could reduce its visibility, diminishing its attractiveness to customers. Moreover, the lower level could also make the building susceptible to flooding or rainwater accumulation, which might compromise its durability and create challenges during the building life cycle for asset management.

This example underscores the importance of site investigations in retail construction projects, as such insights inform financial decisions and mitigate potential risks. The placement of site investigation issues in the top five barriers for retail firms and within the top ten overall is a reflection of its critical importance in achieving project success. This finding is further supported by multiple experts during the pilot study, reinforcing the indispensable role of thorough site investigations in the decision-making and development processes.

Limited working hours (B14), with a mean score of 3.56, is ranked relatively low as a barrier in the survey results, indicating that it is not perceived as a significant challenge by retail companies or contractors. However, insights from the pilot study suggest that restricted working hours in shopping malls, existing buildings, and

densely populated areas can create substantial challenges for construction processes. These restrictions often lead to compressed construction schedules, excessive workloads, and reduced team efficiency, ultimately impacting project timelines, quality, and team morale. The discrepancy between the pilot study findings and the survey results invites further exploration into the contextual factors influencing stakeholder perceptions.

One possible reason for this divergence is the normalization of restricted working hours in retail construction projects. For retail firms and contractors accustomed to operating in shopping malls or urban environments, such constraints may be seen as a standard part of the construction process rather than a significant barrier. Over time, these stakeholders may have developed strategies to mitigate the impact of limited working hours, such as optimizing work schedules, increasing labor shifts, or negotiating extended access with facility management teams. Consequently, they may no longer view this issue as a critical barrier compared to more unpredictable challenges like design changes or supply chain delays.

Another explanation could lie in the prioritization of barriers based on their perceived impact on overall project success. Retail firms may focus more on barriers like scope changes and stakeholder coordination, which have more direct implications for their strategic objectives and operational outcomes. Similarly, contractors may prioritize technical and financial challenges over operational constraints like restricted hours, especially if such limitations are less prevalent in their specific project contexts or regions. In conclusion, while limited working hours (B14) may not rank highly as a barrier in the survey results, its impact in specific contexts, such as shopping malls and urban settings, should not be underestimated. Addressing this issue requires tailored strategies that balance regulatory compliance with operational efficiency, ensuring that projects can progress smoothly despite time restrictions. This barrier serves as a reminder of the contextual nuances in retail construction projects, where the significance of challenges can vary widely based on the specific project environment and stakeholder experiences.

Lack of top-level commitment (B1), with a mean score of 3.88, highlights the challenges that arise when senior management fails to actively engage in the planning and execution of retail construction projects. Top-level commitment is crucial for providing clear strategic direction, resolving critical issues, and securing the resources necessary for successful project delivery. Case study findings emphasize that a lack of involvement from senior leaders can lead to misaligned goals, delayed decision-making, and insufficient support for overcoming unexpected challenges. This barrier is particularly impactful in scenarios where cross-functional coordination or significant financial investments are required, as the absence of strong leadership can exacerbate existing inefficiencies and hinder project progress.

Pilot study interviews further revealed that in retail firms, top-level commitment often extends beyond executive teams to include company owners or investors. This adds an additional layer of complexity, as decisions regarding investment levels directly impact all aspects of retail development, including construction. Increased investment by top-level stakeholders can act as an enabler, driving faster progress and ensuring sufficient resources for high-quality outcomes. Conversely, decisions to scale back investments or prioritize cost-cutting measures can create significant barriers, delaying projects, limiting their scope, or reducing quality. This dynamic underscores the dual role of top-level commitment as both a critical enabler and a potential barrier, depending on the nature of strategic decisions made by senior leaders and stakeholders.

Contractors' and subcontractors' performance (B3), with a mean score of 3.85, highlights challenges such as inadequate quality control, high turnover, and insufficient skills among contractors. These issues can lead to delays, compromised quality, and increased costs, ultimately impacting project timelines and stakeholder satisfaction. Contractors themselves indicate this barrier as significant (3.56), reflecting their direct exposure to these challenges on-site and the increased pressure to deliver projects under constrained timelines and budgets. High turnover among subcontractors further complicates the issue, as it disrupts workflow continuity and necessitates frequent retraining or onboarding, adding to project inefficiencies.

Literature further highlights that retail construction projects demand a heightened level of precision and quality due to their emphasis on customer-facing environments. Key elements such as layout and space planning, material selection, and lighting, decor, and ventilation (Kent and Kirby, 2009; Webber *et al.*, 2018) demonstrate the importance of fine craftsmanship, seamless finishes, and clean execution. For example, a well-planned layout in quick-service restaurants ensures operational efficiency and customer satisfaction, but achieving this requires contractors to adhere to strict spatial and aesthetic requirements during construction. Similarly, the selection and application of durable, sustainable, and visually appealing material, particularly in high-traffic environments like airports and malls, demand exceptional attention to detail and technical compliance with specific design frameworks.

The pilot study findings underscore that these factors place significant pressure on contractors to deliver high-quality finishes within tight schedules. Retail firms expect contractors to balance speed with precision, ensuring that every aspect of the space aligns with the brand's identity and operational standards. Any shortcomings in contractor performance, such as inadequate craftsmanship or delays caused by inefficiencies, can disproportionately affect retail firms compared to other project categories. For example, poor finishes or unfinished work may directly impact the customer experience, reducing foot traffic and revenue potential for retail spaces.

Addressing these indirect relations requires retail firms to implement stringent contractor selection processes and establish clear quality benchmarks. Additionally, incorporating detailed performance monitoring during construction, alongside real-time communication with contractors, can help mitigate risks. Literature supports that collaboration between architectural, electrical, and mechanical design teams is also critical for aligning technical aspects like ventilation, lighting, and material usage (Hagtvedt and Chandukala, 2023).

In conclusion, contractor performance plays a pivotal role in retail construction projects, where the demands for precision, quality, and speed are magnified by the

customer-facing nature of the spaces. Ensuring that contractors are equipped to meet these challenges is essential for maintaining the success and reputation of retail brands.

Resource-related challenges, such as supply chain difficulties (B13) (3.84), further complicate project execution. Delays in material procurement, price fluctuations, and localization issues significantly affect construction schedules and budgets. Case study findings revealed that, while retail firms rely heavily on globally approved suppliers to ensure consistent quality, this approach is not without its limitations. For instance, supply chain disruptions stemming from cross-border complexities, customs clearance delays, or changes in global market conditions can create bottlenecks. In response, many retail firms engage in localization efforts, such as sourcing materials from regional suppliers to reduce lead times and customs costs. However, such measures are not always straightforward; the transition to local suppliers may require extensive quality checks and adjustments to meet global brand standards, adding another layer of complexity. Literature also highlights that supply chain difficulties in the construction sector, such as instability, unpredictability, and a relatively volatile production environment, are common and widely recognized problems (Kim and Nguyen, 2022). When these general issues from the literature are combined with the retail-specific supply chain challenges identified in the case study, the barrier effect of this factor on project success becomes more pronounced.

Insufficient data and performance metrics (B7), with a mean score of 3.76, reflect the lack of robust post-project evaluations. Without comprehensive performance data, it becomes challenging to identify and address recurring inefficiencies, leading to missed opportunities for improvement. For example, incomplete feedback loops prevent firms from refining contractor selection processes or optimizing procurement strategies. The case study findings further emphasize that real-time data tracking and standardized reporting could enhance decision-making during the construction process, reducing risks associated with underperformance or supply chain disruptions. The combination of these barriers underscores the interconnected nature of contractor and resource-related challenges. The reliance on efficient contractor management, reliable supply chains,

and actionable performance data is critical for maintaining project momentum and delivering successful outcomes in retail construction projects. Addressing these issues requires a holistic approach, including robust contractor selection criteria, proactive supply chain planning, and the integration of advanced project management tools to enable better tracking and evaluation.

With a mean score of 3.82, improper project feasibility highlights the risks associated with inadequate early-stage assessments in retail construction projects. These feasibility studies are critical for evaluating location suitability, financial viability, and technical constraints. However, pilot study findings revealed that challenges often arise when investments are made in USD while revenues are earned in TRY, particularly in periods of high inflation. Underestimating inflation's impact on operational costs or failing to account for discrepancies between revenue growth and product price increases can lead to misaligned financial projections and errors in feasibility studies.

Moreover, the inability to predict accurate sales growth or changes in average customer numbers due to market volatility further exacerbates these issues. Retail firms with experienced teams and leadership are better equipped to anticipate such risks, leveraging their expertise to balance foreign investment dynamics with local market conditions. This capability not only mitigates risks but also reflects an indirect connection to barriers like higher capital costs (B19) and economic volatility (B20), potentially contributing to their higher rankings.

Local legislation and building permits, with a mean score of 3.74, represent the challenges posed by navigating complex regulatory frameworks and approval processes in retail construction projects. These processes extend beyond global design considerations, requiring alignment with national and municipal regulations, including zoning laws, construction codes, and environmental guidelines. Retail firms operating in diverse locations must address a range of approval frameworks, such as zoning plans, implementation regulations, planning notes, and municipal bylaws, which can vary significantly across jurisdictions.

Case study insights reveal that securing approvals from multiple authorities, such as ministries, local municipalities, and utility providers, often introduces delays. For instance, discrepancies between national zoning laws and municipal planning notes can require design adjustments or resubmissions, prolonging approval timelines. Additionally, compliance with detailed implementation regulations, such as setback requirements, building heights, and usage restrictions, requires meticulous planning and a deep understanding of local frameworks. Retail firms must also anticipate changes in regulations, which can further complicate the approval process.

To navigate these challenges effectively, retail firms often engage local experts and consultants familiar with regional requirements to streamline the permitting process. Engaging experienced consultants who possess a deep understanding of local regulatory frameworks and proactively addressing legal issues during the design phase can help mitigate delays and reduce risks. Ultimately, addressing this barrier requires a collaborative and informed approach that ensures alignment between global design standards and local regulatory expectations.

