

A FRIEND IN NEED IS A FRIEND INDEED: EMPLOYEE FRIENDLINESS AND WORKING CAPITAL MANAGEMENT

Hari P. Adhikari, Embry-Riddle Aeronautical University
Thanh T. Nguyen, University of South Carolina Upstate
Dung (June) Pham, Shippensburg University of Pennsylvania
Nilesh B. Sah, The University of Tennessee at Chattanooga

ABSTRACT

We investigate how a company's commitment to employee satisfaction influences its short-term financing. Our results reveal that companies that prioritize employee satisfaction exhibit notably reduced Cash Conversion Cycles (CCCs) compared to their counterparts. The diminished CCC in employee-friendly companies primarily stems from more favorable trade terms offered by the suppliers (a longer Days Payable Outstanding, DPO). Interestingly, when we divide our sample into high-tech versus non-high-tech firms, the beneficial impact of employee satisfaction on DPO and CCC was not observed for the high-tech firms due to their unique risk profile. We further examine if the improvement in working capital management (DPO increases/CCC decreases) was driven by the firm's probability of bankruptcy. Our results show that, in general, low-bankruptcy firms received better trade credit terms from their suppliers compared to high-bankruptcy firms; however, among the low-bankruptcy firms, the firms with a higher level of employee satisfaction experienced the most favorable terms from the suppliers. This positive impact was even stronger during the financial crisis 2007-2009, consistent with previous literature that found firms fare better during difficult times if they keep their employees happy during regular times. Our findings imply that managers of non-high-tech firms should focus more on employee satisfaction since it leads to an improvement in working capital management. This is even more critical during difficult times like recessions. From a regulatory standpoint, the positive impact of employee friendly policies on working capital management can be used to promote regulations that enhance employee welfares such as profit sharing, retirement, union policies etc., since both firms and their employees can benefit from those policies.

Keywords: *Employee friendliness, Working Capital Management, Short-term financing, Cash conversion cycle*

JEL Classification: G30, M40

INTRODUCTION

Recently, scholarly literature has firmly established the significance of employee satisfaction for the prosperity of corporate firms, as evidenced by studies conducted by Jiao (2010), Faleye and Trahan (2011), Edmans (2011), Ertugrul (2013), and Guiso, Sapienza, and Zingales (2015), Fauver et al. (2018), Shan and Tang (2023) and others. Rooted in human relation theories, Maslow (1943), Herzberg (1959), and McGregor (1960) posit that employees constitute a paramount asset for companies, contributing substantial value through avenues like innovation, customer relationships, and banking associations. Consequently, modern firms are advised to cultivate an employee-friendly environment to effectively attract, retain, and motivate high-caliber personnel, as suggested by Likert (1967), Rust et al. (1996), Ostroff and Bowen (2000), Whitener (2001), Eisenberger et al. (2002), and Fulmer et al. (2003). Furthermore, Edmans et al. (2023) provide evidence that in countries with high labor market flexibility, firms with satisfied employees outperform other firms.

Prior research has explored how companies with contented employees can enhance value through their long-term financing strategies, as evidenced by studies conducted by Verwijmeren and Derwall (2010), Bae et al. (2011), and Ghaly et al. (2015). However, there is a notable gap in our understanding of whether and how the happiness of employees contributes to the effective management of a corporate firm's operating working capital. Given the critical importance of adept short-term financing management, particularly considering the substantial allocation of total assets to working capital, this aspect remains unexplored. For instance, Kieschnick et al. (2013) highlight that, on average, over 27% of a firm's total assets are dedicated to working capital management in their study of the U.S. firms. Similarly, the recent PWC Working Capital Report 2019/20 finds that improving working capital positively impacts firms' return on equity capital.³ Additionally, financial theory posits that accelerating cash inflow and decelerating cash outflow are conducive to value creation for firms (Gentry et al., 1990). Consequently, a gap in the literature exists regarding the potential role of happier employees in expediting cash inflow or moderating cash outflow, thereby fostering favorable working capital management.

To address this existing gap in knowledge, we investigate the connection between employee friendliness and short-term financing. Specifically, our study delves into the impact of a company's employee friendliness on the Cash Conversion Cycle (CCC), a key metric in working capital management, with a particular emphasis on Days Payables Outstanding (DPO).

The Cash Conversion Cycle, a widely used measure in working capital management, is expressed as $CCC = DIO + DSO - DPO$, where DIO represents Days Inventories Outstanding, DSO denotes Days Sales Outstanding, and DPO stands for Days Payables Outstanding.

This metric tracks the time interval between cash collection from finished product or service sales and expenditures on raw material purchases. A prolonged cash conversion cycle implies a higher cash investment for a firm, negatively affecting short-term financing or working

³<https://www.pwc.com/gx/en/services/deals/business-recovery-restructuring/working-capital-opportunity.html>

capital management. Specifically, all else equal, an increase (decrease) in inventories or accounts receivable and a decrease (increase) in accounts payable will lead to a larger (smaller) investment in working capital.

Recognizing the critical role of working capital management, Dewing (1941) identifies it as a "key element" for firms, and Ding et al. (2013) establish its link to a firm's liquidity position. Existing research often highlights a negative association between investments in working capital management and firm profitability or value (Kim and Chung, 1990; Shin and Soenen, 1998; Wang, 2002; Deloof, 2003; Garcia-Teruel and Martinez-Solano, 2007; Hayajneh and Yassine, 2011; Kieschnick et al., 2013; Wang, 2019). For instance, Garcia-Teruel and Martinez-Solano (2007) find that a shortened cash conversion cycle enhances firm value, emphasizing the importance of efficiently managing cash inflow and outflow. Focusing on the elements of the cash conversion cycle, Gentry et al. (1990) acknowledge expediting cash collection while deferring payments until a later stage as the fundamental notion in finance.

Hence, it is important for a firm to aim for its optimal level of working capital. The firm can reach that goal by implementing methods such as keeping its inventory at an efficient level, increasing the product competitiveness (a decrease in DIO) or by shortening the collection period of its accounts receivable (a decrease in DSO). However, a stricter collection period might result in a less friendly relationship with customers and eventually hurt the firm's sales. Alternatively, the firm can seek an improvement in its working capital by working on its purchasing side. Specifically, a firm can focus on treating its employees well, and the happy employees will in turn go extra miles to gain the trust of the suppliers and be able to score better trade terms, for example: increasing credit limit, extending payment deadline, having lower late fee, and so on. These favorable benefits might eventually lead to an increase in accounts payable (an increase in DPO), improving working capital management, and ultimately increasing the firm's value.

To comprehend the workings of accounts payables, we briefly explore the literature on trade credit. Trade credit involves permitting customer firms to postpone payments for goods and services received from their suppliers, and these deferred amounts are reflected as accounts payable on a company's balance sheet. This mechanism serves as an alternative to bank credits provided by financial institutions for short-term funding. As noted by Wilson and Summers (2002), trade credit encompasses a diverse range of credit terms, including discounts for early payments, specified payment timelines, payment methods, late fees, and interest charges for delayed payments, among other factors. Ng et al. (1999) observe that the most prevalent form of trade credit is "2/10 net 30," indicating a 2 percent discount for customer firms making payments within ten days of goods supply. Buyers have the option to settle payments within 30 days without incurring penalties, after which late fees and interest may be applied. Ng et al. (1999) and others calculate an implicit annual interest rate of approximately 44% for trade credit, particularly when involving deferred payments without benefiting from a discount. Other frequently used credit terms include 2/10 net 40, 2/10 net 45, 2/10 net 60, 2/10 n 30 EOM (end of the month), and so forth.

