ARE SHARED-GOAL CONGRUENCE, CUSTOMER RELATIONSHIP MANAGEMENT, AND CUSTOMER RELATIONSHIP ADVANTAGES MATTER TO LEVERAGE FIRM PERFORMANCE? INDONESIA CASES ON RETAIL

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Abstract

This study empirically investigates the relationship between shared-goal congruence, customer relationship management (CRM), and customer relationship advantages on firm performance. Data were collected from 200 supply chain practitioners and operations staff working in retail stores in Indonesia using purposive and non-probability sampling techniques. The hypotheses were assessed using SEM-AMOS 24, after conducting Exploratory Factor Analysis, reliability, and validity tests. The results show that CRM significantly impacts firm performance, mediated by Green Supply Chain Management (GSCM). Additionally, a positive relationship exists between goal congruency and firm performance, also mediated by GSCM. Supplier relationship management was found to have a significant effect on both GSCM and firm performance. The theoretical contribution of this study emphasizes that the integration of sustainable principles in supply chain management through GSCM improves firm performance in various aspects, including financial, environmental, and social. The implementation of GSCM, supported by strong management commitment and a shift in organizational culture, enhances energy and resource efficiency, process and product innovation, environmental risk reduction, customer satisfaction, continuous improvement, and cost reductions, leading to competitive advantages through faster and more accurate decision-making.

Keywords: customer relationship management, suppler relationship management, goal congruency, green supply chain management and firm performance

JEL Classification: L81, M11, Q56

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INTRODUCTION

There are still many opportunities to conduct studies on the consequences of Green Supply Chain Management (GSCM) and its significant impact on firm performance. Notable studies discussing the main issues in GSCM and its effects on firm performance include Lambert & Cooper (2000), who explored how the construct of GSCM influences firm performance, and Chen & Paulraj (2004), who examined the relationship between GSCM and firm performance. Gunasekaran & Chung (2004) investigated the order of GSCM practices and their impact on firm performance, while Kumar et al. (2023) proposed a hierarchical model of GSCM. Fawcett et al. (2008) identified the factors that facilitate the effect of GSCM on firm performance, and Narasimhan & Kim (2002) focused on risk management within GSCM and its implications for firm performance. Flynn et al. (2010) discussed the configuration and contingency of GSCM practices in relation to firm performance, and Wu et al. (2010) explored how the integration of GSCM affects firm performance. Wu also examined the agility of GSCM in enhancing firm performance, while Chopra & Meindl (2015) provided a comprehensive outlook on the impact of GSCM on firm performance. These studies contribute to a growing body of research on how GSCM practices can enhance firm performance across various dimensions.

The retail industry in Indonesia has experienced significant growth, driven by factors such as urbanization, a rising middle class, and increased consumer spending. As of 2022, the retail market size was valued at IDR 4,927 trillion, with a projected compound annual growth rate (CAGR) of over 4% from 2022 to 2027 (GlobalData, 2023). Retail industry is widely considered as unorganized retail as well as modern retail which similar with the supermarket or western modern department store. These industries have been experiencing the highest growth for the last decade which shifted from unorganized into organized retail. The retail total sales are estimated 941 billion Rupiah at 2019, and it almost twice in double when compared of the year of 2014 (GlobalData, 2023). Nowadays, retail business has becoming very complex. Customers are more concerned in selecting product. With the many of national retailers as well as international, the intense competition is cannot be avoided and short product life cycle. The power has been shifted on customer decision, so it added the high level of uncertainty (Sahay & Mohan, 2003).

The maturity of supply chain is strongly required, especially the supply integration and inventory management which presented the significant scope improvement. Yet, many retails do not own the inventory and order visibility on a real time and, thus, retails unable to response the customers' needs, which will finally lead on the loss of sales potency (Sahay & Mohan, 2003).

The readiness of multi-channel was less considered yet the significant online retail growth. The complicate of taxation, and the enormous size of small retails led to the increase of cost in general. The process of tracking orders from warehouse or distribution center into the store was not efficient due to the lack of technology usage. Most of the retailers tracked the orders through the phone calling and physical code adjustment. The integration between supplier and retailers was low, the retailers mostly tracked the order through the informal communication, fax, email. The average of purchase waiting list is more than 30 days for fifty percent of retailers. It required 120 days to import the stock keeping units for most of retailers. The agile supply chain is required to improve business scale.

