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Investigating the Effect of Cash Flow Management on Firm Performance: The Mediating Role of the Business Cycle in Companies Listed in the Tehran Stock Exchange

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Abstract

The current aims to investigate the effect of cash flow management on firm performance and the mediating role of the business cycle in companies listed on the Tehran Stock Exchange. The current research is descriptive and applied. According to the spatial and temporal scope, the study's statistical population includes the companies listed on the Tehran Stock Exchange from 2017 to 2022. Thus, the statistical sample based on the screening method in this research is 104 companies. To study the relationship between the variables of this research, cash flow management was considered an independent variable, company performance was considered a dependent variable, and the business cycle was considered a mediating variable. The relationship between each of these indicators was studied. In this way, two hypotheses were developed, and related data were collected. Eviews software was used to analyze data and test hypotheses in this research. The analyses performed on the variables and their indicators showed that the change in the duration of receivables has a negative and significant effect on the company's performance. The change in Inventory Turnover Days (ITD) does not affect the company's performance. Changing the days payable outstanding does not affect the company's performance. A change in the Cash Conversion Cycle (CCC) causes a change in the company's performance. Cash flow management negatively and significantly affects firm performance due to the mediating role of the business cycle (recession period). Cash flow management positively and significantly affects firm performance due to the mediating role of the business cycle (boom period).

Keywords: Cash flow management, Company performance, Business cycle.

1 | Introduction

Firms effectively manage cash flows through working capital by balancing liquidity and profitability [1–3]. Working capital management, the main source of cash flow for firms, is of considerable importance in a country where firms have limited access to foreign capital markets. Firms rely heavily on domestic financing,

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short-term bank loans, and trade credit to meet their cash flow needs to finance their obligations [1]. The working capital of such companies plays the role of an additional source of financing. Effective working capital management has played an important role in reducing the impact of the recent financial crisis.

Moreover, China's impressive recent growth is based on the effective management of companies' working capital in general and their receivables in particular [4]. Since firms' cash flow management policies balance working capital with accounts receivable, inventories, and accounts payable, existing theories of working capital management support the view that by manipulating cash flow, firms can increase liquidity and competitive position [2]. Therefore, companies manipulate cash flows by collecting receivables quickly, reducing inventories, and delaying payables. From an accounting perspective, liquidity management assesses the company's ability to meet its obligations with cash flows, as cash flow uncertainty increases the risk of default in most regions, industries, and subsamples. There are two spectrums, static and dynamic, through which a company's liquidity can be examined. Balance sheet data at a given time is the basis for observing stationarity. This includes traditional current and quick ratios to assess the company's ability to meet its obligations by liquidating assets.

A static approach is commonly used to measure firms' liquidity, but the authors argue that the fixed nature of financial ratios needs to be revised to measure liquidity effectively. The dynamic view should be used to capture the continuous liquidity of firms from the firm's operations [5]. Therefore, the Cash Conversion Cycle (CCC) is used as a dynamic measure of liquidity in empirical studies of firm performance. The meaning of firm performance is how operations are carried out in a business unit. The efficiency of an organization is one of the things that show the performance of a business unit. Company performance is a central point and criterion for the attention of all groups (investors, shareholders, banks, creditors, etc.) [6–8] found that reducing CCC increases the stock price, profit, and free cash flow to equity without affecting sales and operating margin. Traditionally, strategy researchers have ignored cash as a strategic asset, while finance researchers have viewed cash as a signal that the firm lacks profitable investment opportunities or has management problems. Recent studies have challenged these views by documenting that cash can be positively related to performance and that contextual factors such as the state of the business cycle and competitive dynamics are important moderators of the strength of the cash-performance relationship.

The business cycle is defined as the periodic fluctuation of the entire economic activity, i.e., the production fluctuations over time around a certain trend. Since many economic activities, such as production and sales, are affected during different periods of the business cycle, the mentioned trend can be considered a fundamental and effective variable, and each business period includes economic boom and recession phases [9]. According to the above explanation, in this research, we investigate whether cash flow management significantly affects the company's performance in view of the mediating role of the business cycle in the companies listed on the Tehran Stock Exchange.

