

**EVIDENCE FROM UK NON-FINANCIAL FIRMS  
DEMONSTRATES THE MODERATING EFFECT OF  
ECONOMIC POLICY UNCERTAINTY ON THE  
RELATIONSHIP BETWEEN WORKING CAPITAL  
MANAGEMENT AND PROFITABILITY**

**Israel odion E. IDEWELE(Phd)**  
Department of Banking and Finance  
Evangel University, Ebonyi State, Nigeria.

**Obasi Ama Ibiam(Phd)**  
Department of Accountancy,  
AkanuIbiam Federal Polytechnic, Unwano  
Ebonyi state, Nigeria

**UdochukukwuChikaodiliNkemdilim**  
Department of Accountancy  
Alex Ekwueme University, Ebonyi State, Nigeria

**Eke,ChukwumaNnate (Phd)**  
Department of Accounting  
Evangel University, Ebonyi State, Nigeria

**Udoka StephenOtika**  
Department of Marketing  
Evangel University, Ebonyi State, Nigeria

**Promise NwakaegoEdeogu (Phd)**  
Department of Accountancy  
Alex Ekwueme University, Ebonyi State, Nigeria

**Samuel N. Nwosu(Phd)**  
Department of Accounting  
Evangel University, Ebonyi State, Nigeria

**Abstract**

Uncertainty in financial coverage is undoubtedly regarded as one of the numerous factors that could impact the relationship between operating capital and profitability.

The EPU can lead to greater uncertainty in the business environment, which can affect a company's ability to effectively manage its working capital. This study investigates the extent of the UK's financial coverage uncertainty (EPU) index. Our study's objective is to determine how the UK's financial coverage uncertainty (EPU) index, The Fixed Effect Method, Random Effect Method, and two-level Generalized Method of Moments (GMM) to analyze the records for 199 UK production companies. Methodology: Fixed Effect Method, Random Effect Method, and two-level Generalized Method of Moments (GMM) was used to analyze the records for 199 UK production companies in order to solve the endogeneity issue and reliable results. Results: The results of the analysis showed that financial coverage uncertainty (EPU) had a statistically significant impact on the relationship between Cash conversion cycle (CCC) and profitability. Conclusion :Working capital is typically a significant investment for companies. Contribution: Companies need make sure they have the liquidity they need to fulfill their immediate obligations, they should concentrate on streamlining their working capital management procedures.

**ISSN: 1533 - 9211**

**CORRESPONDING  
AUTHOR:**

Israel odion E. IDEWELE(Phd)  
idewelei@evangeluniversity.edu.ng

**KEYWORDS:**

working capital management,  
cash conversion cycle,  
economic policy uncertainty,  
return on operating assets, UK  
non- financial firms

Received: 27 March 2025  
Accepted: 19 May 2025  
Published : 17 June 2025

**TO CITE THIS ARTICLE:**

Idewele, I. O. E., Ibiam, O. A., Nkemdilim, U. C., Eke, C. N., Otika, U. S., Edeogu, P. N., & Nwosu, S. N. (2025). Evidence from UK non-financial firms demonstrates the moderating effect of economic policy uncertainty on the relationship between working capital management and profitability. *Seybold Report Journal*, 20(6), 76–92. DOI: [10.5281/zenodo.15684146](https://doi.org/10.5281/zenodo.15684146)

## Introduction

Economic recessions have increased companies' awareness of working capital management and changed their attitudes towards it to improve their performance (Zimon and Tarighi, 2021). The cash conversion cycle (CCC) is the management of a company's shortterm capital, or the finances needed to finance its daily operations. Working capital management (WCM) should allow the company to generate the liquidity needed to meet short-term debt, optimizing the relationship between risk and return. (Chalmers et al., 2020). Therefore, all companies, regardless of size, must be attentive to managing specific working capital issues. Financial decisions that affect working capital are critical to the survival, growth, and profitability of a business. The purpose of our study is to examine the moderating effects of the EPU index on the relationship between WCM, return on operating activities (ROOA) and other profitability indicators, including return on assets (ROA) and return on equity (ROE), in several companies listed on the UK stock exchange. Understanding the relationship between economic policy uncertainty, working capital management, and profitability can help companies develop better working capital management practices that enable them to better manage liquidity and respond to changes in the business environment. Companies can develop strategies to reduce the negative effects of uncertainty on profitability, take advantage of opportunities that arise during times of uncertainty, and make strategic decisions regarding capital allocation, product development, and market expansion. The UK market parameters serve as the driving force behind this study. This study is important for business decisionmakers to integrate flexibility into their operations by implementing agile strategies, such as lean manufacturing or just-in-time inventory management, which would help them quickly adjust their operations in response to changes in economic policy uncertainty to maintain a balance between working capital and profitability.

## Literature Review and Hypotheses Development

Many studies have examined the relationship between WCM and company profitability (Deloof, 2003; Farhan & Yameen, 2020; Gul et al., 2013; C. T. Nguyen, 2020). To prove how CCC affects a company's profitability, it is essential to study the impact of WCM on profitability. Previous studies have investigated the relationship between CCC and profitability in different economic conditions and industries (Panda & Nanda, 2018). Some studies in developed markets have found a negative relationship between WCM and profitability (Akgu€n & Memis Karatas, 2021; Dalcı et al., 2019; Lyngstadaas & Berg, 2016). In a sample of Spanish manufacturing companies from 2010 to 2016, FernándeZ-Lo'pez et al. (2020) found a negative relationship between various components of working capital and firm performance. The relationship between CCC and profitability of 285 German non-financial companies from 2006 to 2013 was studied by Dalcı et al. (2019). The findings suggested that reducing CCC would improve the profitability of SMEs. Yusof et al. (2018) studied 100 Malaysian manufacturing companies to investigate how WCM affected firm performance. The study found that profitability is strongly negatively related to the CCC component. Ahmad et al. (2022) also found in his study in

India that longer delays in CCC negatively impact profitability. Some studies, such as those by Farhan and Yameen (2020) and Afriafa (2016), point out tipping points in working capital investments that companies can consolidate to achieve better performance.

