Tikrit Journal of Administrative and Economic Sciences, Vol. 21, No. 71, Part (1): 408-428
Doi: www.doi.org/10.25130/tjaes.21.71.1.22

Tikrit Journal of Administrative and Economics Sciences
مجلة تكريت للعلوم الإدارية والاقتصادية
EISSN: 3006-9149
PISSN: 1813-1719

The Impact of Cash Flow on Firms' Financial Sustainability: An Applied Study on Joint Manufacturing Companies in Iraqi Securities

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Abstract: The purpose of this study is to explore the relationship between cash flows and financial sustainability of companies. Cash flows are among the important financial indicators that help in evaluating the financial performance of the company since they show its ability to generate cash from its operations, investments, and financing activities. Financial sustainability refers to the capacity of a firm to sustain profitability and growth in the long run without experiencing financial problems that can jeopardize its survival. Durable and reliable cash flows are the foundation for achieving this sustainability as they provide the necessary liquidity to meet financial obligations, exploit growth opportunities, and absorb sudden financial shocks.

The research is dependent on the analysis of five firms' financial information for a period of five years. The research focuses on the impact of the cash flows on a range of the financial measures that reflect the financial 0.0sustainability, e.g., the return on investment (ROI), cash flows from investing activity (CFIA). The information collected was analyzed using the panel regression analysis, although preliminary analysis such as descriptive statistics and correlation analysis had been done on the data.

sustainability, as measured by the return on assets (ROA) and return on investment (ROI) indicators. The p-values were 0.04 and 0.02, respectively, both of which are below the statistical significance level of 0.05. This confirms the existence of a statistically significant relationship between the main variables of the study.

Keywords:
Cash flows, ROI, ROA, Financial Sustainability.

ARTICLE INFO

Article history:

Received	01 Jun. 2025
Received in revised form	09 Jul. 2025
Accepted	17 Jul. 2025
Available online	30 Sep. 2025

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أثر التدفقات النقدية على الاستدامة المالية للشركات: دراسة تطبيقية على الشركات الصناعية المساهمة في سوق الأوراق المالية العراقية

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المستخلص

الغرض من هذه الدراسة هو استكشاف العلاقة بين التدفقات النقدية والاستدامة المالية للشركات. تعد التدفقات النقدية من بين المؤشرات المالية المهمة التي تساعد في تقييم الأداء المالي للشركة، حيث إنها تظهر قدرتها على توليد النقد من عملياتها واستثماراتها وأنشطتها التمويلية. تشير الاستدامة المالية إلى قدرة الشركة على الحفاظ على الربحية والنمو على المدى الطويل دون التعرض لمشاكل مالية يمكن أن تعرض بقاءها للخطر. وتعد التدفقات النقدية المستدامة والموثوقة الأساس لتحقيق هذه الاستدامة، حيث توفر السيولة اللازمة للوفاء بالالتزامات المالية، واستغلال فرص النمو، وامتصاص الصدمات المالية المفاجئة.

يعتمد البحث على تحليل المعلومات المالية لخمس شركات على مدى خمس سنوات. يركز البحث على تأثير التدفقات النقدية على مجموعة من المقاييس المالية التي تعكس الاستدامة المالية، مثل العائد على الاستثمار (ROI) والتدفقات النقدية من الأنشطة الاستثمارية (CFIA). تم تحليل المعلومات التي تم جمعها باستخدام تحليل الانحدار اللوحي، على الرغم من إجراء تحليل أولي للبيانات مثل الإحصاءات الوصفية وتحليل الارتباط.

وكانت النتيجة تشير الى ان هناك تأثير لتطبيق التدفقات النقدية التشغيلية على الاستدامة المالية من خلال مؤشر العائد على الموجودات والعائد على الاستثمار بقيمة الحالية 0.04 و0.02 على التوالي وهي اقل من نسبة الدالة الاحصائية 0.05، وهذا يؤكد التأثير بين المتغيرين الرئيسين للدراسة.

الكلمات المفتاحية: التدفقات النقدية، العائد على الاستثمار، العائد على الأصول، الاستدامة المالية.

