Capital Budgeting Decisions in Uncertain Markets: A Behavioural Finance Perspective

M DEVPRASATH[1], Dr R SUYAM PRABA[2]

[1]Student, [2]Professor, Department of MBA, Karpagam College of Engineering, Coimbatore, Tamil Nadu, India

Abstract — Capital budgeting is a critical financial management tool that enables organisations to evaluate long-term investment decisions. Using secondary data drawn from the company's annual reports for 2020–21 to 2024–25, the research employs ratio analysis, trend analysis, compound growth rate (CAGR), and the Accounting Rate of Return (ARR) to assess financial performance. Key findings reveal that total capitalisation peaked at ₹7,692.16 lakhs in 2022–23, EPS improved significantly to ₹145.57 in 2024–25, and the debtor turnover ratio reached 21.02 times, indicating efficient debt collection. The current ratio, however, remained below the ideal 2:1 norm throughout the study period. The ARR showed improvement, reaching 0.22 in 2024–25, while the CAGR of sales over the five-year period was calculated at 12.22%.

Keywords — *Capital Budgeting; Financial Leverage; Accounting Rate of Return; Ratio Analysis; Earnings Per Share*

1. INTRODUCTION

Capital budgeting is a process that helps businesses determine whether to invest in capital assets such as new equipment, facilities, or software upgrades. It evaluates the financial viability of a project over its life cycle and ensures that a company's capital resources are deployed efficiently. Businesses rely on capital budgeting to identify profitable investments, reduce risk by factoring in uncertainty and the time value of money, and to take a long-term strategic perspective. Capital budgeting is commonly broken down into three phases: (i) the initial phase involving the acquisition of capital assets; (ii) the operating cash flow phase, which estimates annual returns; and (iii) the project close phase, involving asset liquidation and project wind-down. Common analytical techniques include Discounted Cash Flow (DCF) Analysis, Payback Analysis, and Throughput Analysis.

1.1 Discounted Cash Flow Analysis

DCF analysis examines the initial cash outflow and discounts projected inflows back to present value to derive the Net Present Value (NPV). A positive NPV signals a worthwhile investment. Projects are typically evaluated against a hurdle rate, which represents the minimum acceptable return, often computed as the Weighted Average Cost of Capital (WACC).

1.2 Payback Analysis

Payback analysis calculates the time required to recover the initial investment from annual cash inflows. While simple and widely used, it ignores time value of money and terminal cash flows, making it a rough rather than definitive measure of profitability.

1.3 Throughput Analysis

Throughput analysis treats the firm as a single profit-generating system and maximises material flow through operational bottlenecks. It is considered the most comprehensive but complex method of capital budgeting appraisal.

1.4 Objectives of the Study

- To identify the most profitable capital investment opportunities for the company.
- To ensure effective control of capital expenditure and long-term financial planning.
- To evaluate the maximisation of profit through optimal allocation of investible resources.
- To assess the costs and benefits of capital projects in terms of cash flow.

1.5 Scope of the Study

- To evaluate the sales budget and profitability trends of SKS Automobiles.
- To analyse the elimination of wastage and improvement in profitability.
- To measure the standard deviation of total assets across the study period.

1.6 Limitations of the Study

- Mathematically precise techniques do not always yield highly accurate real-world results.
- The assumption of mutually exclusive investment proposals may not hold in all practical circumstances.
- Qualitative factors such as employee morale and company goodwill cannot be quantified precisely.
- Project risk is dynamic and may vary significantly with changing market conditions.

