

Cost of Capital, Financial Growth, and Profitability Prediction: Evidence from Jordanian Industrial Firms

IHAB ALI EL QIREM¹, ABDUL RAZZAK ALSHEHADEH¹,
RASHA ATA ALI ALMAJAWLAH¹, HANEEN A. AL-KHAWAJA^{2,*},
ALI KHALED QTAISHAT³, IQBAL JEBRIL⁴

¹Faculty of Business,
Al-Zaytoonah University of Jordan,
Amman,
JORDAN

²Department of Financial and Banking Technology,
Faculty of Business,
Ajloun National University,
Ajloun,
JORDAN

³Private Law Department,
Faculty of Law,
Al-Ahliyya Amman University,
Amman,
JORDAN

⁴Faculty of Science and Information Technology,
Al-Zaytoonah University of Jordan,
Amman,
JORDAN

**Corresponding Author*

Abstract: - This paper looks at how the cost of capital and different financial growth measures shape profitability predictions for industrial firms on the Amman Stock Exchange. The study uses data from 31 companies between 2017 and 2024 and runs a regression analysis to see how financing costs, profit growth, asset growth, and sales growth predict profitability, specifically, return on investment and revenue power. The results show that the cost of capital has a moderate but clear effect on both profitability measures, explaining about 37% of their changes. When it comes to return on investment, sales growth stands out as the strongest predictor among the growth factors. For revenue power, profit growth, and asset growth play a bigger role. Notably, when the cost of capital and asset growth are modeled together, the explained variance in return on investment rises to nearly 50%. These results carry practical implications for managers seeking to optimize capital structure and growth strategies in pursuit of improved financial outcomes.

Key-Words: - Profitability prediction; Cost of capital; Financial growth; Industrial companies; Amman Stock Exchange; Firms.

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1 Introduction

The cost of capital occupies a central place in corporate finance, shaping both the scale and direction of investment activity. At its core, this cost reflects the

return that must be offered to attract funding from shareholders and creditors alike [1]. Managers routinely rely on this benchmark when screening projects, setting hurdle rates, and deciding how to

balance debt against equity in the capital structure [2]. In practice, the weighted average cost of capital aggregates the expense of each funding source, allowing decision-makers to compare financing alternatives on a like-for-like basis [3]. Alongside financing considerations, corporate growth measured through rising assets, revenues, or market share represents another dimension that interacts with capital costs. Pursuing aggressive expansion can elevate risk and, by extension, the required return demanded by investors, yet well-managed growth often translates into higher profitability over time [4]. Profitability itself remains a core barometer of financial health and is inextricably linked to financing costs [5]. A substantial body of research confirms that elevated capital costs tend to erode profit margins by raising the threshold return on new investments and limiting access to external funding [6]. Conversely, firms that keep financing expenses in check are better positioned to deploy resources into value-creating activities, supporting both expansion and overall performance [7].

2 Problem Statement

The interplay between the cost of capital and corporate growth has attracted considerable scholarly attention, largely because of its bearing on investment choices and, ultimately, on profitability [8]. In volatile economic settings, the capacity to anticipate future earnings becomes especially valuable for performance evaluation [9]. Although prior work has explored certain facets of this relationship in isolation, relatively few studies have examined how financing costs and growth indicators jointly affect the ability to forecast profitability within the Jordanian industrial sector [6]. This gap motivates the present inquiry, which seeks to clarify the combined influence of these variables on profitability prediction for manufacturers listed on the Amman Stock Exchange.

3 Literature Review

3.1 Cost of Capital

Broadly speaking, the cost of capital captures the price that firms pay for the funds they employ, reflecting underlying financing behaviour [6]. From an investor standpoint, it constitutes the minimum acceptable return necessary to justify committing resources to a given opportunity [10]. Put differently, capital providers expect compensation for bearing the risk inherent in share ownership [1]. The literature conventionally distinguishes two main components of

this cost. The cost of equity financing represents the return that shareholders require in exchange for supplying funds through common stock [11]. In practical terms, it equals the combined yield from dividends and capital appreciation that investors anticipate [12]. Several factors determine this required rate of return. These include the perceived riskiness of the investment, pricing in the market of similar assets, and prevailing capital supply and demand [13].

The cost of debt, meanwhile, corresponds to the interest burden that a firm assumes on its borrowed funds. Because interest payments appear directly in the income statement, they influence not only profitability but also decisions about leverage and payout policy [14],[15]. In essence, debt costs reflect the rate applied to both short-term and long-term obligations [16] and can be observed through the effective interest rate on total borrowings [15].

Several firm-level characteristics moderate the overall cost of capital. Profitability signals a company's ability to convert operations into earnings, thereby bolstering investor confidence and improving access to funds [5].

