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| RESEARCH ARTICLE

The Relationship between Working Capital Management and Profitability of Listed Automobile Companies in Japan Stock Exchange Market: Moderating Effect of Market Share

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| ABSTRACT
This study examined the moderating effect of market share on the relationship between working capital (CCC) and profitability in the industrial sector of Japan's automobile firms listed on the Tokyo Stock Exchange. The data were collected from the Thomson Reuters Eikon database spanning from 2003 to 2022. The study employed various analytical methods, including Fixed Effect, Random Effect, Generalized Method of Moments (GMM), and Fully Modified Ordinary Least Squares (FMOLS), to estimate the moderating effect of market share on the relationship between CCC and profitability. The findings of this study revealed a statistically significant negative impact of market share (MS) on the relationship between CCC and profitability. These results suggest that the Japanese automobile industry may not adequately prioritize market share, potentially overlooking crucial customer needs and preferences. Consequently, this approach may lead to missed growth opportunities, such as the failure to introduce new products or expand into emerging markets. Failure to seize these growth opportunities could hinder long-term profitability. Thus, it is crucial for companies to capitalize on growth prospects to ensure sustained profitability. The insights gained from this study can contribute to enhancing working capital efficiency, refining market share strategies, and informing investor decision-making. By refining their working capital strategies and aligning their actions with their market position and objectives, companies can improve profitability and make informed decisions that are aligned with their overall business goals.

| KEYWORDS

Market share; Return on Net Operating Assets; Working Capital Management; Cash Conversion Cycle; Tobin's Q.

| ARTICLE INFORMATION

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1. Introduction

A company with a larger market share often benefits from economies of scale (Cummins et al., 2010). Such companies can leverage their size to negotiate better terms with suppliers, obtain discounts on bulk purchases, and streamline operations (Christiansen et al., 2002). These advantages can lead to more efficient inventory management, a reduced cash conversion cycle (the time it takes to convert raw materials into cash from sales), and improved overall working capital management (Nobanee & Al Hajjar, 2014; Mathuva, 2015). Consequently, the company may experience higher profitability due to lower operating costs and improved cash flow (Nekhili et al., 2016). The objective of this study was to investigate the moderating effect of market share on the relationship between working capital and profitability. The profitability indicators used in this study were Return on Net

Operating Assets (RONOA) and Tobin's Q in the context of the Japanese automobile industry. A company with a significant market share often has the ability to influence prices or command premium prices for its products or services (Kohli & Suri, 2011). This positive impact on profitability occurs as higher margins help offset any potential increase in working capital requirements. Furthermore, a company with a larger market share may possess stronger bargaining power with customers, enabling it to negotiate favorable payment terms that optimize working capital and improve profitability (Cho et al., 2019).

However, it is important to note that a larger market share also brings increased competitive pressures (Kabeyi, 2018). Competitors may attempt to gain market share by offering lower prices or more attractive terms (Peura et al., 2017). In response, a company may need to adjust its pricing strategy or offer more flexible payment terms to customers to maintain or defend its market share. These actions can have an impact on working capital by reducing profit margins or extending the cash conversion cycle (CCC) (Shaw, 2016).

Working capital management (WCM) involves the financing, investment, and control of net current assets within specified policy guidelines (Atseye et al., 2015). WCM is widely recognized as vital to a business, and its optimal and prudent allocation can enhance growth opportunities (Shajar, 2017; Mbawuni, 2016). Effective WCM is a critical financial decision that directly impacts a firm's profitability. A company should strive to optimize both liquidity and profitability in its day-to-day operations. The primary objective of working capital management is to ensure that the firm can meet its operating expenses and fulfill short-term obligations in a timely manner (Ismail, 2017). Poor management of working capital may result in a liquidity crisis and a decline in profitability (Ukaegbu, 2014). The components of working capital management typically include planning, asset control, and the management of current liabilities, with the aim of mitigating the risk of falling short on short-term obligations and avoiding excessive investment in these assets (Bhattacharya, 2021).

The study was primarily motivated by the unique characteristics of the Japanese automobile market. The Japanese automobile industry holds a significant position globally and serves as a crucial pillar of Japan's economy (Emma, 2022). Renowned automotive giants such as Toyota, Honda, and Nissan have gained worldwide recognition, with their products representing Japanese automobile companies on a global scale. The presence and success of these brands have played an integral role in contributing to the overall strength of the Japanese economy (Cole & Yakushiji, 2020).

Furthermore, it is projected that domestic car sales in Japan will experience a 7% growth in 2022 (Dimanchev et al., 2022). Although the automotive industry faced challenges, including supply shortages and "chip shortages" in 2020-2021, the situation is gradually stabilizing, and the Japanese automotive market is expected to recover. This recovery is not only anticipated to benefit the industry but also to have a positive impact on the broader Japanese economy as a whole (Ramani et al., 2022).

The manufacturing sector accounts for more than 89% of Japan's total GDP (Giulia, 2022), and automotive manufacturing plays a significant role within this sector. The automobile companies in Japan make substantial contributions to the country's economic growth. The success of these companies in contributing to Japan's economy relies on their effective working capital management (WCM) practices, as well as the presence of favorable economic policies that create a conducive business environment (Zailani et al., 2015).

It is noteworthy that Japanese manufacturers currently show a preference for gasoline-electric hybrids over all-electric vehicles. This preference can be attributed to the limited global infrastructure and demand for battery electric vehicles (Funke et al., 2019). This trend is also reflected within Japan, where access to electrical charging points remains more concentrated in metropolitan areas than in rural areas. Recognizing this accessibility challenge, the government has increased subsidies for electric vehicles and aims to install 150,000 charging points by 2030 to address the issue (Hopkins et al., 2023).

Recent studies have extensively explored the relationship between working capital and corporate performance, including specific investigations conducted in Japan (Tsuruta, 2018; Nobanee & Haddad, 2014; Tsuruta, D. 2019; Nobanee et al., 2011), the UK (Gonçalves et al., 2018; Chatterjee, S. 2010), the US (Aktas et al., 2015; Gill et al., 2010), various Asian countries (Singhania & Mehta, 2017; Nguyen, 2020; Kieschnick et al., 2013; Phuong and Hung, 2020), and European economies (Dalci et al., 2019; Ameer & Othman, 2021; Baños-Caballero et al., 2012; Högerle et al., 2020; Anton et al., 2020).

However, to the best of our knowledge, there is limited or no existing research that specifically examines the impact of market share and the cash conversion cycle (CCC) on the profitability indicators of listed manufacturing firms on the Tokyo Stock Exchange.

This study aims to contribute to the existing literature by addressing the following research questions:

i. How does market share influence the efficiency of working capital management and its subsequent impact on profitability?
ii. How does market share directly affect a firm's profitability?
iii. How does market share influence a company's pricing power and subsequently impact its working capital requirements and overall profitability?

Working capital is a vital component of finance that significantly impacts liquidity, often considered as the lifeblood of a business (Singh & Pandey, 2008). It plays a crucial role in keeping the operations of a business running smoothly. The management of working capital holds both theoretical fascination and practical importance, as the efficiency with which it is managed within an organization directly affects its overall well-being (Raelin, 2008).