3. REVIEW OF LITERATURE

Brighman (2024) found that large manufacturing firms tend to prefer discounted cash flow techniques over simpler methods like the Payback Period, and that firms often apply simplifying assumptions regarding project life and cash flows when applying DCF models. Adeniyi (2024) noted that despite its theoretical limitations, the Payback Period remains the most widely used method in practice due to its simplicity, intuitive insight, and relevance in environments with liquidity constraints or uncertain cash flows. Drake, Fabozzi and Fabozzi (2022) distinguished between routine capital budgeting and strategic capital budgeting, noting that strategic decisions can alter a firm's market position or enable entry into entirely new product lines

Harris and Pringle (2021) provided a detailed theoretical and practical account of NPV, IRR, and Payback Period, stressing the importance of accurate cash flow estimation and risk evaluation in capital budgeting decisions. Masa, Imegi and Akenbor (2020) established that investment decisions are a firm's attempt to deploy available resources into business activities that generate future returns. The responsibility for such analysis lies jointly with financial experts and accountants who must evaluate asset commitment decisions rigorously. Poonam and Aneja (2020) empirically studied the impact of capital planning processes on the Indian automotive sector, highlighting the practical significance of Payback Period, IRR, and NPV methods in enhancing resource utilisation and profitability.

4. RESEARCH METHODOLOGY

The study adopts a descriptive and analytical research design. Data has been collected exclusively from secondary sources, including the annual reports for the period 2020–21 to 2024–25. Informal interviews were also conducted to supplement secondary data with contextual insights.

4.1 Tools and Techniques

- Ratio Analysis — to assess short-term solvency, leverage, profitability, and asset management.
- Trend Analysis — to identify patterns and directional changes in key financial variables.
- Compound Annual Growth Rate (CAGR) — to measure sales growth over the study period.
- Accounting Rate of Return (ARR) — to evaluate the return on average investment.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Total Capitalisation

Total capitalisation is the sum of equity capital and secured loans, representing the total long-term financing of the firm.

Table 1: Total Capitalisation (₹ in Lakhs)

Year	Equity Capital (₹)	Secured Loans (₹)	Total Capitalisation (₹)
2020-21	595.80	2,480.32	3,076.12
2021-22	596.52	2,932.03	3,528.55

Year	Equity Capital (₹)	Secured Loans (₹)	Total Capitalisation (₹)
2022-23	597.39	7,094.77	7,692.16
2023-24	598.30	6,489.95	7,088.25
2024-25	599.05	5,025.52	5,624.57

Interpretation: Total capitalisation rose from ₹3,076.12 lakhs in 2020-21 to ₹7,692.16 lakhs in 2022-23, primarily driven by a surge in secured loans, before declining to ₹5,624.57 lakhs in 2024-25 as the company repaid debt.

5.2 Financial Leverage

Financial leverage measures the extent to which borrowed funds are used to generate earnings. It is calculated as EBIT divided by (EBIT minus Interest).

Table 2: Financial Leverage (₹ in Lakhs)

Year	EBIT (₹)	EBIT − Interest (₹)	Financial Leverage
2020-21	8,289.95	8,176.56	1.01
2021-22	5,443.96	5,330.73	1.02
2022-23	4,004.49	3,633.61	1.10
2023-24	9,011.74	8,788.74	1.03
2024-25	11,558.02	11,285.24	1.02

Interpretation: Financial leverage remained close to 1.0 throughout the period, peaking at 1.10 in 2022-23 due to elevated interest charges. This indicates moderate reliance on borrowed capital and manageable financial risk.

5.3 Operating Leverage

Operating leverage measures the sensitivity of EBIT to changes in sales. DOL = EBIT / Sales.

Table 3: Operating Leverage (₹ in Lakhs)

Year	EBIT (₹)	Sales (₹)	Operating Leverage
2020-21	8,289.95	53,614.00	0.15
2021-22	5,443.96	45,487.78	0.12
2022-23	4,004.49	45,040.98	0.09
2023-24	9,011.74	57,445.97	0.16
2024-25	11,558.02	84,960.26	0.14

Interpretation: The operating leverage ratio remained below 1.0 in all years, reflecting a relatively stable relationship between sales revenue and operating profit. The ratio was at its lowest in 2022-23 (0.09) and highest in 2023-24 (0.16).