Introduction

With the business environment becoming more competitive and unstable, long-term firm sustainability is high on the agenda of stakeholders and managers alike. Of the financial factors that affect sustainability, much attention has focused on cash flow in particular. Whereas profitability is an accounting-based measure of profit, cash flow is the real movement of funds, and it has a direct impact on the ability of a firm to invest, pay debt, and stay alive. There is a healthy cash flow that supports operational persistence, builds crisis resistance, and fosters stakeholder confidence. Businesses with weak or sporadic cash flows perform poorly financially, whether they appear profitable on paper or not. As research into the liquidity and financial performance connection has been done, less attention has been given to the specific relationship between cash flow and firm viability. This study

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investigates the impact of cash flow on financial stability in jointly owned manufacturing companies listed on the Iraqi Securities Exchange with the aim of further illuminating the role played by effective management of cash flow on long-term business sustainability.

1. Research Methodology

1-1. Research Problem: The research problem lies in the unclear extent to which the application of operating cash flows impacts the financial sustainability of companies. Many companies face challenges in managing their operating cash resources in a way that ensures the continuity of their operations and the achievement of their long-term financial goals. Although operating cash flows play a crucial role in supporting liquidity and financing ongoing activities, weak management of these flows can lead to financial distress that threatens the company’s sustainability. Therefore, it is essential to study the relationship between the application of operating cash flows and financial sustainability indicators, in order to provide practical recommendations to enhance financial performance and ensure its sustainability and started with the following questions:

- How do the cash flow factors affect joint-stock company sustainability in the Iraqi Securities Exchange?

- How is cash flow management to be improved in order to achieve better sustainability?

1-2. Research Objectives

- ❖ To understand the relationship of cash flow with corporate sustainability.
- ❖ To provide recommendations for efficient management of cash flow to achieve greater sustainability for companies.

1-3. Research Hypotheses

- ❖ Hypothesis 1: there is impact of cash flows on financial sustainability through return on assets (ROA).
- ❖ Hypothesis 2: there is impact of cash flows on financial sustainability through return on investment (ROI)

1-4. Data Collection: For this study, the data of five industrial companies listed on the Iraq Stock Exchange for a sample period of 2019-2023 were utilized.

1-5. Data Analysis: This research examines the data that has been gathered from the financial reports of the variables through the E-Views 12 program

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in order to carry out initial analyses of the correlation and regression of the research variables.

1-6. Research Model

Independent variables: Cash Flows	→	Dependent variable: Financial Sustainability
- Cash flows from Investing activity (CFIA)		- Return on Investment (ROI) - Return on Assets (ROA)

2. Cash Flows

2-1. Cash flows concept: Cash flow serves as a fundamental indicator of a firm's operational health and financial stability. The ability to accurately forecast cash flows in both the short and long term is critical for effective financial planning and capital management (Onchangu et al., 2021:24). Strategic decisions related to debt levels, asset efficiency, and dividend policies play a decisive role in shaping the sustainability of cash flows. Firms that manage assets efficiently tend to sustain healthier cash flows, while excessive leverage and generous dividend distributions may weaken financial stability (Imhanzenobe & Adeyemi, 2020: 95). Evaluating financial sustainability through the lens of operational and financial cycles driven by cash flows offers a broader understanding of a firm's resilience (Yankovyi & Koshelek, 2019: 347).

Moreover, flexible cash flows enhance firms' ability to support operations and invest in growth, while CSR disclosures have shown to contribute positively to firm value and perceived sustainability (Jannati Tangngisalu, 2020:145). Managerial ownership has been associated with directing surplus cash toward social and environmental priorities, reinforcing sustainability accounting practices (Junias et al., 2021:73). Additionally, in mature markets, ESG initiatives—especially those improving employee conditions and communication—have been linked to increased free cash flow, benefiting both firms and their creditors (Gregory, 2022:52).

2-2. Types of Cash flows: Cash flow analysis is critical to a company's survival and prosperity, with three broad categories of cash flows: operating, investing, and financing (Stice et al., 2017: 125; Knežević et al., 2016: 35). The cash flow statement offers very crucial information regarding cash inflows and outflows to help stakeholders evaluate a company's financial position (Knežević et al., 2016: 37). Important cash flow metrics include free cash flow, which determines surplus operating cash flow following capital expenditure (Stice et al., 2017: 127), and cash flow to shareholders (Casielles, 2019: 114). Managers must monitor differences in timing of cash from customers and payment to suppliers to prevent cash flow difficulties (Stice et al., 2017: 129). Investment analysis uses various forms of cash flows, such as CFO, CFI, CF, FCFF, and FCFE (Gimranova, 2020: 46). It is essential to comprehend the varying types of cash flows and their relationships with each other for anticipating future financial performance and making savvy investment choices (Knežević et al., 2016: 38; Casielles, 2019:115).

