Journal of Mechanical, Civil and Industrial Engineering
ISSN: 2709-0809
DOI: 10.32996/jmcie
Journal Homepage: www.al-kindipublisher.com/index.php/jmcie

JMCIE
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

Financial Performance and Strategic Management of VINCI and Bouygues: A Comparative Ratio Analysis (2020–2024)

Sameer Usmani[1]✉ and Abdul Tawab Alim[2]

[1]*Master's Student, Department of Construction Engineering and Management, Faculty of Civil Engineering, Kabul Polytechnic University, Kabul, Afghanistan*

[2]*Assistant Professor, Building Construction Management Department, Construction Faculty, Kabul Polytechnic University, Kabul, Afghanistan*
Corresponding Author: Sameer Usmani**, E-mail**: usm.sameer@gmail.com

| ABSTRACT

This study examines the financial performance and strategic management practices of VINCI and Bouygues, two leading multinational companies in the engineering, construction, and infrastructure sector, from 2020 to 2024. The primary objective is to compare their financial performance, managerial effectiveness, and strategic orientations through a comprehensive financial ratio analysis, supplemented by an evaluation of the strategic narratives disclosed in their annual reports. A comparative research design is employed, using secondary data from the companies' published financial statements and annual reports. Key financial ratios related to profitability, liquidity, leverage, efficiency, and investment activity are calculated and analyzed over a five-year period to identify performance trends and differences in financial management practices. The findings reveal that VINCI consistently achieved stronger profitability, superior cash-flow generation, and more stable leverage management, reflecting the strengths of its concession- and infrastructure-based business model. In contrast, Bouygues demonstrated higher asset utilization and pursued a more aggressive investment strategy focused on growth and diversification; however, this approach was associated with lower profitability, higher leverage, and greater volatility in debt coverage. The results further indicate a strong alignment between the financial indicators and the strategic narratives presented in the companies' annual reports, suggesting consistency between managerial communication and actual financial performance. The study concludes that differences in business models and strategic priorities play a significant role in shaping financial outcomes and risk exposure within the engineering and construction industry. VINCI's disciplined, cash-flow-oriented strategy contributed to stronger and more stable financial performance, whereas Bouygues adopted a more investment-driven approach aimed at long-term expansion. By integrating financial ratio analysis with strategic management assessment, this study contributes to the existing literature on corporate performance evaluation and provides valuable insights for investors, managers, policymakers, and researchers involved in financial analysis and strategic decision-making in large infrastructure and construction firms.

| KEYWORDS

Financial Performance; Strategic Management; Financial Ratio Analysis; Engineering and Construction Sector; Financial Management; VINCI; Bouygues.

| ARTICLE INFORMATION

ACCEPTED: 01 June 2026 **PUBLISHED:** 13 July 2026 **DOI:** 10.32996/jmcie.2026.7.4.4

1. Introduction

Financial statement analysis is widely recognized as one of the most important tools for evaluating corporate performance, financial stability, and management effectiveness. Among the available analytical techniques, financial ratio analysis remains a widely accepted approach because it transforms financial statement information into meaningful indicators that facilitate performance evaluation and comparison across firms, industries, and time periods [1]. By examining profitability, liquidity, leverage, efficiency, and investment-related measures, financial ratios provide valuable insights into the financial health and operational performance of organizations.

The engineering, construction, and infrastructure sector plays a vital role in economic development and is characterized by large-scale investments, long project life cycles, significant capital requirements, and exposure to market and economic fluctuations. Given these characteristics, effective financial management is essential for ensuring operational efficiency, maintaining financial stability, and supporting sustainable growth. Previous studies have emphasized that financial ratio analysis is an important mechanism for assessing the financial condition of construction and infrastructure firms and for supporting managerial and investment decision-making [2][3].

In recent years, comparative financial analysis has attracted increasing attention from researchers and practitioners because it offers a deeper understanding of how business models and strategies shape financial outcomes. By comparing firms within the same industry, researchers can identify variations in profitability, liquidity management, capital structure, operational efficiency, and investment behavior. These analyses are especially valuable in the construction and infrastructure sector, where firms often pursue different growth strategies while operating in similar market conditions [4].

In addition to financial statements, annual reports are an important source of information for understanding corporate performance and strategic direction. While financial statements present quantitative evidence of business performance, annual reports provide management perspectives, strategic priorities, and explanations of financial results. Therefore, comparing ratio-based findings with management disclosures enables a more comprehensive assessment of financial management practices and corporate strategies [5].

VINCI and Bouygues are among the largest multinational engineering, construction, and infrastructure groups headquartered in France. Both companies maintain significant international operations and hold strong positions in the global construction market. Despite operating in the same broad sector, their business models differ considerably. VINCI derives a substantial share of its revenue and profitability from concession and infrastructure assets that generate recurring cash flows, whereas Bouygues follows a more diversified business model encompassing construction, telecommunications, and services. These structural differences provide an appropriate basis for a comparative assessment of financial performance and strategic management.

The objective of this study is to conduct a comparative analysis of the financial performance and strategic management practices of VINCI and Bouygues during the period 2020–2024. Specifically, the study aims to evaluate key financial ratios related to profitability, liquidity, leverage, efficiency, and investment activities; examine performance trends over time; compare financial management effectiveness between the two companies; and assess the consistency between financial outcomes and the strategic narratives presented in their annual reports.

The findings of this research contribute to the growing literature on financial management within the engineering and construction sector by demonstrating how different business models influence financial performance, risk exposure, and strategic decision-making. Furthermore, the study provides practical insights for investors, financial analysts, managers, and researchers interested in evaluating large infrastructure and construction enterprises.

2.1 Research Gap

Therefore, a clear research gap exists in the integration of multi-year financial ratio analysis with qualitative strategic disclosures in annual reports for major construction and infrastructure corporations. Existing studies rarely combine both quantitative and qualitative dimensions in a single comparative framework over a long-term horizon.

2.2 Research Questions

To address this gap, this study is guided by the following research questions:

RQ1: How did the financial performance of VINCI and Bouygues evolve over the period 2020–2024 based on key financial ratios (profitability, liquidity, leverage, and efficiency)?

RQ2: What are the main differences in financial management strategies between VINCI and Bouygues as reflected in their financial ratios?

RQ3: How do the calculated financial performance indicators align with the strategic narratives presented in the companies' annual reports?

RQ4: Which company demonstrates more efficient financial management in terms of risk-return balance and long-term financial sustainability?

By combining quantitative financial ratios with qualitative management disclosures, this study provides a more comprehensive understanding of how different business models and financial strategies influence corporate performance within the engineering, construction, and infrastructure sector.

