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Optimizing working capital management strategies for enhanced profitability in the UK furniture industry: Evidence and implications

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Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/ by/4.0/ Abstract: In this study, we are interested in WCM (working capital management) strategies and profitability in the UK furniture manufacturing sector. Observing the period from 2007 to 2023 of public companies panel data has found that extreme (aggressive and conservative) and moderate (moderate) WCM approaches are associated with firm performance. The results indicate that a conservative WCM investment policy augments liquidity and profitability and thereby confirms that maintaining liquidity is conducive to operational efficiency. Novel to the literature and considering economic externalities and technological progress, the analysis carries important implications for academics and working capitalists concerning profitability enhancement via better WCM.

Keywords: working capital management; profitability; financial policies; UK furniture industry; current assets ratio; current liabilities

1. Introduction

The part of working capital is extremely helpful for the manufacturing industry. As a competitive and major portion of the economy, the UK furniture manufacturing industry can be used as a case to irrigate the coy secrets of working capital management (WCM) strategies. This research paper looks into the intricate interrelationship among different WCM strategies and their impact on the profitability of UK furniture manufacturing companies. This is an area of study that is the attention of widespread interest, working capital which has become a crucial part of financial management working capital affects liquidity, profitability, and overall firms' financial health.

The existing literature has discussed widely the spectrum of various working capital management (WCM) strategies from aggressive nature to conservative nature, and potential risks and rewards nestled inside. Nonetheless, there still exists a deficit in the academic literature of how these strategies in the UK furniture manufacturing sector impact on profitability. When there's an unusual type of asset and liability mismatch, however, you have some unique operational issues to consider in context: the ups and downs in demand, supply chain, and receivables that require provisioning for a significant amount of inventory and receivables. Hence, the emergence of technological changes and economic conditions calls for a changed context, which is necessary to be reinvestigated.

In this article, we highlight the results of existing studies to analyze the effect of

working capital investment policies on profitability. It employs the theoretical model that differentiates between aggressive, moderate, and conservative working capital investment strategies and views the effect of these strategies on the profitability of the firm. The article reviews a wide range of literature on the subject, opening up the active debate with the specified area, pinpointing the research vacuum and, thus, preparing to engage with a detailed empirical enquiry.

Employing a robust methodology that includes panel data analysis of publicly traded UK furniture companies from 2007 to 2023, this study aims to provide empirical evidence on the effectiveness of different WCM strategies. The choice of the UK furniture manufacturing industry as the focus of this study is driven by its economic significance and the scarcity of targeted research in this area. By examining the relationship between working capital management strategies and profitability, amidst external economic factors and technological advancements, this research contributes valuable insights to both academic discourse and industry practices.

The article analyzes the effect of working capital management on the profitability of the UK furniture manufacturing industry, combining theory and practice. It covers a literature review, methodology, findings, and future research suggestions.

2. literature review

The intricate relationship between working capital management strategies and profitability has garnered extensive scholarly attention, indicating a spectrum of methodologies ranging from aggressive to conservative approaches. This literature review synthesizes findings from various studies to elucidate the impact of working capital investment policies on profitability, specifically within the context of the UK furniture manufacturing industry.

Working capital investment strategies:

A variety of aggressive and conservative policies related to working capital management are presented in the study of Morshed (2024); however, the study also emphasizes the prevalence between the two in moderate working capital investments. These strategies, however, might have opposite outcomes as the literature shows. An aggressive approach could enhance profits by taking advantage of higher returns and higher risks (Zimon and Tarighi, 2021). By contrast, Morshed (2023) finds a more muted contribution to profitability by conservative policies, arguing they reduce profits only to the extent risk-taking profits are lowered. Ahmad et al. (2022) states that aggressive strategies can compensate for borrowing costs and improve profitability by efficient inventory management and credit recovery from consumers, and supplier payment delay. In contrast, Ramadan et al. (2024) There should be a conservative stop-loss policy to enhance overall process failure risks by keeping sufficient working capital.