2 | Theoretical Literature

2.1 | Management of the Cash Flow

The cash flow statement shows the company's ability to generate cash flows, pay obligations, and finance needs. On the other hand, most Iranian companies prefer to convert their cash into other assets due to the existing inflation situation. Although such a common phenomenon is considered a shield against inflation, its secondary effect is that companies are helpless when their debts come due and their credit is damaged. Experience has shown that most companies that face financial helplessness or bankruptcy have always suffered from mismanagement of working capital and weakness in cash control. However, cash on hand at the balance sheet date is an important asset for the company. However, holding too much of this asset can be a sign of inefficiency in resource allocation and impose a lot of costs on the company.

Considering the importance of having sufficient liquidity in different economic conditions, it is necessary for managers to identify their areas of authority and responsibility in cash control and to examine the factors that

affect cash maintenance in different situations. For example, during the company's economic growth, as cash reserves increase, managers decide whether to distribute cash to shareholders or spend it on internal expenses.

Companies determine their cash management strategies based on two objectives:

I. Prepare and provide cash to make company payments.

II. Minimize the amount of cash tied up in the company.

2.2 | Company Performance

The meaning of enterprise performance is how operations are carried out in a business unit. The efficiency of an organization is one of the things that show the performance of a business unit. The company's performance is a central point and criterion for the attention of all groups (investors, shareholders, banks, creditors, etc.). However, the fundamental question is how to measure the performance of companies. The financial index of a company is considered the best way to measure the performance of companies, and the research conducted in this field showed that the financial index can measure the performance of companies. However, this index can be manipulated by the managers of the business units.

In this case, the company's performance is distorted, and the information obtained loses its reliability and credibility when measuring the company's performance [6]. The operational, financial, and economic criteria are necessary to evaluate companies' performance. One of the most important goals of a company is to generate profit in the short term and increase the economic wealth of its owners in the long term. This is possible by making a rational decision in the investment process. Making a rational decision directly relates to evaluating an economic entity's performance, and assessing economic entities' performance also requires knowledge of criteria and indicators.

Evaluating the performance of companies in terms of different organizational goals, diversity of activities, and their different and impossible nature has certain complexities. This evaluation of the financial, operational, and economic activities of a company is extremely important, and the comprehensiveness of this work should be such that it can meet the expectations of the trustees and officials of the company, its stakeholders and shareholders, designers and compilers of work processes, and even the legislator. Be responsive to different principles and criteria regarding organizational and comparative performance status.

2.3 | Business Cycle

Business cycles are not specific fluctuations of a sector or part of the economy but rather the set of economic movements or the movement of gross domestic product. There are two different ways of describing business cycles. The first is the classical cycle, defined as a successive pattern of booms and busts in overall economic activity, which has naturally become popular. The second is the growth cycle, which, according to the descriptions, can be expressed as deviations of the actual total product from its trend.

The analysis of this type of business cycle requires that the (stable) trend component be removed from the data so that it is possible to analyze the component of payment cycles, which is the growth cycle. Thus, the main focus of the classical business cycle method is to identify a series of turning points that separate periods of prosperity from periods of recession. Between a peak and a trough, the economy is in a period of contraction (recession), while between a trough and a peak, the economy is in a period of expansion (prosperity).

Business cycles can be divided into four stages: the recovery period, when the economy is approaching full employment, and this movement continues until the second stage, which is the prosperity stage and the ideal stage. The third stage began with the GDP decline, and the process continued until the crisis stage, which is the nadir of the GDP. Despite the correlation between the business cycles of the states and the country, the peaks and troughs of the states' business cycles are very different.

2.4 | Research Hypotheses

H1: the change in the duration of the accounts receivable has an impact on the company's performance.

H2: the change in Inventory Turnover Days (ITD) affects the company's performance.

H3: changes in the duration of accounts payable in conversion days impact the company's performance.

H4: a change in the CCC results in a change in the company's performance.

H5: a change in the Operating Cash Cycle (OCC) changes the company's performance.

H6: due to the mediating role of the economic cycle (recession period), cash flow management impacts the company's performance.

H7: cash flow management impacts the company's performance through the mediating role of the business cycle (boom period).

