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The Effect of Cash Conversion Cycle on Company Profitability

A Study on Indonesian Food and Beverage Listed Companies

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Abstract: The Indonesian Food and Beverage industry is a dynamic and pivotal sector in the Indonesian business ecosystem, contributing significantly to the nation's economic growth and reflecting its cultural diversity. This paper delves into the relationship between the Cash Conversion Cycle and the profitability of Indonesian Food and Beverage listed companies. By examining this intricate connection, the study aims to provide valuable insights for financial managers, policymakers, investors, and researchers within this sector. This study used panel data regression with a purposive sampling method with a total of 687 samples that spans from 2007 until 2022. Data processing in this study uses EViews 9. The research adopts Gross Profitability as a precise measure closely linked to working capital management and tests hypotheses related to the Cash Conversion Cycle components, including Days of Inventory Outstanding, Days of Sales Outstanding, and Days of Payable Outstanding. The findings reveal that Days of Sales Outstanding significantly and negatively impacts Gross Profitability, emphasizing the importance of efficient accounts receivable collection for profitability. Days of Inventory Outstanding, while marginally significant, also shows a negative association with Gross Profitability. In contrast, Days of Payable Outstanding does not exhibit statistical significance in explaining variations in Gross Profitability. These insights provide valuable guidance for managers in optimizing working capital management. Moreover, the paper recommends future research directions, including long-term analysis, industry-specific exploration, the influence of macroeconomic factors, comparative studies, and qualitative research to deepen our understanding of the Cash Conversion Cycle's role in the Indonesian Food and Beverage industry and enhance financial management practices.

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Keywords: Cash Conversion Cycle, profitability, working capital, Indonesian Food & Beverage, financial management, operational efficiency.

Introduction

In the vibrant landscape of the Indonesian business ecosystem, the Food & Beverage (F&B) industry stands as a pivotal and ever-evolving sector, reflecting the nation's diverse culinary heritage and economic vitality. The F&B industry is a vital contributor to the nation's economic growth, job creation, and culinary culture development. The industry's success predominantly results from the expanding population and greater disposable income in the country, resulting in an increased need for F&B products. Statistical data from 2022, provided by Statistics Indonesia (BPS), indicates that the F&B industry in Indonesia experienced a healthy annual growth rate of 4.90%, amounting to IDR 813.062 billion. This growth can be attributed to increased production within the F&B sector itself. Looking forward to 2023, CRIF's projections indicate that the Indonesian F&B industry is expected to experience a growth of approximately 5%, closely correlated with the economic conditions.

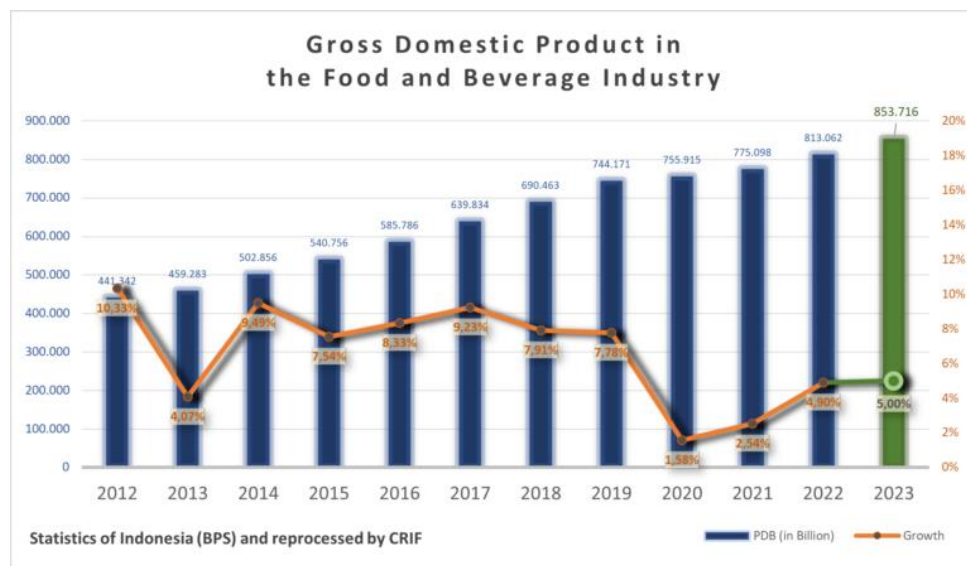


Figure 1 GDP in F&B Industry (<https://visiglobal.co.id>)

Statistics provided by the Central Statistics Agency (BPS) show that in the first quarter of 2023, the F&B sector, which falls under the non-oil and gas processing sub-sector, became the primary driver of Indonesia's GDP, making up 6.47% or IDR 328,324 billion. This sub-sector also saw annual growth of 5.33%, making it the fourth-largest growing sub-sector within the processing industry.