2-2-1. Operating cash flows: Operating cash flows are among the most critical items that are taken into consideration in the analysis of a company's performance from a financial point of view. They are a great indicator of a company's ability to generate cash from its operations solely through its activities and not from financing or asset selling. This article will discuss the definition of operating cash flows, how they are derived, their significance, and some factors that may influence them (Telmoudi, 2010:79).

Definition of Operating Cash Flows: Operating cash flows are cash generated and used by a company's usual operations, such as collections from customers and payments on operating expenses (Kieso, Weygandt, & Warfield, 2020:187).

The Importance of Operating Cash Flows: Operating cash flows are a vital company financial analysis due to a number of reasons: (Gilchrist & Himmelberg, 1995: 541)

A. Cash flows from operations reflect the actual activity of the company, unlike profits which may be affected by accounting entries that do not represent the true movement of money.
B. They enable investors and creditors to assess the company's ability to meet its short-term obligations due to available liquidity.
C. They help in predicting potential financial crises and support timely expansion or investment decisions.

2-2-2. Investing Cash Flows and Their Strategic Significance: Investing cash flows are inflows and outflows generated by a firm's long-term investment activities, such as buying or selling fixed assets, financial assets or instruments, or embarking on development projects. These flows are also important signals of a firm's strategic orientation as well as growth prospects. While typically negative in businesses that are expanding their businesses, they become favorable when assets are disposed of or returns on previous investments are received. The knowledge and observation of these flows are essential to use as a foundation to compute future profitability and well-informed financial decisions (Ogundipe, Ewim, & Sam-Bulya, 2024:116).

The Importance of Investment Cash Flows: Investment cash flows are an essential factor in the evaluation of the financial performance of a firm. They are a significant metric of whether or not a company is doing a good job at using financial resources to maintain growth in the future. The key advantages of investment cash flows are: (Gómez Rodríguez et al., 2012:205)

a. Measurement of financial wellbeing through patterns of asset investment
b. Guiding investor choice using information on prospective returns
c. Guiding financial planning and investment timing
d. Measuring ROI in order to find and re-align investment strategies

Challenges and Risks Associated with Investment Cash Flows: Investment cash flows are usually exposed to different risks that may impact the financial performance of a company. Some of these are economic risk in the form of inflation and interest rate fluctuations that can interfere with forecasting, as well as market risks resulting from evolving technologies and demand (Preferred CFO, 2023:4). Operating delays and limited financing can also lead to cost overruns or delays.

2-2-3. Financing Cash Flows: Financing cash flows are one of the major pillars in analyzing the financial performance of companies. They are the cash flow associated with financing, such as money received from outside sources as loans or issuing stock and money paid in the form of dividends or debt repayment (Investopedia, 2023: 1).

The concept of financing cash flows: Financing cash flows are those activities that decide the firm's capital structure. Cash flows are divided into three general categories: cash flows from operating activities, cash flows from investing activities, and cash flows from financing activities. The third category is the funds which are raised for financing the firm, whether in the form of debt or equity (KPMG International, 2024: 12). Financing cash flows include**:** Loans and bonds, Issuing shares, Share repurchase., Dividend distribution., Repayment of loan (Corporate Finance Institute, 2024: 1).

The Importance of Financing Cash Flows: Financing cash flows are an important indicator of how a firm funds its operations and growth. Their significance is highlighted in the following respects: (Corporate Finance Institute, 2024:2)

A. Growth sustainability: External financing enables companies to fund long-term growth and strategic expansion.
B. Management of financial risk: Financing inflows help maintain debt obligations and reduce insolvency threats.
C. Increasing market value: Buybacks and dividends can boost share value and attractiveness to investors.
D. Paying out earnings to shareholders: Financing outflows are utilized to reward shareholders, reaffirming confidence and loyalty.

Challenges and risks associated with financing cash flows: Cash flows from financing are subject to a range of complex risks that are a function of business models and industry dynamics. Economic uncertainties such as inflation, changes in rates of interest, and exchange rate fluctuations can have a direct impact on terms of borrowing and erode the real value of financial inflows. Internally, poor liquidity management and inefficient credit policies can lead to shortages of funds. External pressures, like regulatory changes, political instability, and disruptions to operations, normally increase costs and complicate financial planning. Moreover, a high concentration of one source of funding or reputational loss can limit access to finance and blow away investor confidence (Korol, 2020:269).