Evaluating working capital investment policies:

For businesses deciding about working capital investments, Burney et al. (2021) argue that an organization has to recognize the inherent risks involved in both conservative, aggressive, and moderate business performance strategies at its very core by thinking ahead to what the future holds, this paper pointed out how essential We asked what factors should be taken into account in order to maximize returns in

light of an anticipated decline in the growth rate of working capital as well as rising operating and investment costs. Bhattacheryay (2023) sees currency conversion cycle (CCC), accounts payable, inventory turnover, and accounts receivable as critical indicators for making this assessment The CCC determines the degree of capital utilization effectiveness, and Morshed and Ramadan (2023) argue that a lower CCC enhances a firm's liquidity and diminishes its need to borrow.

Inventory management and efficiency:

Key elements of working capital management are inventory turnover and receivables. This underlying interest in the literature is also evident from the studies of many researchers such as Aldubhani et al. (2022), who see productive inventory for sales. Since the publication of Morshed's reflections in 2020, it seems that other authors have also taken up the question. For instance, it observes that a slower turnover rate shortens your efficiencies over converting credit sales to cash. On the other hand, offering trade credit might boost your turnover for additional business, but it could also serve as an invisible barrier against one's going bust.

Accounts payable turnover and profitability metrics:

Payment trading volume graph affects the CCC, and so a company's liquidity and credit position. Moreover, Santos et al. (2022) develop several profitability metrics, such as operating margin rate, return on net tangible assets, and on equity which have important implications on gauging financial performance as well as the effectiveness of working capital management.

Control variables and profitability:

The influence of control factors like a company's size, sales growth rate, current assets ratio, and leverage on profitability is also analyzed critically. Research by Abeyrathna and Priyadarshana (2019) presents blended outcomes regarding the impact of size and sales expansion on gains. Paul and Rahman (2021) discuss the prospective costs related to upholding current resources, while Hussain et al. (2024) delve further into the subtle association between leverage and earnings. Separately, studies have shown that large corporations with high present asset ratios tend to have steadier revenue streams compared to smaller companies with lower current assets. Meanwhile, periods of rapid sales growth often correlate with increased overhead that can potentially reduce margins if not managed prudently.

Research gap: Existing research lacks insight into how external economic factors and technological advancements affect the relationship between working capital management strategies and profitability in the UK furniture manufacturing industry.

Research aim: To evaluate the impact of external economic factors and technological advancements on the effectiveness of working capital management strategies in enhancing the profitability of UK furniture manufacturing companies, addressing the identified gap.

3. Methodology

The data and variables used in this investigation are described in the sections that follow, together with descriptions of the estimation techniques. A statistical description of the sample is then provided.

3.1. data

The panel data used in this analysis covers the years 2007 through 2023 for publicly traded UK furniture companies. The company's annual reports of 10 qualified firms were used to get the data. Since the COVID-19 pandemic was created, a long time period of 15 years was used to eliminate any random error (Anderson, 2019).

3.2. Variables

The return on assets (ROA) is our dependent variable, calculated using the formula (net income + interest expenses)/total assets. We chose ROA due to its simplicity and comprehensiveness, taking into account that it includes net income (income before interest and taxes) and considering the companies' uniform tax situation and industry. Interest expenses, stemming from long-term debt, are added back to net income. Unlike ROA, the return on capital employed (ROCE) adjusts for current liabilities, important for assessing working capital's impact. Return on equity (ROE) focuses solely on shareholder benefits, omitting working capital advantages.

Control variables in this study include company size (SIZE), measured as the logarithm of total assets; sales growth (SGROW); firm leverage (DEBT), as the ratio of total debt to total assets; current assets ratio (CAR), and current liabilities ratio (CLR), both based on respective totals. Turnover metrics are calculated for accounts receivable (ACR), accounts payable (ACP), and inventory (INV), using respective formulas involving sales, purchases, and cost of sales, over a 365-day period. The cash conversion cycle (CCC) is derived as INV + ACR – ACP. Given the consistent market and industry context, VAT's impact on ACR and ACP calculations is excluded.