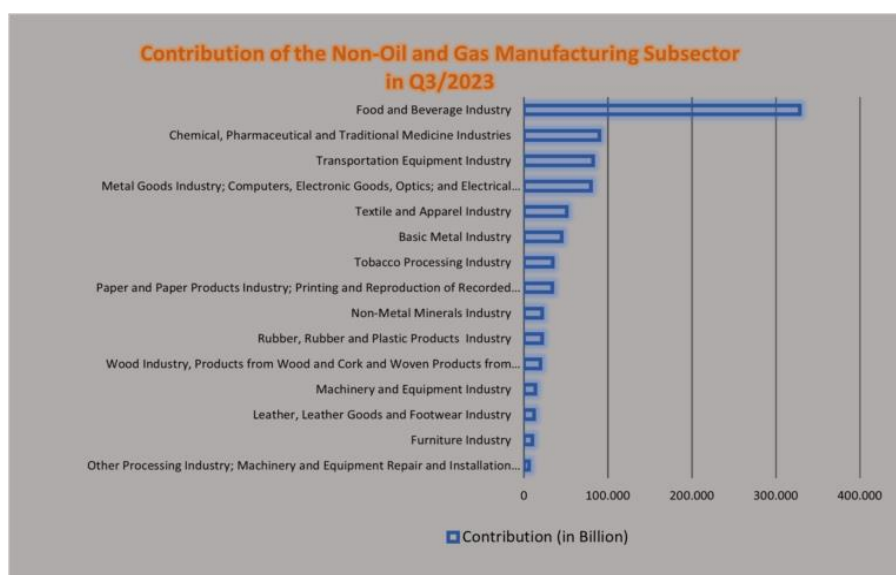


Figure 2 F&B Industry GDP Contribution (<https://visiglobal.co.id>)

While the F&B industry in Indonesia displays promising growth, it faces challenges such as intense competition, fluctuations in raw material prices, complex government regulations, and the need for infrastructure improvements. Industry players must adopt effective strategies and continuous innovation to remain competitive in this dynamic market.

Within this dynamic arena, the interplay between financial management and operational efficiency holds the key to sustained success. At the heart of this dynamic lies the intriguing metric known as the Cash Conversion Cycle (CCC), a measure of an organization's ability to efficiently manage its working capital ([Banerjee et al., 2021](#); [Laik & Mirchandani, 2021](#); [Wang, 2019](#)). The management of working capital involves overseeing cash, inventories, accounts receivables, accounts payable, and other short-term assets and liabilities ([Sisay & Nongmaithem, 2019](#)). An organization's sustainability and growth hinge on efficient working capital management decisions ([Ahangar, 2020](#)). In the F&B industry, the primary objective is to maintain a seamless flow of products from storage to customer delivery. It is evident that these companies need a specific inventory level and must consistently monitor inventory, receivables, liabilities, and working capital management ([Šeligová and Košťurková, 2022](#)).

The CCC represents the duration a company requires to transform its investments in inventory and resources into cash flows from sales ([Anggarehi and Kelen, 2022](#); [Laik and Mirchandani, 2021](#); [Chauhan, 2019](#); [Kroes and Manikas, 2014](#)). It encapsulates a company's operational efficiency and liquidity management, making it a critical indicator of financial health. However, the specific impact of the CCC on profitability within the Indonesian F&B industry remains an intriguing question, ripe for exploration.