Cash Flow Measurement Methods

A. Financial Analysis Technique: Assessing the financial condition of a firm increasingly involves looking at cash flows related to operating, investing, and financing operations. From this analysis, accrual-based net income is translated to more tangible and comparable terms. Through both the indirect and direct approaches, facilitated by financial ratios, stakeholders are in a position to evaluate the liquidity of a company, potential for internal funds, and promptness in responding to changes in the market. Additionally, it takes on a central role in business valuation because it captures a company's capacity to sustain operations and investments without referring to sources outside the business (Yordanova-Dinova, 2020:183).
B. Financial reporting approach: Cash flow reporting has become an integral aspect of financial transparency and performance measurement. While the direct method is more informative, it is not utilized as much in practice. Nonetheless, research has shown that it can be more informative in support

of investor choice. While useful, the cash flow statement is preponderantly dominated by profit-based performance measures, even for non-specialist users. Researchers have proposed enhancing reporting of cash flows by bringing in inflation impacts and exercising tighter control over reporting quality so that it is more meaningful (Izevbigie & Ikhu-Omoregbe, 2022:5).

C. Financial ratio analysis: Cash-based ratios are more effective at reflecting the financial health of a company than traditional accrual-based measurements. Indicators like cash interest coverage and cash dividend coverage help to determine if a company can cover its debt and maintain shareholder returns. These indicators fall into two primary categories: sufficiency ratios, which assess the adequacy of cash to support operations, and efficiency ratios, which compare cash flow performance across time and peers. As such, they serve as valuable tools for investors and analysts seeking a deeper understanding of financial stability (Sakarya & Akkus, 2015:110).

3. **Financial Sustainability:** Financial sustainability is a critical matter in the modern world since countries, companies, and individuals are encountering growing financial problems requiring effective strategies in handling financial resources towards long-term stability and growth. Financial sustainability refers to the capacity to handle financial resources to meet present and future needs without undermining financial stability. This capability involves maintaining a balance of expenditure and revenue, not being overly dependent on borrowing, and investing in sustainable development to advance economic and social development (Alshaib et al., 2023:4).

3-1. Definition of Firm Sustainability: Corporate sustainability involves incorporating economic, social, and environmental factors, beyond such conventional monetary measures (Salazar & Maldonado Gúzman, 2017:128). It involves maintaining the net assets level in equilibrium, considering both communal and individual expenditures (Reinhardt, 2000:128). The concept is closely related to the process of value creation, capture, and destruction in the markets that they are operating (Kashyap et al., 2017:240). Firms manage to extend the reach of their activities to include external inputs and impacts, thereby implementing sustainability on a triple bottom line (Salazar & Maldonado Gúzman, 2017:129). Companies that prioritize sustainability meet minimal capital requirements, are effective, maintain stable asset returns, minimal leverage, and possess a big asset base

(Männasoo, 2007: 15). Financial distress and default risk diminishes with the passing of time, and manufacturing companies are more resilient than trade and service companies (Männasoo, 2007:20). Consequently, sustainability indicators should include both financial statements and value creation, capture, and erosion measures (Kashyap et al., 2017:250).

3-2. Importance of Firm Sustainability: Today, corporate sustainability has become extremely significant because it provides several advantages to organizations. Some of the advantages are improved quality, image, and reputation (Jacobo-Hernández et al., 2021:1235), in addition to cost reduction, differentiation, and value creation possibilities (Čater & Fux, 2020:337). The use of sustainable approaches can assist companies in realizing their strategic objectives (Fauzi et al., 2021:1104) and meeting contemporary expectations (Bunga, 2023:568). While such benefits are present, problems such as massive investment costs and a lack of consideration for cultural factors still remain (Jacobo-Hernández et al., 2021:1240). In order to make the most out of such benefits, companies should seriously adopt sustainability in their core strategies (Čater & Fux, 2020:340). The Triple Bottom Line framework focusing on environmental, economic, and social aspects is essential for long-term success in being sustainable (Fauzi et al., 2021:1107; Bunga, 2023:570). By implementing corporate sustainability, businesses can equilibrate economic, social, and environmental development and solve complicated global problems (Jacobo-Hernández et al., 2021:1236; Bunga, 2023:570).

It can be said that businesses should incorporate sustainability into their strategy actively by embracing the Triple Bottom Line approach with an emphasis on environmental, economic, and social issues for long-term success. The approach helps them equilibrate expansion and solve global problems suitably.