3.3. Estimations

We put the following fixed-effect regression models to the test: ROA*i*,*t* = β 0 + β 1 INV*i*,*t* + β 2 SIZE*i*,*t* + β 3 SGROW*i*,*t* + β 4 DEBT*i*,*t* + β 5 CAR*i*,*t* + β 6 CLR*i*,*t* + vi + εi ,*t* (1) ROA*i*,*t* = β 0 + β 1 ACR*i*,*t* + β 2 SIZE*i*,*t* + β 3 SGROW*i*,*t* + β 4 DEBT*i*,*t* + β 5 CAR*i*,*t* + β 6 CLR*i*,*t* + vi + εi ,*t* (2) ROA*i*,*t* = β 0 + β 1 ACP*i*,*t* + β 2 SIZE*i*,*t* + β 3 SGROW*i*,*t* + β 4 DEBT*i*,*t* + β 5 CAR*i*,*t* + β 6 CLR*i*,*t* + vi + εi ,*t* (3) ROA*i*,*t* = β 0 + β 1 ACP*i*,*t* + β 2 SIZE*i*,*t* + β 3 SGROW*i*,*t* + β 4 DEBT*i*,*t* + β 5 CAR*i*,*t* + β 6 CLR*i*,*t* + vi + εi ,*t* (4) where: ROA = return on assets, INV = number of days inventory, ACR = number of days accounts receivable, ACP = number of days accounts payable, SIZE = firm size,

SGROW = sales growth, DEBT = debt ratio, CAR = current assets ratio, CLR = current liabilities ratio, i = firm, i, t = time; the two error components are v = individual error component (a particular characteristic of each firm) and $\varepsilon = \text{residual}$ error (unobservable factors that vary over time and affect ROA*i*,*t*).

The data underwent analysis through panel data methods, employing an *F*-test to compare fixed effect models with Pooled OLS, examining if fixed effect intercepts significantly differed from zero. A robust Hausman test, referencing Awan et al. (2020), then evaluated fixed versus random effect models, with coefficient assessment via rogers robust standard errors to address heteroscedasticity and autocorrelation.

3.4. Sample description

Table 1 summarizes key financial metrics for a group of companies, showing an average ROA of 9.9%, inventory turnover of 156, and receivable collection period of

56 days. Notably, the payable collection period is 342.6 days, and the cash conversion cycle averages at -130.6 days, suggesting efficient cash generation. Market capitalization averages at 2.905, with sales growth at 5.122% and a debt-to-equity ratio of 0.521. The current assets ratio is 0.594, and the current liability ratio is 0.541. This summary provides insights into the companies' financial health and operational efficiency.

	ROA	INV	ARC	ACP	ССС	SIZE	SGROW	DEBT	CAR	CLR
Mean	0.099	156	56.06	342.6	-130.6	2.905	5.122	0.521	0.594	0.541
Median	0.086	107	59.49	136.2	36.23	2.809	0.044	0.509	0.618	0.498
Standard dev.	0.11	195.4	21.67	1908	1903	1.379	58.99	0.182	0.156	0.238
Minimum	-0.1557	12.02	8.902	26.02	-21983	0.5092	-0.4613	0.2133	0.01039	0.1351
Maximum	0.8841	995.6	154.5	22204	476.8	5.039	685.5	1.205	1.127	1.242
1st quartile	0.042	53.09	39.45	90.02	15.99	1.64	-0.02	0.378	0.515	0.347
3st quartile	0.139	146.7	69.05	169.7	62.84	4.016	0.087	0.6	0.697	0.733

Table 1. Sample description.

4. Findings

This section begins by analyzing the relationship between working capital management (WCM) practices and profitability through univariate and multivariate analyses. It delves deeper into the robustness of these results and the influence of industry factors, also considering possible non-linear effects.

Table 2 shows a correlation matrix, highlighting a strong positive link between ROA and CAR, but no significant correlation with ROA among independent variables. CAR and CLR also share a positive relationship.

