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Family Firms and Working Capital Management

Mohammad Hossein Fatheh
Assistant Professor, Department of Accounting, Payame Noor University, Tehran, Iran.
(Corresponding author)
E-mail: mh_fatheh@pnu.ac.ir

Hossein Sadeghi
M.A, Department of Accounting, Payame Noor University, Tehran, Iran.
E-mail: ho3einsadeghi9940@gmail.com

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Abstract

Objectives: This research aims to investigate the relationship between family firms and working capital management. Working capital management involves the management of current assets and liabilities to achieve a balance that maximizes shareholder returns on investments.

Methodology/Design/Approach: This applied study employs a causal correlational methodology. The statistical population consists of all firms listed on the Tehran Stock Exchange. Using systematic elimination sampling, 136 firms were selected as the research sample and analyzed over ten years from 2014 to 2023.

Findings: The results indicate an inverse relationship between family firms and the cash conversion cycle. Additionally, there is a direct relationship between family firms and the period for collecting receivables. Furthermore, a direct relationship exists between family firms and the inventory turnover period, while an inverse relationship is observed between family firms and the period for debt repayment.

Innovation: This research contributes to the existing literature by providing insights into how family ownership influences working capital management practices. It highlights the unique dynamics of family firms in managing their operating cycles compared to non-family firms, offering practical implications for stakeholders in understanding how ownership structure can affect financial performance.

Keywords: Working Capital Management, Family Firms, Receivables Collection Period, Debt Payment Period, Inventory Turnover Period.

1. Introduction

In today's challenging economic conditions, along with increasing environmental pressures and limited external resources, the current assets and liabilities (working capital) of organizations and firms have gained great importance. Under these circumstances, working capital management is considered a competitive advantage for firms on the one hand, and on the other hand, it affects firms' financial performance, profitability, and liquidity (Le, 2019). Working capital management refers to the short-term capital required to finance investment activities and represents a significant part of a firm's balance sheet across various industries. Better working capital management leads to higher firm performance (Nastiti et al., 2019).

According to Jensen and McKling's (1976) theory, working capital metrics are correlated with the measurement of the firm's operating cycle (liquidity conversion cycle) and align with each other. The interval between the cost of purchasing materials and the receipt of payments from goods sold constitutes the liquidity conversion cycle in a firm. More investment in working capital is necessary; however, excessive investment may cause the firm to suffer from inappropriate liquidity. On the other hand, the liquidity conversion cycle can lead to greater profitability by increasing sales (Barros et al., 2021). However, if the benefits of maintaining inventory are less than the cost of investing in working capital, prolonging the liquidity conversion cycle will decrease the firm's profitability (Barney et al., 2021). Firms that allocate more funds to working capital—funds that are unavailable for other investments—may incur higher financing costs, whereas profitability tends to increase in firms with less working capital. Therefore, investigating the factors affecting working capital management is highly important (Nabavi Chasehmi et al., 2021).

One factor that can shape working capital management is family ownership (Bianco et al., 2013). Firms controlled by their founders, founding families, or heirs are often referred to as family firms (Adikari & Sutton, 2016). Most private firms are family-owned, but this ownership structure is also common among large publicly traded firms. Family firms hold great economic importance as they are the main drivers of most economies (Sah et al., 2022). Family businesses not only exist but also achieve financial success. What remains unclear is how family businesses succeed despite unconventional fiscal and non-fiscal policies and some unique characteristics.

Therefore, based on the above, the main purpose of the present study is to answer whether family ownership affects working capital management in firms. Family ownership is increasing worldwide, and due to the importance of working capital management—which includes a 's operating capital throughout the operational cycle, from purchasing necessities, production, stockpiling, selling goods, to returning to the new production cycle—the necessity of investigating how working capital is managed in family firms is of great importance. Given the lack of definitive findings and the research gap in the country, this study aims to reveal the hidden aspects of working capital management in family-owned firms.