Hamre and Wright (2021) argue that UK financial markets are well established and processed over 80% of all daily business transactions. According to Ban'os Caballero et al. (2014), trade credit accounts for around 41% of all debt and 50% of shortterm debt of medium sized businesses in the UK. Although the UK is a finance based country, the contribution of manufacturing companies to UK output in 2020 According to Ramezani (2022), manufacturing in the UK accounted for 2.7 million jobs, or 8% of all jobs in the country, £191 billion of economic output, or £10 billion of economic output, or 5% (£2.116 billion of real GDP). Second, the motivation for this study is the recent interest in studies examining how working capital affects firm performance, particularly in the UK, US and European economies (Aktas et al., 2015; Dalcie et al., 2019; Gonxcalves et al., 2018; C.T.Nguyen, 2020).

## Methodology

This study used data from nonfinancial corporations in the UK from 2006 to 2021. The study used data from UK financial markets as they are well developed (Hamre & Wright, 2021), and there are few studies on the impact of w

orking capital management on profitability using ROA, ROE and ROOA as profitability indicators as discussed. T he financial position and income statement which constitute the bulk of the data are extracted from the Thomson R euters Eikon database and Baker et al. (2016) built for UK manufacturing companies. Similarly, Arhinful and Rad mehr (2023) used data from Thomson Reuters Eikon.

The study used three variables as indicators of the profitability of the company. The strategy used to overcome the outliers was Winsor2 (10 and 90 percentile). The study applies Winsor2 for the following variables: ROA, ROE, R OOA, FAT EPU and SG. An offset was applied to CCCWUI and CCC 3 EPU.

The first measure of the profitability of a company was ROA. ROA compares A company's profitability is the valu e of all its assets and measures its profitability. Company management, analysts, and investors use ROA to assess how well a company is using its resources to generate profits.

The second profitability measure used for the study was ROE. It is an indicator of financial success used to measur e the return on a company's net assets. ROE can also be thought of as return on net assets, since equity is determin ed by subtracting a company's liabilities from its assets. Therefore, ROE is periodically used to determine how effe ctively a company's management can generate profits with the assets under its control.

The third profitability measure used is ROOA. It is a measure of how effectively a company uses its revenue- generating assets. These are resources that are used every day. This value is often calculated to determine the inco me that these assets produce. The following variables are used in the study as independent variables:

CCC is a measure of the time it takes a company to recover the cash from inventory costs by selling its goods. Wh en a company has less cash tied up in accounts receivable and inventory, its CCC is shorter. It is calculated as a cre dit period, combining the time taken to convert inventories into credits with the time taken to pay (Vu Thi & Phun g, 2021).

Table 1. Variable Descriptions and Code.

Code	IndicatorsDescription	Source
<i>Dependent variables</i>		
ROA	Return on assets	Comparesthecompany's profitabilitytothevalueofall itsassetsandmeasuresits profitability.
ROE	Return on equity	It is afinancialsuccessindicator usedtomeasuretheyieldon net assets of a company
ROOA	Return on operating assets	It is a measure that Demonstrates how effectively a business uses it revenue- generating assets.
EPU	Economic policy uncertainty	<i>DataStreamModerating variable</i>
<i>Independentvariables</i>		
CCC	Cash conversion cycle	Bakeretal.(2016) indexconstructed
		A measure of how long it takes
		A business to recoup the money from its expenditures on inventory by selling its goods
FAT	Fixed assets turnover	Measureshoweffectivelya business generates net sales from its fixed-asset investments
SG	Sales growth	ameasurethatassessesthe company'ssalesteam's capacitytoboostrevenue overapredeterminedlength of time
LEV	Leverage	The quantity of debt a company usestofinanceassets

Study Model

Inthisstudy, three methods wereused to evaluate the positive effect of CC. These are fixed effects model, random effects model, and generalized method of moments (GMM). GMM was used to control for endogeneity issues. Endogenous bias is the cause of these technical estimates (Ullah et al., 2018). We used GMM in Stata to obtainthe results. Twolevelsofstabilitywere used rather than a single scale.

Table2.SummaryofVariablesandFormulae.

Variable	Acronyms	Formula	Source
<i>Dependentvariables</i>			
Return on assets	ROA	Net income/Total assets 3100	NuzullaandMurtianingsih(2022)
Return on equity	ROE	Net income/Total equity 3100	NuzullaandMurtianingsih(2022)

Return on operating assets	ROOA	Net income/Operating assets	Zhang (2006)
<i>Moderating variable</i>			
Economic policy uncertainty	EPU	Author	
<i>Independent variable</i>			
Hassan et al. (2023)			
Fixed asset turnover	FAT	(Net sales/Fixed assets)	Das (2017).
Leverage	LEV	(Debt/equity)	Khalid et al. (2018)
Vijayakumaran (2019)			
<i>Control variables</i>			
Size	Size	(The natural logarithm of total assets)	Laghari and Chengang (2019)
uncertainty	WUI		World uncertainty index

Table 3. Information About Sample Statistics in a Descriptive Manner.

Industry	No. of industries in sample	%
Aeroplane and defense	8	4.0
Beverage	7	3.5
Chemicals	8	4.0
Construction and materials	13	6.5
Electricity and electrical equipment	6	3.0
Media and fixed line telephone	14	7.0
General industry	17	8.5
General retailers	13	6.5
Food production	13	6.5
Pharmaceutical and healthcare equipment	12	6.0
Household and home construction	19	9.5

**Model 3:**

$$ROE = a + b_1 CCC_t F + b_2 FAT_t F + b_3 SG_t F + b_4 LEV_t F + b_5 EPU_t F + b_6 SIZE_t F + b_7 WUI_t F + e$$

**Model 4:**

$$ROE = a + b_1 CCC_t F + b_2 FAT_t F + b_3 SG_t F + b_4 LEV_t F + b_5 EPU_t F + b_6 SIZE_t F + b_7 WUI_t F + b_8 (CCC3EPU)_t F + e$$

**Model 5:**

$$ROOA = a + b_1 CCC_t F + b_2 FAT_t F + b_3 SG_t F + b_4 LEV_t F + b_5 EPU_t F + b_6 SIZE_t F + b_7 WUI_t F + e$$

Industrial engineering and transportation

**Model 6:**

Leisure goods and travel	19	9.5
Oil and gas equipment	12	6.0
Personal goods	6	3.0
Software and computer	14	7.0
Technology hardware and equipment	8	4.0
Total	199	100

**Model 1:**

$$ROA = a + b_1 CCC_t F + b_2 FAT_t F + b_3 SG_t F + b_4 LEV_t F + b_5 EPU_t F + b_6 SIZE_t F + b_7 WUI_t F + e$$

**Model 2:**

$$ROA = a + b_1 CCC_t F + b_2 FAT_t F + b_3 SG_t F + b_4 LEV_t F + b_5 EPU_t F + b_6 SIZE_t F + b_7 WUI_t F + b_8 (CCC3EPU)_t F + e$$

$$ROOA = a + b_1 CCC_t F + b_2 FAT_t F + b_3 SG_t F + b_4 LEV_t F + b_5 EPU_t F + b_6 SIZE_t F + b_7 WUI_t F + b_8 (CCC3EPU)_t F + e$$

Where, the dependent variables are represented by ROA (Return on Asset), ROE (Return on Equity), and, ROOA (Return on Operating Assets). In addition, CCC (Cash Conversion Cycle), Fixed

Assets Turnover (FAT), Sales Growth (SG), and Leverage (LEV) are the Independent variables. Size, and World Uncertainty (WU) are the control variables, and Economic Policy Uncertainty (EPU) is moderating variable,  $t$  (time) and  $F$  (company).