Site conditions and limitations, with a mean score of 3.65, highlight the challenges posed by the physical and contextual constraints of construction sites in retail projects. These limitations can include factors such as irregular topography, restricted site access, existing infrastructure, and environmental considerations, all of which impact project feasibility, timelines, and costs.

Case study findings revealed that such limitations often create significant challenges for contractors, who are directly responsible for executing the project on-site. For instance, narrow streets in urban areas, limited storage for materials, and unexpected underground utilities can disrupt construction workflows and require adaptive strategies to maintain progress. Similarly, uneven topography or unsuitable soil conditions may necessitate additional site preparation, such as soil stabilization or grading, which increases costs and extends timelines. These challenges place additional pressure on contractors to meet deadlines while addressing unforeseen site-specific issues.

To address these challenges effectively, comprehensive site investigations and early-stage collaboration with contractors are essential. By identifying potential site constraints during the feasibility and planning phases, retail firms can incorporate adaptive measures into their designs, reducing risks and ensuring smoother construction processes. Contractors, in turn, benefit from clear communication and well-structured site management plans that allow them to navigate these barriers efficiently.

Legal and contractual risks, with a mean score of 3.52, reflect the complexities retail firms face when navigating agreements, regulations, and long-term obligations in construction projects. These risks often stem from the interplay between contractual frameworks and evolving regulatory landscapes, both of which can significantly impact project execution and operational outcomes. Although these barriers are significant, they have been ranked towards the lower end in this study. This finding aligns with the results of the research of Chua *et al.* (1999), where critical success factors were examined across different project objectives.

Case study findings highlight that one of the key challenges retail development teams face is the drafting of contracts without fully understanding the building's entire lifecycle. This oversight often creates long-term complications, particularly for asset management teams tasked with maintaining and optimizing the property over decades. Contracts that do not account for lifecycle considerations can lead to unexpected legal and operational hurdles, such as limitations in modifying or upgrading the property in response to changing business needs or regulatory requirements.

Another common issue stems from the evolution of 15-20-year lease agreements, which are prevalent in the retail industry. Over time, these agreements are subject to regulatory changes or new legislation, requiring stakeholders to renegotiate terms or adapt operations to remain compliant. Such scenarios can introduce significant complexity and financial strain, particularly when stakeholders must balance regulatory demands with existing contractual obligations.

An additional barrier identified during the case study is the sometimes rigid approach of in-house legal teams, who may view contracts as an end rather than a means to achieve business objectives. This mindset can result in overly restrictive agreements that hinder commercial flexibility, create friction between teams, and potentially disrupt partnerships. For example, overly cautious legal interpretations might prevent adaptive measures in lease agreements or construction contracts, delaying progress and increasing costs.

Addressing these risks requires skilled professionals who can anticipate legal and regulatory changes while aligning contracts with the company's long-term strategies. Teams must proactively integrate lifecycle considerations into contractual frameworks, ensuring they remain adaptable to future developments. Furthermore, fostering collaboration between legal teams and business units can help ensure that contracts are designed as tools to facilitate strategic goals rather than as constraints.

Additionally, continuous monitoring of regulatory landscapes and incorporating adaptive amendments into agreements can reduce the impact of unforeseen changes. Retail firms must also invest in training and hiring professionals with expertise in both legal risk management and business strategy, enabling them to navigate these complex challenges effectively.

Retail firms ranking legal and contractual risks (B18) in 20th place suggests that this barrier is perceived as less critical compared to others. As discussed in the literature, the design-bid-build approach is marked by fragmentation, unequal distribution of risks, a focus on the lowest bid, and multiple layers of subcontracting, all of which hinder effective coordination within a project (Hai *et al.*, 2012). In the case study firm where this contractual system is used, the reliance on an experienced legal and contract management team has led to the development of methods to address these barriers. This team proactively addresses risks and ensures agreements align with long-term strategies. Established processes and familiarity with long-term lease agreements or regulatory changes likely minimize the perceived impact of this barrier. Additionally,

retail firms may prioritize more immediate challenges, such as design changes or financial constraints, over legal complexities that are effectively managed in the background. However, while this lower ranking reflects confidence in managing these risks, it highlights the ongoing need for vigilance, as unexpected regulatory changes or inflexible contracts could still pose significant challenges in the future.

Public opposition or public acceptance, with a mean score of 3.43, is ranked relatively low, reflecting its limited relevance in many retail construction projects. This barrier primarily arises in cases where new developments may disrupt local communities, such as in densely populated areas or projects perceived to negatively impact the environment, traffic flow, or local businesses. Retail firms operating in urban or high-profile locations may encounter resistance during the planning or construction phases, requiring additional engagement with local stakeholders.

The case study findings indicate that while this barrier is situational, its impact can be significant in contentious developments. Retail firms mitigate such risks through early community engagement, transparent communication, and incorporating feedback into project designs. These efforts help align project goals with local interests, reducing opposition and fostering acceptance. Although ranked low overall, addressing this barrier is crucial for projects where public perception directly affects timelines and long-term success.

Accidents on construction sites, with a mean score of 3.40, rank relatively low, reflecting its perceived limited impact in retail construction projects. This can be attributed to the typically smaller scale of retail projects, such as individual stores or restaurants, as opposed to large-scale developments like shopping malls or mixed-use complexes. The smaller scope of construction reduces the complexity of on-site activities, minimizing potential hazards and, consequently, accident risks.

Additionally, the prevalence of streamlined, modular, and similar designs across retail projects further contributes to risk reduction. Standardized processes and fa-

miliar construction methods decrease the likelihood of errors and unsafe practices, providing a safer working environment for contractors and subcontractors. While the risk of accidents remains a consideration, these factors collectively mitigate its impact, explaining the lower ranking of this barrier compared to others. Nonetheless, adherence to strict safety protocols and proactive risk assessments remains essential for ensuring the well-being of all site workers, especially on large-scale retail projects.

Political instability, despite being ranked the lowest barrier overall (mean score: 3.30), holds surprising relevance given the participation of respondents from volatile regions. This ranking suggests that stakeholders, particularly retail firms, have adapted to navigating political uncertainties effectively. Retail firms typically focus on barriers with immediate and direct impacts on project execution, such as design changes, contractor performance, or financial constraints. Political instability, while a potential long-term risk, may not directly affect their ability to deliver a single retail unit or restaurant. Additionally, global retail companies operating in multiple markets tend to diversify their risks, reducing the impact of political instability in any single region.

For construction teams, however, the implications of political instability remain more significant. Issues like permit delays, regulatory shifts, or disruptions in material availability can pose substantial risks. The relatively low ranking, even among participants from volatile areas, might reflect a level of normalization of these risks, where political instability is seen as part of the operational landscape rather than a critical disruptor.

This dynamic highlights the resilience and adaptability of stakeholders in managing political challenges but also underscores the importance of maintaining flexible strategies to mitigate unexpected disruptions in politically volatile contexts.

Finally, beyond the factors discussed, analyses have been conducted based on participants' experience in the construction sector, the countries where their companies operate, and the number of employees in their companies. However, no significant

differences were found outside of experience levels. Similar to previous categories, the statistical differences observed were between respondents with 0–5 years of experience and those with over 20 years of experience. Significant differences were found in the factors of limited knowledge and skills, contractors' and subcontractors' performance, inadequate site investigation, and limited working hours. As illustrated in Table 4.20, participants with over 20 years of experience regarded these four factors as significantly more critical obstacles.

4.6. Discussion on Benefits

The benefits derived from retail construction projects are predominantly project-specific, addressing immediate outcomes such as timely delivery, financial performance, and operational improvements. These benefits directly impact the success of individual projects and the stakeholders involved, offering tangible results in areas like user satisfaction, organizational efficiency, and staff performance. Unlike broader impacts, which focus on long-term strategic and societal changes, benefits highlight the advantages gained during and immediately after the construction process. Analyzing these benefits from the perspectives of retail companies, architectural firms, and contractors provides a focused understanding of how different stakeholders perceive and prioritize these project-based outcomes. The perceived advantages of effective retail construction processes across various company roles are highlighted in Table 4.21.

Table 4.21. Key benefits in retail construction by stakeholder perception.

Benefits	Main Business Area in Retail Construction						Total	
	Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	

Table 4.21 Key benefits in retail construction by stakeholder perception. (cont.)

Benefits		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
				Mean	Rank				
Be1	Improved project delivery and financial performance	4.12	1	4.14	2	4.06	1	4.11	1
Be2	Increased organizational efficiency	3.91	3	4.14	2	3.94	2	3.98	3
Be3	Greater stakeholder satisfaction	3.67	6	4.00	6	3.78	4	3.78	6
Be4	Greater user comfort and satisfaction	4.09	2	4.24	1	3.89	3	4.09	2
Be5	Improved staff performance	3.79	4	4.10	4	3.72	5	3.85	4
Be6	Enhanced building life cycle performance	3.74	5	4.05	5	3.72	5	3.82	5

Improved project delivery and financial Performance (Be1), ranked first overall with a mean score of 4.11, highlights the critical importance of efficient execution and strong financial outcomes in retail construction projects. Contractors prioritize this benefit the highest (4.12), as meeting deadlines and adhering to budgets are directly linked to their operational efficiency, reputation, and profitability. Architectural firms (4.14) also emphasize the value of timely delivery and cost control, as these factors enhance their ability to meet client expectations and maintain project consistency.

While timely delivery and cost optimization are critical in all construction sectors, they hold particular significance in retail due to the direct link between project completion and operational revenue generation. For retail companies (4.12), this benefit resonates strongly with their strategic objectives of minimizing downtime, accelerating store openings, and achieving faster returns on investment, as delays in opening new stores or facilities can directly impact sales and profitability, making accelerated timelines a strategic priority. Together, these perspectives underscore the universal importance of project delivery and financial performance as a key driver of success across all stakeholders in retail construction.