The structure of the research continues as follows: first, the expansion of the theoretical foundations, hypotheses, and empirical literature of the study will be presented; then, the research methodology and operational definitions of the variables will be introduced; and finally, the research findings and conclusions will be discussed.

Theoretical and empirical foundations and research hypotheses

Working capital management refers to the management of current assets and liabilities and aims to balance them so that shareholders can achieve the maximum return on investment in assets through effective management of working capital (Adikari, 2021). Efficient working capital management is crucial for a firm's survival and demonstrates how short-term capital is utilized; it is also used as an indicator of the firm's liquidity (Badavarnahdi & Taghizadeh Khanqah, 2016). Nabavi Chasehmi et al. (2021), in a study titled *Investigating the Relationship between Managers' Ability and Working Capital Management*, reported that managerial ability increases the firm's cash conversion cycle. From another perspective, working capital management is the short-term capital required to finance investment activities and represents a significant part of a firm's balance sheet across various industries (Nastiti et al., 2019). Better working capital management leads to higher firm performance (Nobaneh & Haddad, 2014).

Working capital management corresponds to the liquidity conversion cycle in firms. Mazaheri and

Shokrizadeh (2021), in their study *Investigating the Effect of Working Capital Management on Stock Liquidity*, noted that working capital management is a key concept within corporate finance, with several applications, one of which is its role in the liquidity of firms' stocks.

As highlighted in previous literature, the liquidity conversion cycle, receivables collection period, inventory conversion period, and timely payments can affect a firm's performance and profitability (Aktas et al., 2015). The cash conversion cycle is defined as the time interval between the collection of revenue from the sale of finished goods or services and payment to suppliers for the purchase of raw materials. Failure to manage working capital effectively can expose the firm to bankruptcy and higher risk (Kichnik et al., 2013).

Ghodrati Zavaram et al. (2022), in their study *Investigating the Relationship between Working Capital Management in Boom and Recession Periods*, stated that managers tend to adopt conservative policies during economic recessions and bolder working capital management policies during inflationary periods. Sepasi et al. (2017), in their study *Working Capital Management, Financial Performance, and Financing Constraints*, found a negative and significant relationship between the net business cycle and firm performance. Family firms, therefore, tend to have more conservative working capital management policies because they are risk-averse and rely less on external financing, resulting in higher working capital and a longer cash conversion cycle (Sah et al., 2022).

Family firms tend to maintain higher inventory levels to protect their reputation by ensuring that customer needs can be met at any time, given the belief that customers might switch brands in the absence of a product (Zellweger et al., 2013). Amore et al. (2022), in their study *The Performance of Family Firms during the COVID-19 Era*, found that family firms exhibited higher market performance and operating profits than other firms during the pandemic. Additionally, delays in debt repayment can be costly due to missed discounts and increased risk of default and bankruptcy. Consequently, family firms tend to pay their debts on time to avoid financial crises and bankruptcy, which aligns with their risk aversion and concern for reputation. Sah et al. (2022) noted that multiple studies indicate family firms avoid risky financial policies and prioritize survival and reputation over short-term financial gains. Their research showed that family firms with higher investment adopt conservative short-term investment policies in working capital.

Regarding working capital components, family ownership is associated with a shorter receivables collection period than non-family firms; however, family firms tend to have a longer inventory period to ensure adequate stock levels for fulfilling orders (Hassan & Block, 2020). A study titled *The Effect of Family Ownership on Corporate Performance* (et al., 2022) reported that increasing family ownership improves financial performance. Family firms also tend to pay and settle debts faster than non-family firms. Bassi et al. (2018), in their study *The Effect of Family Ownership Dispersion on the Level of Debt in Private Firms*, found an inverse relationship between debt levels and ownership dispersion within the family. Murro and Perozzi (2019), in *Family Firms and Access to Credit: Is Family Ownership Beneficial?*, indicated that family firms, particularly small ones, are more likely to face credit restrictions, although this effect diminishes with closer lending relationships. Caprio et al. (2020) also found that family firms with concentrated ownership are more likely to obtain bank credit.

