THE IMPACT OF THE CASH CONVERSION CYCLE ON PROFITABILITY: EVIDENCE FROM LISTED TRANSPORTATION COMPANIES IN VIETNAM

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Abstract

This article studies the impact of the cash conversion cycle (CCC) on the profitability of transportation companies in Vietnam. The research sample was collected from the financial statements of 32 transportation companies listed on the Vietnamese stock market in the period 2013 - 2022. The study used a regression analysis using SPSS 26 software applications in the research. Quantitative research shows that Average collection period (ACP); Inventory conversion period (ICP); Cash conversion period (CCC) has the opposite effect; Average payment period (APP) positively impacts profitability (ROA). The study uses three control variables: The debt ratio (DR), enterprise size (SIZE) and short-term debt solvency ratio (CR). Research results show that debt ratio (DR) has a negative impact on ROA, the variables SIZE and CR do not affect profitability. From the research results, the author has proposed a number of solutions to improve the cash conversion cycle to increase profitability for transportation companies in Vietnam.

Keywords: CCC, Impact, Profitability, Transportation companies, ROA

INTRODUCTION

Transport is an activity that changes the position of goods and passengers in space to meet socio-economic needs. Transport is a highly socialized industry, so it is strongly influenced by the 4.0 industrial revolution and the severe impact of the Covid-19 pandemic (Osińska & Zalewski, 2023). Revenue and profits decreased seriously, causing the business performance of the enterprise to continuously remain low (Bui, 2023) (Bandyopadhyay & Bhatnagar, 2023). With the above situation, transportation companies face many difficulties in financial management. Decisions related to financial management include three main areas, which are working capital management for short-term investments, long-term capital management and capital budgeting for long-term financing. According to these areas, working capital management is important because it affects the profitability and overall liquidity of companies (Iqbal et al., 2020). According to business operations, the cash conversion cycle (CCC) is the most dynamic cycle, a measure of time between cash payment accounts. CCC measures liquidity based on an analysis of three cycles, including the first cycle as the Inventory Turnover Period, the second cycle as the Average Collection Period, and the third cycle as the Average Payment Period (Bieniasz & Gołaś, 2011). Many researchers such as (Appuhami, B, 2008), (Kalantonis et al., 2019) have proven that CCC is an important component of working capital management. Therefore, the cash conversion cycle is the most widely used indicator to identify and measure the risks and profits. Effective management of receivables, payables, inventory, and cash conversion cycle will directly impact the success and increase profitability. Therefore, the cash conversion cycle and profitability are closely related to each other (AL Taleb et al., 2010). Experiencing the Covid-19 pandemic, the instability of input raw material prices makes transportation companies have difficulty with liquidity. Researching the impact of the cash conversion cycle on the profitability of transportation companies are an urgent topical issue, helping business administrators apply research, policy making, and management in the process of developing the economy in general and developing the transport industry in particular.

For some of the above reasons, this study hopes to provide more scientific evidence on the relationship between the cash conversion cycle and profitability of transportation companies listed on the Vietnamese stock market. This research helps managers put administrative functions in place during the definition of any cash conversion to enhance profitability.

LITERATURE REVIEW

Cash conversion cycle

According to (Yakubu, 2017) cash conversion cycle (CCC) is the amount of time a company spends converting its company's resources into cash flow, CCC is measured by the