3-3. The main elements of corporate sustainability: Environmental sustainability is arguably the single greatest source of business strategy, innovation, and competitiveness. In the most fragmented regulation countries—such as the U.S.—companies will most often develop industry-specific sustainability systems that are often initiated by leadership commitment, open disclosures, third-party audit, and certifications like ISO 14001. Moreover, environmental sustainability is also intimately connected with the broader ethical practices and social responsibility that rely heavily on organizational leaders' and employees' values and commitment (Charnovitz & Esty, 2013: 2).

Financial sustainability lies at the heart of corporate sustainability, with the background of ensuring long-term financial stability through optimal management of operations, strategic planning, and competitiveness (Копча, 2019:112). Although significant, it is not quite that simple to define and measure, an imbalanced stability between immediate performance and future needs (Elsawy & Youssef, 2023:987). Achievement of this goal involves the intersection of risk management and financial planning, as well as the overcoming of barriers like low awareness and short-termism. Its critical role in intergenerational fairness and the need for high-level frameworks to enable sustainable economic decisions are new study findings (Elsawy & Youssef, 2023: 990).

Corporate sustainability brings together economic, environmental, and more recently social factors, with focus more recently on issues such as governance, transparency, and crisis responses such as in the COVID-19 pandemic (Hogrefe & Bohnet-Joschko, 2023: 46). The social aspect is rooted in ethical foundations and corporate responsibility and very much depends on values and commitment of employees and managers to bring about change and responsibility. Despite growing interest, there is still a need for more theoretical foundation and empirical research to achieve full practical applicability (Hogrefe & Bohnet-Joschko, 2023: 49).

3-4. Corporate Sustainability Challenges and Benefits: Businesses in the quest for sustainability typically face an array of internal and external challenges. Fiscal problems, strategic resistance, and institutional limitations may significantly impede sustainability development (Hu & Zeng, 2024:28). High capital outlays and regulatory matters remain central challenges, with issues of non-standardization and lack of transparency in sustainability analysis complicating them. Furthermore, technological inefficiency and ineffective customer outreach continue to constrain broader adoption of sustainable practices. To balance these challenges, companies are encouraged to develop structured sustainability plans, enhance resource efficiency, optimize supply chain operations, and entrench social responsibility initiatives (Hu & Zeng, 2024: 30). Use of management frameworks and adherence to certification standards also promotes sustainable development initiatives. Despite these problems, corporate sustainability presents huge opportunities. Corporate sustainability can improve corporate reputation, the quality of operations, and the long-term risk reduction through good governance and environmentally friendly practices (Jacobo-Hernández et al., 2021:1241). Most corporations currently actively reduce their environmental footprint, save resources, and engage with stakeholders with greater accountability. Sustainability is also a catalyst for innovation, which allows companies to tap new sources of revenue and enhance efficiency in performance (Hynds, 2013:220). However, hindrances in the form of high costs of investments and cultural nuances still remain (Jacobo-Hernández et al., 2021:1242). Companies can harness the advantage of sustainability by embracing tools such as life cycle management and SWOT analysis. Integrated reporting—conjoining financial, social, and environmental information—becomes more popular as a comprehensive method that can cater to various sizes of businesses.

4. The effect of Cash flows on financial sustainability

4-1. Impact of Operating cash flows on financial sustainability: Operating cash flows are extremely important for the financial sustainability of companies. Some of the main points underscoring this contribution are as follows: (Hu & Zeng, 2024: 34)

A. Capacity to Meet Obligations: Sufficient and operative operating cash flows enable the company to meet financial obligations on a day-to-day basis, such as salary payments, rental payments, and loan repayments. This makes the company more sustainable in the long run.

B. Growth investment: Positive operating cash flows provide the company with financial resources to invest in new projects, product improvement, or expansion into new markets. Profitable investments can increase the company's revenues and enhance its sustainability.

C. Resilience: Companies that have robust operating cash flows are resilient in economic downturns or market fluctuations. They are able to survive recessions or a decelerating economy without relying heavily on borrowing or cost-cutting steps, which can hurt their operations.

D. Creditworthiness: Robust operating cash flows enhance the creditworthiness of the company, which is better placed to obtain additional financing on favorable terms. This can be useful for long-term operations and success.

E. Minimization of External Financing Dependence: Powerful operating cash flows reduce the reliance on external financing, i.e., issuing shares or borrowing. This reduction reduces costs and shields the firm from the dilution of equity.