## Empirical Results

Table 4 shows a description of the variables used in the study. The average mean ROA for UK firms is 4.8%.

Table 4. Descriptive Statistics.

Variable	Obs.	Mean	SD	Min.	Max.
ROA	3,184	0.048	0.056	20.048	0.14
ROE	3,184	0.107	0.133	20.135	0.328
Return on operating assets	3,184	0.076	0.092	20.072	0.248
Cash conversion cycle	1,738	11.916	2.559	3.751	20.274
Leverage	3,184	0.381	7.971	2251.309	97.937
Size	3,184	12.803	2.547	2.763	19.746
Fixed asset turnover	3,184	10.634	12.942	0.351	40.894
Sales growth	3,184	1.959	15.604	229.176	25.331
Economic policy uncertainty	3,184	53.7	125.121	74.216	75.844
World uncertainty	3,184	9.885	0.257	9.488	10.235

According to the results, the company was able to generate a profit of 4.8% from its total assets. This means that the manufacturing companies surveyed were profitable. The ROA values were higher than those of Dalci et al. (2019). The percentage of German non-financial companies in 2019 (1.1%) reported by Enqvist et al. (2014) is much lower than the percentage of Finnish companies (8.4%) reported by Enqvist et al. (2014) and the percentage of Spanish SMEs (7.9%) reported by Garcia-Teruel and Martinez-Solano in 2007. The average ROE of manufacturing companies in the UK was 10.7%. The results show how effectively management is managing shareholders' funds and generating profits for shareholders. Furthermore, the results show that the company has a high turnover of fixed assets due to the replacement of aging equipment. The average return on operating assets of UK companies was 0.076 for every pound invested in the company's operating assets.

Return on operating assets indicates how well a company utilises its assets to generate operating profits. These assets were used in the company's day-to-day operations and their income was frequently calculated. Furthermore, there was talk of restricting the use of non-revenue generating facilities. The return on ROA of 7.6% indicates that the company made a profit of 0.076 cents for every pound invested in the operation of its facilities. ROA values can be affected by staff salaries, operational costs and the cost of products offered, making it a fragile indicator. It took 12 days for the CCC to turn inventory, receivables and payables into cash. The CCC results showed that UK companies had shorter cash conversion cycles (Sensini, 2020). Our results show that

companies that managed their cash flow effectively generated more revenue per dollar of invested capital. This result explains why the company does not require external financing when the cash conversion cycle is short, lowering borrowing costs, interest expenses and profitability. The average fixed asset turnover was 10,634 times. This indicated good efficiency as the asset value was lower than the revenue generated by it. The higher the fixed asset turnover ratio, the more efficiently the company utilizes its fixed assets to generate revenue from its tangible fixed assets. The company's operating efficiency was found to be good. According to studies by Sari and Brata (2020), Febrianti and Basri (2022), and Puspita et al. (2021), fixed asset turnover affects profitability. The average company size was 12.8%. Looking at the CCC by company size, it was found that the CCC is shorter for smaller companies and longer for larger companies. The results suggest that UK companies have reduced their CCC by reducing inventory and receivables ages and lengthening accounts payable ages. The average annual revenue growth rate for UK companies was almost 2%. Increasing net profits relative to stock prices can lead to broader income streams. The value of



abusinessincreaseswithincreasedsalesandimprovedearlypaymentdiscounts due to increased working capital (Deloof, 2003). Financial decisions that affect working capital are therefore crucial to a company's survival, growth and profitability (Di Minin et al., 2014; Sensini, 2020). The average debt level for UK companies was 38%, suggesting that companies have a low debt to total assets ratio. There was a negative relationship between debt and company performance (Aktas et al., 2015). Our findings show that companies benefit from low debt and generate good profits. Moreover, as Allini et al. (2018) suggests, the most successful companies are less likely to prefer debt financing. The average level of economic policy uncertainty in the UK is 53.7%, which may affect companies' investment decisions. This increase in economic policy uncertainty

Table 5. Matrix of Correlations.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) ROA	1.000									
(2) ROE	0.721	1.000								
(3) Return on operating assets	0.760	0.695	1.000							
(4) Cash conversion cycle	0.161	0.262	0.161	1.000						
(5) Leverage	0.018	0.083	20.005	20.017	1.000					
(6) Size	0.134	0.262	0.104	0.768	20.027	1.000				
(7) Fixed asset turnover	0.016	20.066	20.026	0.044	0.007	20.061	1.000			
(8) Sales growth	0.316	0.224	0.125	20.037	20.011	0.096	0.138	1.000		
(9) Economic policy uncertainty	20.022	20.018	20.001	0.088	20.055	0.122	0.047	0.100	1.000	
(10) World uncertainty	20.036	20.009	20.013	0.121	20.032	0.089	20.012	20.122	0.764	1.000

variables (ROA, ROE, and ROOA). The size result indicated that the firms are experiencing market growth and responding positively.

The greater the operating assets and sales, the larger the firm's scale. The larger the firm,

World uncertainty	2.684	0.373
Economic policy uncertainty	2.678	0.373
Size	2.643	0.378
Cash conversion cycle	2.613	0.383
Sales growth	1.174	0.852
Fixed asset turnover	1.061	0.942
Leverage	1.004	0.996
Mean VIF	1.979	.

both the macro and micro levels, adversely affecting the labor market and the output of goods and services provided by UK businesses (Barua, 2020).