Overall, due to their conservative nature and long-term vision focused on legacy and survival, family firms tend to hold more inventory and promptly repay creditors (Sah et al., 2022).

Based on the above discussion, the hypotheses of the present study are formulated as follows:

H1: Family-owned firms have a shorter liquidity conversion cycle.

H2: Family-owned firms have a shorter receivables collection period.

H3: Family-owned firms have a longer inventory turnover period.

H4: Family-owned firms have a shorter average debt repayment period.

Research Methodology

The present study is applied in nature and employs a causal correlation (post-event) research design. The statistical population consists of all firms listed on the Tehran Stock Exchange (TSE) over the period from 2014 to 2023. The sample includes firms that meet the following criteria: their fiscal year ends in March; they have maintained a consistent financial reporting period throughout the 10-year study interval; relevant data for

the selected variables are available; and they are not classified as banks, insurance firms, or investment firms. Based on these criteria, a total of 136 firms were selected as the final sample for analysis.
Data analysis was conducted using panel data methodology with combined (pooled) data techniques. The econometric software EViews 12 was employed as the primary tool for hypothesis testing and model estimation.

Operational Definitions of Research Variables

Dependent Variable: Working Capital Management

According to the studies by Eskandar Nejad et al. (2020) and Badavarnahdi and Taghizadeh Khanqah (2016), the main components of working capital—namely accounts receivable, inventory (production), accounts payable, and efficient cash utilization for firm operations—are considered as dependent variables in examining working capital management. Consequently, the cash conversion cycle (CCC) and its constituent components have been used as the dependent variables in this research to represent the management of working capital. The variables constituting the CCC include the average collection period of receivables (ARP), the inventory holding period or production cycle (INVP), and the accounts payable period (APP). These variables respectively capture the average duration between payment for production inputs, maintenance of inventory, and receipt of funds from sales. Each component of the cash conversion cycle is comprehensively defined through the following relationships and is separately utilized as a dependent variable in the hypotheses (Bolo et al., 2012).

$$CCC = \left(\frac{\frac{AR_t + AR_{t-1}}{2}}{\frac{Sales}{365}}\right) + \left(\frac{\frac{INV_t + INV_{t-1}}{2}}{\frac{COGS}{365}}\right) - \left(\frac{\frac{AP_t + AP_{t-1}}{2}}{\frac{Purchases}{365}}\right)$$

$$ARP=\left(\frac{\frac{AR_t+AR_{t-1}}{2}}{\frac{Sales}{365}}\right)$$

$$INVP=\left(\frac{\frac{INV_t+INV_{t-1}}{2}}{\frac{COGS}{365}}\right)$$

$$APP=\left(\frac{\frac{AP_t+AP_{t-1}}{2}}{\frac{Purchases}{365}}\right)$$

In the above relationships:
In the above relationships:

The first dependent variable: Receivables Collection Period (ARP): (Average accounts receivable/ sales/365)

The second dependent variable is the firm's production cycle (INVP): (average inventory/cost of goods sold/365).

The third dependent variable is firm debt Payment Period (APP): (Average accounts payable / cost of the goods sold plus the inventory of the goods at the end of the period minus the first item of the period/365).

Fourth dependent variable: Liquidity conversion cycle (CCC): (receivables collection period plus production cycle minus debt payment period).
In the above relationships:

CCC: Cash Conversion Cycle
Sale: Net Selling
COGS: Cost of Goods Sold

Purchases: The cost of the goods sold plus the inventory at the end of the period minus the first item of the period.