4-2. Impact of Investment cash flows on financial sustainability: Investment cash flows have a substantial role in the financial sustainability of organizations. This is how they play their part: (Jacobo-Hernández et al., 2021: 1240)

A. Asset growth: Long-term investments in assets like real estate, equipment, or technology increase the financial capability of an organization to bring future returns. These sustainable returns help an organization achieve its long-term financial strength.
B. Financial Planning: Investment requires careful financial planning, which improves the management of cash flow. Through effective allocation of financial resources, an organization can avoid likely financial crises and achieve financial sustainability.
C. Diversification: Diversified financial investments with multiple sources of income help reduce financial risk. Since a company that has multiple sources of income is not directly vulnerable to fluctuation in one market, it enhances its financial sustainability.
D. Return on investment: When investments have positive returns higher than their expense, this is what increases financial sustainability. Huge returns allow an organization to invest surpluses in more projects or pay for debts, which positions it to be financially sound in the long run.
E. Remaining Agile: Investment cash flows enable businesses to remain agile and adapt to market or technological changes. Investment in new technology or new geographies assists a business in remaining competitive in the future.

4-3. Impact Financing cash flows on financial sustainability: Financing cash flows significantly impact a company’s financial sustainability. These flows are part of a company’s core activities and include loans, stock issuance, and dividend distribution. Here are some ways they impact financial sustainability: (James, 2013:18)

a. Loans and Debt:

❖ Pros: Borrowing can give the company liquidity to make new investments or cover day-to-day business.
❖ Cons: Accumulation of debt can lead to increasing financial burdens and interest, which can endanger financial viability in the case of inefficient debt management.

Doi: www.doi.org/10.25130/tjaes.21.71.1.22

b. Issuing Shares:

❖ Pros: Issuing shares is a method of raising capital without seeking more debt, which can ease financial pressure on a company.

❖ Cons: Issuing shares dilutes ownership and decreases earnings per share, which can negatively impact a company's market value.

c. Dividend Distribution:

❖ Pros: Dividend payments boost investors' confidence and help stabilize the price of the stock.

❖ Cons: Paying high dividends may reduce the level of funds available for company investment and reinvestment, thereby limiting a company's long-term growth.

d. Management of Cash Flows: The company should exercise caution while managing its cash flows from financing to balance financing activities, meeting growth needs, and upholding healthy financial sustainability.

5. Research Methodology

5-1. research approach: This research follows a descriptive-analytical approach that combines theoretical and applied analysis to study the impact of cash flows on financial sustainability. The descriptive approach presents a theoretical framework for basic concepts such as cash flows of various types and financial sustainability, along with a review of previous relevant studies. The analytical approach relies on analyzing the financial data of a sample of companies using statistical tools to measure the relationship between cash flows and sustainability indicators. This approach aims to understand the nature of the impact, whether positive or negative, to support the development of accurate results and recommendations applicable to financial reality.

5-2. data collection and analysis: This research is based on data from the financial statements of five joint stock companies listed on the Iraq Stock Exchange for the period from 2019 to 2023, to measure indicators related to both the independent variable, which is cash flows (index of cash flows for investment activities), and the dependent variable, which is financial sustainability (index of return on assets and return on investment), and to measure the relationship and impact between the two variables using the statistical program EViews 13.

The following table shows information about the study sample companies:

Table (1): Manufacturing companies in Iraqi securities exchange

Companies	Joint date	Capital (IQD)
Baghdad Company for packing materials industry	25/5/1962	1,080,000,000
Baghdad soft Drinks	18/7/1989	204,333,333,333
Al-Hilal Industries	18/3/1962	12,375,000,000
Al- Iraqia for Tufted Carpets	10/5/1989	500,000,000
Modern Sewing Company	14/2/1989	2,000,000,000

The table above is about industrial companies listed on the Iraq Stock Exchange, indicating their date of establishment and capital in Iraqi dinars. The oldest of these companies is Al Hilal Industries Company, established in March 1962, and the newest is Al Iraqia Carpet Company, established in May 1989. The capitalizations of these companies vary greatly, with Baghdad Soft Drinks Company having the highest capitalization at over 204 billion dinars, while Al Iraqia Carpet Company has the lowest capitalization at 500 million dinars. The table reflects the diversity in the size of companies and their periods of establishment within the Iraqi industrial sector.