2. Literature Review

Financial ratio analysis has long been recognized as one of the most effective tools for evaluating corporate performance and informing financial decision-making. By converting financial statement data into standardized indicators, ratio analysis enables researchers, managers, investors, and other stakeholders to assess profitability, liquidity, leverage, efficiency, and overall financial health. Because ratios facilitate comparisons across companies and over time, they remain a fundamental component of financial statement analysis and corporate performance evaluation [1][2].

In the construction and infrastructure industries, financial management plays a particularly important role because of the capital-intensive nature of operations, long project durations, significant capital expenditures, and exposure to economic fluctuations. Construction firms often rely on substantial debt financing and maintain complex working capital structures, making financial ratio analysis essential for monitoring operational performance and financial sustainability. Previous studies have shown that profitability, liquidity, and solvency indicators provide valuable insights into construction companies' ability to manage financial risks while maintaining long-term growth [3][4].

Several researchers have applied comparative financial analysis to evaluate differences in performance among firms operating within the same industry. Such studies suggest that long-term ratio analysis is more informative than single-year assessments. because it captures strategic trends and managerial decisions over time. Profitability ratios help measure the effectiveness of resource utilization, while leverage and liquidity ratios reveal the extent of financial risk and the capacity to meet short-term and long-term obligations [2][5].

Recent literature has also emphasized the importance of integrating quantitative financial analysis with qualitative information disclosed in annual reports. While financial statements provide objective numerical evidence of performance, annual reports offer management's perspectives on strategic priorities, investment decisions, operational challenges, and future expectations. Comparing financial outcomes with management narratives can therefore provide a more comprehensive understanding of corporate financial management and strategic direction [4][6].

Within the European construction and infrastructure sector, large multinational groups such as VINCI and Bouygues have attracted significant attention due to their diversified operations and global presence. However, most existing studies focus on general industry performance, infrastructure financing, or project management practices. Comparative studies that simultaneously evaluate financial performance, leverage strategies, operational efficiency, and management narratives of these two companies remain relatively limited.

3. Data and Methodology

3.1 Data Sources

This study relies on secondary financial data obtained from publicly available and audited corporate reports. Financial information for VINCI and Bouygues was collected from their official annual reports and consolidated financial statements covering the period from 2020 to 2024. These documents include consolidated balance sheets, income statements, and cash flow statements, providing a reliable basis for financial analysis.

To conduct the comparative assessment, key financial variables were extracted from the published statements. These variables include revenue, operating income, net income, total assets, current assets, current liabilities, total liabilities, shareholders' equity, cash and cash equivalents, accounts receivable, inventory, accounts payable, EBITDA, operating cash flow, total debt, and capital expenditures. Together, these indicators provide the necessary information for evaluating profitability, liquidity, leverage, operational efficiency, and investment activities.

In addition to the financial statements, the annual reports of both companies were reviewed to gain a broader understanding of their strategic priorities and financial management approaches. Management discussions, performance reviews, and strategic disclosures were used to support the interpretation of the calculated financial ratios and to provide qualitative context for the quantitative findings.

3.2 Construction of Financial Data Tables

Following data collection, the extracted financial information was organized into structured five-year datasets for each company. These datasets served as the foundation for calculating financial ratios and performing year-to-year comparisons throughout the study period.

Given the extensive amount of information contained in the annual reports and financial statements of both companies, only the most relevant financial variables required for ratio analysis were selected and consolidated. This approach improves clarity and facilitates a consistent comparison between the two firms while preserving the key information necessary for evaluating financial performance and management effectiveness.

The summarized financial data used in the analysis are presented in the following tables.

Table 3.2.1: Key Financial Statement Parameters Used for Financial Ratio Analysis (VINCI)

Parameter	2020	2021	2022	2023	2024
Revenue	43,234	49,396	61,675	68,838	71,623
Operating Income	2,459	4,438	6,489	8,071	8,783
Net Income	1,242	2,597	4,259	4,702	4,863
Total Assets	91,165	100,022	111,991	118,558	129491
Current Assets	32,039	35,080	41,070	45,070	46,192
Current Liabilities	33,468	41,579	47,939	49,905	54,508
Total Liabilities	67,992	75,251	82,582	86,518	95,459
Shareholders' Equity	23,173	24,771	29,409	32,040	34,032
Cash & Cash Equivalents	11,765	11,065	12,578	15,627	15,199
Accounts Receivable	12,493	15,559	18,092	18,698	19,365
Inventory	1,428	1,591	1,785	1,878	1,772
Accounts Payable	8,876	12,027	13,088	13,572	14,463
EBITDA	5,630	7,657	10,102	11,870	12,781
Operating Cash Flow	5,919	7,884	10,215	11,964	12,689
Total Debt	32,501	32,563	32100	33036	37,858
CAPEX	1,117	1,214	2,621	2,251	2,878

All figures are in millions of euros (€ million).

Table 3.2.2: Key Financial Statement Parameters Used for Financial Ratio Analysis (BOUYGUES)

Parameter	2020	2021	2022	2023	2024
Revenue	34,694	37,589	44,322	56,017	56,752
Operating Income	1,124	1,733	1,872	2,113	2,242
Net Income	770	1,305	1,131	1,201	1,222
Total Assets	40,612	44,642	60,595	60,746	63,084
Current Assets	19,085	22,933	29,463	28,957	29,644
Current Liabilities	19,384	22,138	29,917	30,357	32,153
Total Liabilities	28,740	31,853	46,663	46,634	48,572
Shareholders' Equity	11,872	12,789	13,932	14,112	14,512
Cash & Cash Equivalents	4,224	6,501	5,736	5,548	5,567
Accounts Receivable	5,890	6,641	9,573	9,700	9,656
Inventory	2,839	2,810	3,131	2,924	2,919
Accounts Payable	7,200	8,266	11,116	11,006	10,761
EBITDA	3,315	4,151	4,546	5,018	5,235
Operating Cash Flow	3,406	3,576	2,978	5,376	5,378
Total Debt	7,938	9,315	15970	14834	14,742
CAPEX	2,648	2,446	2,625	2,572	2,714

All figures are in millions of euros (€ million).

3.3 Financial Ratio Selection and Calculation

To assess and compare the financial performance and management effectiveness of VINCI and Bouygues, this study employs a set of widely recognized financial ratios derived from the corporate finance and construction financial management literature [4,5,6]. Financial ratio analysis provides a systematic approach for evaluating a company's profitability, liquidity, solvency, operational efficiency, and investment performance by transforming financial statement information into meaningful indicators that can be compared across firms and over time.

Given the capital-intensive nature of the engineering, construction, and infrastructure sector, financial ratios are particularly useful for understanding how companies manage resources, finance growth, control financial risk, and generate returns for shareholders. Accordingly, the selected ratios were grouped into five major categories to provide a comprehensive assessment of financial performance.