AR: Accounts Receivable
INV: Inventory
AP: Accounts Payable

Independent Variable: Family Ownership

The percentage of family ownership is used to identify family enterprises. In this study, family property has been considered according to the following conditions: The real shareholder owns at least 20% of the ordinary shares of the firm, or one of the members of the board of directors alone owns at least 5% of the ordinary shares, or the total shares of the real member of the board of directors and his family members, at least 5% of the total ordinary shares of the firm. Accordingly, if a firm has family ownership conditions, it will be considered a family firm and code one, and firms that do not meet these conditions will be considered non-family firms and code zero (Mehrazin et al., 2013).

Research Control Variables

According to the research of Sah et al. (2022), the following determinants have been used for control variables:

SIZE: It is obtained by calculating the natural logarithm of total assets.

LEV: It is calculated by dividing the total value of the debt by the total assets.

MTB: It is calculated by dividing the market value of the firm by the book value of the assets.

CUR: Obtained by dividing current assets by current liabilities.

Age: The natural logarithm of the difference between the date of establishment of the firm and the year in question.

Research Regression Models

Following the research of Sah et al. (2022), the following models have been designed to test the research hypotheses.

The first hypothesis test model

$$CCC_{i,t}=\beta0+\beta1Familyfirmi,t+\beta2MTBi,t+\beta3SIZEi,t+\beta4CURi,t+\beta5LEVi,t+\beta6AGEi,t+\varepsilon_{it}$$

The second hypothesis test model

$$ARP_{i,t}=\beta0+\beta1Familyfirmi,t+\beta2MTBi,t+\beta3SIZEi,t+\beta4CURi,t+\beta5LEVi,t+\beta6AGEi,t+\varepsilon_{it}$$

The third hypothesis of the research hypothesis test model

$$INVP_{i,t}=\beta0+\beta1Familyfirmi,t+\beta2MTBi,t+\beta3SIZEi,t+\beta4CURi,t+\beta5LEVi,t+\beta6AGEi,t+\varepsilon_{it}$$

Testing Model of the Fourth Research Hypothesis

$$APP_{i,t}=\beta0+\beta1Familyfirmi,t+\beta2MTBi,t+\beta3SIZEi,t+\beta4CURi,t+\beta5LEVi,t+\beta6AGEi,t+\varepsilon_{it}$$

Research Findings

The main central index is the average, which represents the equilibrium point and the center of gravity of the distribution, and it is a good indicator to show the centrality of data. For example, the average value for the leverage variable is equal to (0.55) hundredths, which indicates that most of the data is concentrated on this point. In general, dispersion parameters are a criterion for determining the amount of dispersion from each other or the amount of dispersion relative to the average. One of the most important parameters of dispersion is the standard deviation. The value of this parameter is 163.5 for the cash conversion cycle and 0.21 for leverage, which shows that these two variables have the highest and lowest standard deviations, respectively. The minimum and maximum also show the lowest and highest in each variable.

As can be seen in Table (2), the total number of year-firms under study is equal to 1360 cases, of which 188 year-firms (13.82%) are family firms and 1172 year-firms (86.16%) are non-family firms.

Table (1): Descriptive statistics of the variables

Variable	Mean	S. dev.	Min.	Max.
CCC	196.48	706.88	6.46	163.57
ARP	136.36	658.42	9.24	130.73
INVP	151.20	736.60	18.01	120.63
APP	92.56	608.18	7.16	100.80
SIZE	14.73	21.3	10.53	1.65
LEV	0.55	1.26	0.10	0.21
MTB	4.31	15.8	1.00	3.89
CUR	1.60	4.44	0.55	0.85
AGE	3.62	4.24	2.30	0.38

Table (2): Frequency Distribution of Qualitative Variables

Variable	Value	Frequency	Percent Frequency
Family Firms	1	188	13.82
Non-Family Firms	0	1172	86.18
Total	-	1360	100

Table (3): Results of the Variance Test

Test Model	Test Statistics	Significance level
Hypothesis 1	109.04	0.0000
Hypothesis 2	131.83	0.0000
Hypothesis 3	206.70	0.0000
Hypothesis 4	79.113	0.0000

The results in Table (3) show that the significance level of the test in the research models is less than 5% and indicates the existence of heterogeneity of variance in the disturbance sentences, which has been solved in the final estimation of the models by running the GLS command and also using the facilities of the standard powerful tool in Eviews 10 software.