However, recent findings by Giannetti et al. (2011) present compelling evidence that most firms obtain trade credit at a low cost. This evidence diverges from the prevailing assertions in the literature (Petersen and Rajan, 1994; Ng et al., 1999; Cunat, 2007) and challenges the

implications of the previously discussed implied interest rate. Giannetti et al. (2011) additionally highlight that only a small fraction of firms in their sample negotiates discount terms in their credit agreements, dispelling the notion that trade credit is more costly than bank credits. Contrary to the widely held belief that trade credit is primarily for small companies lacking access to or ability to secure bank credits, they establish a positive correlation between lower input costs and substantial accounts payable for larger firms. Consequently, a company that secures favorable credit terms from its suppliers, particularly extended days for accounts payable, can effectively manage working capital by shortening the cash conversion cycle without adversely impacting the firm's liquidity position. We contend that maintaining a happy workforce is instrumental in assisting companies in achieving this objective.

Happy employees can contribute to the reduction of the cash conversion cycle. Existing literature on trade credit strongly asserts its prevalence due to suppliers obtaining buyer information more cost-effectively than banks. Petersen and Rajan (1997), for instance, contend that suppliers have a comparative advantage in accessing information from buyers. When the supplier and buyer engage in information exchange, covering aspects like product design, production processes, and future demand forecasts, this sharing enhances "speed-to-market and greater efficiency" (Baiman and Rajan, 2000). Our argument posits that happier employees, especially ones with more closed contacts with suppliers such as purchasing, accounting, or product designing departments, are in a better position to show their job satisfaction and try their best to secure the most favorable trade terms from the suppliers⁴. On the other hand, it is also beneficial for the supplier firms to provide better trade terms to such buyer companies and gain access to information in a more cost-effective way.

Additionally, Petersen and Rajan (1997) find that suppliers evaluate not only the net profit margin from a single transaction but also incorporate the present value of all future profit margins. Consequently, they offer more favorable payment terms to companies whose cash flows are deemed to be more stable in the future. Previous research finds that companies with contented employees have more stable cash flows due to their lower turnover rates and absenteeism among the workforce (Somers, 1995; Gellatly, 1995; Bridges and Harrison, 2003). As a result, we expect to see a direct relationship between employee satisfaction and better trade terms offered by suppliers. Satisfied employees are normally more motivated and loyal to their firms, especially during difficult situations. Recent study by Shan and Tang (2023) provide evidence that companies can fare better during crises by keeping their employees happy during regular periods.

In summary, this evidence collectively indicates that employee satisfaction aids companies in securing an advantage, leading to improved payment terms with suppliers. To examine the relationship between employee happiness and working capital management, we employ the MSCI ESG database, formerly known as KLD SOCRATES Research and Analytics. We created an Employee Friendliness Index (EFI) derived from this database, utilizing EFI as a

⁴ We would like to thank a reviewer for pointing this out. Since we only have firm-level data to create our employee friendliness measure (EFI), we can't exactly measure the impact of each individual department on the suppliers. It is interesting to see this when department-level data is available in the future.

metric for assessing employee satisfaction. The MSCI ESG database aggregates information from various sources, including company filings, public media, and government data. It evaluates companies based on specific criteria referred to as "strengths" and "concerns." Our focus centers on criteria associated with employee treatment, as outlined by MSCI ESG, encompassing Union relations, Cash profit sharing, Employee involvement, Retirement benefits, strength, and Work/life benefits.

We have identified several key findings. Firstly, employee-friendly firms, on average, manage their working capital more efficiently than the other firms do. This efficiency stems mostly from a longer DPO which leads to a shorter CCC. Interestingly, firms' employee friendliness doesn't seem to have a similar impact on these other two components of the working capital (DIO and DSO). Secondly, our results show that the role of EFI on CCC is dependent on the type of firm. Specifically, high-tech firms don't experience any improvement in working capital regardless of their EFI levels while we see a substantial impact of EFI on CCC for non-high-tech firms. One possible explanation is that high-tech companies are unique in comparison to the rest. They are usually riskier and focus more on long-term goals. They are characterized by investing heavily in research and development in the search for cutting-edge technologies. Even if their research turns out to be successful, it still takes a long time before their products are commercialized and become profitable. For this reason, it is normally difficult to get funds from banks or lenient trade terms from suppliers. In addition, since their business model evolves around risky but promising long-term R&D, managing working capital in the short-term is understandably not a priority of high-tech firms. In addition, Pandey et al., (2021) also find that among all the industries, high-tech industries have the highest turnover which might hinder the long-term relationship between the firms and their employees which in turn negatively impact the role of EFI on CCC. Thirdly, we want to explore whether the impact of EFI on trade terms is entirely driven by the financial condition of the firms. We divided the sample into firms with low versus high probability of bankruptcy. We find that the benefit of EFI on CCC is more pronounced for firms with low bankruptcy risk in comparison to those with high bankruptcy risk. It is possible that the better trade terms received by the former are due to their financial soundness rather than the impact of employee friendliness. To address this endogeneity, we control the bankruptcy risk by including the Altman Z-score in our regressions and rerun them on the subsample of only firms with low bankruptcy risk. Our results indicate that even after controlling for Altman Z-score, employee friendliness still plays a significant role in obtaining better trade terms from the suppliers, i.e., an increase in DPO and a decrease in CCC.

As robustness tests, we further investigate if the role of employee friendliness on working capital management is sensitive to a different measure of working capital or major disruptions such as the 2007-2009 financial crisis. The results of the robustness tests show that our previous findings are not sensitive to our choices of measuring working capital. More importantly, we find that employee friendliness becomes even more beneficial to the firms during the crisis. Specifically, one unit increase in EFI results in 43 days longer in DPO during the crisis period as compared to 18 days during the pre-crisis period. In terms of CCC, one unit increase in EFI results in 29 days shorter in CCC as compared to 5 days shorter during the pre-crisis. This

evidence shows support for the prior literature which suggests that treating employees well will benefit the firms in many aspects, especially during difficult times.

Our research contributes to the existing body of literature on employee satisfaction and working capital management. More importantly, our paper diverges significantly from other articles that link employee happiness with corporate policies or outcomes. Specifically, the current research in working capital management primarily addresses three key areas. As discussed earlier, the first line of research (Deloof and Jegers, 1996; Deloof, 2003; Garcia-Teruel and Martinez-Solano, 2007, among others) provides evidence of a negative relationship between investment in working capital and firm profitability or value. The second line of research investigates the role of effective working capital management in mitigating the impact of financial constraints (Fazzari and Petersen, 1993; Ding et al., 2013; Lee and Wang, 2021), generally examining the sensitivity of working capital investment under financing constraints. The third line of research links specific firm characteristics (Baños-Caballero et al., 2010; Hill et al., 2010) or top management characteristics (Adhikari et al., 2015; Aktas et al., 2019) to determinants of working capital management. In this paper, we explore a novel factor, namely employee satisfaction, that influences a company's short-term financing. Furthermore, our article provides evidence highlighting the significance of employee happiness for non-high-tech companies, a departure from existing research that predominantly emphasizes the importance of employee satisfaction for "New" high-tech firms (Zingales, 2000).

The remainder of this paper is organized as follows. In Section 2, we describe our data collection, variable definitions, and sample distribution. Section 3 shows our main regression results. Section 4 presents the robustness tests, and the conclusion is in section 5.

2. SAMPLE AND SUMMARY STATISTICS

For our sample selection, we started with the Compustat Industrial Annual Files covering the period from 1991 to 2014. We extract accounting variables from the Compustat Industrial Annual Files and formulate the dependent variable along with several control variables. Additionally, CEO-specific information is gathered from the ExecuComp database within Compustat. Subsequently, we utilize the MSCI ESG (formerly KLD SOCRATES Research and Analytics) database to create the Employee Friendliness Index (EFI), which serves as a proxy for employee satisfaction and constitutes our primary variable of interest. The MSCI ESG database draws information from diverse sources such as company filings, public media, and government data, assigning ratings to companies based on screens labeled "strengths" and "concerns." In this study, we focus on the "strengths" screens related to employee treatment. These screens encompass Union relations, Cash profit sharing, Employee involvement, Retirement benefits strength, and Work/life benefits. Each category receives a rating of 0 or 1 from MSCI ESG. To generate the Employee Friendliness Index (EFI), we sum up the rating scores for each category annually, creating an index ranging from zero to five, where a higher value indicates a more employee-friendly firm. The criteria for rating the screens are described as follows:

1) Union relations: If the company has taken exceptional steps to treat its unionized workforce fairly, then the rating will be 1; otherwise, 0.