	ROA	INV	ARC	ACP	CCC	SIZE	SGROW	DEBT	CLR	CAR
ROA	1 (NA)									
INV	-0.05	1 (NA)								
ARC	-0.05	0.31***	1 (NA)							
ACP	0.02	0.07	0.09	1 (NA)						
CCC	-0.02	0.03	-0.05	-0.99***	1 (NA)					
SIZE	-0.08	0.28***	0.29***	0.04	-0.01	1 (NA)				
SGROW	0	0.31***	0.07	0.03	0	0.11	1 (NA)			
DEBT	-0.1	-0.4***	-0.13*	-0.07	0.02	0.2**	-0.13	1 (NA)		
CLR	0.14	0.08	0.07	0	0.01	-0.54***	0.09	-0.41***	1 (NA)	
CAR	0.37***	0.18**	0.45***	0.05	-0.03	0	0.06	-0.3***	0.45***	1 (NA)

Table 2. Correlation matrix.

The findings suggest that companies focusing on conservative working capital investment to boost profitability often prioritize accounts receivable (ARC) in their current assets. In contrast, those with an aggressive financing strategy opt to fund current assets through bold means.

4.1. Management of working capital and its impact on profitability

To investigate differences between highly profitable and less profitable companies, we conducted a univariate analysis, calculating annual return on assets (ROA) quartiles with specific upper and lower thresholds. This led to overlapping ROA ranges across quartiles. Companies were then categorized by their ROA for further analysis, using student's *t*-test to compare the top and bottom quartiles. Results showed increasing profitability with higher current assets ratio (CAR), as expected. However, there was no clear difference in the independent variable between the first and fourth quartiles. Interestingly, companies with higher current liabilities in the second quartile showed greater profitability, suggesting that more successful companies might leverage short-term funding for growth, requiring more current assets for sales as **Table 3**.

Variable	1st quartile	2nd quartile	3ed quartile	4th quartile	t-value and sig. level
ROA	-0.16-0.04	0.04-0.09	0.09–0.14	0.14-0.88	
INV	150.48 (45.68)	162.18 (103.45)	191.31 (137.91)	121.02 (125.49)	0.62 (0.538)
ARC	45.18 (34.88)	64.72 (68.65)	63.27 (61.64)	51.29 (50.34)	-1.15 (0.254)
ACP	200.52 (137.63)	211.97 (136.31)	859.54 (136.61)	113.63 (134.29)	2.07 (0.046)
CCC	-4.86 (22.88)	14.93 (28.06)	-604.95 (51.22)	58.68 (44.79)	-2.32 (0.025)
SIZE	2.89 (3.9)	3.16 (2.69)	2.99 (3.23)	2.58 (2.59)	0.86 (0.391)
SGROW	0.01 (0)	0.02 (0.02)	20.86 (0.06)	0.06 (0.06)	-1.19 (0.238)
DEBT	0.6 (0.59)	0.54 (0.54)	0.46 (0.48)	0.48 (0.4)	2.29 (0.026)
CLR	0.46 (0.37)	0.57 (0.5)	0.57 (0.48)	0.57 (0.59)	-2.15 (0.035)
CAR	0.45 (0.44)	0.61 (0.59)	0.63 (0.64)	0.68 (0.69)	-6.86 (0)

Table 3. Mean values by ROA quartile.

As depicted in **Table 4**, the second tested model favored the utilization of fixed and random effects models. In the multivariate analysis, all coefficients exhibited statistical significance. Concerning ACR, it exhibited a noteworthy negative correlation with ROA, which supported by Hasanudin et al. (2022), but Mahardika and Mulyawan (2023) mentioned a positive relationship. However, no significant relationships were observed among the three components of CCC, INV, and ACP. The evident robust and positively significant correlation between CAR and ROA underscores the profitability of adopting a conservative investment approach within this sector as what Liu et al. (2022) mentioned. Furthermore, size demonstrated a favorable impact in the last two models. These outcomes remained consistent across various regression models that were subjected to testing.