According to the results of Table (4), the significance level of the serial autocorrelation test in the research models is less than 5%, indicating the presence of serial autocorrelation. This issue has been addressed and corrected in the final model (Platouni, 2018).

According to the results obtained in Table (5), it can be seen that the significance level of the variables in the durability test is less than 5% and indicates that the variables are permanent.

According to the results obtained in Table (6), it can be seen that the significance level of the Chow test for the research hypothesis test models is less than 5%, indicating the acceptance of the panel data model, which requires the presentation of the Hausman test to ensure its appropriateness. The Hausman test is presented below (Aflatoni, 2018).

According to the results presented in Table 7, the significance level of the test in the research models is less than 5%, indicating that the fixed effects model is accepted.

Table (4): serial autocorrelation test results

Test Model	Test Statistics	Significance level
Hypothesis 1	777.05	0.0000
Hypothesis 2	793.26	0.0000
Hypothesis 3	686.14	0.0000
Hypothesis 4	560.08	0.0000

Table (5): Stability Test Quantity Variables

Variable	Test Statistics	Sig	Results
Ccc	-21.4757	0.0000	Stationary
Arp	-16.7793	0.0000	Stationary
INVP	-26.3076	0.0000	Stationary
App	-3.59660	0.0000	Stationary
SIZE	-12.9462	0.0000	Stationary
LEV	-14.4339	0.0000	Stationary
MTB	-12.3176	0.0000	Stationary
CUR	-15.6027	0.0000	Stationary
Age	-21.4757	0.0000	Stationary

Table 7, F-Limmer test results

Test Model	Test Statistics	Sig
Hypothesis 1	8.59	0.0000
Hypothesis 2	9.24	0.0000
Hypothesis 3	9.65	0.0000
Hypothesis 4	15.74	0.0000

Table 7, Hausman test results

Test Model	Test Statistics	Sig
Hypothesis 1	17.79	0.006
Hypothesis 2	81.11	0.0000
Hypothesis 3	82.59	0.0000
Hypothesis 4	70.37	0.0000

Table (8): Hypothesis 1 Test result

Variables	Coef	Std	Statistic t	Sig	VIF
Family firm	-62.4	7.68	-8.12	0.0000	1.06
MTB	0.083	0.91	0.091	0.92	1.01
SIZE	0.72	1.89	0.37	0.70	1.03
CUR	65.7	4.16	15.7	0.0000	2.17
LEV	96.8	17.2	5.60	0.0000	2.16
Age	36.04	7.20	5.00	0.0000	1.02
Res(1)	0.84	0.016	50.5	0.0000	-
C	-115.6	43.2	-2.67	0.007	-
Coefficient of determination	0.72				
Watson Durbin	2.20				
F	212.54				
Sig	0.0000				

The results presented in Table 8 indicate that family firms have a negative coefficient of -62.4, which is statistically significant at the 1% level (p = 0.0000), demonstrating an inverse and significant relationship with the firm's cash conversion cycle. Therefore, the first hypothesis of the research is accepted at the 5% significance level. Among the control variables, all except firm growth and firm size, with significance levels below 5%, show significant relationships with the dependent variable. The coefficient of determination (R^2) is 0.72, indicating that 72% of the variance in the cash conversion cycle is explained by the independent and control variables included in the model. Additionally, the Durbin-Watson statistic is 2.20, suggesting no evidence of autocorrelation in the residuals. The overall test statistic confirms that the model fits well at the 5% significance level. Furthermore, the variance inflation factor (VIF) values are below 5, indicating no multicollinearity issues among the research variables.