This study contributes to the existing literature in three ways. Unlike previous studies that primarily focus on examining the relationship between working capital management and profitability (Mardones, 2022; See, 2019; El-Ansary & Al-Gazzar, 2021; Masri & Abdulla, 2018; Rey-Ares et al., 2021; Seth et al., 2021; Soukhakian & Khodakarami, 2019; Singhania & Mehta, 2017; Lazaridis & Tryfonidis, 2006; Baños-Caballero et al., 2016; Talonpoika et al., 2016; Wasiuzzaman, 2015), this study takes a different approach.

This study extends the existing literature by enhancing our understanding of the relationship between market share and the Cash Conversion Cycle (CCC). It provides valuable insights into various aspects, including financial performance, operational efficiency, resource allocation, competitive advantage, performance measurement, risk management, and investor decision-making (Saeidi et al., 2019). The knowledge gained from this study can assist in assessing and improving the working capital, financial health, and profitability of Japanese manufacturing companies.

In addition, this study contributes to a deeper comprehension of the factors that influence firm performance by examining the moderating role of market share on the relationship between the Cash Conversion Cycle (CCC) and profitability. The final sample of companies in the automobile sector of Japan, including both car assemblers and parts manufacturers, will be utilized. This research sheds light on how markets share, as an indicator of a company's competitive position, impacts the relationship between working capital management (WCM) and profitability. Consequently, it enhances our overall understanding of the determinants of firm performance.

Furthermore, by examining the moderating effects of market share on the relationship between the cash conversion cycle (CCC) and return on net operating assets (RNOA) of 130 Japanese automobile companies listed on the Tokyo Stock Exchange, this study aims to provide valuable insights into how market share and the CCC impact RNOA. These findings will enable investors to make more informed investment decisions and evaluate a company's potential for long-term growth and profitability.

RNOA serves as a robust measure of management performance, surpassing traditional metrics such as return on assets (ROA) and return on equity (ROE), as it specifically focuses on how effectively a corporation utilizes its assets (Mensah & Bein, 2023). Notably, RNOA excludes investment income earned by the corporation and instead focuses solely on the returns generated from asset utilization, without considering investment income or interest earned on debt.

This study aims to examine the impact of market share on the relationship between the cash conversion cycle (CCC) and profitability, providing valuable insights into how market share can effectively lead to improved working capital management (WCM) practices, enhanced profitability, and sustainable business growth.

Market share plays a pivotal role in granting companies greater pricing power. Moreover, companies with a larger market share often possess stronger bargaining power with suppliers, enabling them to negotiate more favorable terms, optimize working capital, and ultimately enhance profitability (Protopappa-Sieke & Seifert, 2017). Market share leaders are frequently associated with higher levels of consumer loyalty, brand recognition, and trust (Gommans, 2001). This advantage can translate into higher sales volumes, increased market penetration, and enhanced revenue generation, ultimately driving profitability.

Moreover, a larger market share can act as a deterrent to new entrants, reducing competitive pressures and providing better control over working capital management (Porter, 2008). A significant market share contributes to a company's financial stability, which is crucial for effective working capital management (Raheman & Nasr, 2007). Companies with larger market shares typically enjoy more stable revenue streams and cash flows, enabling them to meet short-term obligations and invest in working capital more easily (Owolabi & Obida, 2012). This stability lowers the risk of cash flow disruptions and enhances the company's ability to maintain optimal working capital levels, ultimately supporting profitability.

Finally, higher market shares provide companies with the financial resources needed for strategic investments and growth initiatives (Cooper, 2011). These investments can lead to improved operational efficiency, technological advancements, market expansion, and product development (Rüßmann et al., 2015). When working capital is effectively utilized to support such investments, it enhances a company's competitiveness and long-term profitability.

The structure of the paper is as follows: Section 2 covers the literature review and hypothesis development, while Section 3 describes the data and variables used in this research. Section 4 presents the results of the panel data regression analysis. Finally, Section 5 provides an overview and conclusion based on the findings.

2. Literature Review

2.1 Institution background (Japan and automobile companies)

Japan's automobile industry emerged in the early 20th century and experienced significant growth after World War II (Feasel, 2014). The industry's success can be attributed to factors such as the country's skilled workforce, technological advancements, and a culture of continuous improvement (Nishiguchi, 1994). The Japanese automobile industry has been characterized by a focus on efficiency, reliability, and innovation. Japanese automakers have pioneered various manufacturing techniques and business models that have influenced the global automotive industry.

The prominent Japanese automobile companies include:

- Toyota: Founded in 1937, Toyota is one of the largest and most influential automobile manufacturers globally. The company has a reputation for producing high-quality and fuel-efficient vehicles. Toyota is known for its Toyota Production System (TPS), which emphasizes lean manufacturing principles and has been widely adopted in the industry (Yang et al., 2012). Some of Toyota's popular models include the Camry, Corolla, Prius, and Lexus luxury vehicles.

- Honda Motor Company is another major Japanese automaker established in 1948. The company is known for its diverse product lineup, ranging from motorcycles to automobiles. Honda has a reputation for producing reliable and fuel-efficient vehicles. Notable Honda models include the Civic, Accord, CR-V, and the Acura luxury line.
- Nissan Motor Co., Ltd., founded in 1933, is a prominent Japanese automaker known for its innovative technologies and performance-oriented vehicles. Nissan has a strong presence in both the mainstream and luxury segments. The company has introduced notable models such as the Nissan GT-R, Z-series sports cars, and the Nissan Leaf, one of the first mass-produced electric vehicles.
- Mazda Motor Corporation, established in 1920, is known for its emphasis on driving dynamics and unique design philosophy. The company has gained recognition for its SKYACTIV technology, which focuses on enhancing fuel efficiency and performance. Mazda produces a range of vehicles, including the Mazda3, Mazda6, MX-5 Miata, and CX-5 SUV.
- Subaru Corporation, founded in 1953, is renowned for its all-wheel-drive vehicles and strong motorsports heritage. Subaru cars are known for their reliability and performance, particularly in challenging road conditions. The company's popular models include the Impreza, Legacy, Outback, and WRX sports car.

The Japanese automobile industry continues to innovate and adapt to changing market demands, with a focus on producing environmentally friendly vehicles, electric and hybrid technologies, and autonomous driving systems.

2.2 Market share

Market share and profitability have different relationships in different contexts and industries. Higher profitability is often correlated with a larger market share in sectors like manufacturing (including automotive companies), which have high fixed costs and significant economies of scale. Empirical evidence suggests that a larger market share in the automobile industry is generally associated with higher profitability (Koellinger, 2008). Firms with larger market shares can leverage economies of scale to spread their fixed costs over a larger production volume, leading to cost advantages and improved profit margins. Additionally, a larger market share often enhances a company's bargaining power with suppliers, allowing for more favorable pricing and reduced input costs (Moatt et al., 2015). Moreover, companies with substantial market shares in the automobile industry can benefit from strong brand recognition and customer loyalty, leading to increased sales and profitability (Evanschitzky et al., 2012).