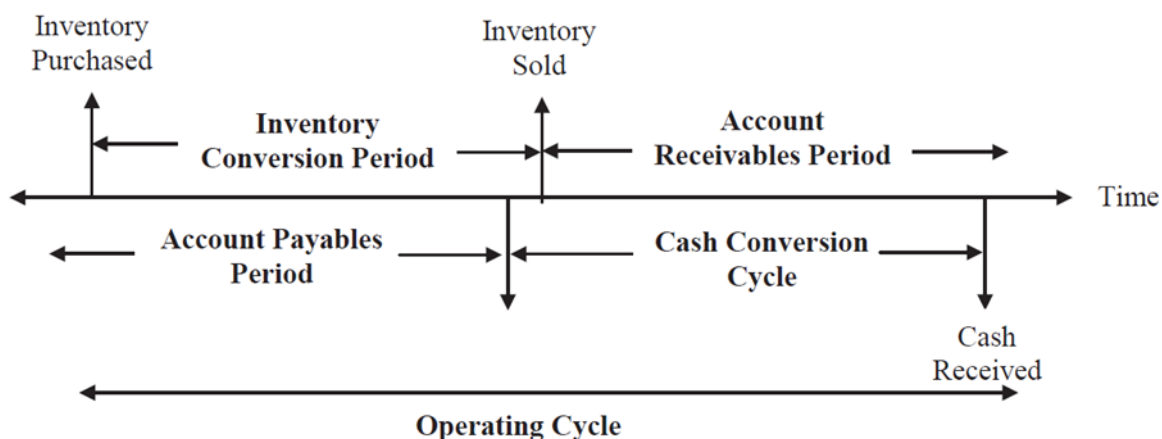


Figure 3 The Cash Conversion Cycle [Ross et al. \(2003\)](#)

The primary objective of this study is to delve into this intriguing relationship: Does the CCC affect the profitability of Indonesian F&B listed companies? By examining this relationship, we aim to contribute valuable insights to financial managers, policymakers, investors, and researchers operating within this sector. Our research seeks to uncover the strategic significance of optimizing the CCC within the unique context of the Indonesian F&B industry.

Motivated by a dearth of comprehensive research in this specific domain, our study delves into the nuances of working capital management and its implications for profitability within the Indonesian F&B sector. Through rigorous analysis, we aim to provide empirical evidence of the connections between the CCC, operational efficiency, and overall profitability. As we embark on this exploration, it is important to recognize the broader significance of this research. The F&B industry in Indonesia is not only a significant contributor to the nation's economy but also a reflection of its rich cultural diversity. Understanding how working capital dynamics influence profitability in this sector can offer crucial insights into not only financial management but also the broader economic landscape.

This paper is structured as follows: Section 1 introduces the research question and sets the stage for the study. Section 2 provides a comprehensive review of existing literature related to the CCC, profitability, and their interplay within various industries. Section 3 outlines the research methodology, detailing data collection, sample selection, and analytical techniques. Subsequently, Section 4 presents the empirical findings, offering quantitative insights into the relationship under examination. Finally, Section 5 concludes the paper by summarizing key takeaways and suggesting potential avenues for future research.

In this journey of exploration, we aim to uncover the financial dynamics that drive success in Indonesia's vibrant F&B industry, shedding light on the intricate relationship between the CCC and profitability in this unique market setting.

Literature Review

It's evident that extensive research has been conducted to assess the impact of the CCC on the profitability of companies across a spectrum of manufacturing industries. This substantial body of work has yielded diverse and at times contradictory results, representing a wide range of conclusions about the relationship between CCC and profitability. Some studies have reported a negative association between a shorter CCC and profitability, suggesting that overly aggressive working capital management might harm a company's profitability. On the other hand, several research endeavors have found a positive correlation, indicating that efficient working capital management, as reflected in a shorter CCC, can indeed enhance a company's profitability.

The Negative Relationship of CCC on Profitability

The negative effect of CCC on firm value and financial performance is a significant aspect of this discussion. Research by [Karim, Mamun, and Kamruzzaman \(2023\)](#) and [Adiwibowo \(2021\)](#) offers valuable insights into the connection between the CCC and profitability. [Karim, Mamun, and Kamruzzaman \(2023\)](#) found a detrimental relationship between the CCC and profitability, particularly in terms of Return on Assets (ROA) and Earnings per Share (EPS), with the correlation between CCC and EPS being particularly noteworthy. They suggest that optimizing manufacturing firms' profitability can involve shortening inventory conversion times, expediting the collection of receivables, and managing payments to creditors more efficiently. Adding to this perspective, [Adiwibowo \(2021\)](#) concentrated on companies within the manufacturing sector that were listed on the Indonesia Stock Exchange. Their results further underscored the adverse influence of the CCC on profitability. This was demonstrated by the significant negative effects of both the Days of Inventory Outstanding (DIO) and Days of Payable Outstanding (DPO) on profitability. However, it's worth noting that the Days Sales Outstanding (DSO) did not show a substantial impact on profitability. Collectively, these findings stress the significance of employing effective CCC management strategies to improve profitability. Furthermore, [Mahmood et al. \(2021\)](#) conducted research on the moderating role of CCC in the relationship between short-term borrowings and profitability and discovered a significant moderating role played by CCC. This implies that CCC not only directly influences profitability but also moderates the relationship between other financial variables and profitability, further underscoring its significance in financial performance.