This described the strong relationship of supplier, the understanding and partnership with retailer (Kamble et al. 2020). yet, it could not be ignored that the increase number of retailers which focused

on huge investment in the Supply Chain Management. The retailer business still keeps on effort to obtain fair benefit and sustain. Retails practitioners needed to establish discipline of CRM retail. Due to the tight competition and economy pressure, and the important of this sector to leverage economy, it is crucial to study the effect of SCM on firm performance.

Despite the correlation between SCM and retail, the impact of SCM practices on supply chain practices and firm performance are still opened for further study (Christopher, et al, 2004). Current study is aimed to empirical investigate the relationship between SCM practices on firm performance. This research also explored the impact of CRM, supply-relationship management, shared-goals congruency on GSCM and firm performance. The rest of the study are conducted as follows, literature reviews discussed on the aspect of SCM and hypotheses development. Next, methodology approach which is followed by data analysis as well as theoretical implication and managerial.

Supply Chain Management Theory

Supply Chain Management (SCM) is increasingly recognized as a critical factor in enhancing organizational performance and customer satisfaction. At its core, SCM involves the strategic coordination of activities across multiple firms that are vertically connected, from suppliers to manufacturers to retailers, ultimately delivering products and services to end customers. The importance of collaboration among supply chain partners cannot be overstated; as highlighted by Omoruyi and Mafini (2016), effective SCM practices are essential for ensuring that products are delivered on time and meet customers' quality expectations. This relationship between supply chain efficiency and customer satisfaction is further supported by Wu et al. (2010), who notes that an efficient supply chain significantly reduces operational costs while improving service levels, directly impacting customer satisfaction and long-term profitability.

Moreover, the integration of supply chain practices has been shown to enhance the overall quality of service provided to customers. Flynn and Zhao (2010) suggest that SCM serves as a measure of service quality across various industries, demonstrating both direct and indirect effects on customer satisfaction. This is particularly relevant in today's competitive business environment, where organizations must optimize their supply chain processes to meet increasingly demanding customer expectations. The focus on quality management within the supply chain is crucial, as noted by Ellinger et al. (2012), who argue that supply chain management competency directly influences customer satisfaction and shareholder value. By fostering strong relationships and effective communication among supply chain partners, organizations can better respond to customer needs and enhance service quality.

Finally, the evolving landscape of SCM requires a focus on flexibility and adaptability to changing market conditions. Kamble et al. (2020) highlighted that the rapid pace of competition necessitates the continual optimization of supply chain performance. This involves not only the procurement and transformation of raw materials but also the efficient delivery of finished products to consumers. The integration of digital technologies and data analytics into SCM practices enhances firms' ability to swiftly and effectively respond to customer demands. In this context, the role of information quality and collaborative logistics becomes essential, as these factors contribute to the flexibility and responsiveness of the supply chain (Nagarajan et al., 2013). Thus, a comprehensive approach to SCM, emphasizing collaboration, quality, and adaptability, is crucial for organizations seeking to achieve high levels of customer satisfaction and maintain a competitive advantage in the market.

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This context contributed on this study to assess how far the SCMP affected on firm performance. During literature study, SCMP was described with the purposed to increase the firm performance and supply chain. In literature coordination, four different dimensions found that explained the SCMP which is relevant with retail sector and support the firm performance. Retail sector kept on changing aligned with the organized formal retail growth. This is required further study on retaill scenario which changeable in developing countries in the way to understand the SCMP and it impat on SCP and firm performance. The conceptual model as seen at Figure 1.

Relationship between Customer Relationship Management and Firm Performance

The existed literatures regarding on CRM and firm performance has been providing the priceless outlook concerned on this relationship. For some reason, this relationship will direct firm to experience the customer retention improvement, higher sales and income, increase customer satisfaction, personalization and psychology influences, information management improvement, data analytic and market understanding, product development, customer acquisition cost reduction, key performance indicators and performance measurement as well as the impact on stockholders and reputation. The study showed the effective CRM has a high impact on firm performance. This engagement increase customer retention, sales, income and customer satisfaction and others benefits which affect the firm financial performance and reputation.

Customer Relationship Management (CRM) is essential for building long-term relationships by addressing customer pain points and enhancing satisfaction through personalized service (Saarijärvi et al., 2013). To be more effective, CRM systems must evolve from merely collecting data to empowering customers, fostering greater value and engagement, which in turn drives loyalty and satisfaction. Furthermore, the integration of CRM with marketing strategies enables firms to offer relevant products and services that align with customer expectations. As noted by Kumar and Reinartz (2016), CRM facilitates targeted marketing efforts by providing insights into customer preferences and purchasing behaviors. Furthermore, CRM systems provide firms with the tools necessary to analyze customer data and identify trends that can inform supply chain strategies. As highlighted by Hofmann & Oldehaver, (2016), the integration of CRM with supply chain management allows organizations to align their inventory and production processes with actual customer demand.