Profitability Ratios were used to measure the companies' ability to generate earnings from their revenues, assets, and shareholders' investments. These ratios include Net Profit Margin, Return on Equity (ROE), Return on Assets (ROA), Operating Profit Margin, and EBITDA Margin.

Liquidity Ratios were applied to evaluate the firms' short-term financial strength and their capacity to meet current obligations. The analysis includes the Current Ratio, Quick Ratio, and Working Capital.

Leverage Ratios were employed to examine the extent to which the companies rely on debt financing and to assess their long-term financial risk. The selected indicators are the Debt-to-Equity Ratio and Debt-to-Assets Ratio.

Efficiency Ratios were calculated to assess how effectively the companies utilize their assets and manage working capital components. Asset Turnover and Accounts Receivable Days were selected as key measures of operational efficiency.

Cash Flow and Investment Ratios were included to evaluate debt-servicing capacity and investment intensity. These indicators consist of Operating Cash Flow to Debt and Capital Expenditure (CAPEX) to Revenue.

The ratio categories used in this study are summarized below:

- **Profitability Ratios:** Net Profit Margin, ROE, ROA, Operating Profit Margin, EBITDA Margin
- **Liquidity Ratios:** Current Ratio, Quick Ratio, Working Capital
- **Leverage Ratios:** Debt-to-Equity Ratio, Debt-to-Assets Ratio
- **Efficiency Ratios:** Asset Turnover, Accounts Receivable Days
- **Cash Flow and Investment Ratios:** Operating Cash Flow to Debt, CAPEX to Revenue

All financial ratios were calculated using a consistent methodology for both companies throughout the 2020–2024 study period to ensure comparability and reliability of results. The ratio calculations were based on information extracted from the consolidated financial statements and annual reports of VINCI and Bouygues. Detailed numerical results and trend analyses are presented and discussed in the subsequent section.

4. Results: Financial Ratio Analysis

This section presents the financial ratio analysis of VINCI and Bouygues over the period 2020–2024, highlighting trends, differences, and implications for financial management.

4.1 Financial Performance Analysis of VINCI (2020–2024)

Table 4.1: Financial Ratios of VINCI (2020–2024)

Financial Ratios	2020	2021	2022	2023	2024
Profitability					
Net Profit Margin	2.87%	5.26%	6.91%	6.83%	6.79%
Operating Profit Margin	5.69%	8.98%	10.52%	11.72%	12.26%
EBITDA Margin	13.02%	15.50%	16.38%	17.24%	17.84%
Return Ratios					
ROE	5.36%	10.48%	14.48%	14.68%	14.29%
ROA	1.36%	2.60%	3.80%	3.97%	3.76%
Liquidity					
Current Ratio	0.96	0.84	0.86	0.90	0.85
Quick Ratio	0.91	0.81	0.82	0.87	0.81
Working Capital (€ Million)	-1,429	-6,499	-6,869	-4,835	-8,316
Leverage & Solvency					
Debt to Equity	2.93	3.04	2.81	2.70	2.80
Debt to Assets	74.58%	75.23%	73.74%	72.98%	73.72%
Operating Cash Flow to Debt	18.21%	24.21%	31.82%	36.22%	33.52%
Efficiency					
Asset Turnover	0.47	0.49	0.55	0.58	0.55
Accounts Receivable Days	105	115	107	99	99
Investment					
CAPEX to Revenue	2.58%	2.46%	4.25%	3.27%	4.02%

The financial ratio analysis of VINCI over the 2020–2024 period reveals a consistent improvement in financial performance, operational efficiency, and cash flow generation. As one of the world's leading infrastructure, concession, and construction groups, VINCI operates within a highly capital-intensive environment where effective financial management is essential for sustaining long-term growth and shareholder value. The calculated ratios indicate that the company successfully strengthened its financial position throughout the study period.

a) Profitability Performance

Profitability ratios demonstrate a significant upward trend during the five years. Net Profit Margin increased from 2.87% in 2020 to 6.79% in 2024, while Operating Profit Margin rose from 5.69% to 12.26%. Similarly, EBITDA Margin improved from 13.02% to 17.84%. These improvements suggest that VINCI was able to convert a larger proportion of revenue into operating and net earnings despite operating in a sector characterized by high project costs and economic uncertainty.

The improvement in profitability can largely be attributed to the recovery of transportation and concession activities following the disruptions experienced in 2020, as well as the expansion of higher-margin energy and infrastructure services. The findings support the argument that firms with diversified infrastructure portfolios and recurring concession revenues are generally able to achieve stronger profitability and earnings stability than firms relying solely on traditional construction activities [3][4].

Return-based indicators also exhibit substantial improvement. Return on Equity (ROE) increased from 5.36% in 2020 to 14.29% in 2024, while Return on Assets (ROA) improved from 1.36% to 3.76%. These results indicate that management utilized both shareholders' capital and company assets more efficiently over time. According to financial management theory, rising ROE and ROA ratios are strong indicators of effective strategic and operational decision-making [2].

b) Liquidity and Working Capital Management

VINCI maintained Current Ratios and Quick Ratios below 1.0 throughout the study period. Although traditional financial analysis may interpret such values as potential liquidity concerns, this pattern should be evaluated within the context of the construction and concession industry. Large infrastructure companies often operate with negative working capital because they receive customer payments and concession revenues before many operating obligations become due [5].

The persistent negative working capital observed during the period, therefore, appears to reflect a deliberate working capital management strategy rather than financial distress. Moreover, the company maintained substantial cash balances throughout the study period, providing additional evidence of liquidity resilience.

c) Leverage and Solvency Performance

The analysis shows that VINCI consistently employed a relatively high level of financial leverage, with the Debt-to-Equity Ratio fluctuating between 2.70 and 3.04. Such leverage levels are common among major infrastructure operators due to the long-term financing requirements of concession assets and large-scale engineering projects [6].

More importantly, the Operating Cash Flow to Debt ratio improved considerably from 18.21% in 2020 to 33.52% in 2024. This trend indicates that the company enhanced its ability to service debt through internally generated cash flows. The simultaneous stability of leverage ratios and improvement in debt coverage suggest prudent financial management and effective risk control.

d) Operational Efficiency and Investment Activity

Operational efficiency also improved during the study period. Asset Turnover increased from 0.47 to 0.55, indicating a more productive utilization of company assets in generating revenue. At the same time, Accounts Receivable Days declined from 115 days in 2021 to 99 days in 2024, reflecting improvements in receivables collection and cash conversion efficiency.