Profitability in the automobile industry is also influenced by factors such as product differentiation, innovation, supply chain management, and effective cost control (Zailani et al., 2015). While market share is a significant factor, firms must navigate a complex landscape to ensure long-term profitability and success in the dynamic and competitive automobile market. Having a larger market share generally indicates that a company has a stronger position in the market compared to its competitors, and it has been suggested that the company's products or services are more preferred by customers. This can provide benefits such as economies of scale, pricing power, and increased brand recognition (Ansoff et al., 2018). However, market share alone does not guarantee profitability, as companies also need to manage costs, pricing, and other factors to generate profits (Isik & Hassan, 2002).

Market share strategy refers to the deliberate actions and strategies used by businesses to increase their market share compared to rivals. The industry, market conditions, and specific business objectives can all influence these strategies. In order to increase their market share in a competitive business environment, companies can employ a variety of strategies, including market penetration, market development, diversification, competitive pricing, differentiation, and niche market focus (Bamiatzi & Kirchmaier, 2014; Kotabe & Kothari, 2016; De Roest et al., 2018).

2.3 Empirical studies

The relationship between market share and profitability is one of the most extensively researched phenomena in management studies, specifically regarding the sources of competitiveness and profitability for firms (Kulu & Appiah-Kubi, 2021). Scholars argued that market share reflected a firm's current competitive position in the marketplace, implying that firms with high market shares were better equipped to satisfy customer needs and enjoy a competitive advantage over their smaller competitors. This viewpoint was supported by the examination of

market share and profitability in the global banking sector conducted by Berger and Bouwman (2013). The authors analyzed a sizable dataset comprising banks from various nations over a substantial time period. Their findings reveal a strong positive and significant association between market share and profitability, indicating that banks with larger market shares typically experience higher profits. The study also identifies economies of scale and scope as important factors contributing to this relationship.

In the pharmaceutical sector, Lee et al. (2017) investigated the connection between market share and profitability using data from Canada. The authors employed panel data analysis and incorporated additional variables that impact profitability. The study demonstrated a strong association between market share and profitability in the pharmaceutical industry. Lee et al. suggested that a larger market share enabled businesses to benefit from economies of scale, invest in research and development, and negotiate better prices with suppliers, ultimately leading to increased profitability.

Examining the American airline industry, Zhang and Ciliberto (2014) explored the relationship between market share, profitability, and product quality. Their findings revealed a correlation between market share and profitability, indicating that profitable airlines tend to possess larger market shares. The study also uncovered a positive link between product quality and profitability. This implies that businesses with greater market shares and superior products can command higher prices, thereby enhancing their profitability.

Working capital is a form of financial investment that undergoes changes due to normal business activities (Talonpoika et al., 2016). Its effective management involves controlling capital assets and liabilities to mitigate financial risks, while also avoiding excessive investments in certain assets and excessive borrowing (Singh et al., 2017). Inadequate provision of working capital has been identified as a significant factor hindering firm growth in both developed and developing countries (Boruah, 2020; Anton & Nucu, 2021). Granting increased business attributes to customers can have a negative impact on profitability (Oladipo et al., 2020; Taghipour et al., 2020). Earnings increase when the benefits of inventory outweigh the costs of holding it. The Account Payable Period (APP) serves as a temporary source of funds that allows for delaying liquidity, but it comes with an implicit cost in the form of a discount for early payment. Working capital management (WCM) closely correlates with a company's core business operations, including production, revenue generation, receivables collection, and payment management (Wang, 2019). Since working capital (WC) decisions primarily affect operating cash inflows and outflows, the Cash Conversion Cycle (CCC) is frequently used to assess the effectiveness of WCM (Prasad et al., 2018). The CCC indicates the number of days that funds are tied up in working capital for businesses (Tarkom, 2022). Sustainable businesses aim for a shorter CCC (Barros et al., 2022).

Numerous studies (Deloof, 2003; Sawarni et al., 2023; Lin & Wang, 2021; Akgun & Karatas, 2021) have shown that reducing the CCC increases profitability and enhances valuation. Therefore, managers are expected to work towards reducing the CCC to improve the company's financial performance. Despite many studies on the link between WCM and company profitability, the results of this relationship remain uncertain. Most research has found an inverse connection between WCM and profitability, with a significant negative association between the CCC and profitability (Kafeel et al., 2020; Pham et al., 2020; Phuong and Hung, 2020). Using data from over 100,000 small businesses in Japan, Tsuruta (2018) reports a negative impact of working capital on firm performance in the short run but a positive outlook over the longer term. Altaf and Shah (2018) provide evidence of an inverted U-shaped relationship between WCM and firm profitability for 437 nonfinancial Indian companies based on the GMM methodology. Afrifa and Padachi (2016) report a concave relationship between the level of working capital (calculated using the cash conversion cycle) and firm profitability for a sample of 160 listed firms from 2005 to 2010.

2.3.1 The effect of working capital on RNOA

Return on Net Operating Assets (RNOA) is a financial metric that assesses the profitability of a company's core operating activities in relation to its net operating assets. Net operating assets encompass the company's operating assets (such as inventory, accounts receivable, and property, plant, and equipment) minus its operating liabilities (such as accounts payable and accrued expenses). Efficient working capital management has the potential to

enhance a company's profitability and, consequently its RNOA. By optimizing inventory, accounts receivable, and accounts payable, a company can reduce costs and improve cash flow. For instance, reducing inventory levels can minimize carrying costs, while effective management of accounts receivable can expedite cash collection. These efficiency enhancements can result in higher profits and an augmented RNOA.

Working capital directly impacts a company's cash flow from operations, which is a crucial component of RNOA. A well-managed working capital cycle ensures that the company maintains adequate liquidity to support its operations. Effective working capital management enables a company to generate positive operating cash flows, contributing to a higher RNOA. On the other hand, insufficient working capital or mismanagement thereof can expose the company to financial risk and instability, adversely affecting RNOA. Insufficient working capital may lead to an inability to meet short-term obligations or operational inefficiencies. These challenges can reduce profitability and ultimately lower RNOA. Based on the aforementioned insights, the following hypothesis is formulated:

H1: The **CCC negatively impacts the RNOA** of Japan's non-financial firms.

2.3.2 The effect of working capital on Tobin's Q

Efficient management of working capital can enhance a company's profitability, positively impacting Tobin's Q. For example, by effectively managing inventory levels, a company can reduce carrying costs and improve cash flow, leading to higher profitability. Similarly, efficient management of accounts receivable and accounts payable can help optimize cash flow and reduce the need for external financing. Adequate working capital enables a company to capitalize on growth opportunities by providing the necessary liquidity to invest in new projects, research and development, marketing, and expansion. When a company effectively utilizes its working capital to drive growth and generate higher returns, it can increase Tobin's Q.

Insufficient working capital may indicate a higher level of financial risk and instability. If a company has a high level of short-term debt or struggles to meet its current liabilities, it may experience financial distress, negatively impacting Tobin's Q. Investors value stability and may assign a lower market value to a company facing significant working capital challenges.