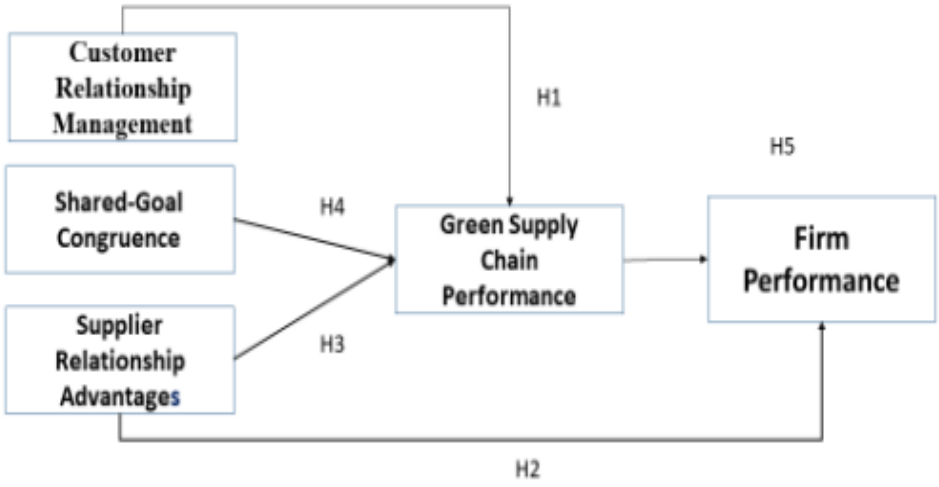

Figure 1. Conceptual Framework

Moreover, the environment and Human dimensions are the most crucial key factor off CRMS implementation, the formation of AI will be enabled CRM capabilities to fill the research gap and direct innovative performance (Kumar et al., 2023), the electronic customer relationship management (e-CRM) system sustain and leverage the customer loyalty and satisfaction (Ferreira et al., 2023), the AI-CRM integration, delivering a long-term perspective on increasing AI for customer relationship (Ledro et al., 2023), the strong correlation among the availability of information, com-tech advances and AI-CRM competencies (M. S. Rahman et al., 2023), deeper understanding of the relationship between e-CRM strategies and customer loyalty (Magatef et al., 2023), significant significance correlation between working capital management (WCM) and CRM on firm's profitability (Vukovic et al., 2023).This is to proposed the following hypothesis:

H1.The high level of CRM implementation has a significant impact to leverage firm's performance through GSC deployment.

The Correlation among Supplier Relationship Management, Green Supply Chain Management and Firm Performance

The literature studies concerned SRM, GSCM and FM had been identified many important aspects which illustrated the complex relationship among the three constructs. These relationships could lead firm to experience the integration of SRM in GSCM. This relationship explored the important of SRM to initiate the GSCM. When firms strengthen the relationship with suppliers, this will lead to effective collaboration in the effort to increase the continuity of GSCM. Furthermore, these relationships also bring them into strategic partnership, product and service quality improvement, value co-creation collaboration, obedience and transparency, conflict resolution, cost efficiency, risk management, Joint Performance Measurement as well as image and reputation enhancement. The conclusion of these relationships showing the strong relationship which leads to positive relationship on firm performance, especially on sustainability, cost efficiency, customer relationship.

The effectiveness of a retailer's operations is significantly influenced by the quality and reliability of the suppliers from whom they source their products. According to Christopher (2016), the supply chain is a network of interconnected businesses that work together to deliver products to consumers. This interconnectedness means that any inefficiencies or disruptions within the supply chain can have a direct impact on retail performance, affecting inventory levels, product availability, and ultimately customer satisfaction. The foundation of successful SRM lies in the careful selection of suppliers who not only meet quality standards but also align with the retailer's operational goals and values. According to Monczka et al. (2015), the supplier selection process should involve a comprehensive evaluation of potential suppliers based on criteria such as reliability, quality, cost, and delivery performance. Furthermore, effective SRM fosters strong partnerships with suppliers, which is essential for ensuring a reliable supply chain. According to Fawcett et al., (2008), a supplier's market orientation can positively influence distributor commitment, thereby strengthening channel relationships.