2) Cash profit sharing: If the company has a cash profit-sharing program through which it has recently made distributions to most of its workforce, then the rating will be 1; otherwise, 0.

3) Employee involvement: If the company strongly encourages worker involvement or ownership through stock options available to most of its employees, gain sharing, stock ownership, sharing of financial information, or participation in management decision making, then the rating will be 1; otherwise, 0.

4) Retirement benefits strength: If the company has a notably strong retirement benefits program, the rating will be 1; otherwise, 0.

5) Work/life benefits: If the company has outstanding employee benefits or other programs addressing work/family concerns, (for example, childcare, elder care, or flextime), then the rating will be 1; otherwise, 0.

Other Variables:

CCC: The time lag between the collection of revenue from the sales of finished products or services and the expenditure on raw materials. A longer Cash Conversion Cycle increases the investment in working capital.

Net Working Capital Ratio (NWCR): Net Working Capital Ratio is the difference between current assets and current liabilities scaled by total assets.

EFI: Employee Friendliness Index

Size: Size is defined as the natural logarithm of the market value of equity in inflation-adjusted 2002 dollars. We include firm size as it captures the accessibility of a firm to the capital market.

Leverage: Leverage is defined as the ratio of debt to total assets. Leverage is a commonly used control variable in finance and accounting literature, and hence we use lagged leverage ratio as a control variable in our regressions.

M/B: Market-to-book ratio is the market value of equity divided by the book value of equity. The market value of a firm is measured at the beginning of the fiscal year. It captures the degree of asymmetric information. We use lagged M/B as a control variable in our regressions.

Cash Flow Ratio: Firm's profitability (cash flow/book assets)

ROA: Return on asset measured as net income divided by total assets

Tangibility Ratio: Tangibility is defined as the tangible fixed assets scaled by total assets. This variable will help control the illiquid assets of a firm. Hence, we use lagged tangibility as a control variable in our regressions.

Firm Age: It is defined as the natural logarithm of the age of the firm. We include *Firm Age* as a control as it captures the strength of the firm's internal control (Huang et al.; 2012) and can influence short term financial management.

CEO Age: Age of the CEO of the firm

CEO Tenure: CEO Tenure is the number of years the executive has spent at the firm in that post.

CEO Gender: CEO Gender is a dummy variable that is equal to one if the executive is a female and zero otherwise.

Table 1 presents the summary statistics of the variables for the entire sample of 7,889 firm-year observations. The average Cash Conversion Cycle (CCC) is -9.29 days, with a median of 25.45 days. Similarly, the means and medians for Days Inventories Outstanding (DIO), Days Sales Outstanding (DSO), and Days Payables Outstanding (DPO) are 68.89 (54.5), 56.94 (52.26), and 131.99 (76.98) days, respectively. These figures align with previously reported statistics. Our alternative measure, the Net Working Capital Ratio (NWCR), exhibits both a mean and median of 0.07 for the entire sample. As for our primary variable of interest, the mean and median are 0.3 and 0, respectively, indicating that most firms are not perceived as employee friendly.

Table 1: Summary Statistics

Table 1 presents the univariate statistics for the variables used. The accounting variables are from COMPUSTAT, and executive specific variables are obtained from the ExecuComp files on COMPUSTAT. The full sample consists of annual observations between 1991 and 2014. Cash Conversion Cycle (CCC); Days Inventories Outstanding (DIO); Days Sales Outstanding (DSO); and Days Payables Outstanding (DPO).

Table 1			
Summary Statistics			
Full Sample			
Variable	N	Mean	Median
CCC	7878	-9.29	25.45
DIO	7879	69.89	54.50
DSO	7878	56.94	52.26
DPO	7879	131.99	76.98
NWCR	7879	0.07	0.07
EFI	7886	0.30	0.00
Altman Z score	7886	1.23	1.31
Size	7879	7.22	7.07
Leverage	7879	0.13	0.10
M/B	7879	3.86	2.38
Cash Flow Ratio	7879	0.09	0.09
ROA	7877	4.67	5.70
Tangibility Ratio	7879	0.26	0.19
Firm Age	7879	25.37	19
CEO Age	7655	55.16	55
CEO Tenure	7789	7.95	6
CEO Gender	7879	0.03	0

In Table 2, we segment the sample into two subsets based on Employee Friendliness Index (EFI) values, distinguishing between high EFI and low EFI firms (based on above and below median EFI values). We then compare the summary statistics of the considered variables for these two groups. Significant differences emerge between low EFI and high EFI firms in terms of CCC, DPO, and Working Capital Ratio. For instance, CCC is -8.6 days for low EFI firms and -20.58 days for high EFI firms. Similarly, DPO is 76.33 days for low EFI firms and 137.66 days for high EFI firms. These variations are statistically significant at the one percent level. Overall, our univariate analysis outcomes indicate that firms with more satisfied employees tend to have shorter cash conversion cycles, primarily influenced by the extension of payable outstanding. All variables have been winsorized at the 1 and 99 percentiles.

Table 2: Low vs. High Employee Friendliness Index Firms

We divide the sample into two subsamples: high EFI and low EFI based on the value of EFI median and compare the summary statistics of the two groups. Cash Conversion Cycle (CCC); Days Inventories Outstanding (DIO); Days Sales Outstanding (DSO); and Days Payables Outstanding (DPO). ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 2							
Low vs. High Employee Friendliness Index Firms							
Variable	Low EFI			High EFI			Wilcoxon Rank-Sum Difference between Medians
	N	Mean	Median	N	Mean	Median	
CCC	7425	-8.60	26.32	453	-20.58	11.28	***
DIO	7426	70.22	54.68	453	64.61	52.83	
DSO	7425	57.21	52.58	453	52.47	47.80	
DPO	7426	131.64	76.33	453	137.66	94.22	***
NWCR	7426	0.07	0.07	453	0.02	0.01	***
EFI	7433	0.19	0.00	453	2.20	2.00	***
Altman Z score	7433	1.12	1.15	453	3.03	3.11	***
Size	7426	7.13	6.97	453	8.83	8.75	***
Leverage	7426	0.13	0.10	453	0.12	0.10	
M/B	7426	3.92	2.36	453	2.96	2.75	***
Cash Flow Ratio	7426	0.09	0.09	453	0.10	0.09	
ROA	7424	4.56	5.62	453	6.47	6.99	***
Tangibility Ratio	7426	0.25	0.19	453	0.30	0.25	***
Firm Age	7426	24.75	19	453	35.52	36	***
CEO Age	7213	55.14	55	442	55.55	56	
CEO Tenure	7336	8.02	6	453	6.69	5	***
CEO Gender	7426	0.03	0	453	0.04	0	

3. MAIN RESULTS

The univariate results displayed in Table 2 indicate that there are significant differences in working capital management (CCC and NWCR) and Days Payables Outstanding (DPO) between firms with low and high EFI. In this section, we present our multivariate tests examining the impact of EFI on the Cash Conversion Cycle while controlling for other relevant factors. Specifically, we consider four specifications in our analyses. Following Petersen (2009), we adopt heteroscedasticity-consistent standard errors clustered at the firm level for all our regressions. Petersen (2009) argues that clustering the standard errors at the firm level eliminates the bias arising from correlated residuals due to unobserved firm characteristics in panel analysis. Additionally, we follow the approach of Billett et al. (2007) by winsorizing all variables at the 1 and 99 percentiles to mitigate the influence of outliers on the results. The p-values are presented in parentheses.