Utilizing ROIC as a stand-in for measuring profitability yielded consistent outcomes, both in terms of receivable turnover and notably in inventory turnover. The outcomes based on ROA and ROIC as reliant variables are presented in **Table 5**. For the sake of brevity, while not all details regarding control variables and constant coefficients for every model are included, the focus remains on the coefficients of the independent variables within each of the eight models tested.

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Variables	Model 1	Model 2	Model 3	Model 4
INV	-0.037 (-0.98)			
ACR		-0.001323 (-2.78)***		
ACP			0 (-0.02)	
CCC				0 (-0.08)
SIZE	-0.010176 (-1.14)	-0.007104 (-0.85)	-0.013922 (-1.69)*	-0.013912 (-1.68)*
SGROW	0.03436 (0.32)	0.1078 (0.11)	0.0094 (0.09)	0.0094 (0.09)
DEBT	-0.022081 (-0.37)	-0.004983 (-0.09)	0.004764 (0.09)	0.004909 (0.09)
CAR	0.305187 (4.46)***	0.385725 (5.35)***	0.308478 (4.51)***	0.30823 (4.51)***
CLR	-0.062768 (-1.13)	-0.06809 (-1.27)	-0.072898 (-1.32)	-0.07269 (-1.32)
F-test Pooled OLS	0.743	0.566	0.492	0.494
Robust Hausman test	0.332	0.006	0.515	0.51
Fixed effect preferred?	No	Yes	No	No

Table 4. Fixed and random effect models.

Table 5. Comparison between ROA and ROCA as response variables.

Variables	ROA	ROCA
INV	$-8.4 \times 10^{-5} (-1.15)$	-0.000135 (-2.91)***
ARC	-0.000688 (-1.15)	-0.000683 (-1.75)*
ACP	0 (-0.08)	0.002 (-0.32)
CCC	0 (0)	0 (0.13)

Notes: This table summarizes eight different models estimated separately. Each line refers to a different independent variable. ROA = return on assets, ROIC = return on invested capital, INV = number of days inventory, ACR = accounts receivable, ACP = accounts payable.

4.2. Endogeneity

As suggested by previous research (Xu et al., 2022; Zheng et al., 2022), there might be an issue of endogeneity. To investigate the potential presence of endogeneity, a two-stage least squares analysis (2SLS) was conducted, utilizing robust standard errors. In this analysis, the initial lags of INV, ACR, ACP, and CCC were employed as instrumental variables, while ROA was considered as the dependent variable.

Ι	ab	le	6.	Test	for	end	ogene	eity.
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Variables	Model 1	Model 2	Model 3	Model 4
INV	-0.0148 (-0.28)			
ACR		-0.000666 (-2.18)**		
ACP			0 (0.01)	
CCC				0 (-0.03)
SIZE	-0.230221 (-1.79)*	-0.20912 (-1.66)	-0.228724 (-1.78)*	-0.22861 (-1.78)*
SGROW	0.01735 (0.07)	-0.0099 (-0.05)	0.0073 (0.03)	0.00743 (0.03)
DEBT	0.064795 (0.66)	0.105533 (1.07)	0.064209 (0.65)	0.064327 (0.65)
CAR	0.252373 (3.99)***	0.259343 (4.18)***	0.253071 (4)***	0.253091(4)***
CLR	0.066064 (0.89)	0.104223 (1.39)	0.066703 (0.89)	0.066736 (0.89)

Table 6 presents results that exhibit a similar pattern to the multivariate analysis. The Durbin-Wu-Hausman test for endogeneity does not provide grounds to reject the null hypothesis, indicating that the variables can be considered exogenous. Consequently, it appears that endogeneity may indeed exist, but it does not fundamentally alter the negative relationship observed in the coefficients with profitability.