Liquidity indicates whether sufficient cash is on hand to honor obligations as they fall due [17]. Ample liquidity tends to lower perceived risk and, consequently, financing costs [18].

Growth prospects arise from the effective deployment of organizational resources and capabilities [19]. Growth can manifest as expanded market share, higher revenues, increased employment, or larger asset bases, and it may also be gauged through product quality and corporate reputation [20].

Firm size matters because larger organizations typically enjoy reduced information asymmetries and greater bargaining power with lenders, which can translate into cheaper debt [21].

3.2 Financial Growth

Financial growth denotes a firm's capacity to generate profits from routine operations while containing exposure to risk [20]. Achieving sustained growth ranks among the primary objectives for most enterprises [22]. Three dimensions are commonly highlighted in the literature [23], [24], [25].

Asset growth captures expansion in the resource base and is typically measured as the year-on-year change in total assets [26]. Rising assets often signal efficient utilization and the generation of positive cash flows [27]. Several drivers underpin asset growth:

Strong profitability results in reinvestment, with higher returns on assets leading to further expansion of fixed resources. Equity base and capital structure is the basis for additional financing and investment.

Shareholders' capital injections increase the asset pool directly. [28], [29]

Profit growth refers to the percentage change of Net Income over a period. Beyond serving as a backward-looking performance metric, it also serves as a forward-looking signal of managerial skills and strategic orientation. When earnings are on a consistent rise, internal financing capacity is more elevated, external borrowing is less relied on, and the cost of capital is likely to decrease as a result. Investors and lenders interpret sustained profit growth as empirical evidence of sound management and stable cash flows in the future, hence, enabling firms to access funds at preferential terms. From an analytical angle, profit growth has a tendency to strengthen asset productivity and revenue generation, which makes the profitability input forecast useful. Several factors shape profit growth.

Profitability ratios such as net profit margin, return on assets, and net interest margin have a positive bearing on earnings patterns, net profitability reflecting the effectiveness of the firm in converting sales to the bottom line (ibid) [25]. Operational levers, including pricing decisions, cost control, and promotional spending, also play a role [23], enabling managers to protect margins without compromising competitiveness. Strategic initiatives such as innovation, geographic expansion, and product diversification can open new revenue streams and strengthen competitive positioning over time. Sales growth measures how successfully a firm translates its investments into revenue and is widely used to gauge competitive strength and market demand [12]. Key determinants include workforce skills, labour productivity, capital intensity, and the scale of fixed-asset investment, all of which contribute to higher volumes and improved profitability.

3.3 Profitability Prediction

Profitability, at its most basic, reflects how effectively an organization converts resources into returns [30]. It is typically expressed as the residual of revenues over expenses for a given period and serves as a benchmark for evaluating managerial stewardship, long-term viability, and attractiveness to investors [15]. Common metrics include return on assets, return on equity, and profit margins [26]. Because profitability influences market valuations and access to external finance, understanding its drivers is of practical importance [21].

Experts say the key to boosting profits is pretty straightforward: bring in more money by introducing new products or tweaking prices, cut costs with better operations and new tech, ramp up production to benefit from economies of scale, and stay flexible

with pricing as the market changes [31]. These days, with markets more unpredictable and competition heating up, being able to forecast future profits feels more important than ever.

Reliable forecasts support better capital allocation, more informed investment appraisals, and sounder financing choices. They also help stakeholders distinguish firms with durable earnings power from those experiencing transient performance gains.

Prediction models normally rely on financial ratios and growth indicators that capture operational efficiency and capital structure quality. Return on investment measures the performance of management in using total assets to operating income, whereas revenue power specializes in working assets productivity in sales. Both measures are relevant in capital-intensive industries where the financing decision has a significant impact on the operating result [32]. Prior research suggests that the cost of capital shapes profitability forecasts by setting a minimum return threshold and also constraining expansion options. Firms facing higher financing costs must earn correspondingly higher returns to satisfy investors, which in turn impacts project choice and operating strategy. Growth indicators such as profit growth, asset growth, and sales growth add explanatory power by capturing the dynamic aspects of the firm to capture the sustainability of the performance. These forward-looking variables offer the historical perspective in conventional ratios. Combining financing costs with growth metrics yields a richer framework for anticipating profitability, acknowledging that outcomes stem from the interaction of capital structure choices and expansion paths. This study contributes to the literature by empirically testing these relationships in an emerging-market context.

4 Methodology

4.1 Population and Sample

The target population includes all 49 industrial firms listed in the Amman Stock Exchange. The Amman Stock Exchange has a target population of all 49 industrial firms with a purposive sample of 31 companies, drawn based on two criteria: firstly, continuous uninterrupted trading of shares throughout the observation window, and secondly, the availability of financial statements covering all the study variables. The sample represents the population to an adequate extent, and as such, the findings can be generalized with caution to the larger population.