Correlation matrix for each variable is included. Correlation study was used to determine whether the dependent and independent variables had multicollinearity. The dependent variables were ROA, ROE, and ROOA. The independent variables were CCC, leverage, asset turnover, and sales growth rate, and the control variables were size, economic policy, and global uncertainty. CCC had a positive relationship with ROA, ROE, and ROOA. The notion that resources are freed up at various stages of the supply chain and operational cycles are shortened is consistent with the positive correlation of CCC. If the cost of tying up money is lower than the benefits of holding more inventory and giving higher trade credit to consumers, it may lead to increased profits due to increased sales (Ebire et al., 2024). Debt ratios were positively correlated with ROA and ROE and negatively correlated with ROOA. The results for debt indicated that companies finance their operating resources with their own capital. Companies with higher leverage ratios usually have more debt than other companies. Higher fixed costs indicate higher levels of operating leverage. Lower operating leverage indicates higher sensitivity to changes in sales, and a positive correlation is found between ROA and ROE. The larger the company size, the longer the CCC over the number of days, the more positive the overall dependency effect. Small businesses are known to have to fight with cash and liquidity management very seriously, so small businesses can receive warnings to control inventory and sales within a few days. Using company sizes, we can evaluate them no matter how big or small it is (Jaworski & Czerwinka, 2022). Large companies need to have high capital to fund their investments. The greater the value of the

company, the better the company operates in the eyes of the invited guests. Fixed assets sales were positively correlated with ROA, but negatively correlated between ROA and ROO. This portrait efficiency of management in transforming company resources and profits (Akhter, 2018). This results present asset returns and lower returns (profitability). Sales growth was positively associated with all dependent variable returns. Sales growth affects profitability, which affects net profit margins. None of the independent variables went over the 10 upper limit, as shown in Table 6. To demonstrate that the samples were not multiple linear, we also computed the variance coefficients (VIFs) for each independent and control variable. The VIF value of each descriptive component was used to analyze the data's lack of multicollinearity. The multicollinearity of panel data on average above 10 as polycholines is verified using VIFs (Hussain et al., 2020). Growth in sales has a positive effect on stock prices because net income rises. Increased sales and better early payment discounts made possible by higher working capital levels can increase a company's value (Deloof, 2003). Therefore, financial choices that impact working capital are essential to a business's ability to survive, expand, and turn a profit (Akbar et al., 2021; Sensini, 2020). ROA will rise by 0.094, 0.099, and 1.00 for every 1% increase in leverage, fixed asset turnover, and sales growth, respectively. At the 1% and 10% levels, respectively, firm size and economic policy uncertainty had statistically significant negative effects, and ROA is negatively impacted by global uncertainty. The outcome demonstrated how profit-ability was impacted by global uncertainty and an increase in economic policy. The idea that firm size has a negative effect on return on assets (ROA) suggests that larger companies generally have lower ROA than smaller companies. Put another way, a company's profitability as measured by ROA decreases as it gets bigger. This implies that the ROA will fall by 0.005, 0.053, and 0.009 for every 1% increase in global uncertainty and economic policy, respectively.

Furthermore, the relationship between CCC and ROA was negatively impacted by the moderating variable in a statistically significant way at 10%. Based on the corresponding Hausman specification test value, a fixed effect regression model was chosen. Model 2's Rsquared is 21%. The independent variables in this model accounted for 21% of the variation in ROA. Furthermore, the relationship between CCC and ROA was negatively impacted by the moderating variable in a statistically significant way at 10%. Based on the corresponding Hausman specification test value, a fixed effect regression model was chosen. Model 2's R-squared is 21%. The Prob. Fis 0.000, which is below 0.05, had a variance of 21%. The model is important as a result. explained in ROA by the model's independent variables.

EPU's Impact on the Connection Between CCC and ROE The results indicated that revenue was positively impacted by the CCC. Amponsah-Kwatiah and Asiamah (2021) looked at the impact of WCM on the profitability of Ghanaian listed manufacturing companies between 2015 and 2019. Their results showed a strong positive and significant correlation between inventory management, accounts payable, accounts receivable, cash conversion cycle, current assets, current ratio, firm size, and ROA and ROE. A positive CCC indicates that even though the company has not yet received payment from customers, it still needs to pay its supplier for the inventory purchase. Equity suggests that a low cash conversion cycle is not always necessary for a high profitability assessment. Return on equity provides managers and shareholders of the company with a clear indication that the longer the CCC turnover in days, the less capital will be invested in current assets; ultimately, the more capital investment, the more profitable the company will be. ROE is positively impacted by the CCC at 1%, so raising the CCC by 1% will increase ROE by 0.023. At the 1% level, leverage and sales growth had a statistically significant positive impact on ROE. Keeping everything else equal, a 1% increase in leverage and sales growth could raise ROE by 2.00 and 2.00, respectively. ROE was statistically significantly impacted negatively by size, fixed asset turnover, world uncertainty, economic policy uncertainty, and the interaction variable. Increasing total asset turnover is one strategy to raise ROE. This implies that the value of ROE will increase in response to a change in the total asset turnover value. ROE will drop by 0.21, 1.00, 0.127, 0.032, and 0.027 for every 1% increase in size, fixed asset turnover, economic policy uncertainty, global uncertainty, and the interaction variable. Based on the findings of the individual Hausman specification tests, the fixed effect regression model was selected. The model's R-squared was 19%. The independent variables in Model 4 account for the 19% variation in ROE. The probability was less than 0.05, at 0.000.

According to the results, ROOA was positively impacted by the CCC in a statistically significant way. This

indicates that when choosing the appropriate amount of working capital, money is released. ROOA was positively impacted by the CCC by 1%, meaning that a 1% increase in the CCC would result in a 0.021 increase in ROOA. At the 10% level, sales growth had a statistically significant positive impact on ROOA.



Table7.The Moderating Role of EPU.