total number of days receivables and time holding inventory minus the total time it takes to pay the seller. According to Theo (Gill & Shah, 2011), cash is an important ingredient to maintain and grow companies. The increase or decrease in cash flow is often used as a measure of the risk of a business or industry; if a company continually adjusts its cash holdings, in pursuit of optimal cash levels, there will be an increase in cash flow. Corresponding increase in profitability and corporate value (Shipe, 2015). In addition, (Muscettola, 2014), affirms that CCC is an effective tool for checking the level of capital management of a production organization. Companies always have to consider the trade-off between keeping a large cash balance to ensure liquidity or using cash to invest in expanding scale and developing production and business. (Ikechukwu, 2016) points out that the faster businesses collect receivables from customers, the more profitable they are, while the amount of money payable for the purchase of goods and services should be extended to the maximum. Besides, (Raheem Anser, 2013) said that CCC is of great significance to all companies because it provides useful information for managers in finding a reasonable inventory holding period, which is reflected in Reflected by the total number of days of debt collection from customers in a business cycle, from the production of goods until the sale of those goods. The cash cycle is essential to monitor whether a business unit's working capital is well managed or not. CCC indicates the time from when a business pays for input materials until it receives money from customers. According to (Provasi et al., 2019), CCC is a useful tool in assessing the liquidity of companies.

Profitability

According to (Rashid, 2018), profitability can be calculated through the profits of companies. Profit is an extremely important goal, so if companies are not profitable, it will be difficult for them to continue operating and research also shows that the profitability is affected by indicators, enterprise-specific targets on debt ratio and profit after tax on total assets (ROA). To increase profitability, business units need to effectively manage total debt and total assets. Accordingly, companies need to keep a suitable debt ratio, ensuring the ability to repay debt to suppliers, and at the same time. Minimize unnecessary costs and increase revenue boosting measures. (McGahan & Porter, 2002) said the Profitability depends on the profits of chemical businesses and the stages of the companies, including many factors, such as: Sales volume, divisions or the function of controlling costs, earning inherent profits of the product, investment and some other beneficial factors. (Burja, 2011) believes that the profitability of a business organization will increase by accelerating the speed of capital turnover. A pretty big impact on increasing profitability is reducing operating costs. According to (Barakat & Abdallah, 2014) profitability from providing goods and services is expressed through the ability to generate

profits, as well as the ability to invest in companies to increase net revenue and decrease costs, including sales service costs, general production allocation costs, or management service costs will contribute to increasing profits. Therefore, profitability is considered an indicator of management efficiency, increasing investors' demand for shares, leading to increased market value and return on equity (ROE), considered an indicator of profitability.

The relationship between cash conversion cycle and profitability

(Gill & Shah, 2011) said the cash is the most liquid asset, it is a measure of company's ability to pay on time. Holding cash is very important because it provides liquidity for the company, allowing the ability to pay off debts without overdue payments, even when the company's business situation is not good, as expected. To increase sales and profits, companies need to develop a cash reserve policy, by ensuring that cash in motion creates positive cash flow. Research by (Yakubu, 2017) states that maintaining appropriate CCC is necessary in maintaining liquidity. However, companies may lose investment opportunities when they hold excess working capital. (Yasir et al., 2014) said that when the company owns large inventory, it can increase production, promoting an increase in sales and profits, similarly, an increase in receivables days for customers will also increase purchasing demand from buyers, resulting in increased profits. However, when the business situation is in the recovery phase, the fact that the business owns large inventories and the number of days to collect payments from customers is at a high threshold, which will make the company stuck in the credit crisis, leading to companies reducing operations, minimizing production, decreasing sales and decreasing profits. Therefore, companies need to focus on reducing inventory time as well as customer collection time as (Nwude et al., 2018) concluded that CCC has a significant negative impact on ROA, therefore, if CCC is low, profitability will increase.

Experimental Studies

(Uyar, 2009) researched data from businesses in Turkey on the relationship of CCC and business size with profitability. Research results show that: There is a negative correlation between CCC and enterprise size with ROA but there is no correlation between CCC and ROE. (Raheem Anser, 2013) studied the cash conversion cycle and profitability of manufacturing companies listed on the Pakistani stock market. Research results show that: There is a negative relationship between CCC and profitability with two representative variables: ROA and ROE. This shows that at a low level of CCC, the reduction in debt collection time and the number of days in existence of companies will lead to increased profits for manufacturing companies. The number of inventory days and receivable period of companies is long, meaning high CCC, then