In Table 3A, the dependent variable is CCC, and the variable of interest is EFI. We incorporate essential firm-specific and CEO-specific variables that might impact CCC as our control variables. The Ordinary Least Squares (OLS) analysis results indicate that firms with higher EFIs are linked to shorter cash conversion cycles. Specifically, the primary OLS regression results suggest that a 1-unit increase in EFI results in a reduction of CCC by approximately 14 days, which is statistically and economically significant. We conduct additional analyses, including pooled regression analysis with year and industry dummies, Median regression, and Fama-MacBeth Regression in subsequent specifications. The Fama-MacBeth Regression is applied to correct for potential cross-sectional dependence in residuals, which, if unaddressed, could introduce bias favoring the acceptance of the hypothesis. Across these various models, our results are qualitatively similar, affirming the strong relationship between EFI and CCC.

Table 3A

This table provides the main baseline regression results. Model 1 is OLS regression, Model 2 is Pooled regression, Model 3 is median regression, and Model 4 is Fama-MacBeth regression. Cash Conversion Cycle (CCC) is the dependent variable and Employee Friendliness Index (EFI) is the main variable of interest in all four models. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 3A				
Dependent Variable: Cash Conversion Cycle				
	Model 1	Model 2	Model 3	Model 4
	OLS	Pooled	Median	Fama-MacBeth
	Regression	Regression	Regression	Regression
EFI	-13.9123** (0.0111)	-13.7110** (0.0127)	-4.7418*** (0.0002)	-14.4335** (0.0317)
Size	-7.5971* (0.0851)	-7.4118* (0.0671)	-9.7511*** (0.0000)	-8.4001* (0.0791)
Leverage	144.1117*** (0.0010)	146.9980*** (0.0034)	22.1512*** (0.0005)	142.7402** (0.0100)
M/B	-0.0069 (0.4992)	-0.0062 (0.5611)	-0.0061 (0.5540)	-0.4678 (0.2726)
Cash Flow Ratio	164.3141 (0.2912)	166.7623 (0.2815)	-5.8812 (0.5255)	2.8457 (0.9877)
ROA	-0.3240 (0.6771)	-0.3207 (0.6752)	0.0457 (0.5161)	0.8206 (0.2471)
Tangibility Ratio	-71.20337 (0.1000)	-72.6100 (0.1012)	-52.0415*** (0.0000)	-63.9078 (0.1622)
Firm Age	2.0811*** (0.0000)	2.0551*** (0.0000)	0.7591*** (0.0000)	1.9472*** (0.0000)
CEO Age	3.1755*** (0.0062)	3.1227*** (0.0091)	1.2911*** (0.0000)	2.9322** (0.0357)
CEO Tenure	-0.0018 (0.9980)	-0.0139 (0.9826)	-0.1626 (0.1569)	0.0427 (0.9125)
CEO Gender	-3.7761 (0.7555)	-3.9782 (0.7526)	-12.6840*** (0.0067)	-6.7282 (0.6549)
R-Squared	0.0112	0.0099	0.0395	0.0344
N	7567	7567	7567	7567
Year Dummies	No	Yes	Yes	Yes
Industry Dummies	No	Yes	Yes	Yes

We further expand our analysis by looking into the impact of employee friendliness on each individual component of the CCC. Specifically, we investigate the effects of EFI on DIO, DSO, and DPO separately, using all four specifications (OLS, Pooled, Median, and Fama-MacBeth regressions) in each case.

In Table 3B, where the dependent variable is DIO, the coefficients for EFI in each model are generally positive but not statistically significant. This suggests that employee satisfaction in the firm does not have a significant influence on DIO.

Table 3B

This table provides the regression results with Days Inventories Outstanding (DIO) as the dependent variable and Employee Friendliness Index (EFI) as the main variable of interest in all four models. Model 1 is OLS regression, Model 2 is Pooled regression, Model 3 is median regression, and Model 4 is Fama-MacBeth regression. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 3B				
Dependent Variable: DIO				
	Model 1	Model 2	Model 3	Model 4
	OLS	Pooled	Median	Fama-MacBeth
	Regression	Regression	Regression	Regression
EFI	2.6865 (0.2253)	2.4131 (0.2844)	2.2689* (0.0857)	3.1850 (0.1152)
Size	-2.6474*** (0.0031)	-2.5732*** (0.0050)	-3.7812*** (0.0000)	-2.6044** (0.0171)
Leverage	-33.7446*** (0.0013)	-35.3511*** (0.0005)	-24.8917*** (0.0000)	-34.8014*** (0.0096)
M/B	0.0148 (0.5609)	0.0150 (0.5542)	-0.0039 (0.7255)	0.5556** (0.0281)
Cash Flow Ratio	-19.0573 (0.5582)	-18.7671 (0.5514)	10.9164 (0.2320)	2.8058 (0.9290)
ROA	-0.0662 (0.5489)	-0.0642 (0.5921)	-0.0702 (0.3146)	-0.4449 (0.1492)
Tangibility Ratio	-62.4547*** (0.0000)	-62.0680*** (0.0000)	-59.3077*** (0.0000)	-60.6917*** (0.0000)
Firm Age	0.2910*** (0.0000)	0.2918*** (0.0000)	0.4559*** (0.0000)	0.3089*** (0.0001)
CEO Age	0.4089* (0.0612)	0.4311** (0.0415)	0.7847*** (0.0000)	0.5069** (0.0404)
CEO Tenure	0.0218 (0.9163)	0.0160 (0.9367)	-0.2924*** (0.0085)	-0.0009 (0.9964)
CEO Gender	0.5866 (0.9160)	0.3564 (0.9492)	-4.6652 (0.3159)	1.7412 (0.5614)
R-Squared	0.0231	0.0237	0.0557	0.0576
N	7568	7568	7568	7568
Year Dummies	No	Yes	Yes	Yes
Industry Dummies	No	Yes	Yes	Yes

Similarly, Table 3B, which has DIO as the dependent variable shows no significant relationship between EFI and DSO. The analysis indicates that employee happiness does not significantly influence the selling side of firms or DSO.

Table 3C

This table provides the regression results with Days Sales Outstanding (DSO) as the dependent variable and Employee Friendliness Index (EFI) as the main variable of interest in all four models. Model 1 is OLS regression, Model 2 is Pooled regression, Model 3 is median regression, and Model 4 is Fama-MacBeth regression. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 3C				
Dependent Variable: DSO				
	Model 1	Model 2	Model 3	Model 4
	OLS	Pooled	Median	Fama-MacBeth
	Regression	Regression	Regression	Regression
EFI	-0.2993 (0.8530)	-0.9362 (0.6800)	0.7671 (0.2370)	-0.2053 (0.9324)
Size	-1.4469 (0.3100)	-1.1743 (0.3045)	-0.2809 (0.3660)	-0.8316 (0.1009)
Leverage	-26.0690 (0.3224)	-28.8603 (0.3350)	0.2873 (0.9257)	-16.0933 (0.4781)
M/B	-0.0042 (0.4247)	-0.0025 (0.5299)	0.0015 (0.7805)	0.0068 (0.8755)
Cash Flow Ratio	-112.8207 (0.1495)	-112.0600 (0.1541)	-7.1677 (0.1112)	-140.2963 (0.3127)
ROA	-0.0041 (0.9859)	0.0192 (0.9358)	-0.0802** (0.0191)	0.1161 (0.7440)
Tangibility Ratio	-42.1194*** (0.0000)	-41.9866*** (0.0000)	-44.7861*** (0.0000)	-42.5935*** (0.0000)
Firm Age	-0.0562 (0.3116)	-0.0769 (0.1617)	0.0076 (0.7525)	-0.0952 (0.2516)
CEO Age	-0.0092 (0.9762)	0.0025 (0.9937)	0.0136 (0.8099)	-0.0735* (0.0814)
CEO Tenure	-0.0732 (0.6260)	-0.0981 (0.5725)	0.0209 (0.7172)	-0.0371 (0.8217)
CEO Gender	-17.2911*** (0.0000)	-18.0250*** (0.0000)	-13.0184*** (0.0000)	-18.1282*** (0.0029)
R-Squared	0.0043	0.0047	0.0497	0.0871
N	7567	7567	7567	7567
Year Dummies	No	Yes	Yes	Yes
Industry Dummies	No	Yes	Yes	Yes

In Table 3D, we explore the effect of EFI on DPO. The results reveal a significantly positive relationship between employee happiness and DPO across all four specifications. For instance, the OLS regression indicates that a one-unit increase in the EFI index is associated with an approximately 18-day increase in DPO. These findings support the idea that a company with happier employees can effectively extend the time it takes to pay its payables to suppliers.