	Model 1	Model2	Model3	Model 4	Model 5	Model 6
<i>Panel A:Fixedeffects</i>						
Cashconversioncycle	20.001	0.012	20.005*	0.023	0.004**	0.021*
Leverage	0.009	0.094	0.002***	0.002***	20.145	20.137
Size	20.006**	20.005**	20.021***	20.021***	20.03***	20.029***
Fixedassetturnover	0.010	0.099	20.001***	20.001***	20.001***	20.001***
Salesgrowth	0.001***	0.001***	0.002***	0.002***	0.001***	0.001***
Economicpolicyuncertainty	20.016	20.053*	0.020	20.127*	20.084	20.728
Worlduncertaintyindex	20.005	20.009	20.025	20.032**	20.021*	20.025**
CCC3EPU	—	20.013*	—	20.027*	—	20.016
F-tests(p-value)	30.510	27.171	21.881	19.540	14.506	12.956
Hausmantests(p-value)	.0007	.0019	.0000	.0000	.0000	.0000
R <sup>2</sup>	0.190	0.210	0.189	0.190	0.161	0.162
<i>PanelB:Randomeffect</i>						
Cashconversioncycle	0.001	0.016**	0.002	0.037**	0.008***	0.028**
Leverage	0.100	0.107	0.002***	0.002***	20.108	20.099
Size	0.430	0.391	0.003	0.003	20.010***	20.010***
Fixedassetturnover	0.809	0.077	20.001***	20.001***	20.001***	20.001***
Salesgrowth	0.001***	0.001***	0.002***	0.002***	0.001***	0.001***
Economicpolicyuncertainty	20.072	0.053*	20.196	0.117*	20.258	0.053
Worlduncertaintyindex	0.001	0.006	0.013	0.023	0.015	0.020*
CCC3EPU	—	20.015**	—	20.035**	—	20.020*
x <sup>2</sup>	2	222.327	134.503	139.668	61.864	65.001
Hausmantests(p-value)	.0007	.0019	.0000	.0000	.0000	.0000
R <sup>2</sup>	0.130	0.170	0.130	0.170	0.230	0.250
<i>PanelC:TwostepsRobustG</i>						
<i>MML</i>						
Cashconversioncycle	0.32***	0.296***	0.190***	0.173	0.158	0.134***
Leverage	20.002***	0.018***	20.007***	0.021	20.001	0.020***
Size	20.111***	20.001***	0.001***	0.001	20.753	20.516
Fixedassetturnover	20.005***	20.004***	20.030***	20.029	20.054	20.053***
Salesgrowth	0.001***	0.001***	0.193	0.028	20.001	20.001***
Economicpolicyuncertainty	0.001***	0.001***	0.002***	0.002	0.001	0.001***
Worlduncertaintyindex	20.096	0.070***	0.050	0.110	0.030	0.113***
CCC3EPU	20.003	20.002	20.017***	20.017	20.001	20.001
Arellano-BondtestforAR(1)	—	20.019***	—	20.028	—	20.022***
Arellano-BondtestforAR(2)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sargan(p-value)	0.2029	0.2024	0.8930	0.9126	0.3504	0.3154
	.2432	.3242	.3658	.3766	.2398	.2227

Source:Authors.

Significanceat\*\*\*1%,\*\*5%,\*10%,levels,respectively.

Data in Table 7. Furthermore, there was no over-identification problem found in the moment condition test results from Matemilola and Ahmad (2015), which are shown in Table 7. For every model, the results showed values that were not significant. Profitability, ROA (0.2024), ROE (0.9126), and ROOA (0.3154) all showed that endogeneity was not an issue. This supported the validity of the instrument. The corresponding Sargan values for ROA, ROE, and ROOA are 0.3242, 0.3766, and 0.2277. Results from the GMM approach were comparable to those from the other approaches. Additionally, Arellano-Bond statistics demonstrated the absence of both first- and second-order autocorrelation. These results showed that there was no first-order or second-order autocorrelation and that the instrument was valid (Arellano & Bond, 1991).

A hypothesis. H1: CCC has a detrimental effect on UK non-financial firms' return on assets (ROA). Model 1 showed that the coefficient of CCC was 0.001, which was negative, and that the p.(z) was 0.000, where CCC was the indicator of working capital and ROA for profitability. ROA decreased by 0.1% for every 1% increase in CCC. H1 was thus approved. H2: CCC has a detrimental effect on UK non-financial firms' return on equity. Model 3 showed that the p.(z) was 0.000, with CCC serving as the indicator of CCC and ROE for profitability.

Table8.Robustness Test/IndustrialDummies.

Variables	ROA	ROE	ROOA
-----------	-----	-----	------

Cashconversioncycle	0.016**(0.007)	0.038**(0.016)	0.029**(0.012)
Leverage	0.011(0.134)	2.00*** (0.305)	20.011(0.022)
Size	0.001(0.001)	0.005(0.003)	0.010*** (0.002)
Fixedassetsturnover	0.079(0.158)	21.00*** (0.363)	20.010*** (0.027)
Salesgrowth	0.001*** (0.076)	0.020*** (0.017)	0.010*** (0.013)
Economicpolicyuncertainty	20.052* (0.031)	20.012* (0.071)	20.054(0.051)
Worlduncertainty	20.005(0.007)	20.020(0.016)	20.020* (0.012)
CCC3EPU	20.015** (0.007)	20.035** (0.016)	20.020* (0.012)
Aeroplaneanddefense	20.008(0.210)	0.029(0.049)	20.015(0.390)
Beverage	0.016(0.021)	0.052(0.050)	0.042(0.039)
Chemicals	20.005(0.019)	20.001(0.046)	20.009(0.036)
Constructionandmaterials	20.010(0.018)	0.017(0.043)	20.014(0.034)
Electricityandelectrical equipment	0.013(0.021)	0.006(0.056)	20.010(0.040)
Mediaandfixedlinetelephone	20.023(0.021)	0.029(0.049)	0.051** (0.038)
Foodproduction	20.013(0.020)	20.008(0.046)	20.005(0.036)
Generalindustry	20.017(0.018)	0.013(0.042)	20.006(0.033)
Generalretailers	0.003(0.017)	0.044(0.042)	0.009(0.033)
Pharmaceuticalandhealthcareequipment	20.017(0.018)	20.018(0.042)	20.010(0.033)
Householdandhomeconstruction	20.010(0.017)	0.007(0.041)	20.019(0.032)
Industrialengineeringand transportation	0.002(0.019)	0.018(0.045)	20.021(0.036)
Leisuregoodsandtravel	0.011(0.021)	0.040(0.050)	20.003(0.039)
Oilandgasequipment	20.035* (0.019)	20.045(0.044)	20.032** (0.035)
Personalgoods	0.019(0.021)	0.062(0.049)	0.007(0.038)
Softwareandcomputers	0.023(0.019)	1.00** (0.046)	0.020(0.036)
Technologyhardwareandequipment	—	—	—
Constant	20.043*** (0.068)	20.038*** (0.155)	20.020(0.113)
Numberofobservations	1,738	1,738	1,738
R <sup>2</sup>	0.171	0.155	0.135
F-tests(p-value)	244.996(.000)	160.052(.000)	76.208(.000)

\*\*\*p\0.01. \*\*p\0.05. \*p\0.1.