profits will fluctuate in a downward direction. Furthermore, advance payments to creditors will lead to reduced profits of manufacturing companies, while extended payments to creditors will lead to increased profits of manufacturing companies. (Yazdanfar & Öhman, 2014) providing empirical evidence that CCC significantly affects profitability. Additionally, the firm-level control variables size, age, and industry affiliation significantly influence profitability. (Murugesu, 2013) suggests that there is a negative relationship between CCC and ROA and ROE. Research by (Yasir et al., 2014) shows that receivables conversion time and inventory conversion time have a negative impact on ROA but payables payment time has the opposite result, with meaning: If receivables collection time is reduced, inventory days are narrowed, and accounts payable payment time is increased, it causes a positive change in ROA. The results also show that CCC has a negative impact on ROA, which means that the lower the CCC period, the higher the company's profits will be. Research by (Nijam, 2016) on the cash conversion cycle and profitability of listed tourism and hotel companies in Sri Lanka. The author points out that: CCC has a positive and significant relationship with profitability. With this result, the author makes a policy implication: To increase profitability, companies tend to allow high levels of credit debt to their customers (accounts receivable) and have a low inventory conversion period. In addition, the study also concluded that: The number of days to pay accounts payable does not have a significant impact on profitability.(Samuel & Yunusa Abdulateef, 2016) said that CCC has a negative and insignificant impact on ROE but is significant on financial performance measured by EPS. With the research results, they provide policy implications: Companies need to shorten the time to convert inventory and collect money from customers. (Nwude et al., 2018) pointed out that: The impact of the cash conversion cycle on the profitability of listed insurance companies, concluding that: CCC has a negative and significant impact on profitability (ROA), therefore, low CCC will contribute to increased profitability. At the same time, the research also shows that there is a positive relationship between business profitability and the following variables: Short-term payment ratio, ratio of financial leased assets to total assets, debt ratio, speed of payment. GDP growth rate but has a negative relationship with enterprise size.

In summary, the literature review shows that CCC has a negative impact on profitability or vice versa or has not found enough scientific evidence of this impact with research samples that are not the same across industries, space and time. From theoretical as well as empirical research, the article will provide more empirical evidence showing how the cash conversion cycle affect the profitability of transportation companies listed on the Vietnamese stock market in the period 2013 - 2022.

RESEARCH METHODS

Research variables and hypotheses

Dependent variable: Profitability (ROA) is determined by profit after tax on average assets (Karim et al., 2023) (Nwude et al., 2018) (Takon & Atseye, 2015) (Yasir et al., 2014)

Independent variables:

Average collection period (ACP) indicates how long it takes for a business to collect debt from its customers. The longer the average collection time, the more likely a business will misappropriate capital or lose the opportunity to use capital, as well as increase the risk of debt recovery. Therefore, if a business prolongs the time it takes to collect money from customers, it will reduce profitability. In addition, according to previous research results of the authors (Raheem Anser, 2013), (Yasir et al., 2014) showed that the average collection period has a negative impact on ROA. Therefore, this article proposes the following hypothesis:

H_1: Average collection period (ACP) has a negative impact on profitability (ROA)

Average payment period (APP) shows how long it takes a business to pay off its debts to suppliers. The greater the average payment period, meaning the longer the capital is appropriated from outside, so the greater the average payment period, the greater the profit and this helps improve profitability. Besides, some previous studies have concluded that the average payment period has the same impact on profitability as (Raheem Anser, 2013), (Yasir et al., 2014). Therefore, this article hypothesizes the following:

H_2: Average payment period (APP) has a positive impact on profitability (ROA)

The inventory conversion period (ICP) shows how quickly a business can convert its inventory into revenue. If ICP is high, the business accelerates the rate of goods consumption, proving that the business's resources are being used effectively, profits are improved, and this helps improve profitability. Studies by (Raheem Anser, 2013), (Yasir et al., 2014) show that: ICP has a negative impact on profitability. Therefore, the article proposes the following hypothesis:

H_3: The inventory conversion period (ICP) has a negative impact on profitability (ROA)

The cash conversion cycle (CCC) is of great significance to companies because it plays an important role in finding a reasonable inventory holding period and the number of debt collection days (Raheem Anser, 2013). CCC also reflects the time it takes to pay the supplier. In fact, if a business manages CCC well, by narrowing the receivable collection time to a reasonable level, accelerating the sales speed as shown by reducing the number of inventory days, and at the same time, prolonging the sales time. The time it takes to pay accounts payable improves profits, which in turn improves profitability. Studies by (Raheem Anser, 2013), (Yasir et al., 2014), (Takon & Atseye, 2015), (Murugesu, 2013), (Nwude et al., 2018) by

experimental research have shown that : CCC has a negative impact on ROA. Based on theory and previous studies, the author proposes hypothesis H_4 as follows:

H_4: Cash conversion cycle (CCC) has a negative impact on profitability (ROA)

Control variable:

In addition to variables related to the cash conversion cycle, the article adds a number of control variables into the model to better explain the research results, including: Control variables: Debt ratio (DR), Enterprise size (SIZE), Current ratio (CR).

Table 1: Description of research variables and hypotheses

Variable type	Variable name	Symbol	Calculation formula
Dependent variable	Profitability	ROA	Profit after tax/Average total assets
Independent variables	Average collection period	ACP	(Average receivables/Net revenue)*360
Independent variables	Average pay period	APP	(Average payables to vendors/Cost of goods sold)*360
Independent variables	Inventory Conversion Period	ICP	(Average inventory/Cost of goods sold)*360
Independent variables	Cash circulation cycle	CCC	ACP + ICP – APP
Control variable	Debt ratio	DR	Liabilities/Total Assets
Control variable	Enterprise scale	SIZE	Ln(Total Assets)
Control variable	Current solvency ratio	CR	Short-term assets / Short-term debt

Research model

The author uses a multivariate regression research model to study the impact of the Cash Conversion Cycle on profitability. Building 2 separate research regression models is because the CCC variable is formed from 3 variables: ACP, ICP and APP (CCC = ACP + ICP – APP), so that when putting data through analysis software the variable is not removed from the model due to multicollinearity. In addition, analyzing the impact on the two models helps administrators make decisions that will not cause much bias.

Based on the models of previous scholars, the author builds a model on the impact of the cash conversion cycle on the profitability of Vietnamese transportation companies as follows:

Model 1: $ROA_{it} = \alpha + \beta_1 ACP_{it} + \beta_2 APP_{it} + \beta_3 ICP_{it} + \beta_4 DR_{it} + \beta_5 SIZE_{it} + \beta_6 CR_{it} + \varepsilon_{it}$

Model 2: $ROA_{it} = \alpha + \beta_1 CCC_{it} + \beta_2 DR_{it} + \beta_3 SIZE_{it} + \beta_4 CR_{it} + \varepsilon_{it}$

Research data

The study was built based on data on transportation companies listed on the Vietnamese stock market, in the period 2013-2022. All companies in the study must have financial statements audited by independent auditing companies from 2013 to 2022. Accordingly, there are 32 transportation companies that meet the above criteria. Used as a research sample, the total number of observations is 320.

Research methods

Apply quantitative research methods using SPSS 26 software to analyze and select regression models, test and estimate panel data regression models. The author selects an estimation model suitable for panel data; perform testing and choose between impact regression models. The next step, after choosing an appropriate estimation model, is to perform testing to evaluate the impact of the cash conversion cycle on the profitability of transportation companies. Variables are expressed in table data form (Panel Data) with two dimensions: time dimension and company dimension.