Greater user comfort and satisfaction (Be4) ranked second overall (4.09). Retail environments are specifically designed to attract and retain customers, emphasizing layout, aesthetics, accessibility, and comfort. Architectural firms rate this benefit the highest (4.20), as their designs must balance functional efficiency with an engaging user experience. Retail companies (3.89) also prioritize this benefit, as user satisfaction directly impacts customer loyalty and sales. In general construction sectors like industrial or residential, user comfort can be secondary to operational or structural considerations, making this a retail-specific priority.

With a mean score of 3.98, increased organizational efficiency (Be2) highlights the importance of improving processes and reducing inefficiencies in retail construction projects. Compared to the general construction sector, where projects are often more bespoke-such as custom residential buildings or unique commercial developments-

retail construction places a much greater emphasis on scalability and repetition. Retail projects frequently involve standardized designs and workflows, as brands aim to replicate a consistent identity and customer experience across multiple locations. This repetitive nature allows retail firms to refine and streamline their operations, but it also creates a heightened need for robust organizational efficiency.

Retail companies (3.91) and architectural firms (4.14) particularly value this benefit, as efficient processes enable faster store rollouts and reduced costs. For example, retail construction projects often follow predefined templates for layouts, materials, and design elements, which can reduce the time required for decision-making and execution. However, this standardization also demands rigorous coordination among stakeholders to adapt these templates to site-specific challenges, such as local regulations or unique spatial constraints. Architectural firms play a critical role in ensuring that design efficiency aligns with brand standards while addressing these variables.

Insights from the case study reveal that organizational efficiency in retail construction is closely tied to the operational needs of the business. From the earliest stages of project planning, the focus is on creating physical conditions that enhance the quality and delivery of services within the retail space. For example, design and construction processes are tailored to support specific operational workflows, such as customer flow, accessibility, and optimized use of back-of-house spaces. Without addressing these operational priorities, investments in architectural and aesthetic success would fail to deliver their intended value. By meeting operational needs, retail construction projects not only enhance the immediate functionality of the space but also contribute directly and indirectly to the company's organizational efficiency. This alignment ensures that each project serves the broader strategic goals of the business, such as improving customer satisfaction, reducing operational bottlenecks, and supporting long-term profitability.

Contractors (3.94) also gain indirect advantages from improved workflows. Fewer delays and better-defined scopes minimize rework and optimize resource allocation, enhancing their ability to deliver projects on time and within budget.

In retail construction, the connection between organizational efficiency and project success is particularly pronounced due to the scale of operations. Large retail chains often manage multiple projects simultaneously, requiring strong project management frameworks to maintain consistency, allocate resources effectively, and ensure timely completion. For instance, efficient scheduling, procurement, and logistics can significantly reduce costs while enabling faster openings, giving retail companies a competitive edge in dynamic markets. This focus on efficiency is less pronounced in one-off or smaller-scale projects in other construction sectors, where unique designs or extended timelines allow for greater flexibility.

Ultimately, increased organizational efficiency in retail construction is not just about reducing costs or improving speed; it also enhances a company's ability to respond to market demands, adapt to challenges, and deliver projects that meet both brand and operational goals. This benefit reflects a critical alignment between the strategic priorities of retail companies and the practical realities of construction execution, setting retail construction apart from the general construction sector in its reliance on efficiency-driven workflows.

Improved staff performance, ranked fourth with a mean score of 3.85, highlights the importance of motivated and skilled teams in achieving project success. Architectural firms place the highest value on this benefit (4.05), as the performance of their teams directly impacts the quality of design and execution. Retail companies (3.79) and contractors (3.72) also recognize the advantages of enhanced staff performance, particularly in the fast-paced and high-pressure environment of retail rollouts. Unlike more flexible industries, retail construction's rapid timelines and dynamic workflows demand high levels of collaboration, productivity, and adaptability from project teams, making staff performance a critical factor in meeting project goals efficiently.

Enhanced building life cycle performance, with a mean score of 3.82, emphasizes the long-term value of constructing durable and efficient buildings. Architectural firms (4.05) prioritize this benefit slightly more than retail companies (3.74) and contractors (3.72), as they often play a key role in integrating sustainability and durability into the project's design. While this benefit is ranked lower in retail companies, it remains a critical consideration for retail projects. The relatively lower ranking may stem from retail construction's primary focus on operational efficiency and adaptability, as these projects often involve shorter life cycles.

However, this benefit is far from insignificant in retail construction. As highlighted in the case study, once a retail building is opened, it often operates without significant structural changes for at least a decade. During this period, it is essential for the building to incorporate efficient systems that minimize operating costs, such as energy-efficient HVAC systems, durable materials, and low-maintenance designs. These features not only ensure smooth operations but also play a vital role in maintaining profitability. For instance, inefficient systems or frequent repair and maintenance costs can negatively impact a restaurant's profit and loss (P&L) reports, reducing its overall profitability even if the location is generating high revenue.

Thus, while retail construction prioritizes adaptability and operational readiness, ensuring efficient and cost-effective systems throughout the building's lifecycle is equally critical. By integrating such systems, retail firms can reduce overhead costs, enhance operational performance, and sustain long-term financial performance, making this benefit a foundational yet often understated element of retail construction success.

Greater stakeholder satisfaction, ranked last overall with a mean score of 3.78, reflects the importance of addressing the diverse needs and expectations of all key stakeholders in retail construction projects. Successful projects rely on fostering an environment of trust among stakeholders, including suppliers, contractors, designers, investors, and internal teams. For retail companies, satisfaction is closely linked to maintaining brand consistency and delivering spaces that align with operational and

strategic objectives. Ensuring that internal stakeholders, such as marketing, operations, and procurement teams, feel engaged and supported is crucial, as their insights directly influence the project's functionality and alignment with the company's goals. Similarly, building strong relationships with external stakeholders, such as suppliers and contractors, helps ensure timely delivery, quality outcomes, and long-term collaboration.

Table 4.22. Benefits in retail construction by experience.

Benefits		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Be1	Improved project delivery and financial performance	4.00	2	4.35	1	3.96	1	4.27	3	4.11	1
Be2	Increased organizational efficiency	3.91	3	4.00	3	3.96	1	4.07	5	3.98	3
Be3	Greater stakeholder satisfaction	3.77	5	3.59	4	3.75	3	4.07	5	3.78	6
Be4	Greater user comfort and satisfaction	4.18	1	4.35	1	3.75	3	4.27	3	4.09	2
Be5	Improved Staff performance	3.91	3	3.47	6	3.75	3	4.40	1	3.85	4

Table 4.22 Benefits in retail construction by experience. (cont.)

Benefits		Experience in Construction								Total	
		0-5		610		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Be6	Enhanced building life cycle performance	3.68	6	3.59	4	3.75	3	4.40	1	3.82	5

As shown in Table 4.21, the rankings of these benefits based on construction experience reveal that, similar to previous categories, senior-level responses tend to rank higher than those from junior professionals. In particular, senior-level perspectives on factors like increased staff performance and organizational efficiency are considered more reliable, reflecting their deeper experience and understanding of these areas, which are broader managerial concerns.

In conclusion, the benefits of retail construction projects can be shaped by the sector's unique demands. The emphasis on accelerated timelines reflects the sector's critical need to ensure operational readiness and minimize revenue loss, a priority that contrasts with the more flexible approaches often seen in other construction domains. Additionally, retail construction's customer-centric design directly links user comfort and satisfaction to increased sales and customer retention, underscoring the sector's focus on enhancing the customer experience. The repetitive nature of retail projects necessitates scalability and standardization, requiring streamlined processes and efficient workflows to manage high volumes and ensure consistency across multiple locations. Finally, brand alignment emerges as a central benefit, as retail projects must maintain and enhance a brand's identity, tying stakeholder satisfaction closely to the successful delivery of brand-consistent spaces. These benefits collectively illustrate how retail construction projects are uniquely aligned with the operational and strategic goals of retail companies, emphasizing efficiency, customer engagement, and brand-driven outcomes.

4.7. Discussion on Impacts

The long-term impacts of retail construction projects extend far beyond immediate project outcomes, shaping the strategic position, public perception, and operational compliance of retail companies. As highlighted in Table 4.23, brand image and public perception (Im1) rank as the most significant impact overall, with a mean score of 4.02. All stakeholders emphasize the importance of creating visually appealing and functional spaces that resonate with customers and reflect the brand's values. For retail companies, each construction project is an opportunity to reinforce their brand identity, build customer trust, and enhance their public image. This is especially critical in competitive markets, where the physical environment plays a central role in differentiating the brand from competitors.

Table 4.23. Key impacts in retail construction by stakeholder perception.

Impacts		Main Business Area in Retail Construction						Total	
		Retail Company		Architectural/ Mechanical/ Electrical/ Structural Firm		Contractor			
				Mean	Rank				
Im1	Brand image / public perception	3.95	1	4.24	1	3.94	1	4.02	1
Im2	Enhanced competitive advantage	3.93	2	4.10	3	3.89	2	3.96	2
Im3	Regulatory compliance	3.84	3	4.24	1	3.89	2	3.95	3

Enhanced competitive advantage (Im2), with a mean score of 3.96, underscores the role of retail construction in helping companies maintain and grow their market position. Architectural firms (4.10) and retail companies (3.93) recognize that innovative designs, strategic location selection, and operationally efficient spaces give companies a distinct edge over competitors. Contractors (3.89), while ranking this impact slightly lower, contribute to this advantage by ensuring high-quality execution and timely delivery, which allows retailers to open and operate sooner. The ability to leverage construction projects as tools for competitive differentiation demonstrates the sector's reliance on well-planned and executed retail spaces to drive customer loyalty, increase foot traffic, and enhance profitability.

Regulatory compliance (Im3), ranked third overall with a mean score of 3.95, highlights the importance of adhering to legal and safety standards in retail construction. Contractors (3.89) prioritize this impact most highly, as they are often on the front lines of ensuring that projects meet building codes, zoning laws, and safety regulations. Architectural firms (4.24) also place significant value on compliance, as it ensures project integrity and protects the retailer from potential legal or operational risks. For retail companies, regulatory compliance is essential to maintaining seamless operations and avoiding disruptions or reputational damage. Case study insights revealed that retail firms often integrate compliance measures into each stage of the project lifecycle, working closely with local authorities and consultants to navigate complex regulatory environments.