Numerous other research studies have indicated that companies with a shorter CCC tend to be more financially profitable. ([Ramadhania and Mulyati, 2022](#); [Permana and Ugut, 2021](#); [Cheng et al., 2020](#); [Cahyono and Herlambang, 2020](#); [Wang, 2019](#)). [Banerjee et al. \(2021\)](#) observed that a reduced CCC and extended DPO contribute to increased firm value. Their

study also revealed that the beneficial impact of growth-oriented financial constraints on firm value is more pronounced when the CCC is shorter. Modeling studies have shown that increases in inventory and CCC may decrease firms' profits ([Menezes et al., 2021](#)). [Castellares and Salas \(2019\)](#) found that industries characterized by a lengthier CCC tend to be more financially reliant and experience a substantial decline in sales during economic downturns.

Moreover, [El-Sady, Ahmed, and Hamdy's \(2022\)](#) study, which investigates the determinants of financial failure predictability in Egyptian SMEs, provides complementary insights. Their findings significantly indicate that failing SMEs experience extended cash conversion cycles, primarily attributable to prolonged inventory holding periods, average collection periods, and shorter average payment periods. Additionally, these failing SMEs exhibit lower liquidity, a higher reliance on debt to assets, and a smaller proportion of fixed assets compared to non-failing Egyptian SMEs. These findings align with the broader narrative of the negative relationship between CCC and profitability, further underscoring the detrimental consequences of prolonged CCC on financial stability.

The Positive Relationship of CCC on Profitability

On the contrary, certain research suggests a favourable impact of the CCC on both firm performance and value. [Lin and Lin \(2021\)](#) identified CCC as a reliable predictor of positive stock returns for companies. Meanwhile, a study involving 19 manufacturing industries in the United States conducted by [Kovach et al. \(2015\)](#) highlighted a positive correlation between a firm's CCC and its ROA.

Researchers who have identified a favourable impact of the CCC on firm performance have put forth various theoretical rationales. A lengthier CCC signifies that companies maintain more substantial reserves within the supply chain, allowing them to handle unforeseen fluctuations in sales, like unexpected surges in demand, while still upholding product quality and dependable product delivery ([Hendricks et al., 2009](#)).

A protracted CCC can lead to heightened customer tolerance regarding delivery timelines and an increased willingness by suppliers to accept delayed payments ([Manikas and Patel, 2016](#)). Additionally, firms often truncate their CCC at the expense of their supply chain partners, which has a detrimental impact on overall supply chain performance and, consequently, long-term firm performance ([Laik and Mirchandani, 2021](#)). For instance, if a dominant company delays payment to its suppliers, these suppliers may react by raising selling prices and/or reducing product and service quality ([Hofmann and Zumsteg, 2015](#)). Conversely, expediting supplier payments (i.e., shortening DPO) may reduce costs for companies by securing price discounts for early payments and maintaining enduring supplier relationships, as demonstrated by Wetzels and Hofmann ([Wetzels and Hofmann, 2019](#)).

Other Possible Explanation on CCC-Profitability Relationship

[Zaher and Illescas \(2020\)](#) propose that there is a U-shaped relationship between a company's CCC and its profitability. Smaller companies tend to experience higher profitability when they increase their CCC up to an optimal level. As a company's size grows, the influence of CCC on profitability becomes less pronounced. Their findings align with those of [Prempeh and Peprah-Amankona \(2020\)](#) who also revealed the presence of a concave quadratic relationship between working capital management (CCC) and a firm's profitability. This indicates that there exists an optimal level at which working capital management maximizes a firm's profitability.

[Hussain et al. \(2021\)](#) investigated the moderating impact of exchange rates on the association between CCC and financial performance. They discovered a significant and positive moderating effect of exchange rates. This suggests that macroeconomic factors can indeed contribute to the varying and sometimes conflicting outcomes observed in prior research concerning the impact of CCC on financial performance.