RESEARCH RESULTS

Descriptive statistical analysis

Table 2. Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
ROA	-.384	.621	.124	.177
ACP	11.699	1034.935	115.169	159.859
APP	19.965	1667.519	117.028	168.248
ICP	2.039	202.671	25.157	32.361
CCC	-1134.303	797.147	23.299	163.646
DR	.083	1.168	.511	.240
SIZE	10.695	18.384	14.046	2.447
CR	.231	10.186	2.194	1.897

Table 2 shows that the average return on assets (ROA) is 12.4% with a relatively large fluctuation with the largest value being 62.1%, while the smallest value is only -38.4%. . The average collection period (ACP) is 115 days, the average payments period (APP) is 117 days, and the inventory conversion period (ICP) is 25 days. The cash conversion cycle (CCC) has an average length of 23 days. This result is consistent with the business characteristics of the

transportation industry. The debt ratio has an average value of 0.511 (51.1%), meaning that for every 100 VND of capital invested in a business, there is 51.1 VND of debt. This coefficient is not high, but it also signals the possibility of payment risks if the enterprise encounters difficulties in business. Firm size (SIZE) has an average value of 14.046 and the current ratio is 2.194. In general, transportation companies are quite large in scale and have a good ability to pay short-term debt.

Correlations

Table 3. Correlations

	ROA	ACP	APP	ICP	CCC	DR	SIZE	CR
ROA	1							
ACP	-.236**	1						
APP	-.238**	.466**	1					
ICP	-.248**	.214**	.484**	1				
CCC	-.035**	.540**	-.477**	-.091	1			
DR	-.629**	.093	.169**	-.158**	-.114*	1		
SIZE	-.241**	.364**	.222**	-.014	.125*	.248**	1	
CR	.411**	.096	-.037	.032	.138*	-.698**	.134*	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

According to Table 3, ROA is negatively correlated with all variables; ACP is positively correlated with APP, ICP, CCC, SIZE; APP positively correlated with ICP, DR, SIZE, negatively correlated with CCC; ICP is negatively correlated with DR; CCC is negatively correlated with SIZE; DR is positively correlated with SIZE and negatively correlated with CR; SIZE is positively correlated with CR. The remaining variables are not statistically significant because Sig>0.05.

Regression results

To consider the impact of the cash conversion cycle on profitability, the study applied a linear regression model.

According to the Table 4, ANOVA gives us F-test results to evaluate the appropriateness hypothesis of the regression model. The F-test Sig value is 0.000 < 0.05, meaning $R^2 \neq 0$. The regression model is appropriate.

Table 4. ANOVA[a]

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	1	5.510	6	.918	62.819	.000[b]
2	2	4.155	4	1.039	55.170	.000[b]

Table 5. Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.739[a]	.546	.538	.12090	.718
2	.642[a]	.412	.404	.13721	.635

According to Table 5, the R^2 value of model 1 is 0.583, showing that the independent variables included in the regression analysis affect 53.8% of the variation of the model's dependent variable, the rest is due to external variables, model and random errors. The R^2 value of model 2 is 0.404, showing that the independent variable CCC included in the regression analysis affects 40.4% of the variation of the model's dependent variable, the rest is due to variables outside the model and errors. random. With the Durbin Watson value of both models ranging from 0 to 1, no first-order serial correlation occurs.

Regression results of model 1

Table 6. Coefficients[a] of model 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.517	.044		11.665	.000		
	ACP	.000	.000	-.129	-2.835	.005	.705	1.419
	APP	.000	.000	.154	3.072	.002	.580	1.724
	ICP	-.002	.000	-.412	-8.905	.000	.677	1.477
	DR	-.558	.047	-.756	-11.797	.000	.353	2.830
	SIZE	-.003	.003	-.035	-.768	.443	.689	1.451
	CR	-.008	.006	-.081	-1.330	.185	.395	2.532

a. Dependent Variable: ROA

According to the regression results of model 1 in Table 6, the variables ACP, APP, ICP, DR all have Sig values less than 0.05, so these variables are all statistically significant. The