Overall, while there is no discernible influence of happier employees on DIO and DSO, the results suggest that satisfied employees can exert a meaningful influence on DPO.

Table 3D

This table provides the regression results with Days Payables Outstanding (DPO) as the dependent variable and Employee Friendliness Index (EFI) as the main variable of interest in all four models. Model 1 is OLS regression, Model 2 is Pooled regression, Model 3 is median regression, and Model 4 is Fama-MacBeth regression. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 3D				
Dependent Variable: DPO				
	Model 1	Model 2	Model 3	Model 4
	OLS	Pooled	Median	Fama-MacBeth
	Regression	Regression	Regression	Regression
EFI	18.4863*** (0.0052)	18.6616*** (0.0080)	8.9741*** (0.0000)	19.9427** (0.0100)
Size	4.8091 (0.2970)	4.5719 (0.2900)	5.1653*** (0.0000)	5.4601 (0.2217)
Leverage	-166.2216*** (0.0045)	-161.7559** (0.0197)	-32.2021*** (0.0000)	-165.0777*** (0.0058)
M/B	0.0216 (0.3421)	0.0202 (0.3541)	0.0033 (0.7637)	1.1472* (0.0804)
Cash Flow Ratio	-169.8511 (0.4085)	-158.4590 (0.4562)	-11.9542 (0.1667)	-52.8076 (0.6975)
ROA	0.0140 (0.9867)	-0.0819 (0.9233)	-0.1546** (0.0192)	-1.1805 (0.1727)
Tangibility Ratio	-30.9066 (0.4907)	-31.1768 (0.4943)	-56.9228*** (0.0001)	-35.8469 (0.4032)
Firm Age	-1.8404*** (0.0000)	-1.8218*** (0.0000)	-0.2412*** (0.0000)	-1.7141*** (0.0000)
CEO Age	-2.4455* (0.0581)	-2.3903* (0.0588)	-0.6952*** (0.0000)	-2.1789* (0.0663)
CEO Tenure	0.1653 (0.8148)	0.1714 (0.8107)	0.0134 (0.9010)	0.0942 (0.8650)
CEO Gender	-8.4250 (0.5024)	-8.7404 (0.5040)	-1.0332 (0.8140)	-7.2758 (0.6488)
R-Squared	0.0059	0.0064	0.0255	0.0299
N	7568	7568	7568	7568
Year Dummies	No	Yes	Yes	Yes
Industry Dummies	No	Yes	Yes	Yes

Having established the impact of employee friendliness on a firm's trade terms and its cash conversion cycle, we further investigate if the impact is different between high-tech and non-high-tech firms. Prior research underscores the significance of employee happiness in high-tech companies, asserting that happiness fosters innovation (Antoncic and Antoncic, 2010;

Adhikari et al., 2017). It is interesting to see if the role of employee satisfaction in trade terms is different between the two groups. Table 4 presents our empirical investigation on these questions.

For this analysis, we partition our sample of firm-year observations into high-tech firms and non-high-tech firms based on the high-tech firm classification by Loughran and Ritter (2004). In Panel A of Table 4, we conduct OLS regressions in two models. The dependent variables are CCC for high-tech firms in Model 1 and CCC for non-high-tech firms in Model 2. The results from these models reveal that there is no discernible effect of EFI on CCC for high-tech firms. However, EFI is significantly negatively related to CCC for non-high-tech firms. As discussed earlier, not prioritizing short-term cash management and high turnover of employees in high-tech firms might be the reasons for these different results between high-tech and other firms. These findings support our contention that happier employees contribute to the dissemination of a firm's strengths to relevant stakeholders, aiding the firm in shortening its cash conversion cycle.

Table 4A

This table provides the regression results for high-tech and non-high-tech firms in Models 1 and 2 respectively. Cash Conversion Cycle (CCC) is the dependent variable and Employee Friendliness Index (EFI) is the main variable of interest in both models. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 4A		
Dependent Variable: CCC		
	Model 1	Model 2
	Hi-Tech Firms	Non-high-tech Firms
EFI	-8.2098 (0.5389)	-10.6668* (0.0643)
Size	-24.0712*** (0.0001)	-0.9861 (0.8610)
Leverage	149.3370* (0.0504)	112.5571* (0.0733)
Ratio	-1.4545 (0.3950)	-0.0025 (0.8238)
Cash Flow Ratio	-134.8897 (0.1544)	222.5277 (0.2468)
ROA	0.1930 (0.6699)	-0.5246 (0.6256)
Tangibility Ratio	238.8359*** (0.0000)	-132.8143*** (0.0072)
Firm Age	3.6898*** (0.0000)	1.3415*** (0.0000)
CEO Age	0.1646 (0.9510)	3.9639*** (0.0073)
CEO Tenure	2.2025 (0.3194)	-0.5034 (0.3222)
CEO Gender	-21.9704 (0.4821)	-1.5760 (0.9223)
R-Squared	0.0294	0.0106
N	1950	5617
Year Dummies	Yes	Yes

In Panel B of Table 4, we examine the impact of the Employee Friendliness Index (EFI) on Days Payables Outstanding (DPO) for high-tech and non-high-tech firms in Models 1 and 2, respectively. Our findings indicate that EFI is not correlated with DPO for high-tech firms, but it exhibits a significantly positive relationship with DPO for non-high-tech firms. Unlike high-tech firms, where content and motivated employees contribute to innovation, in non-high-tech firms, the primary objective of ensuring employee satisfaction is to foster a sustained and harmonious long-term relationship with suppliers. Our results align with this proposition.

Table 4B

This table provides the regression results for high-tech and non-high-tech firms in Models 1 and 2 respectively. Days Payables Outstanding (DPO) is the dependent variable and Employee Friendliness Index (EFI) is the main variable of interest in both models. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 4B		
Dependent Variable: DPO		
	Model 1	Model 2
	Hi-Tech Firms	Non-high-tech Firms
EFI	3.0474 (0.8166)	20.3800** (0.0114)
Size	16.6959*** (0.0069)	-0.2414 (0.9680)
Leverage	-178.6854** (0.0208)	-128.2952 (0.1766)
M/B	0.8405 (0.6386)	0.0171 (0.4016)
Cash Flow Ratio	72.8858 (0.4326)	-199.1290 (0.4431)
ROA	-0.2423 (0.5525)	0.0114 (0.9923)
Tangibility Ratio	-266.0545*** (0.0000)	17.9429 (0.7271)
Firm Age	-3.1811*** (0.0000)	-1.2474*** (0.0000)
CEO Age	1.0591 (0.7042)	-3.3663** (0.0356)
CEO Tenure	-2.6421 (0.2530)	0.8317 (0.1972)
CEO Gender	4.4087 (0.8791)	-8.6752 (0.6300)
R-Squared	0.0245	0.0049
N	1950	5618
Year Dummies	Yes	Yes

To further validate our findings, we introduce financial constraint as an external shock and examine the impact of Employee Friendliness Index (EFI) on Cash Conversion Cycle (CCC) and Days Payables Outstanding (DPO). To achieve this, we categorize firm-year observations into those with a high probability of bankruptcy and those with a low probability of bankruptcy, based on the median value of the Altman Z-score (Altman, 1968).