4.2 Data and Analytical Approach

A descriptive-analytical design directs this research study. Secondary data were extracted from annual reports published on the Amman Stock Exchange website between the fiscal years 2017 and 2024. Statistical procedures, performed in SPSS, include simple regression and multiple regressions of the cost of capital and financial growth indicators on profitability indicators.

4.3 Variable Measurement

Table 1 summarises the operationalization of each construct

Table 1. Variable Definitions and Measurement

Independent Variable		
1	Cost of capital (COC)	Measured using the WACC weighted average cost of capital $WACC = r_U = \frac{E}{V} \cdot r_E + \frac{D}{V} \cdot r_D$ Whereas: =WACC Weighted Average Cost of Capital. (rU) = Total cost of capital. = (rE) Cost of Capital for Equity. = (rD) The cost of capital for debt. (D)= Total debt. (E) = Equity. (V)= Enterprise Value
2	Asset growth (AG)	Asset Growth = (Total Assets in the current year – Total Assets in the previous year) / Total Assets in the previous year
3	profit growth (PG)	Net Profit Change Rate = (Net Profit Current Year - Net Profit Previous Year) / Net Profit Previous Year
4	sales growth (SG)	Net sales growth = (current year net sales – previous year's net sales)/previous year's net sales.
Dependent variable		
1	Return on Revenue Power (RORP)	Net operating profit before tax and after interest divided by working assets (asset turnover)
2	Return on investment (ROI)	Net operating profit before tax and after interest divided by total assets

"Source: created by the authors"

5 Empirical Results

5.1 Cost of Capital and Return on Investment

Simple linear regression was used to examine whether the cost of capital predicts return on investment. Table 2 reports the output.

Table 2. Regression of Cost of Capital on Return on Investment

Dependent Variable	Multiple Correlation Coefficient R	Coefficient of Determination R ² (Explained Variance)	F Value	Statistical Significance	Independent Variable	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T Value	Statistical Significance
ROI	0.608	0.370	103.37	0.000**	Constant	-0.015		-2.770	0.06**
					COC	0.781	0.608	10.167	0.000**

"Source: created by the authors"

The coefficient of determination indicates that the cost of capital accounts for 37% of the variation in return on investment, a moderate effect that is statistically significant at the 1% level. Accordingly, the null hypothesis of no relationship is rejected.

5.2 Cost of Capital and Revenue Power

A parallel regression examined the link between the cost of capital and revenue power. Results appear in Table 3.

Table 3. Regression of Cost of Capital on Revenue Power

Dependent Variable	Multiple Correlation Coefficient R	Coefficient of Determination R ²	F Value	Statistical Significance	Independent Variable	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T Value	Statistical Significance
ROI	0.608	0.370	103.37	0.000**	Constant	-0.015		-2.770	0.06**
					COC	0.781	0.608	10.167	0.000**

	ici en t R	(Ex pla ine d Var ian ce)							
R O R P	0.6 12	0.3 74	1 0 5 . 2 6	0.0 00 **	Co nst ant	- 0.03 0		- 2 . 3 2 7	0.0 00 *
					C O C	1.88 9	0.6 12	1 0 . 2 6 0	0.0 00 **

"Source: created by the authors"

Here, the cost of capital explains 37.4% of the variance in revenue power, again significant at the 1% level. The alternative hypothesis is therefore supported.

5.3 Financial Growth Indicators and Return on Investment

Multiple regression was employed to assess the joint influence of profit growth, asset growth, and sales growth on return on investment. Table 4 presents the findings.

Table 4. Multiple Regression of Growth Indicators on Return on Investment

De pend ent Va ri able	M ult ipl e Co rr ela tion Co eff ici ent R	Co effi cient of Det er mi nation R ² (Ex plained Var iance)	F V a l u e	St ati sti cal Sig nif icance	In de pend ent Va ri able s	Uns tan dar dize d Coe fficients (B)	Sta nd ar dize d Coe fficients (Beta)	T V a l u e	St ati sti cal Sig nif icance
R OI	0.3 68	0.1 36	2 5 . 1 3	0.0 00 **	Co nst ant	0.00 7		1 . 2 1 0	0.2 28

					SG	0.24 5	0.3 68	5 . 0 1 3	0.0 00 **
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"Source: created by the authors"

Among the three growth variables, only sales growth reaches statistical significance, explaining 13.6% of the variance at the 1% level. Neither profit growth nor asset growth demonstrates a meaningful independent effect on return on investment in this specification.