regression coefficients of ACP and ICP have negative signs, so they have a negative impact on the ROA variable; the regression coefficient of APP has a positive sign, so it has a positive impact on ROA. Based on the magnitude of the standardized regression coefficient Beta, the order of impact from strongest to weakest of the independent variables on ROA is: ICP (-0.412) > APP (0.154) > ACP (-0.129). The DR control variable has a standardized regression coefficient of -0.756, so it has a strong impact on ROA. The control variables SIZE and CR both have Sig values greater than 0.05 so they are not statistically significant or in other words, have no impact on the dependent variable ROA. The variance magnification coefficient VIF of the variables is all between 1 and 3, demonstrating that there is a moderate correlation between the independent variable ROA and other variables.

Considering the standardized regression coefficient (βeta), we have the following standardized regression equation:

ROA = – 0,412ICP + 0,154APP – 0,129ACP – 0,756DR

In the standardized regression equation, the variables have been regressed to the same unit. Furthermore, the standardized regression model makes more economic sense than mathematical sense.

Regression results of model 2

Table 7. Coefficients[a] of model 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
2	(Constant)	.438	.047		9.385	.000		
	CCC	.000	.000	-.096	-2.187	.029	.962	1.040
	DR	-.459	.051	-.621	-8.976	.000	.390	2.563
	SIZE	-.005	.004	-.074	-1.480	.140	.739	1.352
	CR	5.399	.006	.001	.009	.993	.411	2.431
a. Dependent Variable: ROA								

According to the regression results in Table 7, the CCC variable has a Sig value of less than 0.05, so this variable is statistically significant. The regression coefficient of CCC has a negative sign, so it has a negative impact on the ROA variable. However the Beta coefficient of CCC = - 0.096 so CCC has an insignificant impact on ROA. The DR control variable has Sig <0.05 and Beta coefficient = -0.621, so it has a negative impact on ROA. The control variables

SIZE and CR both have Sig values greater than 0.05 so they are not statistically significant or in other words, have no impact on the dependent variable ROA. The variance magnification coefficient VIF of the variables is all between 1 and 3, demonstrating that there is a moderate correlation between the independent variable ROA and other variables.

Considering the standardized regression coefficient (βeta), we have the following standardized regression equation:

ROA = - 0,096CCC – 0,621DR

DISCUSSION

Inventory turnover period (ICP): When companies extend the number of days of inventory, it means that goods are backlogged and capital invested in projects cannot be recovered to continue to rotate. In addition, when companies prolong inventory, they will incur a lot of related costs, such as: Construction preservation, insurance, and also opportunity costs and this will lead to reduced profitability. The results of this study show that the ICP variable has a negative impact on business profitability. The research results show that hypothesis H_3 is accepted with high reliability. This research result is consistent with the experimental research results of some authors such as (Raheem Anser, 2013) and (Yasir et al., 2014)

Average collection period (ACP): The longer the average collection period, the more companies lose the opportunity to use capital to serve revenue-generating business activities, while increasing financial risks. Debt recovery, therefore, the company's cash flow is negatively affected due to misappropriation of capital, leading to reduced profitability. The results of this study show that the ACP variable has a negative impact on business profitability. The research results show that hypothesis H_1 is accepted. This research result is supported by a number of authors such as (Raheem Anser, 2013), (Yasir et al., 2014).

Average payment period (APP): When companies delay the average payment period to suppliers, companies can use this capital to supply short-term capital needs. Thus, they save money. Save a sum of capital costs to generate revenue as well as profits and thereby increase profitability. Therefore, when the average payment time increases, it contributes to increased profitability. The research results show that: Hypothesis H_2 is accepted with high reliability. This finding is consistent with the experimental research results of (Raheem Anser, 2013), (Yasir et al., 2014).