The results of Table (9) show that the variable of family The results indicate that the family firm variable has a positive coefficient of 27.4 and is statistically significant at the 1% level (p = 0.0000), demonstrating a direct and significant relationship with the accounts receivable collection period. Consequently, the second hypothesis of the research is accepted at the 5% significance level. All control variables with significance levels below 5% also show significant relationships with the dependent variable. The coefficient of determination (R^2) is 0.76, indicating that 76% of the variance in the accounts

receivable collection period is explained by the independent and control variables in the model. Furthermore, the Durbin-Watson statistic is 1.97, suggesting no evidence of severe autocorrelation in the residuals. The overall test statistic confirms that the model has a good fit at the 5% significance level. Additionally, variance inflation factors are below 5, indicating no significant multicollinearity among the research variables.

The results presented in Table 10 indicate that the family firm variable has a positive coefficient of 54.8 and is statistically significant at the 1% level (p = 0.0000). This reveals a direct and significant relationship between family ownership and the firm's inventory turnover, thus supporting the third hypothesis of the study at a 5% significance level. Among the control variables, all except firm growth and financial leverage show a significant relationship with the dependent variable at the 5% level. The model's coefficient of determination (R^2) is 0.72, indicating that 72% of the variation in inventory turnover is explained by the independent and control variables included in the model. Moreover, the Durbin-Watson statistic is 2.11, suggesting no evidence of strong autocorrelation in the residuals. The overall significance test confirms that the model fits the data well at the 5% significance level. Additionally, the variance inflation factors (VIF) are all below 5, indicating no problematic multicollinearity among the explanatory variables.

The results presented in Table 11 indicate that the family firm variable has a negative coefficient of -11.5 and is statistically significant at the 5% level (p = 0.016). This demonstrates an inverse and significant relationship between family ownership and the debt payment period of firms, thereby confirming the fourth hypothesis of the study at a 5% significance level. Among the control variables, all except the current ratio and firm age show a significant relationship with the dependent variable at the 5% significance threshold. The model's coefficient of determination (R^2) is 0.63, indicating that 63% of the variation in the debt payment period is explained by the independent and control variables included in the model. Furthermore, the Durbin-Watson statistic is 2.01, suggesting the absence of strong autocorrelation among the residuals. The overall significance test of the model confirms that the model fits the data well at the 5% significance level. Additionally, variance inflation factors (VIF) are all below 5, indicating that multicollinearity is not a concern among the explanatory variables in the model.

Table (9): Hypothesis 2 Test result

Variables	Coef	Std	Statistic t	Sig	VIF
Family firm	27.4	5.23	5.24	0.0000	1.06
MTB	-1.81	0.64	-2.83	0.004	1.01
SIZE	7.22	1.28	5.63	0.0000	1.03
CUR	32.6	2.96	10.9	0.0000	2.17
LEV	154.6	12.1	12.6	0.0000	2.16
Age	10.08	4.77	2.11	0.034	1.02
Res(1)	0.84	0.015	55.2	0.0000	-
C	-138.08	29.35	-4.70	0.0000	-
Coefficient of determination	0.76				
Watson Durbin	1.97				
F	257.20				
Sig	0.0000				

Table (10): Hypothesis 3 Test result

Variables	Coef	Std	Statistic t	Sig	VIF
Family firm	54.8	5.55	9.86	0.0000	1.06
MTB	0.60	0.71	0.84	0.39	1.01
SIZE	-7.20	1.38	-5.21	0.0000	1.03

Variables	Coef	Std	Statistic t	Sig	VIF
CUR	23.50	3.08	7.61	0.0000	2.17
LEV	7.42	12.95	0.57	0.56	2.16
Age	22.4	5.29	5.24	0.0000	1.02
Res(1)	0.82	0.015	53.96	0.0000	-
C	123.68	31.5	3.91	0.0000	-
Coefficient of determination	0.72				
Watson Durbin	2.11				
F	209.23				
Sig	0.0000				