An analysis was conducted to check for significant differences between the impacts of retail projects and respondents' experience levels, but no statistical differences were found. However, the distribution of the results by experience levels, which provides a foundational insight, is shown in Table 4.24. Similarly, multiple comparisons based on company size, country, and experience in retail construction were also conducted, but no significant differences were found.

Table 4.24. Impacts in retail construction by experience.

Impacts		Experience in Construction								Total	
		0-5		6-10		11-20		20+			
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Im1	Brand image and public perception	3.86	2	3.94	1	3.93	2	4.53	1	4.02	1
Im2	Enhanced competitive advantage	4.00	1	3.71	2	3.86	3	4.40	2	3.96	2
Im3	Regulatory compliance	3.86	2	3.59	3	4.00	1	4.40	2	3.95	3

In conclusion, the long-term impacts of retail construction projects are multifaceted, including brand enhancement, competitive positioning, and legal adherence. Retail construction projects serve as strategic tools for companies to not only enhance their operational efficiency but also establish stronger market presence and public trust. By delivering visually compelling, functionally efficient, and regulation-compliant spaces, these projects create enduring value for retail companies, customers, and stakeholders alike. Together, these impacts highlight the strategic alignment of retail construction with broader business goals, making it an essential driver of long-term success.

5. CONCLUSIONS

This thesis examines the critical success factors in retail construction projects, focusing on the dynamic relationship between the retail and construction industries. Retail construction, including both new store openings and remodels, plays a significant role within the broader construction sector, accounting for a substantial portion of commercial construction activities. As the retail industry continuously adapts to changing consumer behavior and market demands, the construction of retail spaces must also evolve. This research investigates the factors that influence the success of retail construction projects, identifying the unique challenges and management strategies essential for achieving project objectives.

The study offers a comprehensive review of the retail construction process, from site selection and design to the final implementation and opening of a store. It emphasizes the importance of flexibility, adaptability, and rapid delivery in retail projects, distinguishing them from traditional construction practices. Despite their significant presence in the construction industry, retail projects have received limited academic attention, with existing research primarily focused on sustainability or store image. By filling this gap, this study contributes to the field by providing a deeper understanding of the factors that influence the success of retail construction projects and offering practical recommendations for future improvements.

Through a combination of an extensive literature review and pilot study, critical success factors in construction projects related to retail sector dynamics were collected and adjusted, followed by the questionnaire survey. The survey assessed 60 critical success factors on a Likert scale. After collecting survey results, the responses from 82 professionals in retail construction were analyzed using SPSS. ANOVA tests were conducted to compare the results and identify significant differences between the responses.

Additionally, a case study of a restaurant project was analyzed to compare theoretical findings with practical applications. This combined analysis provided a comprehensive understanding of the success factors in retail construction projects.

5.1. Conclusions Based on Survey Results

The retail industry operates in a dynamic and rapidly evolving environment, one that is inherently more fluid and susceptible to change compared to more traditional sectors like construction. As consumer expectations shift, new technologies emerge, and market demands evolve, retail construction management must adapt to these transformations. This research is motivated by the need to explore the intersection of these two fields, particularly how the rapidly changing landscape of the retail sector influences the management of retail construction projects. The study highlights that retail construction must continuously adapt to these external pressures, making it a unique and critical area of focus within construction management.

The ongoing interaction between the retail and construction industries has significantly influenced the development of retail construction practices. Changes within the retail sector, driven by factors like the rise of digital technologies, increased sustainability concerns, and the need for greater operational efficiency, have had a direct impact on the way retail environments are planned, built, and improved. The need to create faster, more efficient, and sustainable structures has led to innovative construction solutions that respond to the fluid nature of the retail environment. The interplay between these sectors is evident in how retail trends directly impact the strategies used in construction, calling for a more agile and responsive approach to project management.

While digital technologies and online retailing have reshaped the retail landscape, physical stores continue to play a central role in the industry. Physical retail spaces remain a key competitive asset for many retail companies, serving not only as a sales channel but also as a space for brand identity and customer engagement. As long as the physical retail environment maintains its relevance, the dynamics between retail

operations and construction will persist, providing fertile ground for ongoing research. The continuous evolution of this interaction creates an area rich with opportunities for investigation, particularly in how retail construction management can evolve to meet the demands of an ever-changing retail environment.

The survey conducted as part of this study provided valuable insights into the critical success factors in retail construction projects. By engaging professionals with direct experience in retail construction, the survey results highlight key trends and priorities that influence the success of these projects.

In order to conduct more thorough and precise data analyses, the survey results were prioritized for analysis not only based on mean values but also through a variety of statistical methods. In this context, statistical tests were conducted by considering potential differences that could affect the responses. Specifically, the analysis aimed to determine whether there were significant differences in the responses based on factors such as the participants' company's role in the retail construction sector, the company size (i.e., the number of employees), the participants' level of experience in the construction sector, and the countries where the participants' companies operate. The results of the tests revealed that significant differences were found based on company role and experience level, with a higher number of factors being statistically significant in these areas. Therefore, these two comparisons were deemed the most suitable for a foundational study, and the results were discussed based on these key distributions.

Based on the survey results, the key drivers identified for the success of retail construction projects include time sensitivity and delivery speed, which play a critical role in ensuring projects meet tight deadlines and market demands. The key enabler is project leadership and management competence, highlighting the importance of strong leadership in driving project success. The key input is technical expertise, which is essential for ensuring the quality and feasibility of construction.

On the other hand, a key barrier to success is the lack of communication and coordination within the project team, which can lead to delays, errors, and inefficiencies. The key benefit identified is improved project delivery and financial performance, indicating that effective project management directly contributes to better outcomes. Finally, the key impact is the brand image and public perception, demonstrating the long-term value of successful retail construction projects in shaping the brand's reputation and customer loyalty.

One of the most significant findings is the importance of time sensitivity and rapid project delivery in retail construction. Retail construction projects, especially new store openings, require efficient time management to meet the growing demands of the market. The survey results revealed that professionals in the field prioritize quick decision-making and parallel execution of tasks to reduce project duration, which drives success in retail construction projects. The ability to deliver projects on time is directly linked to the competitiveness of retail brands in rapidly evolving markets.

Another major finding was the value of in-house expertise and technical competence within the project team. Companies with dedicated construction management teams tend to achieve better outcomes by optimizing processes and maintaining direct control over critical stages of the project. This finding emphasizes the need for firms to invest in building internal capabilities rather than relying solely on external stakeholders for project management and oversight.

On the other hand, lack of communication and coordination within the project team poses significant challenges to the smooth execution of retail construction projects, as it can lead to misunderstandings, delays, and inefficiencies. Effective communication and coordination are essential to ensuring that all team members are aligned with project goals, timelines, and expectations. When these elements are lacking, the project can suffer from mismanaged resources, delayed decision-making, and a failure to address issues promptly, ultimately hindering the overall success of the project.

Improved project delivery and financial performance highlight how effective project management and timely execution can lead to not only completing the project successfully but also enhancing the financial outcomes. Well-managed projects tend to meet their budget and timeline goals, contributing positively to the overall profitability and success of the retail business.

Successful retail construction projects directly influence how the brand is perceived by customers, stakeholders, and the public. A well-executed project can boost brand reputation, create positive customer experiences, and foster customer loyalty, which in turn supports the brand's market position and future growth.

The ratings of retail companies, architectural and engineering companies, and contractors varied in the survey results. In most cases, the ratings of retail and architectural and engineering companies were closely aligned, while they were differentiated from those of contractors. One possible reason for this differentiation is that retail companies and project firms tend to be more customer/user experience-oriented, focusing on the end result of the project and the impact on consumer behavior and satisfaction. This contrasts with contractors, whose primary focus is often on the construction process, timelines, and cost management, leading to differences in their perspectives on success factors in retail construction projects.

Considering the experience level of respondents, the survey results revealed that individuals with over 20 years of experience had responses that were significantly different from those with less experience, particularly when compared to participants with 0–5 years of experience. Participants with more than 20 years of experience ranked factors as more important and gave higher ratings to them compared to those with less than 5 years of experience. One reason for this disparity could be that more experienced professionals have a deeper understanding of the long-term impacts of certain factors that they have witnessed in previous projects. Their broader perspective on the challenges and successes of retail construction projects, particularly from a management standpoint, likely influences their perception of what drives success. These

professionals are not only more attuned to operational aspects but also have a stronger grasp of human resources, long-term financials, and other major strategic issues. This comprehensive understanding of both the tactical and strategic elements of the project leads to higher rankings for these factors.

5.2. Conclusions Based on Case Study

The case study has provided a comprehensive analysis of the critical success factors in retail construction, focusing on the interplay between investment, design, construction, and procurement processes. One of the key findings emphasizes the importance of top-level commitment and strategic investment in laying a strong foundation for successful retail construction projects. Investment in areas such as technical expertise, appropriate organizational structure, and restaurant orientation directly contributes to efficient project execution. Restaurant orientation is highlighted as a unique solution within the retail construction sector. It is essential for architects, engineers, and real estate development professionals in this retail company to experience the core business and witness the end result of their work firsthand. This hands-on experience with the operational side of the business allows these professionals to better understand the specific needs of the retail space and leads to more effective project execution. Such involvement is one of the unique methodologies that contribute to the success of retail construction projects. These elements, along with proper funding for new projects, establish a solid foundation for achieving desired outcomes in terms of project timelines, cost, and quality.

In the area of site selection and real estate development, the study reveals a significant role played by stakeholder analysis. The continuous collaboration between global management, local real estate teams, and construction professionals ensures that crucial decisions, such as the selection of optimal locations, are made based on thorough data and market analysis. The process of target population analysis and prioritization of trade areas were key factors in determining the success of new retail openings, as these elements ensure alignment with the target demographic. Moreover,

the feasibility reports, valuation studies, and legal checks involved in site selection underline the complexity of real estate decisions in retail construction.