4.3. Non-linear effects

Recent research conducted by Marzo and Bonnini (2023) has unearthed a notable non-linear association between the level of working capital and profitability. This implies that there exists an optimal working capital threshold that maximizes profitability. To investigate this relationship within our dataset, we conducted additional regression analyses, incorporating the following modifications:

 $\begin{array}{l} \operatorname{ROA}i,t = \beta 0 + \beta 1 \ \operatorname{INV}i,t + \beta 2 \ \operatorname{SIZE}i,t + \beta 3 \ \operatorname{SGROW}i,t + \beta 4 \ \operatorname{DEBT}i,t + \beta 5 \ \operatorname{CAR}i,t + \beta 6 \ \operatorname{CLR}i,t + vi + \varepsilon i,t & (1) \\ \operatorname{ROA}i,t = \beta 0 + \beta 1 \ \operatorname{ACR}i,t + \beta 2 \ \operatorname{SIZE}i,t + \beta 3 \ \operatorname{SGROW}i,t + \beta 4 \ \operatorname{DEBT}i,t + \beta 5 \ \operatorname{CAR}i,t + \beta 6 \ \operatorname{CLR}i,t + vi + \varepsilon i,t & (2) \\ \operatorname{ROA}i,t = \beta 0 + \beta 1 \ \operatorname{ACP}i,t + \beta 2 \ \operatorname{SIZE}i,t + \beta 3 \ \operatorname{SGROW}i,t + \beta 4 \ \operatorname{DEBT}i,t + \beta 5 \ \operatorname{CAR}i,t + \beta 6 \ \operatorname{CLR}i,t + vi + \varepsilon i,t & (3) \\ \operatorname{ROA}i,t = \beta 0 + \beta 1 \ \operatorname{CCC}i,t + \beta 2 \ \operatorname{SIZE}i,t + \beta 3 \ \operatorname{SGROW}i,t + \beta 4 \ \operatorname{DEBT}i,t + \beta 5 \ \operatorname{CAR}i,t + \beta 6 \ \operatorname{CLR}i,t + vi + \varepsilon i,t & (4) \\ \end{array}$

The variables under consideration, both dependent and independent, along with the control variables, have been previously elucidated. Our new inclusion involves the introduction of squared terms for the independent variables in the regressions. These regressions were performed under fixed and random effects models, and robust standard errors were utilized.

Variables	Model 1	Model 2	Model 3	Model 4
INV	-0.0370 (-0.98)			
ACR		-0.001323 (-2.78)***		
ACP			0 (-0.02)	
CCC				0 (-0.08)
SIZE	-0.010176 (-1.14)	-0.007104 (-0.85)	-0.013922 (-1.69)*	-0.013912 (-1.68)*
SGROW	0.03436 (0.32)	0.01078 (0.11)	0.0094 (0.09)	0.00943 (0.09)
DEBT	-0.022081 (-0.37)	-0.004983 (-0.09)	0.004764 (0.09)	0.004909 (0.09)
CAR	0.305187 (4.46)***	0.385725 (5.35)***	0.308478 (4.51)***	0.30823 (4.51)***
CLR	-0.062768 (-1.13)	-0.06809 (-1.27)	-0.072898 (-1.32)	-0.07269 (-1.32)
F-test Pooled OLS	0.743	0.566	0.492	0.494
Robust Hausman test	0.332	0.006	0.515	0.51
Fixed effect preferred?	No	Yes	No	No

As displayed in **Table 7**, the coefficients pertaining to the squared terms of the variable ACR exhibit significance and a negative sign, while, conversely, they are significant and positively signed for CAR. This observation of CAR suggests a noteworthy quadratic dependence and indicates the presence of a minimum point. This minimum point is identified for higher values of CAR, implying an overall improve in ROA as these variables increase. These findings align with those reported by Lussi et al. (2023).

It is important to note, however, that our results indicate that the squared variables INV, ACP, and CCC did not attain statistical significance.

5. Discussion and implications

Analysis of WCM strategies and their impacts on business success in the UK furniture manufacturing industry uncovers a complex picture. There are pros and cons between a strategy of aggressive working capital management and one that focuses on the opposite, as seen in various studies referred to in the literature review. Unique insights gathered from real industry data from 2007 to 2023 help advance this debate.