In Panel B of Table 5, we explore the impact of EFI on DPO for firms with different probabilities of bankruptcy. Our results indicate that EFI is not associated with DPO for firms with a higher likelihood of default. However, EFI exhibits a significantly positive association

with firms that have a lower probability of bankruptcy. For instance, a one-unit increase in EFI leads to approximately five days longer DPO for financially constrained firms (those with a high likelihood of bankruptcy). In contrast, the same increase in EFI results in about 33 days longer DPO for firms with a low probability of bankruptcy, demonstrating a significant effect at the 1 percent level.

Table 5A

This table provides the regression results for firms with high probability of bankruptcy and low probability of bankruptcy in Models 1 and 2 respectively. Cash Conversion Cycle (CCC) is the dependent variable and Employee Friendliness Index (EFI) is the main variable of interest in both models. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 5A		
Dependent Variable: CCC		
	Model 1	Model 2
	High Probability of Bankruptcy	Low Probability of Bankruptcy
EFI	-6.2919* (0.0755)	-20.5122* (0.0524)
Size	-6.2570*** (0.0061)	-9.6721 (0.1410)
Leverage	114.2043*** (0.0001)	395.2562** (0.0123)
M/B	-0.0097 (0.1416)	-0.0390 (0.9017)
Cash Flow Ratio	-81.9401 (0.2549)	483.0834 (0.1879)
ROA	-0.1412 (0.6995)	-0.8781 (0.6515)
Tangibility Ratio	-100.7539*** (0.0000)	-66.2216 (0.5468)
Firm Age	1.4462*** (0.0000)	2.6355*** (0.0000)
CEO Age	2.6737*** (0.0001)	3.1316 (0.1477)
CEO Tenure	-0.9350* (0.0851)	0.8948 (0.4440)
CEO Gender	-2.7636 (0.8061)	-4.6634 (0.8421)
R-Squared	0.0474	0.0112
N	3389	4178
Year Dummies	Yes	Yes
Industry Dummies	Yes	Yes

Table 5B

This table provides the regression results for firms with high probability of bankruptcy and low probability of bankruptcy in Models 1 and 2 respectively. Days Payables Outstanding (DPO) is the dependent variable and Employee Friendliness Index (EFI) is the main variable of interest in both models. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 5B		
Dependent Variable: DPO		
	Model 1	Model 2
	High Probability of Bankruptcy	Low Probability of Bankruptcy
EFI	4.7434 (0.2455)	32.7722** (0.0161)
Size	2.6992 (0.3499)	4.6176 (0.5001)
Leverage	-209.0469*** (0.0000)	-239.5088 (0.2597)
M/B	0.0002 (0.9693)	0.7661* (0.0700)
Cash Flow Ratio	79.6794 (0.2730)	-472.2361 (0.3376)
ROA	-0.1362 (0.7515)	0.3282 (0.8801)
Tangibility Ratio	-25.1771 (0.1865)	-6.0983 (0.9575)
Firm Age	-1.4041*** (0.0000)	-2.4050*** (0.0000)
CEO Age	-2.0505*** (0.0019)	-2.4668 (0.2754)
CEO Tenure	0.9796 (0.1196)	-0.4373 (0.7463)
CEO Gender	-10.1672 (0.3739)	-6.7064 (0.7850)
R-Squared	0.0283	0.0082
N	3389	4179
Year Dummies	Yes	Yes
Industry Dummies	Yes	Yes

For suppliers, high bankruptcy groups will be too risky to extend any extended trade credit terms, so we may not have observed the impact of EFI on Cash conversion cycle or Days Payable Outstanding. Therefore, in Panel C of Table 5, we focus on the low bankruptcy group and try to understand the effect of EFI on CCC and DPO at varying levels of bankruptcy risk. Therefore, we conduct regressions with CCC and DPO as dependent variables in Models 1 and 2 respectively, with similar controls as in previous models, except that we add Altman z-score as an additional control variable. We find that EFI demonstrated similar results as in Panels

A and B although Altman z-score is significantly negative in the first model and significantly positive in the second model. These results indicate that the companies with a history of employee friendly environments fare better during challenging times.

Table 5C

This table provides the regression results for firms with low probability of bankruptcy. Cash Conversion Cycle (CCC) and Days Payables Outstanding (DPO) are the dependent variables in models 1 and 2 respectively and Employee Friendliness Index (EFI) is the main variable of interest in both models. We have included Altman z-score as a control variable to observe the effect of Employee Friendliness Index (EFI) on CCC and DPO at different levels of riskiness within firms with low bankruptcy risk. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 5C		
For Firms with Low Bankruptcy Risk		
	CCC	DPO
EFI	-15.3751* (0.0536)	22.5713** (0.0103)
Altman Z-score	-5.3212*** (0.0010)	7.3112*** (0.0012)
Size	-9.6715 (0.1415)	4.6047 (0.5066)
Leverage	395.2001** (0.0201)	-239.5084 (0.2594)
M/B	-0.0411 (0.9011)	0.7646* (0.0778)
Cash Flow Ratio	483.0822 (0.1878)	-472.2361 (0.3376)
ROA	-0.8752 (0.6516)	0.3226 (0.8805)
Tangibility Ratio	-66.2214 (0.5467)	-6.0982 (0.9571)
Firm Age	2.6365*** (0.0000)	-2.4058*** (0.0000)
CEO Age	3.0090* (0.0901)	-2.4665 (0.2751)
CEO Tenure	0.6124 (0.2337)	-0.4375 (0.7459)
CEO Gender	-4.6551 (0.7801)	-6.7063 (0.7850)
R-Squared	0.0118	0.0091
N	4178	4179
Year Dummies	Yes	Yes
Industry Dummies	Yes	Yes

4. ROBUSTNESS TESTS

In Table 6A, we conduct a robustness test to validate the results established in the baseline regression analysis (Table 2). To achieve this, we include Altman Z-score as an additional control variable and use an alternative variable, Net Working Capital Ratio (NWCR), as the dependent variable. We find that EFI is significantly negatively related to NWCR in all four models, indicating that companies with happier employees can enjoy better trade credit terms. Such results persist even during financially unfavorable environments.

Table 6A

This table provides the robustness tests of our baseline regression results in Table 2. Model 1 is OLS regression, Model 2 is Pooled regression, Model 3 is median regression, and Model 4 is Fama-MacBeth regression. Alternative measure NWCR is the dependent variable and Employee Friendliness Index (EFI) is the main variable of interest in all four models. P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 6A				
Dependent Variable: Net Working Capital Ratio (Alternate Measure)				
	Model 1	Model 2	Model 3	Model 4
	OLS Regression	Pooled Regression	Median Regression	Fama-MacBeth Regression
EFI	-0.0117*** (0.0012)	-0.0118*** (0.0012)	-0.0046** (0.0179)	-0.0115*** (0.0000)
Altman Z Score	-0.0041*** (0.0001)	-0.0040*** (0.0001)	-0.0015** (0.0102)	-0.0041*** (0.0000)
Size	-0.0244*** (0.0000)	-0.0244*** (0.0000)	-0.0286*** (0.0000)	-0.0248*** (0.0000)
Leverage	0.0051 (0.7856)	0.0053 (0.8255)	0.0275** (0.0417)	0.0177 (0.4087)
M/B	-0.0000 (0.3381)	-0.0000 (0.3384)	0.0000 (0.9756)	-0.0009 (0.1221)
Cash Flow Ratio	0.1136*** (0.0000)	0.1124*** (0.0000)	0.1222*** (0.0000)	0.0991** (0.0239)
ROA	0.0004** (0.0479)	0.0004** (0.0374)	0.0004*** (0.0030)	0.0006* (0.0930)
Tangibility Ratio	-0.0854*** (0.0000)	-0.0846*** (0.0000)	-0.0921*** (0.0000)	-0.0880*** (0.0000)
Firm Age	0.0018*** (0.0000)	0.0018*** (0.0000)	0.0016*** (0.0001)	0.0018*** (0.0000)
CEO Age	0.0029*** (0.0000)	0.0028*** (0.0000)	0.0024*** (0.0000)	0.0023*** (0.0000)
CEO Tenure	0.0001 (0.5653)	0.0001 (0.5557)	-0.0002 (0.4323)	0.0001 (0.2637)
CEO Gender	-0.0333** (0.0126)	-0.0332** (0.0129)	-0.0354*** (0.0002)	-0.0331*** (0.0063)
R-Squared	0.1193	0.1188	0.0989	0.1338
N	7568	7568	7568	7568
Year Dummies	No	Yes	Yes	Yes
Industry Dummies	No	Yes	Yes	Yes