Investment activity remained relatively disciplined. CAPEX-to-Revenue ratios ranged between 2.46% and 4.25%, indicating continued investment in infrastructure and energy-related projects without placing excessive pressure on liquidity or profitability. Such balanced investment behavior is generally associated with sustainable long-term corporate growth [5].

e) Discussion of Research Question 1

The first research question sought to determine how the financial performance of VINCI evolved between 2020 and 2024. The findings clearly indicate that VINCI experienced substantial improvements in profitability, shareholder returns, operational efficiency, and debt-servicing capacity over the study period. The company's concession-oriented business model generated stable cash flows that supported profitability growth while maintaining financial stability. Consequently, VINCI can be characterized as a financially resilient and efficiently managed engineering and infrastructure company during the period under investigation.

4.2 Financial Performance Analysis of Bouygues (2020–2024)

Table 4.2: Financial Ratios of Bouygues (2020–2024)

Financial Ratios	2020	2021	2022	2023	2024
Profitability					
Net Profit Margin	2.22%	3.47%	2.55%	2.14%	2.15%
Operating Profit Margin	3.24%	4.61%	4.22%	3.77%	3.95%
EBITDA Margin	9.55%	11.04%	10.26%	8.96%	9.22%
Return Ratios					
ROE	6.49%	10.20%	8.12%	8.51%	8.42%
ROA	1.90%	2.92%	1.87%	1.98%	1.94%
Liquidity					
Current Ratio	0.98	1.04	0.98	0.95	0.92
Quick Ratio	0.84	0.91	0.88	0.86	0.83
Working Capital (€ Million)	-299	795	-454	-1,400	-2,509
Leverage & Solvency					
Debt to Equity	2.42	2.49	3.35	3.30	3.35
Debt to Assets	70.77%	71.35%	77.01%	76.77%	77.00%
Operating Cash Flow to Debt	42.91%	38.39%	18.65%	36.24%	36.48%
Efficiency					
Asset Turnover	0.85	0.84	0.73	0.92	0.90
Accounts Receivable Days	62	64	79	63	62
Investment					
CAPEX to Revenue	7.63%	6.51%	5.92%	4.59%	4.78%

The financial ratio analysis of Bouygues for the period 2020–2024 reveals a financial profile characterized by moderate profitability, increasing leverage, relatively stable liquidity, and continuous investment activity. As a diversified engineering, construction, telecommunications, and media group, Bouygues operates across multiple business segments with different risk and return characteristics. This diversification provides growth opportunities but also creates additional managerial and financial challenges when compared with more concession-oriented infrastructure companies.

a) Profitability Performance

The profitability indicators show a more volatile pattern than those observed for VINCI. Net Profit Margin increased from 2.22% in 2020 to 3.47% in 2021 but subsequently declined and stabilized at approximately 2.15% by 2024. Similar trends can be observed in Operating Profit Margin and EBITDA Margin, both of which peaked in 2021 before experiencing moderate fluctuations during the following years.

These results suggest that although Bouygues successfully expanded its revenue base, the company faced challenges in translating revenue growth into sustained profitability. The relatively narrow profit margins may be attributed to intense competition within the construction sector, integration costs associated with strategic acquisitions, and the capital requirements of its telecommunications operations. Previous studies have noted that diversified engineering and construction groups often experience lower profitability margins due to the complexity of managing multiple business segments and varying market conditions [3].

Return-based indicators provide additional insight into managerial effectiveness. Return on Equity (ROE) increased from 6.49% in 2020 to 10.20% in 2021 but subsequently declined and stabilized at around 8.4% by 2024. Return on Assets (ROA) followed a similar trajectory, indicating that improvements in profitability were not consistently maintained throughout the study period. While the company continued to generate positive returns, the results suggest a more limited capacity to enhance shareholder value compared with leading infrastructure operators [4].

b) Liquidity and Working Capital Management

Bouygues maintained Current Ratios close to 1.0 throughout the study period, ranging from 0.92 to 1.04. Similarly, Quick Ratios fluctuated within a relatively narrow range between 0.83 and 0.91. These figures indicate that the company maintained a balanced approach to short-term liquidity management despite operating in highly capital-intensive sectors.

Working capital performance was more variable. Although positive working capital was achieved in 2021, the company returned to negative working capital positions during the subsequent years. This fluctuation reflects the dynamic nature of project-based operations and changing financing requirements across business segments. Nevertheless, the company's liquidity indicators suggest that short-term obligations remained manageable throughout the study period.

c) Leverage and Solvency Performance

One of the most notable developments in Bouygues' financial structure is the increase in leverage after 2021. The Debt-to-Equity Ratio rose from approximately 2.5 in 2021 to above 3.3 during 2022–2024, while the Debt-to-Assets Ratio increased to approximately 77%.

The increase in leverage coincides with the company's strategic expansion initiatives, particularly the acquisition and integration of Equans. From a strategic perspective, the additional debt financing reflects management's willingness to utilize leverage as a tool for long-term growth and market expansion. However, higher leverage inevitably increases financial risk and places greater importance on maintaining stable cash flows [5].

The Operating Cash Flow to Debt ratio further illustrates this dynamic. The ratio declined sharply from 38.39% in 2021 to 18.65% in 2022 before recovering to approximately 36% by 2024. This temporary deterioration indicates that debt growth initially outpaced cash flow generation, although subsequent improvements suggest that management successfully strengthened operating cash flows and improved debt-servicing capacity over time.

d) Operational Efficiency and Investment Activity

Bouygues demonstrated relatively strong operational efficiency throughout the study period. Asset Turnover remained significantly higher than that of VINCI, fluctuating between 0.73 and 0.92. These results indicate that Bouygues generated a higher volume of revenue per unit of assets, reflecting the project-driven and service-oriented nature of its operations.

Accounts Receivable Days increased noticeably in 2022 before returning to more typical levels in 2023 and 2024. This temporary increase may reflect delays associated with project execution, customer payments, or integration activities following major acquisitions.

Investment intensity remained relatively high throughout the period. Although the CAPEX-to-Revenue ratio declined from 7.63% in 2020 to 4.78% in 2024, it remained above the corresponding level observed for VINCI. This finding reflects Bouygues' continued commitment to infrastructure development, telecommunications investment, and long-term growth initiatives. Such investment strategies may reduce short-term profitability but can strengthen future competitive positioning and revenue generation capacity [6].

e) Discussion of Research Question 1

The first research question also sought to evaluate the evolution of Bouygues' financial performance during the 2020–2024 period. The findings indicate that the company maintained stable operations and continued growth despite operating in a challenging and highly competitive environment. However, profitability improvements were limited, leverage increased substantially, and financial performance remained more volatile than that observed for VINCI. The evidence suggests that Bouygues adopted a growth-oriented and investment-driven financial strategy, emphasizing expansion and diversification rather than immediate profitability maximization. While this approach may support long-term strategic objectives, it is associated with higher financial risk and greater dependence on the successful execution of investment initiatives.