5.4 Earnings Per Share (EPS) — Net Income Basis

EPS measures the amount of net income attributable to each equity share. Formula: EPS = Net Income / Average Outstanding Shares.

Table 4: Earnings Per Share – Net Income Basis (₹ in Lakhs)

Year	Net Income (₹)	Avg. Outstanding Shares (₹)	EPS (₹)
2020-21	56,214.58	595.38	94.42
2021-22	44,724.19	596.16	75.02
2022-23	42,779.36	596.95	71.66
2023-24	59,954.82	597.84	100.29
2024-25	87,150.69	598.67	145.57

Interpretation: EPS declined from ₹94.42 in 2020-21 to ₹71.66 in 2022-23, reflecting reduced net income. However, the company recovered strongly to reach ₹145.57 in 2024-25, the highest in the study period, indicating robust profitability growth.

5.5 Interest Coverage Ratio

Interest coverage ratio = EBIT / Fixed Interest Charges. It measures the firm's ability to service its debt obligations from operating earnings.

Table 5: Interest Coverage Ratio (₹ in Lakhs)

Year	EBIT (₹)	Fixed Interest Charges (₹)	Coverage Ratio
2020-21	8,289.95	113.39	73.11
2021-22	5,443.96	113.23	48.08
2022-23	4,004.49	370.88	10.80
2023-24	9,011.74	223.00	40.41
2024-25	11,558.02	272.78	42.37

Interpretation: The interest coverage ratio was very high at 73.11 in 2020-21, declining sharply to 10.80 in 2022-23 as interest charges tripled. Recovery to 42.37 in 2024-25 indicates that the company comfortably covers its debt servicing obligations.

5.6 Asset Structure

Asset Structure = Net Fixed Assets / Total Assets. This ratio indicates the proportion of a firm's assets that are held in non-current, tangible form.

Table 6: Asset Structure (₹ in Lakhs)

Year	Net Fixed Assets (₹)	Total Assets (₹)	Asset Structure
2020-21	10,081.75	36,689.55	0.27
2021-22	10,394.59	37,399.87	0.28
2022-23	10,179.35	41,596.69	0.24
2023-24	14,548.62	45,450.90	0.32
2024-25	19,760.82	48,382.25	0.41

Interpretation: The asset structure ratio improved steadily from 0.27 in 2020-21 to 0.41 in 2024-25, indicating increasing capitalisation in fixed assets. This is consistent with the company's branch expansion strategy.

5.7 EPS — Net Profit After Interest and Tax

Formula: EPS = Net Profit After Interest and Tax / Number of Equity Shares.

Table 7: EPS – Net Profit Basis (₹ in Lakhs)

Year	Net Profit After Interest (₹)	No. of Shares (₹)	EPS (₹)
2020-21	4,796.04	595.80	8.05
2021-22	1,330.55	596.52	2.23
2022-23	268.66	597.39	0.45
2023-24	4,935.22	598.30	8.25
2024-25	6,548.64	599.05	10.93

Interpretation: EPS on a net profit basis fell sharply to ₹0.45 in 2022-23 due to significantly lower profitability. The subsequent recovery to ₹10.93 in 2024-25 confirms the company's improved financial health.

5.8 Current Ratio

Current Ratio = Current Assets / Current Liabilities. A ratio of 2:1 is considered ideal.

Table 8: Current Ratio (₹ in Lakhs)

Year	Current Assets (₹)	Current Liabilities (₹)	Ratio
2020-21	18,179.49	16,007.51	1.14
2021-22	16,159.88	13,102.19	1.23
2022-23	20,512.22	17,992.11	1.14
2023-24	22,453.66	21,679.36	1.04
2024-25	28,931.92	27,397.56	1.06

Interpretation: The current ratio fluctuated between 1.04 and 1.23, consistently below the standard 2:1 norm, indicating tight short-term liquidity. The company should focus on improving working capital management.

5.9 Absolute Liquidity Ratio

Absolute Liquidity Ratio = (Cash + Bank + Marketable Securities) / Current Liabilities.