Similar to Table 6A, in Table 6B, we explore the impact of EFI on CCC and DPO before and during the financial crisis, specifically for non-high-tech firms with a low probability of bankruptcy. In models 1 and 2, we use data from before the crisis period whereas in Models 3 and 4, the data is from during the financial crisis period. Models 1 and 3 have CCC as the

dependent variable whereas Models 2 and 4 have DPO as dependent variable. In all four models, besides our regular control variables, we have added Altman z-score also as a control variable. We observe that CCC is significantly shorter during the crisis, and DPO is significantly longer for firms amidst the crisis, providing additional support to our earlier findings. And, as we have controlled for Altman Z-score, we observe that within non-high-tech firms with low probability of bankruptcy, the employee friendly firms obtain better trade credit terms during economic downturns. These results help us substantiate our findings that, in general, for firms with low probability of bankruptcy, employee friendliness helps significantly shortening cash conversion cycles and extending Days Payable Outstanding.

Table 6B

This table considers the before financial crisis and during financial crisis samples separately. Models 1 and 2 provide regression results with CCC and DPO as dependent variables respectively for the before crisis sample whereas Models 3 and 4 provide regression results with CCC and DPO as dependent variables respectively for the after-crisis sample. Cash Conversion Cycle (CCC); Days Inventories Outstanding (DIO); Days Sales Outstanding (DSO); and Days Payables Outstanding (DPO). P-values are in parentheses. ***, **, * represent significant levels of less than 1%, 5%, and 10% respectively.

Table 6B				
Considering Exogenous Shock (Crisis Period is years 2007, 2008 and 2009)				
	Before Crisis		During Crisis	
	Model 1	Model 2	Model 3	Model 4
	CCC	DPO	CCC	DPO
EFI	-5.0175 (0.1553)	18.9170*** (0.0000)	-29.0051* (0.0820)	43.1112** (0.0317)
Altman Z-score	-2.0325* (0.0822)	6.067*** (0.0000)	-10.3911** (0.040)	16.2215*** (0.0012)
Size	-15.7501*** (0.0000)	15.2163*** (0.0000)	24.1009 (0.1671)	-31.3054 (0.1153)
Leverage	75.4227 (0.3622)	-31.5635 (0.7157)	46.6920 (0.9162)	345.7341 (0.5937)
M/B	0.2463** (0.0175)	0.4471*** (0.0014)	-1.1277 (0.3834)	2.2414 (0.3474)
Cash Flow Ratio	-193.4400** (0.0266)	220.6048** (0.0255)	1134.0023 (0.4380)	-1084.9221 (0.3351)
ROA	2.2515*** (0.0031)	-3.2633*** (0.0006)	-2.3855 (0.7500)	1.5560 (0.8446)
Tangibility Ratio	-42.0331* (0.0576)	-82.1877*** (0.0005)	-320.1701 (0.2400)	280.7788 (0.3270)
Firm Age	1.1653*** (0.0000)	-1.0565*** (0.0000)	1.8476** (0.0171)	-1.9315** (0.0224)
CEO Age	1.7650*** (0.0000)	-1.1598*** (0.0071)	7.9797 (0.1748)	-7.4829 (0.2464)
CEO Tenure	0.1867 (0.5943)	-0.3155 (0.3845)	0.9835 (0.6922)	1.0871 (0.7276)
CEO Gender	-54.0762* (0.0571)	46.8501* (0.0891)	66.0930 (0.2344)	-67.8511 (0.2843)
R-Squared	0.0757	0.0863	0.0196	0.0198
N	1560	1560	1272	1272
Year Dummies	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes

5. CONCLUSION

The prudent management of working capital holds significant importance as it constitutes a substantial portion of total assets for firms globally. This paper delves into the impact of employee satisfaction on working capital management in corporate entities. Our findings reveal that a higher level of employee satisfaction within a firm contributes to the shortening of the cash conversion cycle, primarily facilitating favorable credit terms with suppliers by extending Days Payables Outstanding. Additionally, we observe that the influence of employee satisfaction on these aspects is more pronounced in non-high-tech firms compared to high-tech companies. More importantly, we find that employee friendliness becomes even more beneficial to the firms during the crisis. This evidence shows support for the prior literature which suggests that treating employees well will benefit the firms in many aspects, especially during difficult times. In conclusion, our results underscore the substantial importance of employee satisfaction in fostering effective working capital management practices.

This paper has several implications. First, it shows that employee satisfaction can have a positive impact on a company's working capital management. This is because satisfied employees are more likely to go the extra mile to help their company succeed, which includes building strong relationships with suppliers and negotiating favorable trade terms. The implication is that companies and human resource departments should focus more on making their employees satisfied and happy. Second, the paper finds that the impact of employee satisfaction on working capital management is applied to all firms. Managers of non-high-tech firms might prioritize their policies differently than those of high-tech firms based on our findings. Third, the paper shows that employee satisfaction can help companies fare better during difficult economic times, which implies that satisfied employees are more likely to be loyal to their company and to help it weather the storm. Last, from a regulatory standpoint, the positive impact of employee friendly policies on working capital management can be used to promote regulations that enhance employee welfares such as profit sharing, retirement, union policies etc., since both firms and their employees can benefit from those policies.

REFERENCES

- Adhikari, H. P., Bulmash, S. B., Krolikowski, M. W., & Sah, N. B. (2015). Dynamics of CEO compensation: Old is gold. *The Quarterly Review of Economics and Finance*, 57, 191-206.
- Adhikari, H. P., Choi, W., & Sah, N. B. (2017). That is what friends do: employee friendliness and innovation. *Journal of Economics and Business*, 90, 65-76.
- Aktas, N., Andreou, P. C., Karasamani, I., & Philip, D. (2019). CEO duality, agency costs, and internal capital allocation efficiency. *British Journal of Management*, 30(2), 473-493.
- Auer Antoncic, J., & Antoncic, B. (2011). Employee satisfaction, intrapreneurship and firm growth: a model. *Industrial Management & Data Systems*, 111(4), 589-607.
- Altman, E., (1968) Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy, *The Journal of Finance*, 23(4), pp.589-609
- Bae, K. H., Kang, J. K., & Wang, J. (2011). Employee treatment and firm leverage: A test of the stakeholder theory of capital structure. *Journal of Financial Economics*, 100(1), 130-153.