Table (11): Hypothesis 4 Test result

Variables	Coef	Std	Statistic t	Sig	VIF
Family firm	-11.5	4.78	-2.41	0.0160	1.06
MTB	-1.89-	0.61	-3.09	0.002	1.01
SIZE	3.93	1.16	3.37	0.0008	1.03
CUR	-5.11-	2.76	-1.85	0.064	2.17
LEV	65.5	11.04	5.93	0.0000	2.16
Age	-5.88-	4.27	-1.37	0.16	1.02
Res(1)	0.71	0.019	37.2	0.0000	-
C	39.6	26.6	1.49	0.13	-
Coefficient of determination	0.63				
Watson Durbin	2.01				
F	142.23				
Sig	0.0000				

Research Results

The main objective of this study is to examine the impact of family ownership on the working capital management of firms. As discussed earlier, the cash conversion cycle (CCC) refers to the duration required to convert cash through production, sales, and receivables collection. It encompasses all operational stages from the commencement of production to the collection of cash from product sales. A shorter cash conversion cycle logically enables a firm to generate profits and return capital to shareholders more quickly. Several factors influence this cycle, including managerial decisions, the interplay between major ownership and managerial choices, and the firm's business strategy. These factors can result in a shorter or longer operational cycle compared to other firms under normal economic conditions.

Among different ownership types, family-owned firms are noteworthy. As indicated in the theoretical background, family firms tend to prioritize long-term sustainability over immediate profit maximization. Since ownership and management roles are often concentrated within the family, decisions typically reflect the consensus among family members. However, the absence of professional expertise in some management positions may occasionally present challenges. The findings of this research suggest that family firms exhibit a shorter cash conversion cycle, primarily because family members serve as final decision-makers, facilitating more streamlined operational processes. This result aligns partially with the findings of Sah et al. (2022).

The estimated coefficient of the family ownership variable is positive and statistically significant at the 5% level, indicating an inverse and meaningful relationship between family ownership and the cash conversion cycle. Notably, in family firms, the receivables collection period is not shorter, which

implies effective management of accounts receivable. Given that decision-makers in family firms belong to the same group, this aspect tends to be managed more successfully. The receivables collection period serves as a key metric for evaluating the efficiency of a profit-oriented entity in collecting cash from credit sales. The extended collection period observed in family firms may be attributed to stable relationships and a strong emphasis on preserving the 's reputation, occasionally leading to longer collection durations. These results resonate with Sah et al. (2022), who reported a reduction in receivables collection periods within family firms.

Regarding inventory management, the positive and statistically significant coefficient associated with family ownership indicates a longer inventory holding period in family firms. Constraints related to financing and working capital compel firms to carefully control inventory levels. Optimal inventory management reduces both the cost of investment in inventories and the associated holding costs. Timely supply and delivery to customers, alongside minimizing inventory costs, remain critical managerial challenges. Family firms, motivated by corporate reputation and long-term sustainability, tend to maintain higher inventory levels to meet customer demand promptly, which can explain the extended inventory turnover period. This finding is consistent with Sah et al. (2022), who observed increased production cycles in family firms.

The fourth hypothesis, concerning the accounts payable period, is confirmed by a significant and negative coefficient for family ownership, indicating that family firms tend to have shorter debt repayment periods. Delays in settling debts can be costly due to potential loss of early payment discounts and increased risks of default or bankruptcy. Family firms, characterized by a lower risk appetite and heightened concern for reputation, are more inclined to pay their obligations promptly to avoid financial distress. This outcome aligns with the findings of Sah et al. (2022), who reported shorter debt repayment cycles in family businesses.

Overall, a shorter cash conversion cycle is generally favored by investors and capital market analysts. Family firms appear capable of achieving this through balanced operational cycles. By implementing principled and codified strategic plans, family firms can reduce the liquidity conversion cycle, thereby optimizing profitability and working capital management. Additionally, by extending the production cycle to ensure product availability, family firms enhance customer satisfaction and retention, positioning themselves as attractive options for future buyers.

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