The design process is another pivotal phase in the success of retail projects. The study found that the collaboration between design teams, construction teams, and global management throughout the schematic design and design development phases significantly impacts the overall success of the project. Effective management of internal and global approvals, coupled with timely and detailed construction documents, enables smooth project progression. In particular, the emphasis on front-of-house (FOH) and back-of-house (BOH) design highlights the importance of customer experience and operational efficiency in the layout and flow of retail spaces.

In terms of construction, the findings highlight the critical role of stakeholder coordination during the rough construction, structural works, and finishing stages. This coordination is integral to ensuring compliance with building standards and regulations. The involvement of building inspection authorities throughout these stages ensures that the project adheres to safety standards and minimizes risks associated with delays or structural issues. The successful integration of seating, decor, and kitchen installations alongside IT system setups further emphasizes the need for meticulous planning and a collaborative approach across departments.

In both design and construction, one of the most dominant key factors after the collaborative approach is the company's guidelines, focused on brand standards that prioritize operational benefit and customer perception. Familiarity with these guidelines leads to streamlined design and construction processes, ensuring that the project aligns with the brand's operational and aesthetic objectives while maintaining efficiency throughout each phase.

Finally, the procurement process plays a crucial role in ensuring that the right materials, equipment, and services are sourced efficiently, both globally and domestically. The study highlighted that the success of procurement lies in effective time and

budget planning, comprehensive understanding of sector dynamics, and the tracking of technological advancements. The efficient handling of procurement logistics, including transportation, warehousing, and installation, is critical for meeting the tight schedules typically associated with retail construction projects. Moreover, the company places significant importance on stakeholder management and engagement throughout the processes. By maintaining strong relationships and clear communication with designers, contractors, consultants, and suppliers, the company ensures that all parties are aligned and working towards a common goal. This approach not only enhances collaboration but also contributes to the continuous improvement and optimization of the construction processes.

In conclusion, the findings from this case study underscore the importance of top-level commitment, multidisciplinary collaboration, efficient stakeholder management, and a detailed understanding of the retail sector's unique needs in ensuring the success of retail construction projects. Although key factors such as top-level commitment and appropriate organizational structure did not rank as highly in the survey results as expected based on the case study conclusions, they have provided valuable insights from a different perspective. These factors, while not the highest-ranked drivers, contribute significantly to the overall success of retail construction projects by influencing strategic decisions, resource allocation, and the alignment of project goals with organizational objectives.

The continuous interaction between investment, design, construction, and procurement processes reveals the complexity and dynamic nature of retail development. This complexity is further amplified by the involvement of numerous other stakeholders, both within the company, such as local departments and global management teams, and external stakeholders, including suppliers, contractors, consultants, and regulatory bodies. The need for coordination and alignment among these diverse groups adds layers of complexity to the process, driving the need for flexibility and adaptability to navigate the dynamic nature of retail construction projects.

5.3. Theoretical and Practical Contributions

This study makes both theoretical and practical contributions to the field of construction management in general, with a particular focus on retail construction. From a theoretical standpoint, it expands the existing literature by focusing specifically on retail construction, an area that has been less explored compared to others. By investigating critical success factors, the study provides a deeper understanding of the unique dynamics in retail construction projects, such as time sensitivity, stakeholder coordination, and alignment with brand standards. Furthermore, the study contributes by developing a comprehensive framework of success factors tailored to retail construction. This framework not only identifies the key drivers, enablers, and barriers but also aligns these factors with the specific needs of the retail sector, providing new insights into how these elements interact and contribute to project success. Additionally, the research enhances understanding of stakeholder dynamics, identifying key stakeholders such as retail companies, architects, engineers, contractors, suppliers, and consultants, and exploring how their relationships and communication impact project outcomes. This theoretical contribution provides a foundation for further studies into stakeholder management in retail construction. One of the theoretical contributions is establishing the relationship between the retail and construction sectors, which provides a deeper understanding of how these two fields influence and shape each other.

On the practical side, the findings offer valuable insights for improving project management practices in retail construction. The study highlights the importance of project leadership, effective communication, and a collaborative approach, which can be directly applied to enhance the execution of retail construction projects. Moreover, it provides practical guidelines for stakeholder engagement, demonstrating how aligning project goals and maintaining clear communication among all stakeholders are essential for success. Retail companies can use these insights to structure and manage their construction projects more effectively, ensuring that they align with broader business objectives.

The study also serves as a practical guide for industry professionals, offering a clearer perspective on the key challenges and success factors in retail construction. These findings can help professionals in design, construction, procurement, and project management make informed decisions to improve the efficiency and quality of retail projects. Furthermore, through a combination of literature review, pilot study, survey, and a real-life case study, the research demonstrates best practices in the industry. The study answers the question of what the construction sector can learn from retail, providing actionable lessons on how the retail sector's adaptability, stakeholder management, and customer-focused approach can be integrated into construction practices. Instead of being resistant to change, organizations should focus on being evolving and remaining open to technological advancements and adaptations. To increase efficiency, it is crucial to improve the supply chain, make customer- and end-user-focused decisions, and establish streamlined processes, guidelines, and best practices. With these lessons learned from the retail environment, the construction organizations can implement more effective and faster construction management processes, leading to better project outcomes.

Figure 5.1 presents a conceptual framework illustrating the strategic minimization of retail development processes through the prioritization of stakeholders, resource allocation, and organizational efficiency, all underpinned by time sensitivity and market dynamics. This model emphasizes the integration of digitalization, customer-centric strategies, and sustainability considerations to streamline real estate development, design, construction, and procurement processes, ultimately enhancing project delivery, financial performance, and competitive advantage.

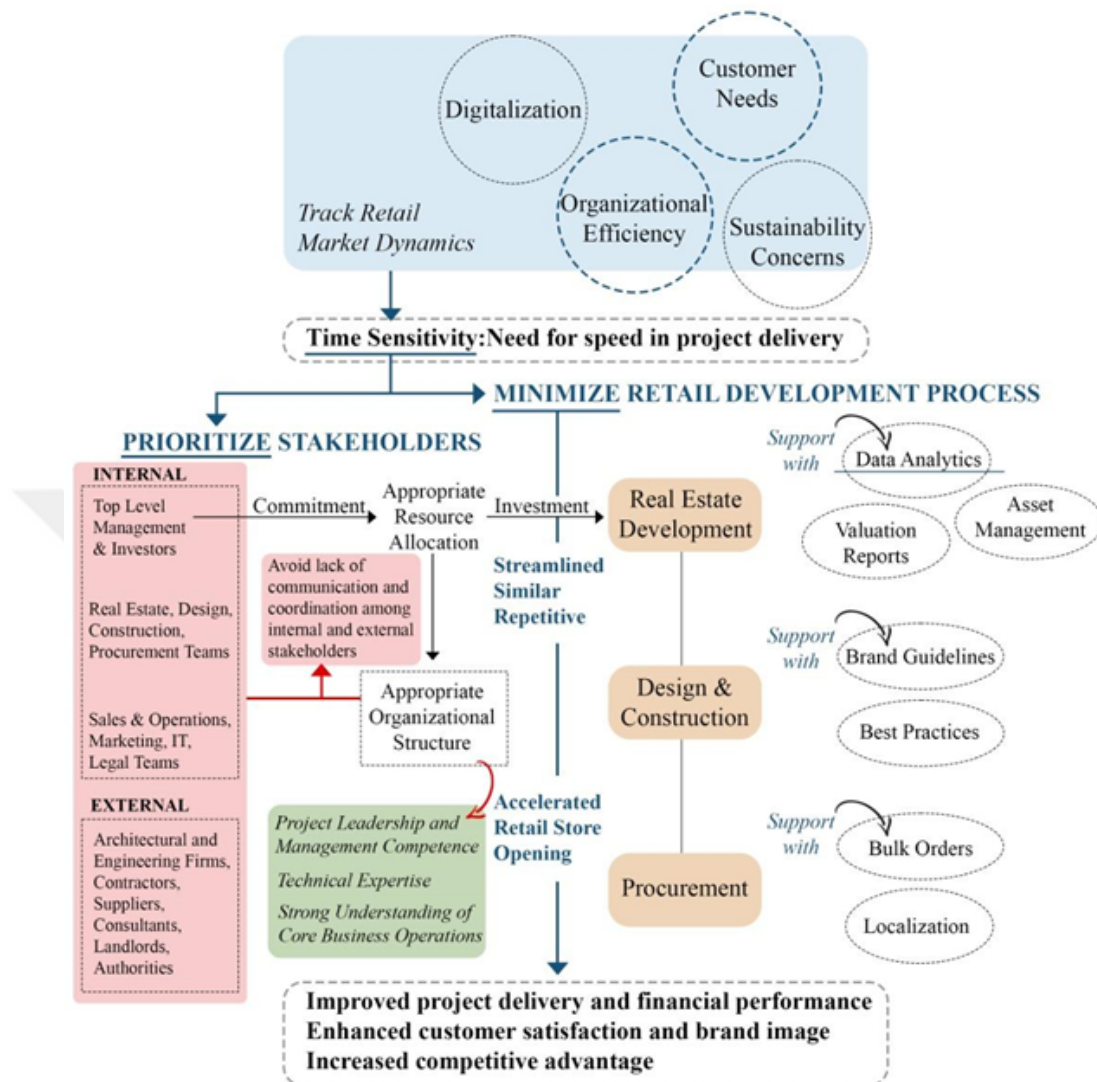


Figure 5.1. Strategic framework for optimizing retail development processes.

Table 5.1. Key insights and recommended methods.

Phase of Retail Development	Key Insights from the Retail Development Environment	Recommended Methods for Facilitation
Real Estate Development	- Selecting strategic locations based on foot traffic, visibility, accessibility, zoning laws, demographics, and competition - Conducting early-stage market research to identify high-potential sites for long-term growth	- Agile Working - GIS and Spatial Analytics Tools - AI and Predictive Analytics

Table 5.1 Key insights and recommended methods. (cont.)