3 | Research Method

3.1 | Statistical Population and Sample Size

The statistical population of this research is the companies accepted in the Tehran Stock Exchange from 2017 to 2022; the selection of this statistical population was for the following reasons:

I. All kinds of companies operating in different industries are members of this society.

II. These companies have better order than others in managing their affairs and preparing financial reports.

III. Better access to these companies' audited financial information could allow for the analysis and testing of hypotheses.

IV. The classification of companies according to their type of activity provides the possibility of obtaining a better result.

Due to the large size of the statistical community and the existence of some inconsistencies among the members of the community, the systematic elimination method is used to select the sample, and the criteria applied to obtain the sample are as follows:

I. The company's fiscal year should end at the end of March each year (for better comparability).

II. The company should be listed on the Tehran Stock Exchange before 2017.

III. Does not belong to banks and financial institutions (investment companies, financial intermediaries, leasing companies).

IV. The required financial information, especially the notes to the financial statements, should be available to extract the required data.

Table 1. Sample selection procedure.

Total number of listed companies at year-end 2022	455
Criteria	
The number of companies with fiscal years that do not end in March.	(106)
The number of companies listed on the stock exchange after 2017.	(58)
The number of companies that are not holding companies, investment companies, financial intermediaries, banks, or leasing companies.	(69)
The number of companies whose information is not available in the research period.	(118)
Number of sample companies	104

3.2 | Research Variables

Dependent variable: company performance.

The dependent variable is the firm's financial performance, measured by Q Tobin's.

QTobin is the ratio of the company's market value to the replacement value of its assets, and it is widely used to measure the company's performance [10].

Independent variable: cash flow management.

This study has used three cash flow criteria and two combined criteria as independent variables. Each of them is discussed below [10].

Accounts Receivable Turnover Days (ARTD): ARTD is the average number of days companies take to receive customer payment after a sale. ARTD are measured as follows:

$$\text{ARTD} = ((\text{Accounts Receivable/Sales}) * 365).$$

An increase in outstanding days sales indicates that the company needs to manage its working capital efficiently. It is taking longer to receive its payments, which means that the company may have to finance short-term obligations. Due to the long period, it needs more liquidity.

Inventory Turnover Days (ITD): ITD shows how often a company can turn its inventory into sales in a year. The measure of ITD is as follows:

$$\text{ITD} = (\text{inventory/cost of goods sold}) * 365).$$

A high inventory turnover rate is a good sign for a company because it shows that it does not have many products sitting idle on the shelves.

Accounts Payable Turnover Days (APTD): APTD is the average number of days a company takes to pay its creditors. APTD is measured as follows:

$$\text{APTD} = \text{Accounts Payable / Purchases}) * 365).$$

A company with a higher days payable ratio indicates that it takes longer to pay suppliers, which indicates poor working capital efficiency; however, a long DPO period also shows that the company has good terms with suppliers, which is also beneficial.

Cash Conversion Cycle (CCC): the CCC is a dynamic measure of current cash management that combines balance sheet and income statement data. CCC is a measure of the cash cost of resources and the cash received from the sale of a product. CCC is measured as follows:

$$\text{CCC} = (\text{accounts receivable turnover} + \text{inventory turnover} - \text{accounts payable turnover}).$$

By reducing the CCC cycle, the company's efficiency improves and can meet its working capital requirements. In addition, a longer CCC period indicates a longer time between cash outlay and recovery.

Operating Cash Cycle: OCC is a subset of the CCC metric. OCC is measured as follows:

$$\text{OCC} = (\text{Accounts receivable turnover} + \text{inventory turnover}.$$

The OCC does not consider accounts payable and includes days when cash is held as a balance of prior receipts from customer payments. In addition, a company with a shorter OCC generally has better liquidity and performance.

Moderator variable: business cycle. The business cycle includes periods of economic boom and recession. In this research, a positive change in GDP is a measure of growth, and a negative change is a measure of stagnation. To reflect economic stagnation and prosperity, a virtual variable has been used that represents the number one for the boom period (Cycle GDP) and zero for the recession period (UNCYCLE GDP).

$$\Delta \text{GDP} = \frac{\text{GDP}_t - \text{GDP}_{t-1}}{\text{GDP}_{t-1}}.$$

Control variables

Firm Size (SIZE): it is obtained from the natural logarithm of the firm's sales [10].