**Model 5, which used CCC as an indicator of working capital and ROOA for profitability, showed a positive coefficient of CCC (0.004) and a p-value of 0.000.** ROE increased by 0.4% for every 1% increase in CCC. H3 would therefore be approved. H H4: Uncertainty in economic policy affects the relationship between CCC and the profitability of non-financial firms in the UK. Because of the results that supported this hypothesis, we decided to accept H4. The study looked at how industry affected the moderating effect of EPU on the relationship between CCC and (profitability); to test this, we included industry dummies in the analyses using random effects. The interaction effect of leverage and CCC has a negative impact on ROA, ROE, and ROOA when the random effect method is applied, as shown in figure 8. Even after industry dummies were incorporated into the analyses, this remains the case. Additionally, CCC continues to improve profitability (ROA, ROE, and ROOA). These findings suggested that the relationship between CCC and the dependent variables ROA, ROE, and ROOA was unaffected by industrial variations. This validated the results' validity.

## Conclusion

Working capital is typically a significant investment for companies. Therefore, it is reasonable to assume that working capital management will have an effect on a business's profitability (Mehtap, 2016). The moderating effect of economic policy uncertainty on the relationship between working capital and profitability of 199 non-financial firms listed in the UK 100 index for 16 years was empirically investigated in this study. Six different models were used to test the hypotheses. Although a company's profitability is measured by ROA, ROE, and ROOA, our models used CCC, FAT, FS, SG, LEV, EPU, and WU to evaluate the management of working capital. This study found that the profitability of UK manufacturing firms was negatively impacted by the interaction variable (CCC 3 EPU). This implied that when economic policy uncertainty was high, there was a weaker correlation between working capital and profitability. Due to the possibility that economic policy uncertainty could lead to financial market instability in the UK, raising risk and uncertainty for It was possible that this instability would have a negative effect on the relationship between working capital and profitability, as this study found that the CCC of UK non-financial enterprises affected their profitability (ROA, ROE, and ROOA)

businesses. Because of this, companies may be more cautious when it comes to financing and investment decisions, which could lead to lower levels of working capital and profitability.

According to the results, UK companies had a shorter CCC, which demonstrated management's effective working capital management. This result is consistent with earlier research. According to Ademola (2014), Gonxalves et al. (2018), and Longstadaas (2020), CCC has a favorable effect on profitability. The study's findings indicated that managers could increase shareholder value by cutting down on inventories and days of accounts receivable. This suggested manager would increase their operating asset base at lower working capital levels by using debt rather than equity. However, there came a point at which a larger investment began to negatively affect value creation because of the additional cost of operating assets, increasing the likelihood of bankruptcy and credit risk for businesses.

### **Implication for Managers**

The study of working capital investment and managers may find our study useful in a number of ways. Given the costs involved in departing from the ideal working capital level, our findings suggest that managers should be aware of how EPU affects the relationship between working capital and profitability. Managers ought to monitor alterations in economic policies and their potential impact on their company. This can help managers anticipate and prepare for possible shifts in profitability and working capital.

- Even during uncertain economic policy periods, managers should maintain a sufficient working capital. To make sure they have the liquidity they need to fulfill their immediate obligations, they should concentrate on streamlining their working capital management procedures.

In order to lessen their reliance on a single source of funding, managers ought to think about diversifying their funding sources. This can lessen the possibility of financing interruptions that might happen when economic policy is unclear. Managers ought to create plans for various possible economic situations. They can better prepare for future changes in working capital and profitability by taking into account various scenarios and creating plans for each one.

- Managers should also focus on the ROOA, which is a tool for determining which assets are most profitable and which ones might need to be sold or taken out of service because they don't add value. One novel approach to discovery would be to link specific revenue and expenses to individual running assets. The decision of management to switch from one company to another may also be influenced by the ROOA. If the equipment is too costly and yields little return, it may make sense to sell it and go into a new market. Increasing sales and profits should be the goal of managers. This proposal is predicated on the idea that growth and generating shareholder value are synonymous. Our empirical results show that a firm's profitability and shareholder value are not increased by expansion. The highest rates of return and wealth creation for owners, on the other hand, are found in businesses with modest revenue or profit growth.

The average annual growth in sales for UK companies was nearly 2%. Their net income is increasing in tandem with stock prices. More sales and better discounts for early payments made possible by higher working capital levels can increase a company's value (Deloof, 2003). Therefore, a company's ability to survive, grow, and make money depends on financial decisions that affect working capital (Marino & Sensini, 2014; Sensini & Vazquez, 2021). Our findings support Fuller and Jensen's (2010) warnings about the dangers of caving in to growth-oriented market pressures.

### **Acknowledgements**

I wish to acknowledge Dr. Saidu Koroma, and Professor Murad Bein, from the Department of Accounting and Finance, Faculty of Economics and Business, Cyprus International University, Haspolat, Nicosia Mersin, 10, for supporting this work with their related work and time.

I also want to appreciate the international conference on Research in Business, Management and Finance (ICRM) for reviewing the abstract and accepting it for presentation and Publication in web of science Journal after presentation at their International Conference in Rome, Italy on the 16<sup>th</sup> – 18<sup>th</sup> May, 2025. I will prefer to publish it in your journal.

**Competing interests:** There is no complete of Interest.

### **Author contributions**

Dr. Israel Ideweke wrote the work after reviewing other related paper on this topic.

### **Funding**

The paper will be funded by the authors.

### **Data availability**

It will be provided at special request

### **Disclaimer**

The paper is written by the authors

### Author's Affiliation

**Israel odion E. IDEWELE(Phd)**

Department of Banking and Finance  
Evangel University, Ebonyi State. Nigeria.

**Obasi Ama Ibiam(Phd)**

Department of Accountancy,  
AkanuIbiam Federal Polytechnic, Unwano  
Ebonyi state, Nigeria

**UdochukukwuChikaodiliNkemdilim**

Department of Accountancy  
Alex Ekwueme University, Ebonyi State,Nigeria

**Eke,ChukwumaNnate (Phd)**

Department of Accounting  
Evangel University, Ebonyi State, Nigeria

**Udoka StephenOtika**

Department of Marketing  
Evangel University, Ebonyi State, Nigeria

**Promise NwakaegoEdeogu (Phd)**

Department of Accountancy  
Alex Ekwueme University, Ebonyi State, Nigeria

**Samuel N. Nwosu(Phd)**

Department of Accounting  
Evangel University, Ebonyi State, Nigeria

### COPYRIGHT

© 2025 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>. Seybold Report is a peer-reviewed journal published by Seybold Publications.