Phase of Retail Development	Key Insights from the Retail Development Environment	Recommended Methods for Facilitation
	- Merging market research with building appraisal and legal reports to ensure regulatory compliance - Employing locally to enhance local engagement and secure a first-mover advantage in potential locations	
Design	- Designing with a customer-centric focus to influence buying behavior and create a seamless experience. - Collaborating with all internal and external stakeholders who understand brand identity and customer psychology. - Using customer data to inform design decisions on flow, accessibility, and aesthetics.	- Agile Working - Building Information Modeling (BIM) - Parametric Design - Customer Journey Mapping - Sustainable Design Technologies
Construction	- Ensuring short lead times to minimize downtime and meet store opening deadlines while aligning construction with brand identity. - Integrating procurement with construction by ensuring timely material deliveries that match the brand's standards and project timeline. - Establishing a dedicated project management team to ensure clear communication between design, procurement, and construction teams, preventing bottlenecks.	- Agile Working - Lean Construction - Modular and Prefabricated Construction - Robotics and Automation - Drones and Aerial Mapping
Procurement	- Focusing on cost efficiency while aligning procurement with brand standards. - Localizing materials whenever possible. If localization is not possible, allocating resources and capital expenditures in a way that enhances the company's financial profitability. - Leveraging the retail brand's scalability to	- Agile Working - Digital Procurement Platforms - Blockchain for Transparency - Just-In-Time (JIT) Inventory - Sustainable Procurement

Table 5.1 Key insights and recommended methods. (cont.)

Phase of Retail Development	Key Insights from the Retail Development Environment	Recommended Methods for Facilitation
	reduce lead times by building a reliable network of suppliers who can meet brand specifications at scale, ensuring shorter delivery times in line with construction sector standards.	
Asset Management	- Utilizing real-time data and performance tracking to minimize downtime, optimize assets, and monitor financial performance and market dynamics for each store, enabling informed decision-making. - Establishing a sustainable knowledge management system that includes all stakeholders, particularly landlords and facility management teams.	- Agile Working - IoT and Smart Building Technologies - Predictive Maintenance Using AI - Integrated Facilities Management Software - Energy Management Systems - Virtual Reality (VR) for Training

Table 5.1 outlines key methods for optimizing each phase of retail development, providing a comprehensive conclusion to this research. In the retail development process, adopting agile working methods from the outset is a crucial recommendation for enhancing efficiency, reducing costs, and improving quality. Agile approaches allow teams to adapt quickly to changing market conditions and customer demands by breaking large projects into smaller, manageable tasks and maintaining flexibility in decision-making, which increases coordination and tracking. In a world where time sensitivity is critical, this approach is essential for meeting tight deadlines and responding rapidly to emerging opportunities or challenges.

In the real estate development phase, data-driven decision-making tools such as Geographic Information Systems (GIS) and spatial analytics enable professionals to identify prime locations based on foot traffic, demographics, and competition. Artificial intelligence (AI) and predictive analytics further support informed investment strategies by forecasting market trends and future demand.

During the design phase, Building Information Modeling (BIM) facilitates collaboration among designers, architects, and engineers, reducing errors and streamlining the design-to-construction process. Parametric design tools allow for adaptable store designs that optimize space and align with brand identity, while customer journey mapping ensures a seamless retail experience. Sustainable design technologies minimize environmental impact and meet consumer preferences.

In construction, lean principles, modular construction, and prefabrication speed up build times and enhance quality, while robotics and drones improve efficiency in tasks like site surveying and progress monitoring.

Digital procurement platforms, blockchain for transparency, just-in-time (JIT) inventory systems, and sustainable procurement practices streamline operations and reduce risks during the procurement phase. In the asset management phase, IoT and smart building technologies, predictive maintenance powered by AI, integrated facilities management software, and energy management systems ensure optimal operation of retail spaces, reducing downtime and cutting long-term costs. By applying agile working principles across all stages of retail development, from real estate to asset management, teams can drive project success, foster collaboration, and continuously improve processes.

Finally, the study plays a crucial role in establishing a bridge between the academic and practical sectors, facilitating the exchange of knowledge and practices to enhance the field of construction management. As seen from the participants of this survey, the overall experience of the respondents in the construction sector is very

similar to their experience in retail construction. This indicates that individuals who begin working in the retail construction sector tend to continue their careers within this field. Similarly, due to the increasing importance attached to retail construction by corporate retail companies, the number of construction professionals within retail firms is also rising. As a result, there is potential for more research in this area, and with the growing intersections between the academic world and the business sector, more comprehensive studies can be conducted.

5.4. Limitations of the Study and Recommendations for Future Research

One limitation of this study is that the responses from the 5-point Likert scale survey showed limited variation, as all factors were rated above 3, indicating that all were perceived as important. This lack of differentiation makes it challenging to prioritize factors or identify those with the greatest impact. Additionally, participants with over 20 years of experience tended to rate most factors as “very important” or “extremely important” (scores of 4 or 5), further contributing to a clustering of responses at the higher end of the scale. This high consensus, particularly among highly experienced professionals, suggests that the Likert scale may not have been sensitive enough to capture more nuanced opinions from this group. To address this, future research could consider using alternative scales or measurement tools to better capture the relative importance of factors, especially for highly experienced respondents.

Another limitation of this study is that responses from participants with more than 20 years of experience often differed significantly from those with less than 5 years of experience. Therefore, setting a minimum experience level requirement for respondents could provide a more accurate and focused analysis of the sector, as it would allow for a better understanding of how experience influences the perception of critical success factors in retail construction.

Although there were four participants from the MEA region, four global professionals, and two from Europe, the majority of respondents were from Türkiye. This

imbalance in the sample size could impact the generalizability of the findings. A more evenly distributed sample across different regions would be more suitable for creating a universally applicable study, as it would allow for a broader understanding of how factors in retail construction are perceived across various markets and cultural contexts.

In future projects, when collecting respondent general information, distinguishing between strategic and operational roles or separating field-based and office-based positions could provide valuable insights. Including such differentiation questions would allow for more comprehensive comparisons and a deeper understanding of how various factors impact responses. By segmenting respondents based on these roles, it would be possible to analyze the effects of different perspectives on the perception of success factors, leading to a more targeted analysis of the factors influencing retail construction projects.

There is a significant literature gap in the field of retail construction, making it an area suitable for further research. Future projects could involve the examination of multiple case studies to provide a more comprehensive understanding of the industry. Additionally, the retail sector itself is divided into various sub-sectors, which could be explored in greater detail. For instance, while this study focused on a restaurant project, future research could diversify by examining other types of retail projects within different sub-sectors. Furthermore, instead of focusing solely on new store openings, studies could investigate construction management in remodeling projects. For example, exploring changes in a company's financial performance following remodeling could offer valuable insights. A comparison between remodel and new store opening processes could also be conducted to identify key differences in project management approaches. Moreover, by using performance management scoreboards, retail projects could be evaluated more comprehensively, offering a deeper understanding of success factors. In conclusion, there is a significant opportunity to contribute to the field of retail construction research from various perspectives, addressing gaps in current knowledge and providing actionable insights for both academia and industry professionals.

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APPENDIX A: QUESTIONNAIRE SURVEY FORM

This appendix contains the questionnaire survey used for collecting data on critical success factors in retail construction projects. It includes the consent form, structure, questions, and scales designed to evaluate respondents' perceptions, enabling a comprehensive analysis of the factors contributing to project success.

T.C. BOĞAZİÇİ UNIVERSITY

PARTICIPANT INFORMATION AND CONSENT FORM

Research Institution: Boğaziçi University

Research Title: Investigating Performance and Key Success Factors in Retail Construction Projects

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Project Topic: This project is conducted by Cemre Karakurt Çelik as part of a master's thesis, under the supervision of Prof. Dr. Beliz Özorhon. The project aims to investigate key success factors and challenges in retail construction management. Through surveys and case studies, this study will gather insights from experienced professionals in the construction sector to better understand the unique dynamics and performance drivers in retail construction projects. The study requires approximately 50-100 participants with experience in the retail and/or general construction sectors. Data collection and analysis will be conducted in compliance with the guidelines approved by the Boğaziçi University Ethics Committee.

Consent: Dear Participant,

This study aims to identify critical factors that influence project outcomes in retail construction. If you agree to participate, information will be collected from you through a questionnaire. You will be asked to rate the importance of critical success factors in construction projects. No personally identifiable information will be recorded, and all data will remain strictly anonymous. Participation is entirely voluntary; no payment will be provided, nor will any fees be required. With your consent, your responses may also be used in future related studies. You may withdraw from the study at any time, in which case all your responses will be deleted. No risks are anticipated in relation to your participation in this study. However, if you have questions about the study, please feel free to contact Cemre Karakurt Çelik at cemre.karakurt@bogazici.edu.tr. For further questions regarding your rights as a participant, you may consult the Boğaziçi University Ethics Committee at fminarek@bogazici.edu.tr.

Figure A.1. Questionnaire survey form 1.

If your address or phone number changes, please inform us.

I have understood the information provided to me and written above. I have received a copy of this form.

I agree to participate in the study.

Participant Name and Surname:

Signature:

Date (day/month/year):/...../.....

If applicable, Guardian's Name and Surname:

Signature:

Date (day/month/year):/...../.....

Figure A.2. Questionnaire survey form continues 2.

**QUESTIONNAIRE SURVEY FOR INVESTIGATING THE CRITICAL SUCCESS FACTOR IN
RETAIL CONSTRUCTION MANAGEMENT**

Dear participant,

We appreciate your decision to contribute to our research on performance management and critical success factors in retail construction projects. This study is conducted by Cemre Karakurt Çelik, MSc. Student in Department of Civil Engineering, Construction Management Programme at Boğaziçi University, under the supervision of Prof. Dr. Beliz Özorhon.