Hypotheses Development

The diverse array of research outcomes regarding the relationship between the CCC and profitability underscores the intricate and multifaceted nature of this association. This complexity is likely influenced by a myriad of factors, including industry-specific dynamics, financial management practices, and contextual variables. Notably, the choice of metrics and analytical methods plays a pivotal role in shaping research conclusions, and it becomes evident that a nuanced examination within specific industry contexts is essential.

One key factor contributing to the variability in research results is the widespread use of ROE or ROA as proxies for measuring profitability. These metrics rely on the company's net profit, which can be influenced by various factors that extend beyond the scope of working capital management. To gain a more precise and focused understanding of the CCC's impact on a company's financial performance, alternative profitability measures closely linked to working capital management, such as the Gross Profit to Asset ratio (GPA) introduced by [Novy-Marx \(2013\)](#), should be considered.

This shift in focus aligns with findings from [Yilmaza and Acarb \(2019\)](#), who highlight the stronger correlation between Gross Profit Margin (GPM) and CCC, particularly its components such as DIO, DSO, and DPO. These components, being directly related to sales revenue and cost of sales, provide a more solid foundation for analyzing the impact of CCC on financial performance. However, it's noteworthy that the authors have chosen to use GPA instead of GPM based on the rationale that GPA offers a more accurate measure closely tied to working capital management. This decision aligns with [Yilmaza and Acarb' \(2019\)](#) findings

that GPM, although correlated with CCC, may not capture the nuanced relationship as effectively as GPA, which considers both gross profit and total assets. Therefore, GPA is a more suitable dependent variable for exploring the CCC's influence on profitability in the context of the Indonesian F&B industry.

Based on above reasoning, the authors proposed a following hypotheses:

- H1: DIO has a negative effect on GPA
- H2: DSO has a negative effect on GPA
- H3: DPO has a positive effect on GPA

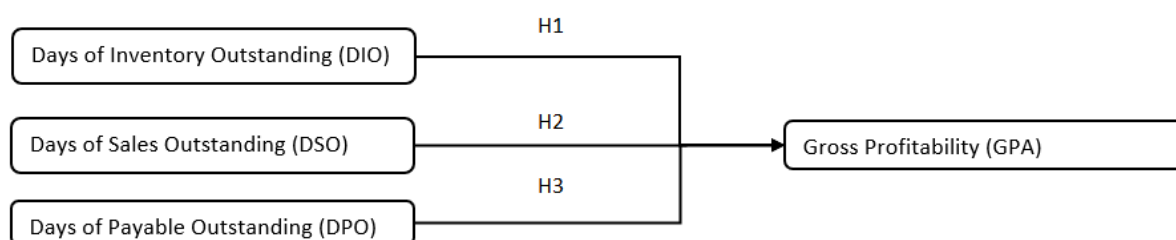


Figure 4 Research Hypotheses

Research Method

Population and Sampling Technique

The study's population comprises companies operating within the F&B sector and listed on the Indonesia Stock Exchange. The rationale for selecting this sector lies in its substantial representation, allowing for a sizable and diverse sample. The research spans from 2007 to 2022, encompassing a significant time frame for comprehensive analysis. Purposive sampling serves as the chosen method for sample selection, characterized by specific criteria:

- Inclusion of entities listed on the Indonesia Stock Exchange operating within the F&B industry throughout the study period.
- Consistent presence on the Indonesia Stock Exchange throughout the research period.
- Issuing financial reports within the study period.
- A prerequisite for profitability throughout the study period.
- Utilization of the Rupiah currency.

Based on those criteria, there are 687 sample observations in this research.

Variables and Measurements

Dependent Variable:

- **Gross Profitability (GPA):** Gross Profitability or Gross Profit to Asset, often represented as GPA, quantifies the portion of revenues that remains once the cost of goods sold is subtracted. This metric is computed as the gross profit divided by the total assets.

Independent Variables:

- **Days of Inventory Outstanding (DIO):** DIO is a metric that quantifies the average duration it takes for a company to sell its inventory. The calculation involves dividing the average inventory by the cost of goods sold and then multiplying by the number of days within the specific period.
- **Days of Sales Outstanding (DSO):** DSO represents the average time it takes for a company to receive payment from its customers following a sale. This figure is computed by dividing accounts receivable by the total credit sales and multiplying by the number of days within the given period.
- **Days of Payable Outstanding (DPO):** DPO indicates the average time it takes for a company to settle payments with its suppliers. The computation entails dividing accounts payable by total credit purchases and multiplying by the number of days within the defined period. It purchases and multiplying by the number of days in the period.