5.4 Financial Growth Indicators and Revenue Power

The same set of growth indicators was regressed on revenue power, with the output shown in Table 5.

Table 5. Multiple Regression of Growth Indicators on Revenue Power

De pend ent Va ri able	M ult ipl e Co rr ela tion Co eff ici ent R	Co effi cient of Det er mi nation R ² (Ex plained Var iance)	F V a l u e	St ati sti cal Sig nif icance	In de pend ent Va ri able s	Uns tan dar dize d Coe fficients (B)	Sta nd ar dize d Coe fficients (Beta)	T V a l u e	St ati sti cal Sig nif icance
R O R P	0.3 05	0.0 93	8 . 1 1	0.0 00 **	Co nst ant	0.02 6		1 . 8 7 9	0.0 62
					A G	0.45 4	0.2 76	3 . 6 2 5	0.0 00 **
					PG	- 0.02 9	- 0.1 56	- 2 . 0 5 4	0.0 42 *

"Source: created by the authors"

Profit growth and asset growth jointly account for 9.3% of the variance in revenue power, both reaching

significance at the 1% level. Sales growth, by contrast, fails to attain significance in this model.

5.5 Combined Model for Return on Investment

To explore whether adding growth indicators improves the predictive power of the cost of capital, a combined regression was estimated. Table 6 displays the results.

Table 6. Combined Regression on Return on Investment

Dependent Variable	Multiple Correlation Coefficient	Coefficient of Determination R ² (Explained Variance)	F Value	Statistical Significance	Independent Variables	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T Value	Statistical Significance
ROI	0.707	0.499	76.80	0.000**					
					Constant	-0.018			0.000**
					COC	0.716	0.628	10.894	0.000**
					AG	0.164	0.244	4.234	0.000**

"Source: created by the authors"

When the cost of capital and asset growth enter the model together, the explained variance rises to 49.9%, a substantial improvement over either variable alone. Profit growth and sales growth do not contribute significantly to this extended specification.

5.6 Combined Model for Revenue Power

Finally, a combined model was estimated for revenue power, with results in Table 7.

Table 7. Combined Regression on Revenue Power

Dependent Variable	Multiple Correlation Coefficient	Coefficient of Determination R ² (Explained Variance)	F Value	Statistical Significance	Independent Variables	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T Value	Statistical Significance
RP	0.645	0.416	36.05	0.000**					
					Constant	-0.028			0.029*
					COC	1.660	0.574	9.165	0.000**
					AG	0.334	0.197	3.145	0.002**
					PG	-0.030	-0.161	-2.595	0.010*

"Source: created by the authors"

The cost of capital, asset growth, and profit growth together explain 41.6% of the variance in revenue power, all reaching significance at the 1% level. Sales growth remains non-significant.

6 Discussion and Conclusion

The evidence presented here underscores the importance of the cost of capital in shaping

profitability outcomes among Jordanian industrial firms. Managers would do well to factor financing costs into risk assessments and strategic planning. This finding stands in partial contrast to earlier work suggesting an inverse relationship between leverage and return on assets [7], though it aligns with studies documenting a positive link between capital costs, crash risk, and growth rates [1].

Turning to growth indicators, the results confirm that asset expansion, when paired with the cost of capital, substantially enhances the prediction of return on investment, consistent with [9]. For revenue power, both asset growth and profit growth prove influential, echoing [27]. Sales growth, while dominant in the standalone return-on-investment model, loses significance once financing costs are controlled.

Particular attention needs to be paid to profit growth. It is seen whether the company is operationally efficient, has strict control over its costs, and reflects a well-defined strategy in addition to measuring its historical performance. This is because profit growth reflects operational efficiency, cost discipline, and clarity of strategy. From a signaling standpoint, steady profit growth sends out positive signals about managerial quality and future stability of cash flows to investors and creditors, thus making it easier to acquire external finance at favourable terms. It is also worth noting that profit growth resulting from genuine operational improvements is more durable as compared to profit growth stemming from one-off cost savings or changes in accounting policies. The evidence shows that sustainable profit growth is linked to asset utilization and a company's revenue-generating capacity, thus reinforcing profitability growth as a leading indicator complementing other leading growth indicators in establishing future profitability.

In quantitative terms, the cost of capital accounts for roughly 37% of the variance in both return on investment and revenue power. Sales growth is the leading related growth driver of return on investment, asset growth, and profit growth, being significant in respect of revenue power. Together, the cost of capital and asset growth explain almost half of the variations in return on investment. The relatively limited explanatory power of growth-related indicators to revenue power suggests that other relevant factors or variables, either internal or external to the business, are at play and worthy of interrogation by future research.

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Conflict of Interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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