### HOW TO CITE THIS ARTICLE

Idewe, I. O. E., Ibiam, O. A., Nkemdilim, U. C., Eke, C. N., Otika, U. S., Edeogu, P. N., & Nwosu, S. N. (2025). Evidence from UK non-financial firms demonstrates the moderating effect of economic policy uncertainty on the relationship between working capital management and profitability. *Seybold Report Journal*, 20(6), 76–92. DOI: [10.5281/zenodo.15684146](https://doi.org/10.5281/zenodo.15684146)



## REFERENCES

- Ademola, O. J. (2014). Working capital management and profitability of selected quoted food and beverages manufacturing firms in Nigeria. *European Journal of Accounting Auditing and Finance Research*, 2(3), 10–21.
- Akbar, A., Akbar, M., Nazir, M., Poulova, P., & Ray, S. (2021). Does working capital management influence operating and market risk of firms? *Risks*, 9(11), 201.
- Akhtar, N. (2018). The impact of liquidity and profitability on operational efficiency of selected commercial banks in Bangladesh: A panel data study. *Global Journal of Management and Business Research*, 18(A7), 13–24.
- Aktas, N., Croci, E., & Petmezas, D. (2015). Is working capital management value-enhancing? Evidence from firm performance and investments. *Journal of Corporate Finance*, 30, 98–113.
- Alipour, M. (2011). Working capital management and corporate profitability: Evidence from Iran. *World Applied Sciences Journal*, 12(7), 1093–1099.
- Allini, A., Rakha, S., McMillan, D. G., & Caldarelli, A. (2018). Pecking order and market timing theory in emerging markets: The case of Egyptian firms. *Research in International Business and Finance*, 44, 297–308.
- Altaf, N., & Shah, F. A. (2018). How does working capital management affect the profitability of Indian companies? *Journal of Advances in Management Research*, 15(3), 347–366.
- Amarasekara, A. G. D. T., Rathnayake, R. M. S. S., & Pathirawasam, C. (2021). The impact of working capital management on firm profitability and value. *Journal of Business and Technology*, 5(1), 34–47.
- Amponsah-Kwatiah, K., & Asiamah, M. (2021). Working capital management and profitability of listed manufacturing firms in Ghana. *International Journal of Productivity and Performance Management*, 70(7), 1751–1771.
- Anton, S. G., & Afloarei Nucu, A. E. (2020). The impact of working capital management on firm profitability: Empirical evidence from the Polish listed firms. *Journal of Risk and Financial Management*, 14(1), 9.
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277–297.
- Arhinful, R., & Radmehr, M. (2023). The impact of financial leverage on the financial performance of the firms listed on the Tokyo stock exchange. *SAGE Open*, 13(4), 21582440231204099.
- Nomic policy uncertainty. *The Quarterly Journal of Economics*, 131(4), 1593–1636.
- Beck, N., & Katz, J. N. (2011). Modeling dynamics in time-series-cross-section political economy data. *Annual Review of Political Science*, 14, 331–352.
- Berger, A. N., Guedhami, O., Kim, H. H., & Li, X. (2022). Economic policy uncertainty and bank liquidity hoarding. *Journal of Financial Intermediation*, 49, 100893.
- Ceylan, I. E. (2021). Does cash conversion cycle affect firm profitability? Evidence from the listed small and medium-sized enterprises. *Eskisehir Osmangazi University İktisadi ve İdari Bilimler Dergisi*, 16(1), 110–123.
- Chalmers, D. K., Sensini, L., & Shan, A. (2020). Working capital management (WCM) and performance of

- SMEs: Evidence from India. *International Journal of Business and Social Science*, 11(7), 57–63.
- Dalci, I., Tanova, C., Ozyapici, H., & Bein, M. A. (2019). The moderating impact of firm size on the relationship between working capital management and profitability. *Prague Economic Papers*, 28(3), 296–312.
- Das, P. K. (2017). Financing pattern and utilization of fixed assets—A study. *Asian Journal of Social Science Studies*, 2(2), 20.
- Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting*, 30(3–4), 573–588.
- Demir, E., & Ersan, O. (2017). Economic policy uncertainty and cash holdings: Evidence from BRIC countries. *Emerging Markets Review*, 33, 189–200.
- Di Minin, A., Frattini, F., Bianchi, M., Bortoluzzi, G., & Piccaluga, A. (2014). Udinese Calcio soccer club as a talent's factory: Strategic agility, diverging objectives, and resource constraints. *European Management Journal*, 32(2), 319–336.
- Ebire, K., Onmonya, L., Ofikwu, C., & Adegbenro, D. (2024). Working capital management and financial performance: Evidence from alternative energy firms in the UK. *International Journal of Professional Business Review*, 9(4), e04435–e04435.
- Enqvist, J., Tengö, M., & Bodin, Ö. (2014). Citizen networks in the Garden City: Protecting urban ecosystems in rapid urbanization. *Landscape and Urban Planning*, 130, 24–35.
- Farhan, N. H., & Yameen, M. (2020). The relationship between credit policy and firms' profitability: Empirical evidence from Indian pharmaceutical sector. *Investment Management & Financial Innovations*, 17(2), 146.
- Fernández-Lopez, S., Rodeiro-Pazos, D., & Rey-Ares, L. (2020). Effects of working capital management on firms' profitability: evidence from cheese-producing companies. *Agribusiness*, 36(4), 770–791.
- Firk, S., Schrapp, S., & Wolff, M. (2016). Drivers of value creation—The role of value-based management and underlying institutions. *Management Accounting Research*, 33, 42–60.
- Fuller, J., & Jensen, M. C. (2010). Just say no to Wall Street: Putting a stop to the earnings game. *Journal of Applied Corporate Finance*, 22(1), 59–63.
- Golas, Z. (2020). Impact of working capital management on business profitability: Evidence from the Polish dairy industry. *Agricultural Economics*, 66(6), 278–285.
- Gonçalves, T., Gaio, C., & Robles, F. (2018). The impact of working capital management on firm profitability in different economic cycles: Evidence from the United Kingdom. *Economics and Business Letters*, 7(2), 70–75.
- Gujarati, D. (2014). *Econometrics by example*. Bloomsbury Publishing.
- Gul, S., Khan, M. B., Raheman, S. U., Khan, M. T., Khan, M., & Khan, W. (2013). Working capital management and performance of SME sector. *European Journal of Business and Management*, 5(1), 60–68.
- Guo, A., Wei, H., Zhong, F., Liu, S., & Huang, C. (2020). Enterprise sustainability: Economic policy uncertainty, enterprise investment, and profitability. *Sustainability*, 12(9), 3735.
- Hamee, E. F., & Wright, W. (2021, April). Brexit & the city: The impact so far. *New Financial*.
- Hassan, M. K., Aysan, A. F., Kayani, U. N., & Choudhury, T. (2023). Working capital as a firm performance savior? Evidence from Scandinavian countries. *Research in International Business and Finance*, 65, 101959.
- Hussain, S., Hassan, A. A. B. G., Rafiq, M., Abdullah, M., & Qudus, A. (2020). Impact of investment decisions and interest rate on firm's financial performance of Fuel and Energy Sector of Pakistan. *International Journal of Advanced Science and Technology*, 29(4), 1391–1410.
- Jaworski, J., & Czerwonka, L. (2022). Profitability and working capital management: evidence from the Warsaw Stock Exchange. *Journal of Business Economics and Management*, 23(1), 180–198.
- Junttila, J., & Vataja, J. (2018). Economic policy uncertainty effects for forecasting future real economic