The impact of working capital on Tobin's Q can also depend on industry-specific characteristics. Industries such as retail or manufacturing may require substantial investments in working capital due to inventory requirements and cash cycle dynamics. In such cases, the market may expect higher working capital levels, and companies that efficiently manage their working capital may still be valued favorably.

Recent literature has examined the relationship between working capital management (WCM) and a company's financial performance using accounting-based methods and market-based methods like Tobin's Q ratio. Afrifa (2016) found that for small and medium-sized businesses (SMEs), WCM is more crucial than for large businesses as SMEs have easier access to internal sources of funding, such as working capital, compared to external sources like equity and debt. Their findings indicate that firms with cash flows above the median can invest more in working capital, enhancing return on assets (ROA) and Tobin's Q. They specifically analyzed the influence of cash flow on the relationship between working capital and firm performance in UK SMEs.

On the other hand, Singh et al. (2017) conducted a meta-analysis and discovered a negative impact of WCM, measured by the cash conversion cycle (CCC), on profitability as measured by Tobin's Q ratio, gross operating profit (GOP), net operating profit (NOP), ROA, and return on capital employed (ROCE). This suggests that businesses adopting an aggressive working capital policy may increase their profitability.

Boisjoly et al. (2020) recently examined WCM using various metrics for US corporations over a 27-year period (1990–2017), including accounts receivable (A/R) turnover, inventory turnover, days payable outstanding (DPO), and CCC. They found that the average values of these metrics varied across industries, indicating that the appropriate

level and WCM policy vary depending on industry type. They also found that a company's Tobin's Q ratio and return on invested capital (ROIC) improved with a shorter CCC and DPO and higher A/R and inventory turnover.

In contrast, Abuzayed (2012) showed that a shorter CCC decreases a firm's profitability while having no impact on Tobin's Q ratio, suggesting that highly profitable businesses may place less emphasis on the effectiveness of WCM. Consequently, the impact of WCM on a firm's Tobin's Q ratio remains unclear. The negative effect of CCC on profitability leads to the formulation of the following hypothesis:

H2: CCC has a negative impact on Tobin's Q of Japan's non-financial firms.

2.3.3 Moderating impact of firm size on the relationship between CCC and profitability

Scholars and practitioners have shown interest in and debated the relationship between market share and profitability. Some argue that the connection is straightforward, while others believe it is more complex and influenced by various factors. Certain viewpoints suggest that a larger market share leads to increased profitability.

Market share refers to the proportion of total market sales or revenue captured by a company. It indicates the competitive position and strength of a firm within its industry. A higher market share signifies a larger customer base and a stronger presence in the market. The influence of market share on the relationship between working capital and profitability is noteworthy.

A higher market share can provide advantages such as economies of scale, bargaining power, and pricing advantages, all of which can positively impact profitability. Companies with a larger market share may have more leverage when negotiating with suppliers, resulting in more favorable credit terms and reduced working capital requirements. Moreover, a higher market share often translates to improved sales volumes, reducing the need for excessive working capital tied up in inventory or accounts receivable.

Working capital refers to the funds necessary to cover a company's day-to-day operational expenses. It is calculated by deducting current liabilities from current assets. The level of market share can influence the working capital requirements of a company. A higher market share typically corresponds to greater sales volume, which in turn increases accounts receivable and inventory levels. Consequently, a company may need to invest more in working capital to support the heightened sales activity.

Additionally, a company with a higher market share may possess greater bargaining power with suppliers, enabling them to negotiate better payment terms. This, in turn, can lead to improved cash flow and reduced working capital needs. As market share increases, companies can benefit from economies of scale, leading to cost efficiencies and improved working capital management. Bulk purchasing, production optimization, and efficient inventory management strategies can help reduce working capital needs.

Profitability refers to a company's ability to generate profits from its operations. Market share can impact profitability through various channels. Companies with a higher market share often have greater pricing power, enabling them to set higher prices and improve profit margins. This is particularly true if the company has established itself as a market leader or offers a unique value proposition.

With an increased market share, companies can achieve economies of scale, spreading fixed costs over a larger sales base. This can result in lower average costs per unit and improved profitability. A larger market share can also provide a competitive advantage, making it harder for new entrants to gain traction. This reduced competition and more favorable market position can contribute to higher profitability.

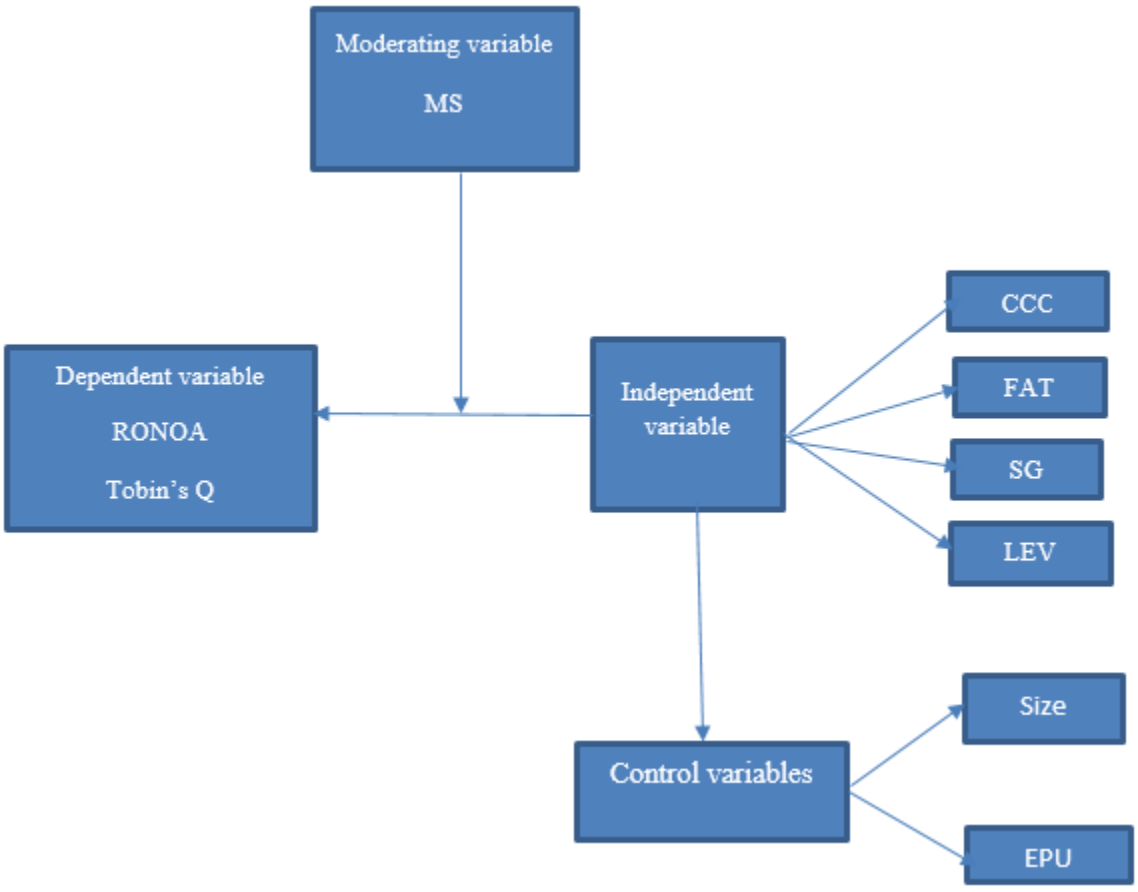
Furthermore, companies with a higher market share may have more resources for marketing, research, and development (R&D) activities. Market share can create market power for large-share firms, as their size and significance in the market enable them to negotiate better terms with channel members.