- Baiman, S., Fischer, P. E., & Rajan, M. V. (2000). Information, contracting, and quality costs. *Management Science*, 46(6), 776-789.
- Baldenius, T. (2000). Intrafirm trade, bargaining power, and specific investments. *Review of Accounting Studies*, 5(1), 27-56.
- Baños-Caballero, S., García-Teruel, P. J., & Martínez-Solano, P. (2010). Working capital management in SMEs. *Accounting & Finance*, 50(3), 511-527.
- Billett, M. T., King, T. H. D., & Mauer, D. C. (2007). Growth opportunities and the choice of leverage, debt maturity, and covenants. *the Journal of Finance*, 62(2), 697-730.
- Bridges, S., & Harrison, J. K. (2003). Employee perceptions of stakeholder focus and commitment to the organization. *Journal of Managerial Issues*, 498-509.
- Cunat, V. (2007). Trade credit: suppliers as debt collectors and insurance providers. *The Review of Financial Studies*, 20(2), 491-527.
- Deloof, M., & Jegers, M. (1996). Trade credit, product quality, and intragroup trade: some European evidence. *Financial management*, 33-43.
- Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of business finance & Accounting*, 30(3-4), 573-588.
- Dewing, T., & Smith, S. (1941). Sulphanilic Guanidine. *Nature*, 148(3740), 24-24.
- Ding, S., Guariglia, A., & Knight, J. (2013). Investment and financing constraints in China: does working capital management make a difference?. *Journal of Banking & Finance*, 37(5), 1490-1507.
- Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial economics*, 101(3), 621-640.
- Edmans, A., Pu, D., Zhang, C., & Li, L. (2024). Employee satisfaction, labor market flexibility, and stock returns around the world. *Management Science*, 70(7), 4357-4380.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: contributions to perceived organizational support and employee retention. *Journal of applied psychology*, 87(3), 565.
- Ertugrul, M. (2013). Employee-friendly acquirers and acquisition performance. *Journal of Financial Research*, 36(3), 347-370.
- Faleye, O., & Trahan, E. A. (2011). Labor-friendly corporate practices: Is what is good for employees good for shareholders?. *Journal of Business Ethics*, 101(1), 1-27.
- Fauver, L., McDonald, M. B., & Taboada, A. G. (2018). Does it pay to treat employees well? International evidence on the value of employee-friendly culture. *Journal of Corporate Finance*, 50, 84-108.
- Fazzari, S. M., & Petersen, B. C. (1993). Working capital and fixed investment: new evidence on financing constraints. *The RAND Journal of Economics*, 328-342.
- Fulmer, I. S., Gerhart, B., & Scott, K. S. (2003). Are the 100 best better? An empirical investigation of the relationship between being a "great place to work" and firm performance. *Personnel psychology*, 56(4), 965-993.
- García-Teruel, P. J., & Martínez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of managerial finance*, 3(2), 164-177.
- Gellatly, I. R. (1995). Individual and group determinants of employee absenteeism: Test of a causal model. *Journal of organizational behavior*, 16(5), 469-485.
- Gentry, J. A., & De La Garza, J. M. (1990). Monitoring accounts payables. *Financial Review*, 25(4), 559-576.
- Gentry, J. A., Vaidyanathan, R., & Lee, H. W. (1990). A weighted cash conversion cycle. *Financial Management*, 90-99.
- Ghaly, M., Dang, V. A., & Stathopoulos, K. (2015). Cash holdings and employee welfare. *Journal of Corporate Finance*, 33, 53-70.
- Giannetti, M., Burkart, M., & Ellingsen, T. (2011). What you sell is what you lend? Explaining trade credit contracts. *The Review of Financial Studies*, 24(4), 1261-1298.
- Guiso, L., Sapienza, P., & Zingales, L. (2015). The value of corporate culture. *Journal of Financial Economics*, 117(1), 60-76.

- Hanka, G. (1998). Debt and the terms of employment. *Journal of Financial Economics*, 48(3), 245-282.
- Hayajneh, O. S., & Yassine, F. L. A. (2011). The impact of working capital efficiency on profitability—An empirical analysis on Jordanian manufacturing firms. *International Research Journal of Finance and Economics*, 66(2011), 67-69.
- Hill, M. D., Kelly, G. W., & Highfield, M. J. (2010). Net operating working capital behavior: a first look. *Financial management*, 39(2), 783-805.
- Huang, H. W., Rose-Green, E., & Lee, C. C. (2012). CEO age and financial reporting quality. *Accounting Horizons*, 26(4), 725-740.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, 76(2), 323-329.
- Jiao, Y. (2010). Stakeholder welfare and firm value. *Journal of Banking & Finance*, 34(10), 2549-2561.
- Kieschnick, R., Laplante, M., & Moussawi, R. (2013). Working capital management and shareholders' wealth. *Review of Finance*, 17(5), 1827-1852.
- Kim, Y. H., & Chung, K. H. (1990). An integrated evaluation of investment in inventory and credit: A cash flow approach. *Journal of Business Finance & Accounting*, 17(3), 381-389.
- Lee, C. C., & Wang, C. W. (2021). Firms' cash reserve, financial constraint, and geopolitical risk. *Pacific-Basin Finance Journal*, 65, 101480.
- Likert, R. (1967). The human organization: its management and values.
- Loughran, T., & Ritter, J. (2004). Why has IPO underpricing changed over time? *Financial management*, 5-37.
- Maksimovic, V., & Titman, S. (1991). Financial policy and reputation for product quality. *The Review of Financial Studies*, 4(1), 175-200.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370
- McGregor, D. (1960). The human side of enterprise. *New York*, 21(166.1960).
- Ng, C. K., Smith, J. K., & Smith, R. L. (1999). Evidence on the determinants of credit terms used in interfirm trade. *The journal of finance*, 54(3), 1109-1129.
- Ostroff, C., & Bowen, D. E. (2000). Moving HR to a higher level: HR practices and organizational effectiveness.
- Pandey, V., Steigner, T., & Sutton, N. K. (2023). The value of economic freedom in cross-border mergers. *International Review of Economics & Finance*, 86, 540-563.
- Petersen, M. A. (2008). Estimating standard errors in finance panel data sets: Comparing approaches. *The Review of financial studies*, 22(1), 435-480.
- Petersen, M. A., & Rajan, R. G. (1997). Trade credit: theories and evidence. *The review of financial studies*, 10(3), 661-691.
- Rust, R. T., Stewart, G. L., Miller, H., & Pielack, D. (1996). The satisfaction and retention of frontline employees. *International Journal of Service Industry Management*.
- Shan, C., & Tang, D. Y. (2023). The value of employee satisfaction in disastrous times: Evidence from COVID-19. *Review of Finance*, 27(3), 1027-1076.
- Shin, H. H., & Soenen, H. L. (1998). Efficiency of working capital and corporate profitability.
- Somers, M. J. (1995). Organizational commitment, turnover and absenteeism: An examination of direct and interaction effects. *Journal of organizational Behavior*, 16(1), 49-58.
- Verwijmeren, P., & Derwall, J. (2010). Employee well-being, firm leverage, and bankruptcy risk. *Journal of Banking & Finance*, 34(5), 956-964.
- Wang, Y. J. (2002). Liquidity management, operating performance, and corporate value: evidence from Japan and Taiwan. *Journal of multinational financial management*, 12(2), 159-169.
- Wang, B. (2019). The cash conversion cycle spread. *Journal of financial economics*, 133(2), 472-497.
- Whitener, E. M. (2001). Do "high commitment" human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modeling. *Journal of management*, 27(5), 515-535.
- Wilson, N., & Summers, B. (2002). Trade credit terms offered by small firms: survey evidence and empirical analysis. *Journal of Business Finance & Accounting*, 29(3-4), 317-351.
- Zingales, L. (2000). In search of new foundations. *The journal of Finance*, 55(4), 1623-1653.

Appendix I

We utilize the MSCI ESG (formerly KLD SOCRATES Research and Analytics) database to create the Employee Friendliness Index (EFI).

$$EFI = (\text{Union} + \text{Profit Sharing} + \text{Employee Involvement} + \text{Retirement} + \text{Work_Life})$$

Union represents union relations. If the company has taken exceptional steps to treat its unionized workforce fairly, then the rating will be 1; otherwise, 0.

Profit sharing presents cash profit sharing. If the company has a cash profit-sharing program through which it has recently made distributions to most of its workforce, then the rating will be 1; otherwise, 0.

Employee Involvement equals 1 if the company strongly encourages worker involvement or ownership through stock options available to most of its employees, gain sharing, stock ownership, sharing of financial information, or participation in management decision making, and 0 otherwise.

Retirement equals 1 if the company has a notably strong retirement benefits program, and 0 otherwise.

Work_Life represents the work/life benefits. It equals 0 if the company has outstanding employee benefits or other programs addressing work/family concerns, (for example, childcare, elder care, or flextime), and 0 otherwise.

EFI is Employee Friendliness Index which is between 1 (lowest employee friendliness) and 5 (highest employee friendliness)