In this survey, you will be asked to rate various factors that may impact the success of construction projects, specifically within the retail sector. If you do not have experience in retail construction, please evaluate the factors based on your general experience in the construction sector.

Your responses will provide valuable insights into the unique dynamics and key challenges faced in this retail construction field.

The survey will take approximately 15 minutes to complete. Please take your time to consider each question thoughtfully. Remember, there are no right or wrong answers; we are simply interested in your professional insights.

If you have questions about the study, please feel free to contact Cemre Karakurt Çelik at cemre.karakurt@boun.edu.tr. For further questions regarding your rights as a participant, you may consult the Boğaziçi University Ethics Committee at fminarek@bogazici.edu.tr.

Your responses are entirely anonymous and will be kept strictly confidential. Thank you again for your valuable participation.

Figure A.3. Questionnaire survey form continues 3.

PART 1: GENERAL INFORMATION**1. Please select your company's role in construction**

- ☐ Retail Company
- ☐ Contractor
- ☐ Architectural / Mechanical / Electrical / Structural Firm

2. How many employees are there in your company?

- ☐ 0-50
- ☐ 51-100
- ☐ >100

3. In which country does your company operate?

4. How many years of experience do you have in the construction industry?

5. How many years of experience do you have in retail construction?

6. What is your position in the organization?

Figure A.4. Questionnaire survey form continues 4.

PART 2: CRITICAL SUCCESS FACTORS

Critical success factors (CSFs) help professionals to thoroughly examine the driving forces behind projects, the dynamics of the project process, the resources required to initiate the process, factors that enable more effective use of these resources and facilitate smoother progress, the obstacles encountered throughout the process, and the short- and long-term gains achieved upon project completion. This comprehensive approach allows us to derive holistic conclusions.

In this context, with consideration for the unique dynamics of retail construction projects and your professional perspective, please rate the level of importance of each of the CSFs listed below for the retail construction industry by marking your choice according to the following scale:

Scale: 1- not important; 2- fairly important; 3- important; 4- very important; 5- extremely important

2.1. DRIVERS: In this chapter, main reasons that provides the motivation to initiate retail construction projects will be assessed.

Figure A.5. Questionnaire survey form continues 5.

1. DRIVERS OF RETAIL CONSTRUCTION

In this chapter, main reasons that provides the motivation to initiate retail construction projects will be assessed.

1. Time Sensitivity and Delivery Speed

The urgency to complete projects quickly drives the need for efficient resource allocation, fast decision-making, and seamless coordination, as minimizing closed days is essential for cost-effectiveness. In retail projects, every day a store remains closed reduces profit margins, as profits only begin once operations start, making speed a critical factor for maintaining financial performance.

1 2 3 4 5

☆ ☆ ☆ ☆ ☆

2. Reducing Operational Costs Throughout the Building's Life Cycle

The need to address issues such as decreasing durability, rising energy inefficiencies, and increasing maintenance costs in existing buildings acts as a key driver for initiating new construction processes to improve overall long-term cost efficiency.

1 2 3 4 5

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Figure A.6. Questionnaire survey form continues 6.

3. **Operational Excellence & Productivity**

The need for improved physical environments to enhance the quality of services and operations offered within retail buildings drives construction investment decisions.

1	2	3	4	5
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4. **Customer Demand / Satisfaction / Loyalty**

In retail construction projects, creating an enhanced physical environment for both employees and customers is crucial, as it directly impacts customer satisfaction and fosters loyalty by encouraging repeat visits through improved overall experiences.

1	2	3	4	5
☆	☆	☆	☆	☆

5. **Competitive Advantage / Improving Corporate Financial Performance**

Construction projects serve as a strategic investment to gain competitive advantage. By opening more restaurants through new construction projects, the company maximizes its footprint, strengthens its competitive advantage, and enhances its financial performance, while continuously addressing the need for operational improvements.

1	2	3	4	5
☆	☆	☆	☆	☆

Figure A.7. Questionnaire survey form continues 7.

6. **Regulatory Compliance Requirements**

Adhering to the latest regulatory standards for health and safety, fire and emergency, accessibility, and sustainability can be a driver to initiate construction projects to meet current legal mandates.

1	2	3	4	5
☆	☆	☆	☆	☆

7. **Providing Employment**

The opening of new stores and restaurants initiates operations that provide employment opportunities for many individuals, may act as one of the key drivers for construction projects in the retail sector.

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2. ENABLERS OF RETAIL CONSTRUCTION

In this chapter, main factors that facilitate retail construction projects will be assessed.

1. **Project Leadership and Management Competence**

Effective decision-making by the owner or owner’s representative, including timely actions by the project management team, site management, and control mechanisms, is critical for ensuring robust project tracking, supervision, quality assurance, and the detailed oversight required to achieve successful retail construction outcomes.

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☆	☆	☆	☆	☆

Figure A.8. Questionnaire survey form continues 8.

2. **Appropriate Organizational Structure**

A well-defined organizational structure enables construction projects by facilitating efficient human resource allocation.

1	2	3	4	5
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3. **Integrated Project Delivery**

The integration of design and construction processes, with the early involvement of key stakeholders such as contractors and design teams, fosters a collaborative, single-team approach that reduces inefficiencies, and enables the successful completion of construction projects.

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4. **Top-level Commitment / Top Management Support**

The active involvement and commitment of top management or business leaders are vital for the successful achievement of company goals. Their support and dedication can foster overall project success.

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Figure A.9. Questionnaire survey form continues 9.

5. **Risk Management**

Preparing risk mitigation strategies can greatly enhance the ability to identify, assess, and manage potential risks, ensuring smoother execution and minimizing disruptions in construction projects.

1	2	3	4	5
☆	☆	☆	☆	☆

6. **Collaborative Working and Effective communication**

Effective communication within team members, combined with a supportive organizational culture and conflict resolution mechanisms, enables construction projects by enhancing teamwork, reducing misunderstandings, and ensuring timely decision-making, which together streamline project execution and improve overall project efficiency.

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☆	☆	☆	☆	☆

7. **Cross-Functional Collaboration**

Encouraging teamwork across various functions, such as operations, IT, and procurement, improves coordination, aligns project objectives with the company's overall strategy, and enhances the quality and efficiency of project delivery in construction.

1	2	3	4	5
☆	☆	☆	☆	☆

Figure A.10. Questionnaire survey form continues 10.

8. **Project Planning**

Effective project planning involves clear goal setting, detailed project planning, accurate estimations, and comprehensive scheduling, all of which are essential to guide the construction process, ensure resource optimization, and keep the project on track to meet deadlines and objectives.

1	2	3	4	5
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9. **Clear Scope of Work and Briefing**

The adequacy of plans, specifications, and constructability, combined with clear objectives and well-defined goals, is crucial for ensuring successful project execution.

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10. **Process Improvement Teams of the Organization**

This teams collaborate with project teams to capture and institutionalize best practices, creating organization-wide libraries that serve as standardized process guidelines. These libraries act as a reference for project teams to customize and define project-specific processes, promoting consistency and continuous improvement across the organization.

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☆	☆	☆	☆	☆

Figure A.11. Questionnaire survey form continues 11.

11. **Supply Chain Efficiency**

Efficient procurement planning, coupled with a transparent process, ensures that materials and resources are delivered precisely when required, avoiding unnecessary stockpiling. The supplier's ability to meet project needs is critical for keeping construction on schedule and controlling costs.

1	2	3	4	5
☆	☆	☆	☆	☆

12. **Stakeholder Engagement**

Involving key stakeholders (designers, contractors, suppliers etc.) fosters common goals, shared objectives, and mutual trust, enhancing collaboration and leveraging know-how to ensure smoother project execution and risk mitigation.

1	2	3	4	5
☆	☆	☆	☆	☆

13. **Streamlined Construction and Similar Designs**

Standardized designs and processes reduce rework, improve efficiency, and accelerate project completion across multiple sites.

1	2	3	4	5
☆	☆	☆	☆	☆

Figure A.12. Questionnaire survey form continues 12.

14. **Contractors' and Subcontractors' Performance**

The contractor's cash flow management, experience, execution quality, manpower allocation, and key personnel expertise are vital for successful project delivery.

1	2	3	4	5
☆	☆	☆	☆	☆

15. **Incentives (Advance Payments)**

Providing incentives such as advance payments helps improve contractor cash flow, motivates timely performance, and supports smoother project execution by ensuring that necessary resources are available from the outset.

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16. **Employee Motivation and Job Satisfaction**

Ensuring staff motivation and satisfaction fosters higher productivity, enhances team morale, and contributes to the overall success of construction projects by improving performance and retention.

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☆	☆	☆	☆	☆

Figure A.13. Questionnaire survey form continues 13.

17. **Consultancy (External Knowledge)**

Bringing in external expertise provides valuable insights, especially in areas where the company lacks in-house knowledge, improving decision-making and project outcomes by addressing complex challenges effectively.

1	2	3	4	5
☆	☆	☆	☆	☆

3. INPUTS OF RETAIL CONSTRUCTION

In this chapter, resources that are used in retail construction projects will be assessed.

1. **Capital Expenditures & Investments**

Adequate financial resources allocated for construction, infrastructure, and equipment, crucial for initiating and sustaining project development.

1	2	3	4	5
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2. **Technical Expertise**

The team's technical background, know-how, and prior relevant experience serve as critical inputs, providing the foundational knowledge and skills necessary for successful project execution and problem-solving.

1	2	3	4	5
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Figure A.14. Questionnaire survey form continues 14.

3. **Feedback and Review Mechanisms**

Reviews and feedbacks from the peers, stakeholders, customers allow to provide valuable input to project process.

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4. **Training and Skill Development**

As a critical input, structured training programs provide new employees with essential knowledge of operational processes while supporting the ongoing growth and development of existing staff, contributing to the success of future construction project.

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5. **Technological Advancements**

Availability of advanced technologies, construction equipment can be a critical input in the project process.

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Figure A.15. Questionnaire survey form continues 15.