Data Analysis Method

The research utilizes Panel Data Regression, a statistical method that integrates data from both cross-sectional and time-series origins. EViews 9, a specialized software tool, serves as the platform for this analysis. Within this framework, several crucial analyses are undertaken:

- **Data panel regression model testing:** This step is essential for determining the most appropriate model specification among common, fixed, or random effects.
- **Classical assumption testing:** In the case where the fixed-effects model is selected, it becomes necessary to investigate potential issues of heteroscedasticity and multicollinearity within the data.
- **Hypothesis testing:** The research employs F-testing and t-testing to rigorously evaluate the influence of each independent variable on the dependent variable.

Utilizing panel data provides distinct advantages due to the abundance of data points available for regression analysis. The research operationalizes multiple regression models to examine the interplay between various independent variables and the dependent variable (gross profitability). These models are detailed as follows:

$$\text{GPA} = c + \beta_1(\text{DIO}) + \beta_2(\text{DSO}) + \beta_3(\text{DPO}) + \text{error term (e)}$$

In this model:

- Y represents the dependent variable, which is gross profitability.
- c denotes the constant term.
- β signifies the coefficient associated with each independent variable.
- DIO represents the Days of Inventory Outstanding.
- DSO represents the Days of Sales Outstanding.
- DPO represents the Days of Payable Outstanding.
- The error term is denoted as 'e'.

This comprehensive approach enables a thorough examination of the factors influencing gross profitability within the research context.

Result and Discussion

Data Panel Regression Model Testing

In the context of data panel regression model testing, the Chow test serves as a pivotal tool for discerning the more suitable model choice between the Common Effect and Fixed Effect models in the estimation of panel data (Oktavian and Handoyo, 2023). The null hypothesis (H₀) posits that the Common Effect Model is the superior option, while the alternative hypothesis (H₁) asserts the superiority of the Fixed Effect Model. The decision criterion guiding this selection process is as follows: H₀ is dismissed when the cross-sectional chi-square value falls below 0.05, and conversely, H₀ is upheld when the chi-square value exceeds 0.05.

Table 1 Chow Test

Redundant Fixed Effects Tests			
Equation: $GPA = c + \beta_1(DIO) + \beta_2(DSO) + \beta_3(DPO) + \text{error term (e)}$			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	25.310227	(89,594)	0.0000
Cross-section Chi-square	1076.532334	89	0.0000

In Table 1, it is evident that the cross-sectional chi-square value is less than 0.05. As a consequence, the null hypothesis (H₀) is unequivocally rejected, thereby signifying that the Fixed Effect Model surpasses the Common Effect Model as the preferred choice for modeling panel data within the confines of this study.

In the subsequent step, we conduct a Hausman test to ascertain the superior model choice between the Fixed Effect Model and the Random Effect Model. The objective of this test is to determine which of these two models is better suited for the estimation of panel data (Oktavian and Handoyo, 2023). The null hypothesis (H₀) posits that the Fixed Effect Model is the preferred option, while the alternative hypothesis (H₁) suggests the superiority of the Random Effect Model. The criteria for decision-making are established as follows: H₀ is upheld when the cross-section random value falls below 0.05, and conversely, H₀ is rejected when the value exceeds 0.05.

Table 2 Hausman Test

Correlated Random Effects - Hausman Test			
Equation: GPA = c + β₁(DIO) + β₂(DSO) + β₃(DPO) + error term (e)			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.946880	3	0.0471

In Table 2, it is evident that the cross-section random value is less than 0.05. Consequently, we accept the null hypothesis (H₀), indicating that the Fixed Effect Model outperforms the Random Effect Model. Therefore, for the purposes of this study, we opt for the Fixed Effect Model as our preferred choice. As a result, our next steps involve conducting a heteroscedasticity test and a multicollinearity test to further refine our model.

Classical Assumption Test

The purpose of the multicollinearity test is to evaluate whether there exist substantial correlations among the independent variables employed in the regression model (Oktavian and Handoyo, 2023). Presented below are the findings of this assessment:

The null hypothesis (H₀) posits the presence of multicollinearity, while the alternative hypothesis (H₁) suggests its absence. The criterion for decision-making is as follows: H₀ is embraced when the correlation value between independent variables surpasses the threshold of 0.90; conversely, H₀ is refuted when the correlation value falls below 0.90.