4.3 Comparative Analysis of Financial Performance and Strategic Management

The comparative analysis reveals significant differences in the financial performance and strategic management approaches adopted by VINCI and Bouygues during the 2020–2024 period. Although both companies operate within the engineering, construction, and infrastructure sector, their financial outcomes reflect fundamentally different business models and capital allocation strategies.

Table 4.3.1: Comparative Summary of Key Financial Ratios (Five-Year Averages, 2020–2024)

Ratio Category	Financial Ratio	VINCI (Avg.)	Bouygues (Avg.)	Key Strategic Implication
Profitability	Net Profit Margin	5.73%	2.51%	VINCI's concession model generates over twice the net profit per euro of revenue.
	Return on Equity (ROE)	11.86%	8.55%	Superior return to shareholders for VINCI, reflecting higher margin efficiency.
Liquidity	Current Ratio	0.88	0.97	Bouygues maintains a slightly more conservative short-term liquidity buffer.

Leverage	Debt to Equity	2.86	2.98	Both use significant leverage; Bouygues's reliance increased post-2021 for growth funding.
Solvency	Operating Cash Flow / Debt	28.80%	34.53%	Bouygues's lower absolute debt yields a higher average coverage, but VINCI's ratio showed dramatic improvement.
Efficiency	Asset Turnover	0.53	0.85	Bouygues's asset-light, project-based model generates more revenue per euro of assets.
	Operating Profit Margin	9.83%	3.96%	VINCI converts revenue to operating profit much more efficiently, highlighting its high-margin asset base.
Investment Intensity	CAPEX / Revenue	3.32%	5.89%	Bouygues invests a larger share of revenue back into capital assets, notably in telecommunications.

As presented in Table 4.3.1, VINCI achieved substantially higher profitability throughout the study period. The company's average Net Profit Margin reached 5.73%, compared with only 2.51% for Bouygues. Similarly, VINCI recorded stronger returns on equity and superior operating margins. These results indicate that VINCI was more successful in converting revenues into profits and generating value for shareholders. The findings are consistent with financial management theory, which suggests that firms with stable recurring revenue streams and efficient cost structures tend to achieve higher profitability and stronger financial sustainability [4,5].

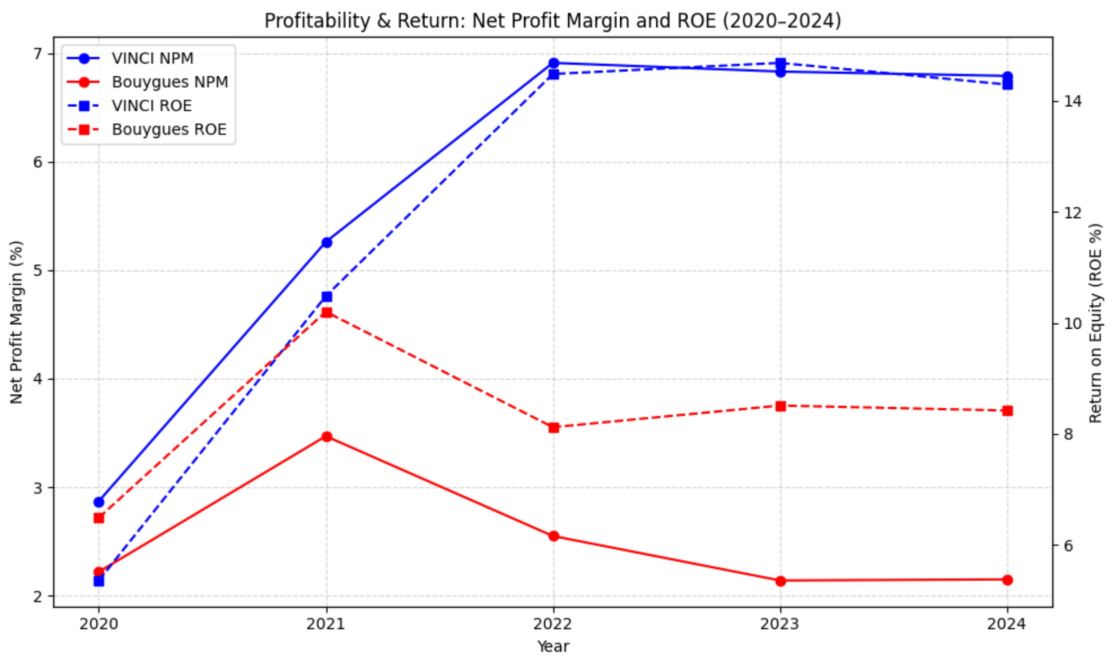

Figure 4.1

The superior profitability of VINCI can largely be attributed to its concession-based business model. Revenue generated from airports, motorways, and infrastructure concessions provides predictable cash flows and relatively high operating margins. In contrast, Bouygues derives a larger share of its revenue from highly competitive construction, telecommunications, and service activities, where pricing pressure and operational complexity generally constrain profit margins.

Regarding liquidity management, both firms maintained current ratios below or close to one throughout the study period. While traditional financial analysis often interprets low liquidity ratios as a potential risk factor, the results suggest that both companies deliberately employ aggressive working-capital strategies. Negative working capital positions appear to be supported by strong bargaining power with suppliers and efficient cash conversion cycles rather than indications of financial distress. This observation supports previous studies highlighting the unique working-capital characteristics of large construction and infrastructure companies [6].