Return on Assets (ROA): it is obtained from the ratio of Earnings Before Interest And Taxes (EBIT) to total assets [10].

3.3 | Regression Model of Research

The current research model is a regression model based on *Model (1)* for the first to fifth hypotheses, *Model (2)* for the sixth hypothesis, and *Model (3)* for the seventh hypothesis and derived from the research of Laqari et al. [10] and presented as follows will be:

$$\text{Q Tobin}'\text{s}_{i,t} = \beta_0 + \beta_1 \text{ARTD}_{i,t} + \beta_2 \text{ITD}_{i,t} + \beta_3 \text{APTD}_{i,t} + \beta_4 \text{CCC}_{i,t} + \beta_5 \text{OCC}_{i,t} + \beta_6 \text{Size}_{i,t} + \beta_7 \text{ROA}_{i,t} + \varepsilon_{i,t}. \quad (1)$$

$$\text{Q Tobin}'\text{s}_{i,t} = \beta_0 + \beta_1 \text{ARTD}_{i,t} + \beta_2 \text{ITD}_{i,t} + \beta_3 \text{APTD}_{i,t} + \beta_4 \text{CCC}_{i,t} + \beta_5 \text{OCC}_{i,t} + \beta_6 \text{GDP UNCycle}_{i,t} + \beta_7 (\text{ARTD}_{i,t} + \text{ITD}_{i,t} + \text{APTD}_{i,t} + \text{CCC}_{i,t} + \text{OCC}_{i,t} * \text{GDP UNCycle}_{i,t}) + \beta_8 \text{Size}_{i,t} + \beta_9 \text{ROA}_{i,t} + \varepsilon_{i,t}. \quad (2)$$

$$\text{Q Tobin}'\text{s}_{i,t} = \beta_0 + \beta_1 \text{ARTD}_{i,t} + \beta_2 \text{ITD}_{i,t} + \beta_3 \text{APTD}_{i,t} + \beta_4 \text{CCC}_{i,t} + \beta_5 \text{OCC}_{i,t} + \beta_6 \text{Cycle GDP}_{i,t} + \beta_7 (\text{ARTD}_{i,t} + \text{ITD}_{i,t} + \text{APTD}_{i,t} + \text{CCC}_{i,t} + \text{OCC}_{i,t} * \text{Cycle GDP}_{i,t}) + \beta_8 \text{Size}_{i,t} + \beta_9 \text{ROA}_{i,t} + \varepsilon_{i,t}. \quad (3)$$

4 | Research Results

4.1 | Descriptive Statistics of the Data

Descriptive statistics refers to collecting, summarizing, classifying, and describing numerical facts. Descriptive statistics describes research data and information and provides a general plan or pattern of data for quick and better use. In descriptive statistics, after collecting data, the goal is to observe the results of the collected data in less time and more accurately.

Table 2. Descriptive statistics of the research variables.

Variable	Symbol	Mean	Median	Max	Min	SD.	Skewness	Kurtosis
Company performance	QTOBIN	0.017082	0.053111	2.362073	-3.441435	0.979456	-0.145849	2.898525
Conversion days of accounts receivable	ARTD	123.9917	126.3634	214.0682	43.16902	40.77319	0.008192	2.179443
Days of inventory conversion	ITD	3361.446	3222.700	8138.681	1214.938	1342.610	0.194720	2.272060
Conversion days for accounts payable	APTD	19092.28	15983.00	50527.85	3593.000	12094.43	0.769237	2.631748
Cycle of cash conversion	CCC	15854.82	13186.23	48830.95	-3679.369	12173.38	0.751789	2.678631
Operating cash cycle	OCC	3485.438	3372.629	8286.819	1354.379	1346.605	0.199179	2.281879
The business cycle of the period of the recession	UNCYCLE_GDP	0.5	0.5	1	0	0.500344	0	1

Table 2. Continue.