Table 3 Multicollinearity Test

Variables	Days Inventory	Days Sales Outstanding	Payables Period
Days Inventory	1.000000	0.262700	0.266325
Days Sales Outstanding	0.262700	1.000000	0.132506
Payables Period	0.266325	0.132506	1.000000

It is evident that none of the correlation values between the independent variables exceeds the critical threshold of 0.90. Consequently, we reject the null hypothesis (H_0), concluding that there is no evidence of multicollinearity within the model.

The purpose of the heteroscedasticity test is to determine whether there is a variation in the variance among the residuals of different observations. When the variance of the residuals for each observation differs significantly, it is referred to as heteroscedasticity (Oktavian and Handoyo, 2023).

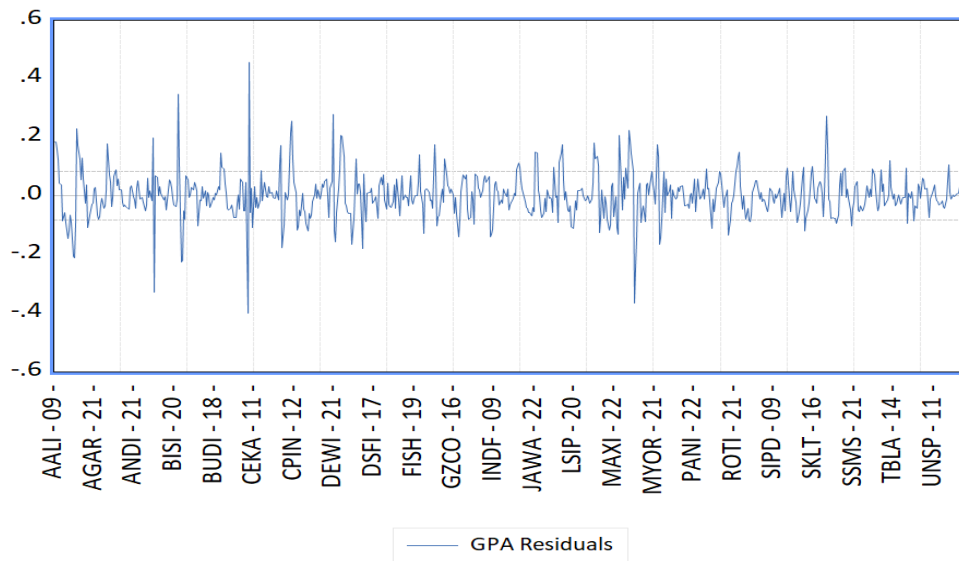


Figure 5 Dependent Variable (GPA) Residual Graph

Based on the test results, the heteroscedasticity test was conducted using residual plots. The findings suggest that there is no evidence of heteroscedasticity. In this context, the residual plot (depicted in blue) demonstrates that the Y residuals do not cross the boundaries (500 and -500), indicating that the variance of the residuals remains consistent (Napitupulu et al., 2021: 143).

Hypothesis Test

After conducting model analysis, the next step involves hypothesis testing, which is divided into two parts: the F-Test and t-Test. In this study, model testing was undertaken to assess whether all independent variables collectively influence the dependent variable of this research. Table 4 is presenting the results of the regression test (F-Test and T-Test).

Table 4 F-Test & T-Test

Dependent Variable: GPA
 Method: Panel Least Squares
 Date: 10/01/23 Time: 17:45
 Sample: 2008 2022
 Periods included: 15
 Cross-sections included: 90
 Total panel (unbalanced) observations: 687

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DAYS INVENTORY	-6.26E-05	3.19E-05	-1.963562	0.0500
DAYS SALES OUTSTANDING	-0.000371	0.000110	-3.366855	0.0008
PAYABLES PERIOD	3.24E-05	2.37E-05	1.365809	0.1725
C	0.232750	0.005717	40.71128	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.793894	Mean dependent var	0.214004	
Adjusted R-squared	0.761972	S.D. dependent var	0.169196	
S.E. of regression	0.082548	Akaike info criterion	-2.025590	
Sum squared resid	4.047604	Schwarz criterion	-1.412042	
Log likelihood	788.7901	Hannan-Quinn criter.	-1.788213	
F-statistic	24.86966	Durbin-Watson stat	1.254657	
Prob(F-statistic)	0.000000			