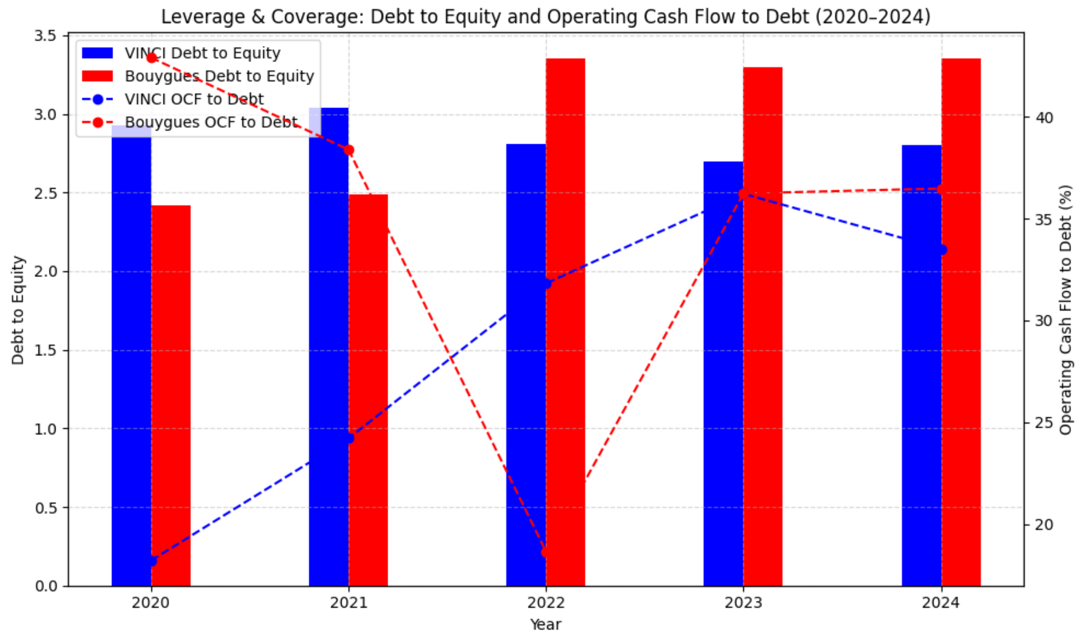

Figure 4.2

The leverage analysis reveals another important distinction between the two firms. Although both companies operate with significant debt levels, VINCI maintained a relatively stable capital structure over the five years. By contrast, Bouygues experienced a substantial increase in leverage following major strategic investments and acquisitions, particularly after 2021. The increase in the Debt-to-Equity ratio suggests a greater reliance on external financing to support expansion initiatives. While this strategy may generate long-term growth opportunities, it also increases exposure to financial risk and earnings volatility.

From an operational efficiency perspective, Bouygues demonstrated higher asset turnover ratios than VINCI, indicating a stronger ability to generate revenue from its asset base. However, higher asset utilization did not translate into superior profitability. VINCI's significantly higher operating margins compensated for its lower asset turnover and ultimately produced stronger overall financial performance. This finding illustrates the classic trade-off between volume-driven and margin-driven business strategies frequently discussed in corporate finance literature [2,4].

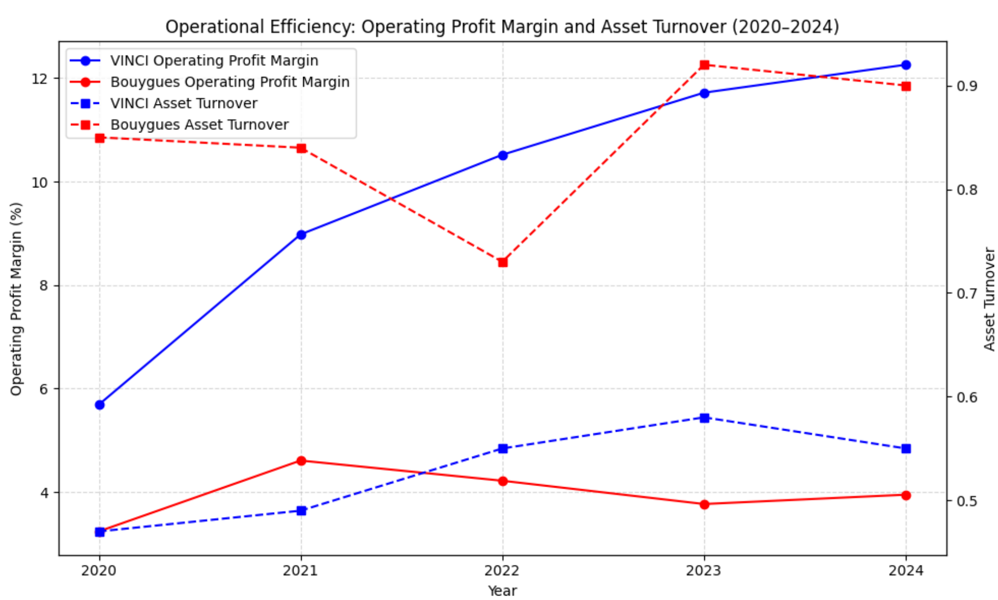

Figure 4.3

Investment behavior also differed considerably between the two companies. Bouygues consistently allocated a larger proportion of revenue to capital expenditures, reflecting its expansion-oriented strategy and continuous investment in telecommunications and engineering activities. VINCI, on the other hand, maintained a more moderate investment intensity, emphasizing disciplined capital allocation and long-term asset optimization. Such differences indicate contrasting managerial priorities: growth and diversification in the case of Bouygues versus profitability, cash generation, and operational resilience in the case of VINCI.

Overall, the comparative findings provide a clear answer to the first and second research questions. VINCI demonstrated stronger financial performance across most profitability and solvency indicators, while Bouygues exhibited higher investment intensity and operational turnover. These differences reflect distinct strategic management approaches rather than differences in industry conditions alone. The evidence suggests that business model selection plays a critical role in determining long-term financial outcomes within the engineering and infrastructure sector.

Comparison with Annual Reports and Strategic Narratives

The financial ratio analysis presented in Section 4 provides quantitative evidence regarding the financial performance, operational efficiency, liquidity position, leverage structure, and investment behavior of VINCI and Bouygues between 2020 and 2024. However, financial statements alone do not fully explain the strategic intentions behind observed financial outcomes. Annual reports complement quantitative information by providing management perspectives on corporate objectives, investment priorities, risk management policies, and future growth strategies [7].

Therefore, this section compares the findings obtained from ratio analysis with the strategic narratives disclosed in the annual reports of both companies. By integrating quantitative and qualitative evidence, the study seeks to evaluate whether management disclosures accurately reflect the underlying financial performance of each firm and to determine how different business models influence both financial outcomes and corporate reporting practices.

This discussion directly addresses the third research question by assessing the consistency between reported financial results and management narratives. Such an integrated approach provides a deeper understanding of strategic financial management within the engineering, construction, and infrastructure sector, where long-term investments, capital intensity, and complex project portfolios significantly influence corporate performance [5,6].

The analysis reveals that although both companies operate within the same industry, they communicate different strategic priorities through their annual reports. VINCI primarily emphasizes profitability, cash generation, operational resilience, and disciplined capital management, whereas Bouygues focuses on business transformation, strategic investment, diversification, and long-term growth opportunities. These differences are reflected not only in management commentary but also in the financial ratios calculated throughout this study.

VINCI: Alignment Between Financial Performance and Strategic Narrative

A review of VINCI’s annual reports from 2020 to 2024 indicates a consistent emphasis on operational resilience, cash flow generation, sustainable growth, and disciplined financial management. Throughout the reporting period, management repeatedly highlighted the importance of its diversified business structure, particularly the contribution of concession activities, energy services, and construction operations to long-term value creation. The findings of the present study strongly support these strategic narratives.

The financial ratio analysis demonstrates a significant improvement in profitability during the five years. Net Profit Margin increased from 2.87% in 2020 to 6.79% in 2024, while Operating Profit Margin and EBITDA Margin showed continuous growth. These trends suggest that the company successfully improved operational efficiency and enhanced its ability to convert revenues into profits. Such results are consistent with management statements emphasizing strong operational performance, effective cost control, and the recovery of infrastructure and mobility activities following the disruptions experienced during the COVID-19 period.