Table 9: Absolute Liquidity Ratio (₹ in Lakhs)

Year	Cash & Bank Balance (₹)	Current Liabilities (₹)	Ratio
2020-21	3,731.66	16,007.51	0.23
2021-22	4,236.51	13,102.19	0.32
2022-23	6,255.42	17,992.11	0.35
2023-24	3,650.53	21,679.36	0.17

Year	Cash & Bank Balance (₹)	Current Liabilities (₹)	Ratio
2024-25	4,481.75	27,397.56	0.16

Interpretation: The absolute liquidity ratio peaked at 0.35 in 2022-23 and declined to 0.16 in 2024-25, reflecting that while cash reserves grew in absolute terms, they did not keep pace with rising current liabilities.

5.10 Debtors' Turnover Ratio

Debtors' Turnover Ratio = Total Sales / Accounts Receivable. A higher ratio indicates more efficient debt collection.

Table 10: Debtors' Turnover Ratio (₹ in Lakhs)

Year	Total Sales (₹)	Accounts Receivable (₹)	Ratio (Times)
2020-21	53,614.00	3,946.30	13.59
2021-22	45,487.78	2,998.98	15.17
2022-23	45,040.98	2,342.85	19.22
2023-24	57,445.97	3,035.11	18.93
2024-25	84,960.26	4,041.73	21.02

Interpretation: The debtors' turnover ratio improved consistently from 13.59 in 2020-21 to 21.02 in 2024-25, indicating increasingly efficient debt collection practices and reduced credit risk.

5.11 Reserve to Equity Share Capital Ratio

Reserve to Equity Capital Ratio = (Reserves / Equity Capital) × 100. A higher ratio reflects a conservative dividend policy and greater reinvestment.

Table 11: Reserve to Equity Share Capital Ratio

Year	Reserves (₹)	Equity Capital (₹)	Ratio
2020-21	33,613.43	595.80	56.41
2021-22	33,606.36	596.52	56.33
2022-23	33,649.65	597.39	56.32
2023-24	38,139.19	598.30	63.74
2024-25	42,757.68	599.05	71.37

Interpretation: The reserve-to-equity ratio grew from 56.41 in 2020-21 to 71.37 in 2024-25, reflecting consistent profit retention and strengthening of shareholder reserves.

5.12 Gross Profit Ratio

Gross Profit Ratio = (Gross Profit / Net Sales) × 100.

Table 12: Gross Profit Ratio

Year	Gross Profit (₹)	Net Sales (₹)	Ratio (%)
2020-21	8,289.95	53,614.00	15.46
2021-22	5,443.96	45,487.78	11.97

Year	Gross Profit (₹)	Net Sales (₹)	Ratio (%)
2022-23	4,004.49	45,040.98	8.89
2023-24	9,011.74	57,445.97	15.69
2024-25	11,558.02	84,960.26	13.60

Interpretation: Gross profit ratio declined to 8.89% in 2022-23 due to rising material costs and lower sales, recovering to 15.69% in 2023-24. The 2024-25 figure of 13.60% reflects scale-up costs accompanying rapid sales growth.

5.13 Burden on Capital Employed

Burden on Investment = Operating Profit / Capital Employed, where Capital Employed = Total Assets − Current Liabilities.

Table 13: Burden on Capital Employed (₹ in Lakhs)

Year	Operating Profit (₹)	Capital Employed (₹)	Ratio
2020-21	6,639.56	20,682.04	0.32
2021-22	5,798.06	24,297.68	0.24
2022-23	6,506.11	23,604.58	0.28
2023-24	7,042.29	23,771.54	0.30
2024-25	10,442.39	20,984.69	0.50

Interpretation: The return on capital employed improved significantly, reaching 0.50 in 2024-25, meaning the company generated ₹0.50 of operating profit per rupee of capital employed — the best performance in the study period.