A. **Independent variable: cash flows:** The cash flow from investing activities ratio is used to measure a company's investment in long-term assets compared to its total cash inflows. This ratio reflects a company's tendency to expand or reduce its investments and helps evaluate investment policies and the sustainability of growth. This ratio is calculated by comparing net cash flows from investing activities with net operating cash flows or total cash flows, depending on the purpose of the analysis. It is calculated by the following formula:

Investing Cash Flow Ratio = (Net Cash Flow from Investing Activities/Net Operating Cash Flow) ×100

The result as follow:

Table (2): Cash Flow from Investing Activity (CFiA)

Companies	2019	2020	2021	2022	2023
Baghdad Company for packing materials industry	0.18	0.12	0.11	0.18	0.18
Baghdad soft Drinks	0.29	0.17	0.25	0.11	0.17
Al-Hilal Industries	0.04	0.01	0.05	0.33	0.54
Al- Iraqia for Tufted Carpets	0.75	0.13	0.82	0.13	0.15
Modern Sewing Company	0.18	0.20	0.36	0.16	0.15

The table displays cash flow from investing activities (CFIA) for several companies over a five-year period (2019-2023). It appears that Modern Sewing Company and Baghdad Soft Drinks Company have experienced fluctuations in their cash flows over the years, declining in some years and then rising again. Meanwhile, Al-Hilal Industries Company has shown a gradual improvement in its cash flows, recording its highest value in 2023. Al-Iraqiya Woven Carpets Company experienced a sharp decline in its cash flows in 2022 compared to 2021, but they improved again in 2023. Overall, the figures reflect differences in the stability or growth of investing activities among the aforementioned companies.

B. **Dependent variable: Financial Sustainability**: Financial sustainability is one of the primary goals of any organization or company seeking long-term growth and prosperity. Key indicators that can be used to measure financial sustainability include return on assets (ROA) and return on investment (ROI). ROA is an effective measure of how efficiently an organization uses its assets to generate profits. It is calculated by dividing net profit by total assets. ROI, on the other hand, measures the efficiency of using invested funds to generate returns. It is calculated by dividing the net return by the cost of investment. High values for these indicators indicate that the organization enjoys a sustainable financial position, enhancing its ability to continue and grow in a competitive economic environment.

Return on Assets (ROA) is an important financial metric used to evaluate a company's efficiency in using its assets to generate profits. ROA is calculated using a simple equation that measures the relationship between net profit and the total assets owned by the company. The equation is:

Return on Assets (ROA) = (Total Assets/Net Profit) x 100

The result as follow:

Table (3): Return on assets (ROA)

Companies	2019	2020	2021	2022	2023
Baghdad Company for packing materials industry	1.763	0.648	0.767	0.875	0.048
Baghdad soft Drinks	12.584	12.765	9.548	9.685	15.943
Al-Hilal Industries	9.814	3.203	2.159	1.994	22.017
Al- Iraqia for Tufted Carpets	20.320	15.213	19.732	23.762	15.332
Modern Sewing Company	14.308	12.393	6.238	24.593	22.318

The table displays the return on assets (ROA) for several companies over a five-year period from 2019 to 2023. For Baghdad Packing Materials Manufacturing Company, the ROA has decreased over the years, from 1.763 in 2019 to 0.048 in 2023. Baghdad Soft Drinks Company showed relative stability with slight increases in return until 2022, then a significant jump to 15.943 in 2023. Al Hilal Industries Company saw a significant decline in 2020 to 3.203, but improved significantly to 22.017 in 2023. Iraq Carpets and Rugs Company, despite a decline in 2020, saw a significant jump in 2022 before declining to 15.332 in 2023. As for Modern Sewing Company, ROA figures declined significantly in 2021, but rebounded and increased significantly in 2022, then stabilized in 2023 at 22,318.

Return on Investment (ROI) is a financial metric used to evaluate the efficiency of a specific investment or compare the efficiency of multiple investments. This indicator expresses the ratio of the achieved return to the cost of the investment, helping to determine the profitability of a project or investment activity. The higher the ROI, the higher the profit compared to the cost of the investment. This indicator is widely used in financial management, project evaluation, and investment decision-making.