Variable	Symbol	Mean	Median	Max	Min	SD.	Skewness	Kurtosis
The business cycle of the recession period in the sum of the above variables	UNCYCLEGDP*A	21017.87	4783.977	103870.2	0.000000	27189.63	1.194902	3.433466
The boom period business cycle	CYCLE_GDP	0.500000	0.500000	1.000000	0.000000	0.500344	0.000000	1.000000
The business cycle of the boom period in the sum of the above variables	CYCLEGDP*A	20900.10	5008.903	103421.0	0.000000	26959.57	1.212394	3.542976
Company size	SIZE	13.75194	13.87848	16.26854	10.88916	0.910220	-0.256121	3.205690
Return on assets	ROA	0.388171	0.411794	0.692965	0.003189	0.172501	-0.441331	2.287934

4.2|Results

The results of the estimation of the first research model are described in the table below:

H1: the change in the duration of the accounts receivable has an impact on the company's performance.

H2: the change in ITD affects the company's performance.

H3: changes in the duration of accounts payable in conversion days impact the company's performance.

H4: a change in the CCC results in a change in the company's performance.

H5: a change in the OCC changes the company's performance.

Table 3. The statistical results of testing the first research model, the dependent variable of the company's performance.

Variable Name	Coeff.	SD.	t Stat.	Sig.
ARTD	-0.271031	0.029232	-9.271690	0.0000
ITD	-0.608955	0.335064	-1.817428	0.0698
APTD	0.031047	0.152244	0.203927	0.8385
CCC	1.463711	0.204885	7.144049	0.0000
OCC	0.095278	0.100882	0.944447	0.3454
SIZE	0.056440	0.060917	0.926514	0.3546
ROA	2.624987	1.236384	2.123117	0.0321
C	3.877218	0.434895	8.915302	0.0000
R^2	0.490901	F statistic		15.27358
R^2-Adj.	0.471855	P-value		0.000000
		Durbin-Watson stat.		1.932672

According to *Table 3*, the level of significance between the variables is 0.0000, 0.0698, 0.8385, 0.0000 and 0.3454, respectively, and also the absolute statistical value of the variables is 271690-9 and - 1/817428 and 0/203927 and 7/144049 and 0/944447; therefore, according to the level of significance and the type of relationship, the first and fourth hypotheses have been confirmed and have a negative and significant relationship and a positive and significant relationship, respectively.

The results of the estimate of the second research model are described in the following table:

H6: due to the mediating role of the economic cycle (recession period), cash flow management impacts the company's performance.

Table 4. The statistical results of the second research model test, the dependent variable of the company's performance.

Variable Name	Coeff.	SD.	t Stat.	Sig.
ARTD	-0.024967	0.010502	-2.377412	0.0381
ITD	-0.045963	0.026908	-1.708170	0.0938
APTD	0.104239	0.064890	1.606380	0.1169
CCC	0.586046	0.176552	3.319405	0.0021
OCC	0.177835	0.121189	1.467423	0.1509
UNCYCLE_GDP	-0.036288	0.015977	-2.271281	0.0377
UNCYCLEGDP*A	-0.014605	0.004357	-3.352326	0.0019
SIZE	0.389679	0.402240	0.968773	0.3331
ROA	4.930062	1.987425	2.480628	0.0179
C	1.386380	0.351426	3.945018	0.0004
R^2	0.539921	F statistic		7.087654
R^2-Adj.	0.519882	P-value		0.000000
		Durbin-Watson stat.		2.370770

According to *Table 4*, the level of significance between the related variables is lower than the level of significance considered in the current research (5%) also the absolute statistical value of the relevant variable is greater than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that cash flow management does not have a significant effect on the company's performance due to the mediating role of the business cycle (recession period) is not confirmed, and the main hypothesis is confirmed and indicates the existence of a significant negative relationship.

The results of the estimation of the third research model are described in the following table:

H7: cash flow management impacts the company's performance through the mediating role of the business cycle (boom period).

According to *Table 5*, the level of significance between the related variables is lower than the level of significance considered in the present study (5%). Also, the absolute statistical value of the relevant variable is greater than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that cash flow management does not have a significant effect on the company's performance due to the mediating role of the business cycle (boom period) is not confirmed. The main hypothesis is confirmed and indicates a positive and significant relationship.