5.14 Trend Analysis — Current Assets, Liabilities and Working Capital

Table 14: Trend Analysis for Current Assets to Current Liabilities

Year	Current Assets (₹)	Trend %	Current Liabilities (₹)	Trend %	Working Capital (₹)	Trend %
2020-21	18,179.49	100.00	16,007.51	100.00	2,171.98	100.00
2021-22	16,159.88	88.89	13,102.19	81.85	3,057.69	140.78
2022-23	20,512.22	112.83	17,992.11	112.39	2,520.11	116.03
2023-24	22,453.66	123.51	21,679.36	135.42	774.30	35.65
2024-25	28,931.92	159.14	27,397.56	171.14	1,534.36	70.64

Interpretation: Both current assets and current liabilities grew significantly over the study period. Working capital trend percentage declined to 70.64 in 2024-25, indicating that liabilities grew faster than assets, compressing the working capital buffer.

5.15 Compound Annual Growth Rate (CAGR) of Sales

Table 15: Annual Sales for CAGR Calculation (₹ in Lakhs)

Year	Sales (₹)
2020-21	53,614.00
2021-22	45,487.78
2022-23	45,040.98
2023-24	57,445.97
2024-25	84,960.26

CAGR = (84,960.26 / 53,614.00)^(1/4) − 1 = 12.22% per annum

Interpretation: The firm has achieved a sales CAGR of approximately 12.22% over the four-year period from 2020-21 to 2024-25, reflecting sustained business growth driven by expansion into new branches and product lines.

5.16 Accounting Rate of Return (ARR)

ARR = Average Accounting Profit / Average Investment. A higher ARR indicates better utilisation of invested capital.

Table 16: Accounting Rate of Return (₹ in Lakhs)

Year	Average Profit (₹)	Average Investment (₹)	ARR
2020-21	2,869.46	19,573.19	0.14
2021-22	3,063.29	20,977.08	0.15
2022-23	799.60	22,001.60	0.04
2023-24	2,601.94	24,587.44	0.11
2024-25	5,741.93	26,098.44	0.22

Interpretation: ARR declined sharply to 0.04 in 2022-23 due to a significant drop in profitability. The strong recovery to 0.22 in 2024-25 signals effective capital deployment and improving returns on invested capital.

6. FINDINGS

- Total capitalisation peaked at ₹7,692.16 lakhs in 2022-23, driven by increased secured borrowings, before declining to ₹5,624.57 lakhs in 2024-25 as debt was reduced.
- Financial leverage remained low (1.01–1.10), indicating that the company's earnings comfortably cover its interest obligations.
- EPS on a net income basis recovered strongly to ₹145.57 in 2024-25, the highest in the study period.
- Interest coverage ratio fell to 10.80 in 2022-23 due to a surge in interest charges, but recovered to 42.37 by 2024-25.
- The asset structure ratio improved from 0.27 to 0.41, reflecting capital investment in fixed assets for expansion.
- The current ratio remained below the ideal norm of 2:1 throughout, suggesting the need for better liquidity management.
- The debtors' turnover ratio improved consistently from 13.59 to 21.02, indicating effective and accelerating debt collection.
- Reserves grew from ₹33,613 lakhs to ₹42,757 lakhs, with the reserve-to-equity ratio reaching 71.37 in 2024-25.
- Gross profit ratio was volatile, declining to 8.89% in 2022-23 before recovering to 15.69% in 2023-24.

- Return on capital employed improved to 0.50 in 2024-25, indicating efficient utilisation of long-term capital.
- Sales CAGR over 2020-21 to 2024-25 was approximately 12.22%, reflecting consistent business growth.
- ARR recovered strongly from 0.04 (2022-23) to 0.22 (2024-25), affirming improved returns on capital invested.