activity. *Eco- nomic Systems*, 42(4), 569–583.

- Kawakibi, A. A., & Hadiwidjojo, D. (2019). The effect of working capital management on company profits and values (study of cement companies listed on the Indonesia Stock Exchange). *International Journal of Business, Economics and Law*, 20(5), 30–37.
- Khalid, R., Saif, T., Gondal, A. R., & Sarfraz, H. (2018). Working capital management and profitability. *Mediterranean Journal of Basic and Applied Sciences (MJBAS)*, 2(2), 117–125.
- Corporate performance. *International Journal of Managerial Finance*, 15(2), 164–190.
- Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237–252.
- Ali, P. K. (2022). Economic policy uncertainty, bank nonperforming loans and loan loss provisions: are they correlated? *Asian Journal of Economics and Banking*, 6(2), 221–235.
- Panda, A. K., & Nanda, S. (2018). Working capital financing and corporate profitability of Indian manufacturing firms. *Management Decision*, 56(2), 441–457.
- Pham, K. X., Nguyen, Q. N., & Nguyen, C. V. (2020). Effect of working capital management on the profitability of steel companies on Vietnam stock exchanges. *The Journal of Asian Finance, Economics and Business*, 7(10), 741–750.
- Phan, D. H. B., Iyke, B. N., Sharma, S. S., & Affandi, Y. (2021). Economic policy uncertainty and financial stability—Is there a relation? *Economic Modelling*, 94, 1018–1029.
- Puspita, G., Arisandy, M., & Octaviani, L. (2021). The effect of fixed asset turnover and working capital turnover on profitability. *JFBA: Journal of Financial and Behavioural Accounting*, 1(1), 75–82.
- Ramezani, C. A. (2011). Financial constraints, real options and corporate cash holdings. *Managerial Finance*, 37(12), 1137–1160.
- Ramezani, M. (2022). *Implementation of continuous improvement (CI) in manufacturing SMEs to promote economic growth in northern England: A case study of the UK northern powerhouse project*. University of Northumbria at Newcastle (United Kingdom).
- Rist, M., & Pizzica, A. J. (2014). *Financial ratios for executives: How to assess company strength, fix problems, and make better decisions*. Apress.
- Sari, D., & Brata, I. O. D. (2020). The effect of working capital turnover on profitability (empirical study of textile and garment companies listed on the Indonesia Stock Exchange for the 2014–2018 Period). *Bisnis dan Iptek*, 13(1), 45–54.
- Shanthirathna, N. (2019). *Impact of liquidity management and capital structure on company performance: Evidence from New Zealand listed companies* (Doctoral dissertation, Lincoln University). A thesis submitted in partial fulfilment of the requirements for the Degree of Master of Commerce and Management at Lincoln University.
- Singhania, M., & Mehta, P. (2017). Working capital management and firms' profitability: evidence from emerging Asian countries. *South Asian Journal of Business Studies*, 6(1), 80–97.
- Stephen, M., & Elvis, K. (2011). Influence of working capital management on firms profitability: A case of SMEs in Kenya. *International Business Management*, 5(5), 279–286.
- Tao, X., Wang, B., Wang, J., & Wu, C. (2022). Economic policy uncertainty and the cross-section of corporate bond returns. *Journal of Fixed Income*, 32(1), 6–44.
- Tran, D. V. (2020). Economic policy uncertainty and bank dividend policy. *International Review of Economics*, 67(3), 339–361.
- Tsuruta, D. (2019). Working capital management during the global financial crisis: Evidence from Japan. *Japan and the World Economy*, 49, 206–219.
- Ullah, S., Akhtar, P., & Zaefarian, G. (2018). Dealing with endogeneity bias: The generalized method

of moments (GMM) for panel data. *Industrial Marketing Management*, 71, 69–78.

Vijayakumaran, R. (2019). Efficiency of working capital management and firm value: evidence from Chinese listed firms. *International Journal of Financial Research*, 10(6), 133–144.

Yaya, O. S., Abu, N., & Ogundunmade, T. P. (2021). Economic policy uncertainty in G7 countries: evidence of long-range dependence and cointegration. *Economic Change and Restructuring*, 54, 541–556.

Yilmaz, I., & Acar, G. (2019). The effect of cash conversion cycle on profitability in Oman companies. *International Journal of Economics, Management and Accounting*, 27(2), 269–290.

Yusoff, H., Ahmad, K., Qing, O. Y., & Zabri, S. M. (2018). The relationship between working capital management and firm performance. *Advanced Science Letters*, 24(5), 3244–3248.

Zakari, M., & Saidu, S. (2016). The impact of cash conversion cycle on firm profitability: Evidence from Nigerian listed telecommunications companies. *Journal of Finance and Accounting*, 4(6), 342–350.

Zhang, Y. (2006). *Net operating assets as a predictor of industry stock returns* (SSRN Paper 900264).

Zimon, G., & Tarighi, H. (2021). Effects of the COVID-19 global crisis on the working capital management policy: Evidence from Poland. *Journal of Risk and Financial Management*, 14(4), 169.