High-growth markets are generally perceived as more attractive by businesses due to the high margins and growing demand they offer. As a result, firms tend to exit low- or moderate-growth markets and enter high-growth markets. Consequently, in relatively high-growth markets, the combined market share of all competing firms are dispersed over a larger number of firms, leading to an inverse relationship between market growth rate and market share. Additionally, high-growth markets can be characterized by high marketing costs, rising productivity, increased investment to keep pace with growth, low or negative cash flow, and high levels of buyer spending.

Based on the points mentioned above, market share may influence the relationship between the cash conversion cycle (CCC) and profitability. Therefore, it has been suggested that further investigation is needed to understand the specific impact of market share on the CCC-profitability relationship.

H3. Market share positively impacts the link between CCC and UK non-financial companies' profitability.

Figure 1: Conceptual Model



Source: composed by Authors.

3. Methodology

3.1 Sample and Data Collection

The study utilized data from Japanese non-financial institutions, specifically automobile companies. The Japanese automobile industry is one of the largest in the world and serves as an essential pillar of Japan's economy. These automobile companies encompass both car assembly and car parts businesses. The researchers obtained the data for the study from the Thomson Reuters Eikon database. Arhinful and Radmehr (2023) utilized data from the Thomson Reuters Eikon database to examine the impact of financial leverage on the financial performance of

companies listed on the Tokyo Stock Market. Similarly, Amin and Cek (2023) employed data from Eikon to investigate the effect of capital structure deviations from the golden ratio on the financial performance of firms in the UK and France. Therefore, the utilization of data from the Eikon database is deemed reliable (Del Giudice & Rigamonti, 2020).

The study incorporated panel data encompassing 130 companies in the Japanese automobile sector, spanning from 2003 to 2022, resulting in 2200 years of observation. Some automobile companies were excluded from the study due to missing or inadequate data during the selected years of analysis.

3.2 Study Variables

Table I: Variable description and source

Code	Indicators	Description	Source
Dependent Variables			
RNOA	Return on Net operating Assets	The return on net operating assets or RNOA is a performance ratio is calculated by dividing net operating profits by net operating assets	DataStream
Tobin's' Q	Tobin's' Q	Tobin's Q is defined as the ratio between the market value of the firm over the replacement cost of its assets	DataStream
Moderating Variable			
MS	Market Share	Market share refers to the portion or percentage of total sales or total customers that a company captures within a specific market or industry.	DataStream
Independent variables			
CCC	Cash conversion cycle	Measure of how long it takes a business to recoup the money from its expenditures on inventory by selling its goods	DataStream
FAT	Fixed Assets turnover	Measures how effectively a business generates net sales from its fixed-asset investments	DataStream
SG	Sales Growth	Measure that assesses the company's sales team's capacity to boost revenue over a predetermined length of time	DataStream
LEV	Leverage	The quantity of debt a company uses to finance assets	DataStream
Control Variables			
Size	**Size**	A log of the total assets is used to calculate the size of the firm	DataStream
EPU	Economic policy uncertainty	Baker et al. (2016) index constructed	**https://www.policyuncertainty.com/**

Table II: Summary of variables and formulae

Variable	Acronyms	Formula	Source
Dependent Variables			
Return on net operating assets	RNOA	Net income/Net operating assets	Lukić, R. (2013).
Tobin's Q	Tobin's Q	Market capitalization/Total assets	Marzban and Asutay (2012).
Independent variable			
Cash conversion cycle	CCC	Average receivable days (ARD) + inventory day (INVD) - average payable days (APD)	Hassan et, al. (2023)
Fixed Assets Turnover	FAT	(Net sales / Fixed Assets)	Sausan at, el. (2020)
Leverage	LEV	(Debt/Equity)	Alkhazali at, el. (2021).
Sales Growth	SG	(this year's sales – previous year's sales)/previous year's sales)	Vijayakumaran, R. (2019)
Market share	MS	(Company sales/Total market sales) *100	Gallo, et, al. (2004).
Control Variables			
Size	Size	(the natural logarithm of Total Assets)	Laghari and Chengang (2019)
Economic policy uncertainty	EPU		Baker et al. (2016) index constructed

To address outliers, the study employed the Winsorization technique known as Winsor2, which involves replacing extreme values with the 10th and 90th percentiles. In order to prevent excessive missing values, the study applied the absolute value transformation to the CCC variable. Furthermore, the Winsor2 technique was also applied to the following variables: CCC, EPU, and SG.

3.3 Study model

The study employed three estimation methods, namely the fixed-effect model, random effects, and the Generalized Method of Moments (GMM), to estimate the impact of market share on the relationship between CCC and profitability. The GMM was specifically used to address the issue of endogeneity and control for any potential bias (Ullah et al., 2018; Koroma & Kamara, 2025). The statistical software package utilized for the estimation was Stata.

To mitigate the impact of missing variables on the results, the study implemented a two-step robustness approach instead of a one-step approach. The one-step approach calculates the difference between current and past variables, making it susceptible to the influence of any missing variables. In contrast, the two-step approach calculates the average of the variables and subtracts it from the current variable, thereby reducing the potential influence of missing variables in any given year.

Following Koroma & Bein, 2024 and Ullah et al. (2018), these studies applied the two-step system GMM approach by incorporating two lags of the dependent variable to address its persistence. In order to examine the effect of market share on the relationship between CCC and profitability, the study employed four models to analyze this relationship.

Model 1:

$$RONOA = \alpha + \beta 1\, CCC_{tF} + \beta 2\, FAT_{tF} + \beta 3 LEV_{tF} + \beta 4\, SG_{tF} + \beta 5\, MSE_{tF} + \beta 6\, SIZE_{tF} + \beta 7\, FEPU_{tF} + \varepsilon$$

Model 2:

$$RONOA = \alpha + \beta 1\, CCC_{tF} + \beta 2\, FAT_{tF} + \beta 3 LEV_{tF} + \beta 4\, SG_{tF} + \beta 5\, MSE_{tF} + \beta 6\, SIZE_{tF} + \beta 7\, FEPU_{tF} + \beta 8\, (\mathrm{CCC} * \mathrm{MS})_{tF} + \varepsilon$$

Model 3:

$$Tobin's\ Q = \alpha + \beta 1\, CCC_{tF} + \beta 2\, FAT_{tF} + \beta 3 LEV_{tF} + \beta 4\, SG_{tF} + \beta 5\, MSE_{tF} + \beta 6\, SIZE_{tF} + \beta 7\, FEPU_{tF} + \varepsilon$$

Model 4:

$$Tobin's\ Q = \alpha + \beta 1\, CCC_{tF} + \beta 2\, FAT_{tF} + \beta 3 LEV_{tF} + \beta 4\, SG_{tF} + \beta 5\, MSE_{tF} + \beta 6\, SIZE_{tF} + \beta 7\, FEPU_{tF} + \beta 8\, (\mathrm{CCC} * \mathrm{MS})_{tF} + \varepsilon$$

4. Empirical Results

Table IV presents the descriptive statistics of the variables used in the study. The average Return on Net Operating Assets (RONOA) for Japanese automobile companies is 4.5%. This indicates that, on average, these firms generate a return of 4.5 cents for every dollar invested in net operating assets. RONOA reflects the profitability derived from the company's operating assets, including inventory, accounts receivable, and property, plant, and equipment. However, a 4.5% RONOA suggests a relatively modest return compared to the investment in these assets.