7. SUGGESTIONS

This study's results suggest that the firm has successfully adopted capital budgeting principles in its operational and strategic decision-making. The following suggestions are offered to further strengthen financial performance:

- The company should focus on improving its current ratio to approach the 2:1 standard by managing inventory levels and accelerating receivables collection.
- Given the decline in absolute liquidity in 2024-25, the company should maintain a minimum cash reserve buffer relative to current liabilities.
- Gross profit margins should be monitored closely as sales volumes grow, ensuring raw material and procurement costs are controlled.
- Adoption of discounted cash flow techniques (NPV and IRR) alongside ARR would provide a more comprehensive framework for evaluating future capital investments.
- The strong EPS recovery and improving ARR suggest the company is well-positioned to invest in additional branch expansion, provided working capital is strengthened.

8. CONCLUSION

This study examined capital budgeting practices over the period 2020–21 to 2024–25. The financial analysis reveals a company that successfully navigated a challenging mid-period (2022–23) characterised by declining profitability and elevated interest costs, emerging with significantly stronger financial metrics by 2024–25. Sales grew at a CAGR of 12.22%, EPS reached its highest level of ₹145.57, and return on capital employed improved to 0.50. The study underscores the importance of capital budgeting as an ongoing strategic discipline rather than a one-time exercise. While the company demonstrates sound leverage management and efficient collections, improving short-term liquidity and adopting more sophisticated DCF-based appraisal techniques would further strengthen investment decision-making. Capital budgeting, when applied rigorously and consistently, remains an indispensable tool for long-term value creation in automotive dealerships operating in competitive markets.

REFERENCES

[1] Masa, Imegi and Akenbor (2020), 'Investment Decisions and Capital Costs', International Journal of Engineering & Technology, Volume 7, Issue 1.1, pp. 60-63.

[2] Poonam and Aneja (2020), 'Empirical Evidence of the Adoption of Sophisticated Capital Budgeting Techniques', The Journal of Business, Vol. 45.

[3] Harris, R.S. and Pringle, J. (2021), 'The Continuing Increase in the Use of Sophisticated Capital Budgeting Techniques', California Management Review, Fall 1984, pp. 137-148.

[4] Bose, S.K. (2021), 'Management of Working Capital', The Engineering Economist, Spring 1975, pp. 159-171.

[5] Hakka (2021), 'A Survey of Capital Budgeting Techniques Used by Major U.S. Firms', Financial Management, Fall 1977, pp. 66-71.

[6] Drake, P.P., Fabozzi, F.J. and Fabozzi, F.A. (2022), 'Capital Budgeting Practices: A Survey', Management Accounting, May 1973, pp. 19-25.

[7] Segelod (2022), 'Current Capital Budgeting Practices', Management Accounting, June 1981, pp. 26-30.

[8] Young, Ashby, Boz and Grayson (2022), 'Capital Budgeting Practices of Twelve Large Manufacturers', Financial Management, Winter 1986, Vol. 15, Issue 4, pp. 15-22.

[9] Atril (2022), 'Capital Investment Practices: A Survey of Large Corporations in Malaysia, Singapore and Hong Kong', Asia Pacific Journal of Management, January 1987, pp. 112-123.

[10] Blakey (2023), 'Capital Budgeting Techniques Used by Small Business Firms in the 1990s', The Engineering Economist, Summer 1997, Vol. 42, Issue 4, p. 289.

[11] Palin (2023), 'Capital Budgeting Practices in Corporate Canada', Financial Practice & Education, Fall/Winter 1995, pp. 37-43.

[12] Brighman (2024), 'A Study on Capital Budgeting of Large Manufacturing Firms', Solid State Technology, Volume 63, Issue 2S.

[13] Adeniyi (2024), 'The Capital Expenditure Decision-Making Process of Large Corporations', The Engineering Economist, Spring 1975, pp. 159-171.

[14] Meigs et al. (2025), 'Working Capital Management: A Parametric Approach', Chartered Accountant, Vol. XXXIV, pp. 952-955.

[15] Bierman, H. and Smidt, S. (1975), The Capital Budgeting Decision, Macmillan, p. 73.

[16] Brealey, R. and Myers, S. (1991), Principles of Corporate Finance, McGraw Hill, p. 8.