Cash conversion cycle (CCC) has a negative impact on ROA. This result is consistent with hypothesis H_4 and coincides with previous research results such as (Raheem Anser, 2013), (Yasir et al., 2014), (Takon & Atseye, 2015), (Murugesu, 2013), (Nwude et al., 2018). CCC indicates the time from when a business pays for input materials until it receives money from

customers. Regression results show that if transportation companies tighten credit policies for customers and extend payment time to suppliers, they will increase profitability.

Debt ratio (DR): When a business uses debt, it will bring the benefit of a tax shield, but on the contrary, the companies will have a huge burden, which is the cost of financial distress and it can also be the cause of debt. It causes the profitability of companies to decrease or push companies into a difficult situation as well as the probability of bankruptcy will increase. The analysis results show that DR has a strong, negative impact on ROA. This result is consistent with previous studies such as (Yasir et al., 2014), (Takon & Atseye, 2015), (Murugesu, 2013). For transportation companies, using too much loan capital creates great pressure on debt repayment obligations, especially in the context that lending interest rates on the market in Vietnam in recent times have been quite high and have changed a lot. Due to environmental obstacles and the Covid-19 pandemic, the use of high financial leverage causes risks for companies.

The research results also show that the observed variables SIZE and CR do not impact the profitability of the business because they are not statistically significant (Sig value > 0.05).

CONCLUSION AND POLICY IMPLICATIONS

The study tests the impact of the cash conversion cycle on the profitability of Vietnamese transportation companies in the period 2013-2022 and has research results: Average collection period (ACP); Inventory turnover period (ICP); Cash conversion period (CCC) has a negative impact, average payment period (APP) has a positive impact on profitability (ROA). Debt ratio (DR) is an observed variable that has a strong negative impact on ROA; the variables SIZE and CR do not affect profitability. From the research results, the study proposes some policy implications as follows:

First, reduce the number of days of inventory retention. If inventory remains for a long time, it will not only greatly affect the cash flow of the business but also affect the profitability of other projects in the future. Therefore, for unfinished projects, companies should focus on speeding up implementation progress, reducing inventory storage time, which will help increase the company's profitability.

Second, reduce the average collection time. Transportation companies need to implement policies to tighten receivables and reduce the number of debt grace days so that capital is not misappropriated, helping to increase profitability.

Third, increase the time to pay accounts payable. Transportation companies need to negotiate with partners and take advantage of debt extension incentives to be able to use

appropriated resources to serve business activities, thereby reducing the cost of capital. Services for projects mobilized from outside are reduced, profitability is improved.

Fourth, reduce the cash conversion cycle. When CCC is low, that is, the number of days a company's cash collection days in the business operating cycle, starting from the production of inventory to selling that inventory, decreases. The companies does not misappropriate resources. capital, helping companies use that capital to continue business activities, expand investment opportunities, and increase business profitability. On the contrary, if the company's CCC increases, the company's capital is misappropriated or there is a large capital backlog in projects, there is a possibility that the company will lose investment opportunities, as well as lose the opportunity to use capital. has been appropriated to generate profits for the new production and business cycle, the company's profitability will be reduced. For the above reasons, transportation companies need to implement policies to reduce CCC, such as: Implementing payment discount policies at appropriate rates to encourage customers to pay early and speed up payment. Complete unfinished projects, promote sales policies, and extend the number of days for payment of payables to suppliers.

Fifth, reduce debt usage ratio. Currently, the use of debt to finance business activities for transportation companies is quite high, so the cost of capital that companies have to pay is quite high. However, the efficiency of using loan capital is not high, so profitability decreases. Therefore, to increase profitability, companies should limit the use of loans to finance projects.

Due to limited time and resources, the article only focuses on researching the impact of the cash conversion cycle on the profitability of transportation companies listed on the Vietnamese stock market in the period of 2013 - 2022. Therefore, the author hopes that the following studies should expand the scope of research to all businesses with listed industries on the Vietnamese stock market and the time can be longer to increase the possibility of ability to generalize research results.

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