One of the most notable findings concerns cash flow performance. The Operating Cash Flow-to-Debt ratio increased substantially throughout the study period, indicating an enhanced capacity to service debt obligations through internally generated cash flows. This improvement supports VINCI’s recurring narrative that financial resilience is built upon stable cash-generating assets and prudent debt management. The company's concession portfolio, particularly transport and infrastructure assets, appears to play a critical role in maintaining financial stability even during periods of economic uncertainty.

The analysis of leverage ratios further confirms the consistency between reported strategies and financial outcomes. Although VINCI operates within a capital-intensive sector that naturally requires substantial borrowing, the Debt-to-Equity ratio remained relatively stable over the study period. Simultaneously, improving profitability and cash flow indicators reduced the overall financial risk associated with leverage. These findings support management’s frequent references to balance-sheet discipline and long-term financial sustainability.

Liquidity indicators remained below conventional benchmarks, with Current and Quick Ratios generally below one. However, when interpreted within the context of VINCI’s business model, these results do not necessarily indicate financial weakness. Instead, they suggest an efficient working-capital strategy supported by predictable cash inflows, strong supplier relationships, and effective treasury management. Similar working-capital structures have been observed in large infrastructure groups where stable recurring revenues reduce the need for excessive short-term liquidity reserves [6].

Investment activity also aligns closely with management disclosures. The company maintained a moderate but consistent level of capital expenditure throughout the period. Rather than pursuing aggressive expansion, VINCI appears to prioritize selective investments aimed at strengthening existing operations, improving infrastructure quality, and supporting long-term growth opportunities. This approach is reflected in the stable CAPEX-to-Revenue ratio and contributes to the company's strong balance between growth and financial stability.

Overall, the evidence suggests a high degree of consistency between VINCI's financial performance and the strategic narratives presented in its annual reports. The quantitative findings validate management's emphasis on profitability, cash generation, operational resilience, and disciplined financial management. Consequently, VINCI may be characterized as a financially mature infrastructure group whose strategic communication is largely supported by observable financial outcomes. This finding provides a positive answer to the third research question regarding the alignment between financial ratios and management disclosures in annual reports.

Bouygues: Alignment Between Financial Performance and Strategic Narrative

Unlike VINCI, whose annual reports predominantly emphasize profitability, cash generation, and financial resilience, Bouygues presents a strategic narrative centered on transformation, diversification, innovation, and long-term growth. Throughout the 2020–2024 period, the company highlighted major strategic initiatives, including business expansion, digital transformation, sustainability objectives, and the integration of newly acquired operations. The financial ratio analysis indicates that these strategic priorities are reflected in the company's financial performance, although not always through immediate improvements in profitability.

The profitability indicators reveal a relatively stable but modest level of financial performance over the study period. Net Profit Margin remained within a narrow range, while Operating Profit Margin and EBITDA Margin exhibited only moderate fluctuations. Compared with VINCI, Bouygues generated lower returns on assets and shareholders' equity, suggesting that the benefits of its strategic investments have not yet been fully translated into profitability gains. Nevertheless, this outcome does not necessarily imply ineffective financial management. Rather, it reflects a business model that prioritizes market expansion, diversification, and long-term value creation over short-term profit maximization.

One of the most significant developments observed in the financial analysis is the increase in leverage after 2021. The Debt-to-Equity ratio rose considerably and remained above three during the later years of the study period. This increase corresponds closely with management disclosures regarding strategic acquisitions and growth-oriented investments. In particular, the integration of major acquired businesses required substantial financial resources and temporarily increased debt exposure. Annual reports openly acknowledged this rise in leverage while emphasizing management's commitment to maintaining financial flexibility and preserving investment-grade credit quality.

The Operating Cash Flow-to-Debt ratio provides additional insight into the company's financial strategy. Although the ratio declined significantly during 2022, it recovered in subsequent years as integration activities progressed and operational performance stabilized. This pattern supports management's argument that short-term pressure on financial indicators was largely associated with strategic investment activities rather than structural operational weaknesses. The recovery observed after 2022 suggests that Bouygues was able to maintain adequate cash-generating capacity despite increased borrowing levels.

Liquidity indicators remained close to conventional benchmarks throughout the study period. Current and Quick Ratios fluctuated around one, indicating a relatively balanced approach to short-term financial management. Compared with VINCI, Bouygues maintained slightly stronger liquidity positions, which may reflect management's preference for preserving financial flexibility during periods of organizational transformation and investment expansion. This finding is consistent with annual report discussions emphasizing risk management, liquidity preservation, and financial stability.

From an operational perspective, Bouygues consistently achieved higher Asset Turnover ratios than VINCI. This indicates a stronger ability to generate revenue from its asset base and reflects the company's diversified portfolio of construction, telecommunications, and service activities. However, the higher efficiency in asset utilization did not translate into superior profitability because operating margins remained comparatively low. This outcome highlights the fundamental trade-off between revenue generation and profit generation that characterizes many project-based engineering and construction businesses [4].

Investment activity represents another key area of alignment between financial ratios and management disclosures. Bouygues consistently reported higher CAPEX-to-Revenue ratios than VINCI, confirming its commitment to infrastructure development, telecommunications expansion, technological modernization, and long-term competitiveness. The elevated investment intensity observed throughout the study period provides quantitative evidence supporting management's narrative of transformation and future-oriented growth.

Overall, the findings demonstrate a substantial degree of consistency between Bouygues' financial performance and the strategic messages communicated in its annual reports. Although profitability remained below that of VINCI and leverage increased significantly during the study period, these outcomes appear to be largely associated with a deliberate growth-oriented strategy.

The company's financial results, therefore, support management's narrative that strategic investments and diversification initiatives are intended to strengthen long-term market position, even when they temporarily constrain profitability and increase financial risk. Consequently, the evidence suggests that Bouygues' annual reports provide a reasonably accurate representation of the company's strategic direction and underlying financial realities.

Cross-Company Comparison: Divergent Strategic Emphases

The table below synthesizes the five-year average key ratios and their direct alignment with the core emphases of each company's annual reporting.