The mean Tobin's Q for automobile companies is 39.5%. Tobin's Q represents the market value of a company relative to its net worth or book value. A value of 39.5% indicates that the market perceives the company's assets as highly valuable, surpassing their replacement cost or book value. This suggests that the market expects future profitability and considers the company to possess strong intangible assets, such as intellectual property, brand value, or unique market positioning. Higher Tobin's Q ratios are associated with companies that have a competitive advantage and are expected to generate higher returns.

The Cash Conversion Cycle (CCC) for Japanese automobile firms is 94 days. This signifies the average time it takes for these companies to convert their inventory, receivables, and payables into cash. A longer CCC suggests relative inefficiency in converting resources into cash. On average, Japanese businesses experienced an annual sales growth rate of 3.48%. This growth in net income relative to stock values can expand their source of income.

A company's value may increase due to higher sales and improved early payment discounts facilitated by higher levels of working capital (Deloof, 2003). Therefore, financial decisions related to working capital management are crucial for a company's survival, growth, and profitability (Parisi et al., 2014; Marino & Sensini, 2014).

The mean value of the economic policy uncertainty index is 101.959, indicating a high level of economic policy uncertainty for Japanese companies. This suggests that factors such as changes in government regulations, fiscal policies, or geopolitical developments contribute to a sense of instability.

Regarding firm size, the cash conversion cycle (CCC) tends to be shorter for smaller firms and longer for larger firms. This finding suggests that Japanese firms reduce their CCC by shortening the inventory and accounts receivable periods while extending the accounts payable period.

The average fixed asset turnover is 1.113 times, which reflects the efficiency of a company in utilizing its fixed assets to generate revenue. A fixed asset turnover of 1.113 times indicates that, on average, the company generates 1.113 times its fixed asset value in net sales over a specific period, typically a year. This implies that the company is generating revenue in line with its investment in fixed assets. Previous studies by Sari (2014), Febrianti and Basri (2022), and Puspita et al. (2021) have also found a significant impact of fixed asset turnover on profitability.

A market share of 0.042 signifies the proportion or percentage of a company's total market captured by its sales. For Japanese automobile firms, a 4.2% market share indicates a relatively substantial presence in the market.

The average leverage for Japanese firms is 69.7%, indicating a higher debt-to-total-asset ratio. It suggests that these firms rely more on debt financing. However, it is important to note that debt and company success generally have a negative relationship (Sensini, 2020). According to our findings, firms that maintain low gearing ratios tend to achieve higher profitability.

Table III: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
RONOA	2197	.045	.063	-.718	.373
Tobin's Q	2200	.395	.255	.032	1.875
CCC	2199	94.278	102.995	10.705	350.381
Market share	2199	.042	.15	.0001121	1.691
Sales growth	2200	3.48	9.42	-12.939	17.38
Leverage	2198	.697	1.391	0000	37.701
Assets turnover	2200	1.113	.392	.328	3.312
Size	2200	18.432	1.842	14.901	24.933
EPU	2200	101.959	18.514	67.365	128.353

Table IV presents a correlation matrix for each variable, which helps determine whether there is multicollinearity between the dependent and independent variables. The dependent variables include RONOA and Tobin's Q, while the independent variables consist of the CCC, sales growth, leverage, fixed asset turnover, and market share. The control variables are size and economic policy uncertainty. Based on the correlation matrix in Table IV, the association among the variables does not exhibit strong enough correlations to indicate multicollinearity. The estimated coefficients of the independent variables are all below 0.7, suggesting a lack of potential multicollinearity (Tayn, 2017). Furthermore, economic policy uncertainty and world uncertainty display negative correlations with all the dependent variables. This implies that increased economic policy and world uncertainty tend to reduce profitability.

Table IV: Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) RONOA	1.000								
(2) Tobin's Q	0.522	1.000							
(3) CCC	-0.067	-0.044	1.000						
(4) Market share	0.107	0.065	-0.019	1.000					
(5) Sales growth	0.195	0.111	-0.024	-0.030	1.000				
(6) Leverage	-0.293	-0.230	-0.060	0.047	0.003	1.000			
(7) Assets turnover	0.025	0.037	-0.212	-0.152	0.023	0.041	1.000		
(8) Size	0.137	0.210	-0.282	0.612	-0.006	0.061	-0.098	1.000	
(9) EPU	-0.165	-0.294	0.014	0.006	-0.305	0.003	-0.012	0.019	1.000

Table V confirms that none of the relationships among the independent variables exceed 10. Additionally, we computed the variance inflation factor (VIF) for each independent and control variable to assess the presence of multicollinearity in the sample. The VIF values for all explanatory variables were found to be less than five, indicating the absence of multicollinearity in the data. The VIF is a measure used to detect multicollinearity in panel data, and typically a mean VIF greater than 10 is considered indicative of multicollinearity (Koroma & Bein, 2024; Ogieh & Jeroh, 2022).

However, in our analysis, the VIF values were below this threshold, providing further evidence of the absence of multicollinearity in the dataset.

Table V: variance inflation factor

	VIF	1/VIF
Size	1.825	.548
Market share	1.677	.596
Ccc	1.2	.833
Sales growth	1.104	.905
EPU	1.104	.906
Assets turnover	1.085	.922
Leverage	1.008	.992
Mean VIF	1.286	.

The results from Table VI, specifically Model 1 and 3, do not include the interaction variable. The estimated coefficients for RNOA and Tobin's Q are presented in Panel A and Panel B, respectively. On the other hand, Model 2 and 4 incorporate the interaction variable (CCC X MS), and the estimated coefficients are also shown in Panel A and Panel B. To determine which model (fixed effects or random effects) is consistent and appropriate, we conducted a Hausman test. The results from Models 1 through 4 indicate that the fixed effects model is consistent with the null hypothesis. Therefore, the discussion of the results is based on the fixed effects model. In addition to the Fixed Effects and Random Effects models, we employed the GMM method to gain better control over endogeneity and autocorrelation of the independent variables (Arellano and Bond, 1991). The results from Table VI demonstrate that the GMM method yields similar findings as the other methods. Furthermore, based on the Arellano-Bond statistics, AR1 is statistically significant while AR2 is insignificant, indicating the adequacy of the model (Table VI). These results suggest the absence of first and second-order autocorrelation (Arellano and Bond, 1991).