The affirmative correlation between the current assets ratio (CAR) and return on assets (ROA) implies that more conservative strategies of capital investment which favor financial soundness over short-term returns (for example, liquid stocks) tend to be high worth. This is in line with the advocacy of Ramadan et al. (2023) for operating a cautious policy. The correlation matrix also indicates the multiple dimensions of working capital management. It demonstrates intricate relationships among inventory turnover, accounts receivable, and accounts payable with measures of profitability (Kouaib and Bu Haya, 2024).

Results from the univariate and multivariate analysis suggest that while aggressive strategies, with high inventory turnover and long accounts payable periods, can deliver short-term successes these do not necessarily lead to long-term performance. This finding is crucial within the context of the UK furniture manufacturing industry: efficiency and responsiveness are key components to competitive advantage.

Implications:

For practitioners: Financial managers and other decision-makers in the UK furniture manufacturing industry can draw upon a wealth of practical advice from this study. Evidence here, scholarships there suggests that an approach to working capital management which is balanced and leans more towards conservative investment strategies cranks up profits shadow. Companies should try to stress liquidity in their inventory and receivables management for the most effective expansion of possibilities rather than use aggressive tactics such as the use of credit to remove uncertainties that exacerbate the financial risks of enterprises.

For policy makers: The findings stress the need for a calm economic environment that supports traditional financial strategies. Policies that make the market brighter, stable conditions and reliable credit can be sources of help to businesses in their use of working capital based on simple principles for their lives--with the aim eventually being improved performance and stronger finance in the manufacturing sector after founding.

6. Conclusion

This study has rigorously examined the interaction of working capital management (WCM) practices with profitability in the context of the UK furniture manufacturing industry. To do so, it has undertaken an extensive assessment between 2007 and 2023 to map the underlying mechanisms through which different WCM approaches impact a firm's financial performance. The results suggest that a moderate

conservative working capital policy is an indicator factor affecting profitability and supports the fact that optimizing working capital should improve the profitability of firms, in particular for the current assets ratio (CAR) on the profitability of return on executors (ROA).

Importantly, it has strong policy and business development implications for the furniture and furnishings industry in the UK. Policies must support conservative financial structures that value liquidity and operational effectiveness. Policymakers should also minimize credit risks of customers given the fact instability in the credit market is common and co-support the furniture manufacturers to better manage their working capital, which is essential for their long-term profitability and sustainability. In addition, efforts to develop the industry should aim to increase supply chain efficiencies and drive technology-led inventory and receivables management, thereby building resilience and further boosting competitiveness.

6.1. Recommendations

For corporates in the UK furniture manufacturing industry: Lean working capital management techniques focused on enhancing liquidity, with improved operational efficiency, are the need of the hour. Balanced inventory and receivables management also strengthen the bottom-line profitability and financial stability.

For policy makers: To help the industry policymakers can create a stable economic environment to foster common sense financial policies. These efforts may comprise facilitating credit at low cost, creating market stability, and promoting practices to improve operational efficiency in supply chain management.

For academia, researchers: Explore more on the dynamic front of how the different WCM strategies differ in terms of profitability concerning external economic factors and technological advancements. These would include cross-sector or cross-geography comparative studies to discover general trends or unique industry-specific learnings.

6.2. Limitations and future research

In addition to the sector-specific analysis in the UK furniture manufacturing industry, this study also provides a deeper understanding of the relationship between working capital management (WCM) and profitability, although with its limitations (relying on public companies where the structure can be different compared to private small and medium entities) Future research needs to generalize under broader conditions. Furthermore, a deeper understanding of the effects of external economic and technological changes on WCM and profitability has been lacking, and therefore, such an investigation is warranted. And there remain territories of investigation regarding the generalizability of these learnings across industries or regions, or in a world in which the pandemic economy is far behind us.

Author contributions: Conceptualization, AR and BM; methodology, AM; software, SD; validation, SD and ABA; formal analysis, AR; investigation, AM; resources, BM; data curation, AARB; writing—original draft preparation, AARB; writing—review and editing, SD; visualization, BM; supervision, AR; project administration, ABA;

funding acquisition, AM. All authors have read and agreed to the published version of the manuscript.

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