Table 5. the statistical results of the third research model test, the dependent variable of the company's performance.

Variable Name	Coeff.	SD.	t Stat.	Sig.
ARTD	-0.209618	0.076753	-2.731072	0.0250
ITD	-0.206301	0.200986	-1.026450	0.1432
APTD	0.125594	0.227676	0.551635	0.5814
CCC	0.129024	0.057072	2.260722	0.0242
OCC	0.295417	0.217330	1.359304	0.1746
CYCLE _GDP	0.254055	0.031330	8.109009	0.0000
CYCLE GDP*A	0.894374	2.686487	2.686487	0.0227
SIZE	0.161698	0.634323	0.634323	0.5261
ROA	0.512747	2.359304	2.359304	0.0346
C	4.368929	3.700717	3.700717	0.0002
0.894374	0.539921	F statistic		7.087654
0.161698	0.519882	P-value		0.000000
		Durbin-Watson stat.		2.370770

5|Conclusion

Cash is an indirect source of performance differences that enables firms to invest and adopt strategies that, in turn, generate performance heterogeneity. The results of this research add to an important stream of research at the intersection of strategy and finance. Mainstream theories, especially in strategy, dismiss cash and other financial assets as less important drivers of heterogeneity and performance differences. Our findings and the results of studies based on them challenge these assumptions.

A shorter CCC leads to a higher present value of the net cash flows generated by the asset, contributing to higher firm value. Kroes and Manikas [11] use the OCC to measure cash flow, which combines accounts receivable and the company's inventory. Anything else consistently shortens the OCC faster; the company can reallocate its cash, grow from its internal resources, and express the company's performance, that is, how well the operations of a business unit are doing. The efficiency of an organization is one of the things that shows the performance of a business unit. The efficiency of an organization is one of the things that show the performance of a business unit. The company's performance is a central point and criterion for the attention of all groups (investors, shareholders, banks, creditors, etc.).

According to the above explanations, the results of research statistics show that:

H1: the change in the duration of the accounts receivable has an impact on the company's performance.

Related literature shows an aggressive working capital management policy can improve firm performance. If the accounts receivable collection period is too long, the company may face liquidity risk and improve payment. Paying down accounts payable can reduce payment stress. In addition, maintaining high levels of working capital increases the opportunity cost of preceding more profitable investments. As a result, several studies have shown that a period of reduced cash conversion CCC can reduce operational performance.

H2: the change in ITD affects the company's performance.

The results show that the effects of marking changes in receivables can lead to a better forecast of next year's earnings. Suppose analysts also consider the magnitude of these changes in the current profitability analysis. In that case, the results can be useful to financial analysts and other users of financial information to predict earnings and financial performance better.

H3: changes in the duration of accounts payable in conversion days impact the company's performance.

A common measure of working capital management is the CCC. The longer the cycle, the more working capital is invested. A longer cash cycle can increase profitability because it leads to increased sales. However, the cost of investing more in working capital exceeds the resources available from holding more inventory or extending more trade credit to customers. In that case, the business unit's profitability may decrease as the cash cycle lengthens.

H4: a change in the CCC results in a change in the company's performance.

In the CCC criterion, only the length of the receivables collection period and the payment period are considered, not their amount. Let's consider two companies whose cash conversion period is two months. The accounts payable of the first company are equal to the receivables and inventories; this ratio is 50% for the second company. It is obvious that the first company has more obligations than the amount of current assets that can be converted into cash, compared to the second company, which has a lower ratio; it has an inappropriate liquidity situation, which is not mentioned in the CCC index.

H5: a change in the OCC changes the company's performance.

The results show that the effects of marking changes in receivables can lead to a better forecast of next year's earnings. Suppose analysts also consider the magnitude of these changes in the current profitability analysis. In that case, the results can be useful to financial analysts and other users of financial information to predict earnings and financial performance better.

H6: due to the mediating role of the economic cycle (recession period), cash flow management impacts the company's performance.