Table 4.4: Ratio Averages and Alignment with Annual Report Narratives

Ratio Category	Financial Ratio	VINCI (Avg.)	Bouygues (Avg.)	**Alignment with Annual Report Narrative**
Profitability	Net Profit Margin	**5.73%**	2.51%	VINCI reports historic margins; confirmed. Bouygues focuses on growth scale over margin.
	Return on Equity (ROE)	**11.86%**	8.55%	VINCI emphasizes shareholder returns; Bouygues highlights strategic reinvestment.
Liquidity	Current Ratio	0.88	**0.97**	Bouygues' consistent emphasis on strong liquidity buffers is validated.
Leverage	Debt-to-Equity	2.86	**2.98**	VINCI's stability vs. Bouygues's strategic spike and subsequent management are central to respective reports.
Solvency	Operating Cash Flow/Debt	28.8%	**34.5%**	VINCI's narrative of de-risking via growing cash flow is confirmed. Bouygues's coverage volatility is contextualized by acquisition cycles.
Efficiency	Asset Turnover	0.53	**0.85**	Bouygues's asset-light, project-based model is reflected in its high turnover narrative.
	Operating Margin	**9.83%**	3.96%	VINCI's reports emphasize premium, stable margins from concessions, which is directly confirmed.
Investment	CAPEX/Revenue	3.32%	**5.89%**	Bouygues's reports highlight continuous strategic investment (e.g., Telecom), aligned with its higher CAPEX intensity.

Overall Assessment and Implications

The comparative analysis reveals that both companies' annual reports are reliable reflections of their financial realities, yet they employ narrative strategies that mirror their distinct business models and strategic priorities.

- **VINCI** employs a **validation-oriented narrative**. Its reports serve to confirm the successful execution of a proven model, with a strong emphasis on outcomes: profitability, cash flow, and risk mitigation. The quantitative analysis fully supports this narrative, highlighting a model built on predictable, high-quality returns.
- **Bouygues** employs a **transformation-justifying narrative**. Its reports frame financial metrics within a story of strategic investment and future growth. While transparent about the associated increases in leverage, the narrative emphasizes control mechanisms (liquidity, credit rating) and long-term competitive gains from diversification and scale.

Implication for Stakeholders:

Investors and analysts can place high confidence in the disclosures of both firms, provided they interpret them through the correct lens. **VINCI's reports** offer reassurance of consistent execution and model resilience. **Bouygues' reports** require an appreciation for strategic context, recognizing that the communicated trade-offs—accepting lower margins and higher leverage—are presented as deliberate investments for future market strength and diversification benefits.

5. Conclusion

This study examined the financial performance and management practices of VINCI and Bouygues between 2020 and 2024 through a comparative analysis of financial ratios and annual report disclosures. The objective was to explore how differences in business models and financial strategies influence corporate performance within the construction and infrastructure industry.

The analysis shows that VINCI maintained a stronger financial position over the five years. Profitability indicators improved steadily, while operating efficiency and cash-flow generation strengthened year after year. At the same time, leverage remained relatively stable, indicating that growth was achieved without a significant increase in financial risk. These results reflect the advantages of VINCI's concession-based business model, which provides recurring revenues and supports long-term financial stability.

Bouygues presented a different financial profile. The company pursued a strategy centered on diversification and investment, resulting in higher capital expenditure and greater reliance on debt financing. Although operational performance remained satisfactory and liquidity was generally maintained at acceptable levels, profitability was lower and more volatile than that of VINCI. This suggests that Bouygues placed greater emphasis on long-term expansion and market positioning, even at the cost of higher financial exposure in the short term.

A comparison of the two companies highlights how strategic choices shape financial outcomes. VINCI benefited from stronger margins and more predictable cash flows, whereas Bouygues generated higher asset turnover through its project-driven and diversified activities. The findings demonstrate that firms operating within the same industry can achieve markedly different financial results depending on their business structure and financial priorities.

The study also found a close relationship between the financial evidence and the narratives presented in annual reports. In both companies, management disclosures generally reflected actual financial developments, providing useful context for interpreting performance trends and strategic decisions.

Overall, VINCI exhibited greater financial resilience and stronger performance during the study period, while Bouygues followed a growth-oriented approach characterized by higher investment intensity and leverage. Future research could expand the analysis to a broader sample of international construction firms and investigate the long-term impact of strategic investment decisions on corporate value creation.

Acknowledgments

The author would like to acknowledge the publicly available annual reports and financial statements of VINCI and Bouygues, which served as the primary sources of data for this research. Appreciation is also extended to the academic literature and professional resources that contributed to the development of the analytical framework and methodology employed in this study.

Conflict of Interest

The author declares that there is no conflict of interest regarding the publication of this study. No financial, commercial, or personal relationships influenced the design, analysis, interpretation, or presentation of the research findings.

References

[1] Tang, L. (2019). Financial management in construction enterprises: A review of practices and performance indicators. *International Journal of Construction Management, 19*(4), 305–318. https://doi.org/10.1080/15623599.2018.1474865

[2] Peterson, R. (2020). Construction accounting and financial decision-making: Ratio analysis for managerial insight. *Journal of Construction Engineering and Management, 146*(8), 04020075. https://doi.org/10.1061/(ASCE)CO.1943-7862.0001854

[3] Ho, S., & Wang, H. (2021). Liquidity, leverage, and operational efficiency in European construction firms. *European Accounting Review, 30*(3), 543–569. https://doi.org/10.1080/09638180.2020.1725221

[4] Li, J., & Smith, P. (2022). Corporate strategy and financial disclosure in infrastructure companies: Evidence from France. *Journal of Corporate Finance, 72*, 102114. https://doi.org/10.1016/j.jcorpfin.2021.102114

A. Books

[5] Tang, L. (2017). *Construction financial management*. Routledge.

[6] Peterson, R. (2018). *Construction accounting and financial management*. Palgrave Macmillan.

[7] Gatti, S. (2015). *Corporate finance in project-based firms*. Springer.

B. Corporate Annual Reports (Primary Data Sources)

[8] VINCI. (2020). *Annual report 2020*. https://www.vinci.com/vinci.nsf/en/investors.htm

[9] VINCI. (2021). *Annual report 2021*. https://www.vinci.com/vinci.nsf/en/investors.htm

[10] VINCI. (2022). *Annual report 2022*. https://www.vinci.com/vinci.nsf/en/investors.htm

[11] VINCI. (2023). *Annual report 2023*. https://www.vinci.com/vinci.nsf/en/investors.htm

[12] VINCI. (2024). *Annual report 2024*. https://www.vinci.com/vinci.nsf/en/investors.htm

[13] Bouygues. (2020). *Annual report 2020*. https://www.bouygues.com/en/finance/annual-reports/

[14] Bouygues. (2021). *Annual report 2021*. https://www.bouygues.com/en/finance/annual-reports/

[15] Bouygues. (2022). *Annual report 2022*. https://www.bouygues.com/en/finance/annual-reports/

[16] Bouygues. (2023). *Annual report 2023*. https://www.bouygues.com/en/finance/annual-reports/

[17] Bouygues. (2024). *Annual report 2024*. https://www.bouygues.com/en/finance/annual-reports/