6. **Guidelines & Best Practices within Brand**

Established design guidelines and best practices within the brand provide a standardized framework that ensures consistency, quality, and alignment with brand identity across all construction projects.

1	2	3	4	5
☆	☆	☆	☆	☆

4. BARRIERS OF RETAIL CONSTRUCTION

In this chapter, main challenges and factors that hinder the retail projects' success will be assessed.

1. **Lack of Commitment From Leaders**

Lack of management/investor/franchisee/owner support can hinder overall project momentum.

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2. **Limited Knowledge and Skills**

Lack of knowledge and relevant training of project team, incapability of the project team to adapt changes throughout project process can hinder the management team's ability to effectively lead and deliver successful outcomes.

1	2	3	4	5
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Figure A.16. Questionnaire survey form continues 16.

3. **Contractors' and Subcontractors' Performance**

Lack of skilled labor on construction sites, inadequate quality in finishing work, and high turnover rates within the contractor's team present significant challenges, potentially affecting the overall quality, efficiency, and timeline of construction projects.

1	2	3	4	5
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4. **Lack of Communication and Coordination within the Project Team**

Poor communication and insufficient coordination among project team members can lead to misunderstandings, delays, and inefficiencies, ultimately hindering the successful execution and timely completion of construction projects.

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5. **Lack of Integration and Coordination Between Partnering Organizations**

Corporate differences between partnering organizations can fragment project teams, leading to misalignment with stakeholders. This disconnect may result in unmet expectations, even if cost and time objectives are achieved, causing stakeholder dissatisfaction.

1	2	3	4	5
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Figure A.17. Questionnaire survey form continues 17.

6. **Lack of Cross-Functional Communication within the Company**

When project goals are not aligned with the company's strategic objectives, and coordination across departments (IT, sales and operations, marketing, procurement etc.) is lacking, it can lead to inefficiencies, confusion, and reduced project effectiveness, diminishing its value to the organization.

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7. **Insufficient Data and Performance metrics**

The lack of post-project reviews and proper performance evaluations, along with insufficient data for risk analysis, can create challenges for future projects and increase the likelihood of unmanaged risks and associated costs.

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8. **Changes in Design & Scope**

Frequent alterations to the design and project scope can cause delays, increase costs, and disrupt the construction process, posing significant challenges to maintaining project timelines and objectives.

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Figure A.18. Questionnaire survey form continues 18.

9. **Incomplete Design Package & Lack of Constructability**

An incomplete design package and insufficient focus on constructability can lead to project delays, rework, and cost overruns, as critical details are missed and designs may not be feasible for construction.

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10. **Inadequate Site Investigation**

Insufficient site investigation can lead to unforeseen conditions and wrong execution during construction, resulting in delays, cost overruns, and potential design adjustments that compromise the project's efficiency.

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11. **Accidents on Construction Site**

Accidents, fatalities, material and equipment shortages, and theft can severely impact construction progress, causing delays, escalating costs, and jeopardizing both safety and project schedules.

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Figure A.19. Questionnaire survey form continues 19.

12. **Site Conditions and Limitations**

Natural and physical conditions, such as terrain, weather, accessibility, and space constraints, can pose significant challenges to construction projects, affecting feasibility, timelines, and resource allocation.

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☆	☆	☆	☆	☆

13. **Supply Chain Difficulties**

Extended lead times and transportation issues, particularly with retail company specific orders, along with customs costs, arise due to the reliance on global suppliers or the need to maintain consistent quality during localization efforts, leading to potential delays and added expenses in construction projects.

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14. **Limited Working Hours**

In existing buildings, shopping malls, or neighborhood store fronts, restricted working hours and limited working days create excessive workloads and result in a highly compressed construction schedule, often leading to inefficiencies and delays in project completion.

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Figure A.20. Questionnaire survey form continues 20.

15. **Political Instability**

Political instability and unpredictable changes in government regulations can create significant challenges for construction projects, leading to delays, increased risk, and potential cost overruns due to evolving legal and regulatory environments.

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16. **Local Legislations and Building Permits**

The process of adhering to varying local regulations and obtaining building permits, which differ from city to city, requires additional time and administrative effort. This complexity often results in revisions and delays, creating significant barriers to the efficient progress of construction projects.

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17. **Public Opposition or Public Acceptance**

Public opposition, or the need to secure public acceptance, can act as a major barrier to construction projects, leading to delays, modifications, or even cancellations. This challenge arises from concerns over environmental, social, or economic impacts, which can significantly affect project timelines and outcomes.

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☆	☆	☆	☆	☆

Figure A.21. Questionnaire survey form continues 21.

18. **Legal and Contractual Risks**

Legal and contractual risks, including disputes, unclear contract terms can create significant barriers, leading to delays, cost overruns, and potential litigation, all of which jeopardize the successful completion of construction projects.

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19. **Higher Capital Costs**

Elevated initial costs, including increased expenses for materials, labor, and financing, can serve as a major barrier to construction projects, straining budgets, delaying progress, and potentially reducing the project's financial viability.

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20. **Economic Volatility**

Volatility in exchange rates, inflation, price fluctuations can significantly impact project costs, particularly when sourcing materials or services internationally, leading to budget overruns and financial uncertainty throughout the construction process.

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Figure A.22. Questionnaire survey form continues 22.

21. **Improper Project Feasibility**

Inadequate project feasibility analysis can act as a significant barrier, leading to unrealistic timelines, underestimated costs, and unforeseen challenges, ultimately jeopardizing the project's success and financial viability.

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5. BENEFITS OF RETAIL CONSTRUCTION

In this chapter, project level gains in retail construction projects will be assessed.

1. **Improved Project delivery & Financial Performance**

Accelerated project delivery not only ensures timely completion and cost efficiency but also provides the company with additional operating months, which positively impacts cash flow and enhances overall financial performance, maximizing profitability and return on investment.

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2. **Increased Organizational Efficiency**

Streamlined processes, improved workflows, and enhanced physical conditions in newly constructed buildings reduce costs, minimize delays, and optimize resource use, leading to more efficient operations and better project outcomes, ultimately enhancing overall business performance.

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Figure A.23. Questionnaire survey form continues 23.

3. **Greater Stakeholder Satisfaction**

Successful construction projects meet the needs and expectations of all key stakeholders, including suppliers, contractors, designers, and investors, and establish an environment of trust.

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☆	☆	☆	☆	☆

4. **Greater User Comfort & Satisfaction**

Successful construction projects enhance the overall experience by increasing the comfort and satisfaction of users, including employees and customers.

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5. **Improved Staff Performance**

Enhanced working conditions and support lead to increased productivity and efficiency among staff, creates motivation for the team, and improve communication and collaboration.

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Figure A.24. Questionnaire survey form continues 24.

6. **Enhanced Building Life Cycle Performance**

Improved design, materials, and construction processes extend the building's lifespan, reducing maintenance costs and enhancing long-term operational efficiency.

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6. IMPACTS OF RETAIL CONSTRUCTION

In this chapter, long term gains in retail construction projects will be assessed.

1. **Brand image / Public Perception**

A successful project can positively influence the company's long-term brand image and public perception, enhancing its reputation, attracting customers, and fostering trust and loyalty within the community.

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2. **Enhanced Competitive Advantage**

Successfully executed projects contribute to a stronger market position, allowing the company to differentiate itself from competitors, improve operational efficiency, and sustain long-term growth and profitability.

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Figure A.25. Questionnaire survey form continues 25.

3. **Regulatory Compliance**

Ensuring that buildings are more accessible, fire-resistant, and sustainable aligns with the latest regulatory requirements and environmental standards, contributing to long-term operational stability, reduced legal risks, and a positive environmental impact.

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Figure A.26. Questionnaire survey form continues 26.

APPENDIX B: CASE STUDY INTERVIEW STRUCTURE

This appendix presents the general framework and topics explored during the case study. It highlights the key research questions and areas of investigation, such as project phases, decision-making processes, stakeholder roles, and the challenges faced in retail construction projects.

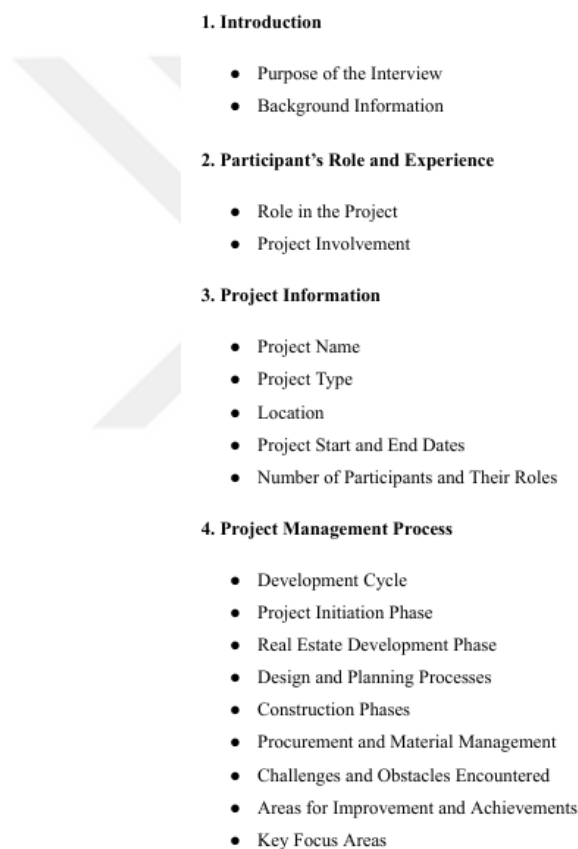


Figure B.1. Case study interview structure 1.

5. Collaborative Processes and Teamwork

- Relevant Stakeholders
- Communication Processes
- Decision-Making and Problem-Solving Methods
- Team Collaboration and Coordination

6. Outcomes and Feedback

- Key Performance Indicators
- Achievements at the End of the Project
- Major Attributes of the Project Team
- Challenges and Lessons Learned
- Insights for Future Projects

Figure B.2. Case study interview structure continues 2.