The results showed that the significance level between the related variables is lower than the level of significance considered in the present study (5%). Also, the absolute statistical value of the relevant variable is greater than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that cash flow management does not have a significant effect on the company's performance due to the mediating role of the business cycle (recession period) is not confirmed. The main hypothesis is confirmed and indicates a significant negative relationship. During the economic recession, we will see a decrease in stock prices, a decrease in investor resources, a decrease in production, a decrease in employment, a decrease in income, a decrease in consumption, and a general decrease in economic activity. During this period, the warehouse stock increased, but later, as observed in most recessions, its level continuously decreased, which meant a decrease in investments. The result of this hypothesis is not consistent with the research of [10], [12–14].

H7: cash flow management impacts the company's performance through the mediating role of the business cycle (boom period).

The level of significance between the related variables is lower than the level of significance considered in this study (5%), and the absolute statistical value of the related variable is greater than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that cash flow management does not have a significant effect on the company's performance due to the mediating role of the business cycle is not confirmed.

The main hypothesis is confirmed and indicates a positive and significant relationship. The results showed that operating profit increases as cash flow increases during the boom period. In other words, for companies that have high cash flow during the boom period, that is, granting credit also increases sales, but proper

management leads to the receipt of receivables and bad debts, which means that granting credit reduces the cost of the company and will have high operating profitability. The result of this hypothesis is consistent with the researches of [10], [12–14]. Laghari et al. [10] show that reducing cash flow measures leads to significant positive improvements in the financial performance of firms.

Empirical evidence indicates that performance-enhancing levers (i.e., cash flow measures) are more pronounced in low-leverage firms and suggests that changes in cash flow measures produce more positive changes in the financial performance of low-leverage firms compared to high-leverage firms. The results hold after reducing endogeneity based on generalizing the results of the dynamic panel system GMM and sensitivity analysis considering the strength of the main results.

Research limitations

The problems related to information collection, especially the problems of access to financial statements and appendices of exemplary and expensive companies, the time-consuming nature of information collection, and finally, the lack of support from research and scientific centers for the research conducted.

Due to the use of the systematic elimination method in selecting the statistical sample, the selected commercial units represent a limited number of companies listed on the Tehran Stock Exchange; therefore, caution should be exercised in generalizing the results to all commercial units currently listed on the Tehran Stock Exchange.

Practical suggestions for research

The more the period of buying and selling goods and collecting cash from sales increases in enterprises, the more the enterprises have a good level of liquidity, so these enterprises are recommended to improve their liquidity situation and increase the CCC so that they can increase their profitability and credibility in the market. The more time it takes to collect the receivables of enterprises increases, the more the ROA of these enterprises will decrease. Therefore, companies should adopt a policy to collect their receivables in the shortest possible time.

On the other hand, if the duration of keeping the inventory of goods in the companies increases, the sale of goods in these companies needs to be done better. The goods are stored in the company, meaning there is no market to sell the products. On the other hand, if the duration of keeping the inventory of goods in the companies decreases, it means that not enough goods are kept in the company, and this means that customers are lost in the market and the amount of profitability is reduced, which is detrimental to the company; Therefore, companies should adopt a policy of neither keeping goods in the company for a long time nor having no goods in the company to offer to customers, so that they can improve their profitability and attract customers.

Based on the assumptions' results, managers can create positive and profitable value for shareholders by reducing the period of receivables receipt, inventory circulation, CCC, and cash cycle operations as much as possible. Correct working capital management and optimal collection management will be realized and will lead to better company performance.

Considering that the managers' goal is to ensure the trust of the company's owners, they should consider that the increase in cash flow management leads to an increase in performance, which is beneficial for the economic unit. It is proposed to the stock exchange organization. Considering the positive relationship between cash flow management and the performance of companies, laws and regulations should be adopted so that companies adopt a structure with more cash flow management.

The impact of transformation, operating cycle, and company financial performance should be studied separately.

I. Future research should examine the impact of macroeconomic variables' impact on working capital management and company profitability in commercial periods, such as oil price inflation and exchange rate.

II. It is suggested that the business cycle be calculated using other methods.

Author Contributions

Nemat Rostami Mazouei conducted the research, including the collection and analysis of data. He also developed the study's framework and wrote the manuscript.

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Data Availability

The data supporting the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The author declares no conflicts of interest related to this work.

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