The data processing reveals that the resulting Prob (F-statistic) value is <0.05, indicating that DSO, DIO, DPO, simultaneously have a significant effect on GPA. Moreover, the simultaneous regression model demonstrates a coefficient of determination (R-squared) of 79.39%, signifying that the independent variables considered in this study collectively account for 79.39% of the variation in the dependent variable. The remaining 20.61% is influenced by other variables not examined in this study. Consequently, the model derived from these results is as follows:

$$\text{GPA} = 0.23 - 6.26 \text{ DIO} - 0.000371 \text{ DSO} + 3.24 \text{ DPO}$$

The t-statistics for each independent variable further help in understanding the impact of individual variables on GPA:

- DIO: The t-statistic for DIO is approximately -1.963562. Since this t-statistic is slightly greater in absolute value than the critical t-table value of 1.963433177, we can consider this variable as marginally significant. Thus, DIO may have a modest impact on GPA, with a negative association. However, this relationship should be interpreted with caution.
- DSO: The t-statistic for DSO is approximately -3.366855. Since this t-statistic is well beyond the critical t-table value of 1.963433177 in absolute terms, we can confidently conclude that this variable is statistically significant. It has a strong negative impact on

GPA, indicating that a longer time to collect accounts receivable is associated with significantly lower GPA.

- DPO: The t-statistic for DPO is approximately 1.365809. Since this t-statistic is less than the critical t-table value of 1.963433177 in absolute terms, we can consider this variable as not statistically significant. Therefore, DPO may not have a meaningful impact on GPA.

In summary, based on the critical t-table value provided, DSO remains statistically significant with a strong negative impact on GPA. DIO is marginally significant with a negative association, and DPO is not statistically significant in explaining variations in GPA.

Conclusions

In conclusion, this research paper embarked on a comprehensive exploration of the intricate relationship between the CCC and the profitability of Indonesian F&B listed companies. The Indonesian F&B industry, a significant contributor to the nation's economy and cultural diversity, is a dynamic and competitive sector facing various challenges. Our study sought to shed light on how effective working capital management, encapsulated by the CCC, impacts the financial health and profitability of companies operating within this unique market. The existing literature presents a divergent landscape, with some studies revealing a negative association between a shorter CCC and profitability, while others identify a positive correlation. Furthermore, this complex connection is shaped by a variety of elements, encompassing industry-specific dynamics and contextual variables.

By focusing on GPA as a more precise and relevant measure closely tied to working capital management, we formulated hypotheses to explore the individual components of CCC, namely DIO, DSO, and DPO. Our empirical analysis revealed that DSO significantly and negatively affects GPA, indicating that a longer time to collect accounts receivable is linked to lower profitability. DIO, although marginally significant, also exhibits a negative association with GPA. In contrast, DPO does not show statistical significance in explaining variations in GPA. This study contributes to the existing body of research by offering a nuanced perspective on the CCC's influence on profitability within the Indonesian F&B industry. These findings can provide valuable insights to financial managers, policymakers, investors, and researchers operating in this sector, helping them make informed decisions regarding working capital management.

Recommendations

Managers in the Indonesian F&B industry are advised to consider several key recommendations to enhance their working capital management and overall profitability. Firstly, optimizing the CCC is crucial, with a specific focus on reducing the DSO to expedite accounts receivable collection, thus improving GPA. Additionally, prudent inventory management is recommended, with vigilance over the efficiency of inventory turnover to avoid negatively impacting profitability due to prolonged inventory conversion periods. Maintaining positive supplier relationships, while balancing the trade-off between prompt payments and liquidity, is also emphasized.

In terms of further research, the paper recommends a comprehensive approach. Long-term analysis is encouraged to investigate how CCC changes affect the sustained financial performance of F&B companies in Indonesia. Research can be tailored to explore CCC's impact within specific sub-segments of the F&B industry and to evaluate macroeconomic factors' influence on the CCC-profitability relationship. Comparative studies involving other countries or regions may provide valuable insights into cultural and regulatory differences. Qualitative research, such as interviews and surveys with industry managers, can complement quantitative analysis by uncovering specific challenges and effective management strategies. Additionally, exploring the implications of CCC optimization on sustainability and environmental practices within the F&B industry and assessing potential risks associated with CCC management strategies are crucial avenues for future research. These recommendations aim to deepen the understanding of the CCC's role in the Indonesian F&B industry, enhancing working capital management and overall financial health.

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