ROI=(Net Profit/Cost of Investment) ×100

The result as follow:

Table (4): Return on Investment (ROI)

Companies	2019	2020	2021	2022	2023
Baghdad Company for packing materials industry	0.01	0.04	0.05	0.05	0.02
Baghdad soft Drinks	0.01	0.01	0.18	0.24	0.12
Al-Hilal Industries	0.15	0.49	0.24	0.20	0.39
Al- Iraqia for Tufted Carpets	0.30	0.25	0.31	0.03	0.18
Modern Sewing Company	0.18	0.20	0.38	0.06	0.06

The table shows the performance of five different industrial companies in Iraq. We note that Al-Hilal Industries recorded the highest return ratio in 2020 (0.49), indicating strong financial performance that year. It was followed by Al-Iraqia for Tufted Carpets, which achieved high returns at the beginning of the period but experienced a sharp decline in 2022 (0.03) and then a slight improvement in 2023. Baghdad Soft Drinks showed a gradual improvement since 2020, reaching its highest return in 2022 (0.24) before declining slightly in 2023. Modern Sewing Company achieved its best performance in 2021 (0.38) before experiencing a significant decline. Baghdad Company for Packing Materials Industry was the lowest performer throughout the period, remaining relatively stable at low levels. In general, the table shows fluctuations in companies' performance, reflecting their exposure to potential economic factors and market variables.

Calculating correlation between research variables: Cash flows are vital indicators in assessing an organization's financial sustainability, as they represent an organization's true ability to generate cash from its operating, investing, and financing activities. When the cash flow indicator is linked to the return on assets (ROA) and return on investment (ROI), a fundamental relationship emerges. Higher operating cash flows reflect operational efficiency, which in turn leads to improved return on assets through the optimal use of assets to generate profits. Positive cash flows also enhance an organization's ability to finance investment projects without the need for costly external financing, which increases the return on investment and enhances long-term financial sustainability. Thus, the relationship between these indicators reflects the integration of financial performance with the ability to continue and grow within the business environment, and the result as follow:

Table (5): Correlation between research variables

	Cash flows	**ROA**	**ROI**
Cash flows	1		
ROA	0.98	1	
ROI	0.97	0.99	1

Table (5) indicates the existence of very strong correlations between the three research variables: cash flows, return on assets (ROA), and return on investment (ROI). The results show that the correlation coefficient between cash flows and ROA is 0.98, and between cash flows and ROI is 0.97, indicating a strong direct relationship between cash flows and both variables. A near-perfect correlation between ROA and ROI, with a value of 0.99, is also evident, indicating that these two indicators reflect very similar financial performance in the studied sample. These results reflect a close relationship between resource utilization efficiency (ROA and ROI) and cash liquidity, which may indicate that companies with strong financial performance achieve stable cash flows.

Linear regression is used to analyze the relationship between cash flow as an independent variable and return on assets (ROA) and return on investment (ROI) as dependent variables. The goal is to measure the impact of available cash on an institution's financial and investment performance. Regression results typically show a positive relationship between cash flow and both ROA and ROI. Liquidity allows an institution to efficiently exploit investment opportunities and optimize asset utilization, resulting in higher returns. However, the strength of the relationship may vary depending on the nature of the sector, the capital structure, and the financial policies followed within the institution, and the result as follow:

Table (6): Liner regression between CFIA and, ROA and ROI

	R-squared	**P-value**
ROA	0.955	0.004
ROI	0.976	0.002

The results of Table (6) indicate a strong and significant relationship between cash flows from operating activities (CFIA) and both return on assets (ROA) and return on investment (ROI), with the coefficient of determination (R-squared) reaching 0.955 and 0.976, respectively, indicating that cash flows explain a significant proportion of the variation in ROA and ROI. The probability values (P-values) for both ROA (0.004) and ROI (0.002) are less than 0.05, which means that the results are statistically significant. Based on these results, the validity of the two hypotheses can be confirmed, stating that there is a statistically significant impact of cash flows on financial sustainability through both return on assets and return on investment.

6. Conclusion: The study found a statistically significant relationship between cash flows and financial sustainability. Regular and effective cash flows are a vital factor in enhancing an organization's ability to continue and achieve sustainable financial performance. Return on assets (ROA) and return on investment (ROI) were also found to be among the most prominent indicators reflecting the efficient use of financial resources. It was found that organizations that effectively manage their cash flows achieve higher levels of profitability and operational efficiency, which positively impacts their long-term financial sustainability.

The study recommends strengthening cash flow management systems within organizations, with a focus on improving the ability to predict inflows and outflows and make informed financing decisions. It is also recommended to use ROA and ROI indicators as ongoing measures to evaluate financial performance and directly link them to financial sustainability plans. Furthermore, financial departments should adopt flexible liquidity management strategies to address sudden market changes and ensure a balance between profitability and sustainable growth.

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