Model 2: The Effect of MS on the Relationship between CCC and RNOA

The study's results show that CCC has a negative impact on profitability, which is consistent with previous studies conducted by Farhan and Yameen (2020), Akgun and Karatas (2020), and Pham et al. (2020). The negative relationship between CCC and RNOA indicates inefficient management of working capital in the Japanese automobile industry, leading to unnecessary costs and inefficiencies that negatively affect a company's profitability. According to Karim et al. (2018), excessive inventory and poor collections of accounts receivable can result in increased storage costs, obsolescence, and bad debt expenses, all of which can reduce profitability.

Furthermore, the negative relationship between working capital and RNOA may indicate that the company is not effectively utilizing its operating assets to generate sales and profits. A 1% increase in CCC is associated with a decrease in RNOA by (.023). On the other hand, market share, sales growth, asset turnover, and size demonstrate a positive association with RNOA at a 5% level for market share and a 1% level for sales growth, asset turnover, and size. A positive impact of market share on RNOA suggests that companies with a larger market share tend to generate higher returns relative to their net operating assets. The positive impact of sales growth is attributed to increasing net income and stock prices. Deloof (2003) highlights that a company's worth may rise due to increased sales and better discounts facilitated by higher working capital levels. Therefore, financial decisions regarding working capital are crucial for a company's survival, growth, and profitability (Akbar et al., 2021).

The positive impact of fixed asset turnover indicates that firms effectively utilize their fixed assets, such as property, plant, and equipment, to generate revenue. Moreover, the positive impact of size on RNOA suggests that larger firms, in terms of revenue, total assets, or market capitalization, tend to achieve higher returns on net operating assets. A 1% increase in market share, sales growth, asset turnover, and size is associated with an increase in RNOA by (.133), (.001), (.046), and (.017) respectively.

On the other hand, leverage, economic policy uncertainty (EPU), and the interaction variable (CCC*MS) have a statistically significant negative impact on RNOA at a 1% and 5% level. The negative impact of leverage on RNOA suggests that the costs and obligations associated with debt erode a company's profitability. The negative impact of EPU on RNOA indicates that uncertainty surrounding economic policies creates challenges for companies to effectively manage their net operating assets and generate profits. The negative impact of the interaction variable suggests that Japanese automobile companies need to address both the cash conversion cycle and market share simultaneously. Mitigating the negative impact on RNOA requires efforts to optimize working capital management, improve operational efficiency, enhance market share through targeted strategies, and differentiate from competitors. A 1% increase in leverage, EPU, and the interaction variable will cause RNOA to decrease by (.010), (.041), and (.051), and (.001) respectively.

A Fixed Effects regression model was chosen based on the results of the Hausman specification test. Model 2 has an R-squared of 15%, indicating that 15% of the variation in RNOA is explained by the independent variables in this model. The Prob > F value is 0.000, which is below 0.05, signifying that the model is statistically significant.

Model 4: **The Effect of MS on the Relationship between CCC and Tobin's Q**

The findings suggest that CCC has a negative effect on Tobin's Q, which is supported by the study conducted by Hingurala et al. (2017). An increase in working capital is associated with a lower market value relative to the company's book value. Higher levels of working capital may indicate that a company has excess cash tied up in inventory, accounts receivable, or other current assets. This suggests that the company is not efficiently utilizing its assets to generate revenue and profits. Inefficient use of assets can lead to a lower market value relative to book value as investors may perceive it as a sign of suboptimal operational performance. The CCC has a negative effect on Tobin's Q at a 1% level, indicating that increasing the CCC by 1% will decrease Tobin's Q by (.036).

On the other hand, market share has a positive impact on Tobin's Q, while sales growth, assets turnover, and size have statistically significant positive impacts on Tobin's Q at 10%, 1%, and 5% levels, respectively. An increase of 1% in market share, sales growth, assets turnover, and size may increase Tobin's Q by (.117), (.001), (.158), and (.032) respectively.

Leverage, EPU, and the interaction variable (CCCMS) have statistically significant negative effects on Tobin's Q. The results suggest that Japan automobile companies have higher leverage, which results in higher interest expenses and increased financial risk. High levels of EPU are often associated with increased market volatility. Uncertainty surrounding economic policies can lead to frequent changes in market conditions, including fluctuations in stock prices and increased market risk, negatively impacting Tobin's Q. The interaction variable (CCC X MS) suggests that Japan automobile companies tie up their working capital, hindering their capacity to fund research and development and capital expenditures, thereby reducing their investment potential. Consequently, lower expectations of future growth and value lead to a negative impact on Tobin's Q. A 1% increase in leverage, EPU, and the interaction variable will decrease Tobin's Q by (.021), (.004), and (.002) respectively.

The choice of the fixed effect regression model was based on the results of the Hausman specification test. The R-squared of the model is 22%, indicating that 22% of the variation in Tobin's Q is explained by the independent variables in Model 4. The Prob > F value is 0.000, which is below 0.05, indicating that the model is statistically significant.

Robustness Test

In Panel D of Table VI, the study examined the moderating effect of MS on the relationship between CCC and profitability in the Japan automobile industry. To test this, we utilized the Fully Modified Least Squares (FMOLS) method. Models 2 and 4 in Table VI depict the results when incorporating this method, showing that the interaction effect of (CCC X MS) has a detrimental effect on RNOA and Tobin's Q. Additionally, CCC continues to have a negative impact on profitability (RNOA and Tobin's Q). These findings validate the results obtained.

Hypothesis

H1: There is a negative impact of CCC on the RNOA of Japan manufacturing firms.

Based on Model 1, where CCC was used as an indicator of working capital and RNOA as a measure of profitability, the p-value for the coefficient of CCC was 0.000, and the coefficient itself was -0.003 (negative). This indicates that a 1% increase in CCC resulted in a 0.3% decrease in RNOA. Therefore, we accept H1, which suggests a negative impact of CCC on the RNOA of Japan manufacturing firms.

H2: There is a negative impact of CCC on the Tobin's Q of Japan non-financial firms.

Based on Model 3, where CCC was used as an indicator of working capital and Tobin's Q as a measure of firm value, the p-value for the coefficient of CCC was 0.000, and the coefficient itself was -0.005 (negative). This indicates that a 1% increase in CCC resulted in a 0.5% decrease in Tobin's Q. Therefore, we accept H2, which suggests a negative impact of CCC on the Tobin's Q of Japan non-financial firms.

H3: The relationship between CCC and the profitability of Japan non-financial firms is positively impacted by market share.

However, based on the findings that were inconsistent with this hypothesis, we reject H3. The results did not support the idea that market share positively influences the relationship between CCC and profitability in Japan non-financial firms.

Table VI: The Moderating Role of Market Share

	Panel A: Fixed Effects			
	Model 1	**Model 2**	**Model 3**	**Model 4**
Cash conversion cocycle	-.003	-.023	-.068	-.036
Market Share	.037	.133**	-.156	.117
Sales Growth	.001***	.001***	.001*	.001*
Leverage	-.010***	-.010***	-.021***	-.021***
Assets Turnover	.047***	.046***	.163***	.158***
Size	.017***	.017***	.032**	.032**
EPU	-.040***	-.041***	-.004***	-.004***
CCC*MS	-	-.001**	-	-.002**
F-tests (P-value)	49.493	44.240	84.685	74.965
Hausman tests (P-value)	0.0000	0.0000	0.0000	0.0000
R-square	0.143	0.146	0.222	0.224
	Panel B: Random Effects			
Cash conversion cocycle	-.022	-.013	-.027	.881
Market Share	.032*	.119***	-.124	.186
Sales Growth	.001***	.001***	.001*	.001*
Leverage	-.011***	-.011***	-.022***	-.022***
Assets Turnover	.021***	.020***	.139***	.133***

Size	.004***	.004**	.035***	.034***
EPU	-.039***	-.039***	-.004***	-.004***
CCC*MS	-	-.001***	-	-.003***
Chi-square	357.121	366.265	597.149	607.528
Hausman tests (P-value)	0.0000	0.0000	0.0000	0.0075
R-square	0.155	0.160	0.159	0.169
		Panel C: GMM		
L	.234***	.235***	.355***	.353***
Cash conversion cocycle	-.054***	-.043***	.028**	.0547***
Market Share	.103***	.212***	-.232***	-.152***
Sales Growth	.001***	.001***	.0344***	.0363***
Leverage	-.007***	-.007***	-.006***	-.006***
Assets Turnover	.035***	.031***	.013***	.010*
Size	.003	.005**	-.080***	-.082***
EPU	-.001***	-.001***	-.004***	-.004***
CCC*MS	-	-.001***	-	-.333
Arellano-Bond test:				
Arellano-Bond test for AR (1)	0.0000	0.0000	0.0000	0.0000
Arellano-Bond test for AR (2)	0.5557	0.5845	0.6167	0.6076
Sargan (P-value)	.1000	.1200	.1600	.1500
		Panel D: FMOLS		
Cash conversion cocycle	-.310	-.229	-.549	-.215
Market Share	.0302	.120*	-.1476	.186
Sales Growth	.001***	0.01***	.065	.064**
Leverage	-.012***	-.0117***	-.024***	-.024***
Assets Turnover	.051***	.050***	.176***	.170***
Size	.013***	.013***	-.060	-.068
EPU	-.0004***	-.035***	-.036***	-.036***
CCC*MS	-	-.057*	-	-.023**
R-square	.3352	.337356	.62509	.62607

5. Conclusions and Implications

5.1 Conclusions

The current study examined the potential moderating role of market share on the relationship between CCC (working capital management), RNOA, and Tobin's Q in Japan's non-financial automobile firms. The findings provided evidence supporting the moderating effect of market share on the relationship between CCC and profitability. Market share has been recognized as a significant determinant of a company's financial performance, while efficient working capital management is crucial for improving profitability and creating value (Andersson and Blomdahl, 2017). Interestingly, the results of this study also revealed a negative and statistically significant impact of market share on the profitability of Japan's manufacturing firms, particularly in the automobile industry. This implies that as market share decreases, the ability of these firms to generate profits is also diminished. A decline in market share may result in limited resources allocated for promotional activities, leading to reduced brand visibility, weaker customer engagement, and lower sales, all of which negatively affect profitability (RNOA and Tobin's Q). The implications of market share on the relationship between working capital and profitability can have policy implications for Japan's automobile companies. It highlights the importance of strategies to enhance market share

through targeted marketing, product differentiation, and improved operational efficiency, which in turn can positively impact profitability.

5.2 Implication for Managers

This study has several implications that can be valuable for managers and the study of working capital investment. The findings suggest that managers need to be aware of how market share (MS) affects the relationship between working capital and profitability. The negative impact of market share on the relationship between the cash conversion cycle (CCC) and profitability has important managerial implications for Japanese automobile companies.

- Managers of Japan's automobile companies should prioritize capturing a significant market share to leverage economies of scale. With increased market share, firms can benefit from lower unit costs resulting from higher production volumes and improved purchasing power, ultimately enhancing profitability.
- Careful consideration of pricing strategies is crucial for managers to avoid pricing themselves out of the market or triggering aggressive competition. Higher market share provides companies with greater pricing power, enabling them to potentially set higher prices and achieve increased profit margins.
- Prioritizing customer satisfaction, retention, and loyalty is essential for long-term profitability. Managers should understand customer needs and preferences, allowing them to tailor products and services to enhance customer satisfaction, drive repeat purchases, and stimulate positive word-of-mouth.
- Managers should consider diversifying their market presence to reduce reliance on a single market or product. Expanding into new markets or targeting different customer segments can mitigate risks associated with market fluctuations and provide additional revenue streams, ultimately enhancing overall profitability.
- Allocation of resources to marketing and branding initiatives is critical for managers aiming to increase market share. Effective marketing campaigns can enhance brand awareness, preference, and customer loyalty, leading to higher prices commanded by a strong brand and fostering trust, thereby positively impacting profitability.
- Managers need to exercise caution regarding inventory levels. Striving for optimal inventory management helps avoid excessive stock holding, which ties up working capital and results in increased carrying costs. Efficient inventory management can minimize the cash conversion cycle (CCC) and improve profitability.
- Close monitoring and management of accounts receivable are necessary to reduce the time required for collecting payments from customers. Implementing effective credit policies, streamlining billing and collection processes, and actively managing customer relationships contribute to improved cash flow, shortened CCC, and positive impacts on profitability.
- Negotiating favorable payment terms with suppliers allows managers to extend payment periods without negatively affecting relationships. However, maintaining good supplier relations is crucial to ensuring a reliable supply chain and avoiding potential disruptions.
- Managers should explore strategies to free up cash tied up in the CCC by reducing inventory, accelerating receivables collection, and strategically managing payables. These actions help improve liquidity, reduce financing costs, and enhance profitability.
- Lastly, managers should focus on implementing cost control measures to mitigate the impact of declining market share on profitability. Identifying and eliminating operational inefficiencies, reducing overhead expenses, and improving productivity contribute to enhanced financial performance despite challenging market conditions.

The following limitations should be considered when interpreting the findings and implications of the current study. First, this study was limited to a single country and solely focused on Japanese automobile companies. Future research should expand to include multiple countries and non-financial firms to examine the impact of market share on the relationship between CCC (Cash Conversion Cycle) and profitability (RNOA and Tobin's Q) in Japan and other nations, allowing for results that can be compared to those found in the current study. Additionally, while the model accounted for the effects of RNOA (15%) and Tobin's Q (22%), further investigation is needed to understand how all

the independent variables significantly influence a company's profitability. Additional study is required to explore the remaining 85% and 78% for RNOA and Tobin's Q, respectively.

Data availability statement: The data supporting the findings of this study are available upon reasonable request from the first and corresponding author.

Conflicts of interest: The authors have no conflicts of interest to declare.

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