The effective supplier relationship management encouraged firm to obtain competitive advantage especially during the hard times (Gawankar et al., 2016). Coordination among traders and producer in the textile sector added firm value for end users (Brun et al., 2008). Thus, the success CRM will ensure the materials flow and fluent information among suppliers and firms and preference

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products will be available tiringly, and at the end will increase firm performances (Pandiyan Kaliani Sundram et al., 2011). greenwashing and supply chain management (Inês et al., 2023), supply chain management & initial interpersonal and inter-organizational relationships, supply chain ripple effect management under disruption risks (Liu et al., 2023), relationship learning capability and green supply chain management (Leal-Millán et al., 2023), GSCM and firm sustainable performance (H. U. Rahman et al., 2023), GSCM strategy in the organization (Yang et al., 2023), sustainability management in multi-tier supply chains (Jamalnia et al., 2023), national green orientation has an enhancing effect on the GSCM–GI relationship (Li et al., 2022), the adoption of GSCM implementation and their influence on economic outlooks (Wen et al., 2023). Having discussed the previous study, this is to proposed the following hypotheses:

H2. The high level of SRM implementation has significant advantages on GSCM.

H3. The high level of SRM implementation has significant advantages on Firm Performance

The Relationship between Goal Congruence and Green Supply Chain Management

GSCM aims to integrate environmental considerations into supply chain operations, which necessitates a shared commitment to sustainability goals among all stakeholders, including suppliers, manufacturers, and consumers. For instance, Sheng et al. (2023) emphasizes that the goals of GSCM in China include reducing greenhouse gas emissions and enhancing resource efficiency, which can only be achieved through collaborative efforts across the supply chain. Similarly, Khan (2022) highlights that effective GSCM practices involve cooperation and information sharing among supply chain partners, fostering a collective approach to sustainability and enhancing consumer purchasing behavior. This indicates that when stakeholders are aligned in their environmental objectives, the overall effectiveness of GSCM initiatives is improved.

Moreover, the role of organizational culture in facilitating goal congruence is underscored by Susanto, who notes that a supportive organizational culture can mediate the influence of leadership and motivation on employee behaviors related to GSCM (Susanto, 2023). This suggests that fostering a culture that prioritizes environmental sustainability can enhance alignment among stakeholders, thereby improving the implementation of GSCM practices. Additionally, Ayyıldız (2021) points out that regulatory pressures and consumer expectations compel supply chain managers to adopt environmentally friendly practices, further reinforcing the need for congruence in goals across the supply chain.

The impact of GSCM on firm performance is also closely tied to goal congruence. For example, Bag et al. argue that the technological dimensions of GSCM practices can significantly influence firm performance, particularly when there is alignment between the environmental goals of the organization and those of its supply chain partners (Bag et al., 2020). This alignment not only enhances operational efficiency but also contributes to a competitive advantage in the marketplace, as highlighted by Sharabati (2021), who discusses how GSCM can lead to improved market positioning through enhanced environmental awareness and responsibility. Hence, to proposed the following hypothesis:

H4. There is a high significant correlation between goal congruency and GSCM.

The Correlation between Green Supply Chain Management and Firm Performance

Previous research indicated that the implementation of GSCM practices significantly enhances firm performance by fostering innovation and resilience within supply chains. For instance, Issa highlights that GSCM not only improves manufacturing performance but also stimulates green innovation, thereby strengthening the resilience of supply chains against environmental challenges (Chopra and Paulraj, 2004). This is corroborated by Li et al., who found that firms adopting GSCM practices experience enhanced operational capabilities that contribute to overall performance improvements. Furthermore, the integration of eco-friendly practices into supply chain operations has been shown to lead to increased customer satisfaction and demand, as noted by Christopher (2016), who emphasizes the importance of eco-friendly design in boosting firm performance within the hospitality sector.

Technological advancements also play a crucial role in enhancing the effectiveness of GSCM, as evidenced by Bag et al., who discuss how technological dimensions of GSCM practices positively influence firm performance (Bag et al., 2020). This relationship is further supported by Hejazi et al., (2023) who demonstrate that GSCM practices contribute to corporate sustainability performance, which is a key indicator of overall firm performance. The synergy between GSCM and technological innovation is essential for firms aiming to achieve competitive advantages in increasingly eco-conscious markets.

Moreover, the mediating role of green innovation in the relationship between GSCM and firm performance has been highlighted by Novitasari and Agustia, who argue that GSCM can develop competitive advantages and improve long-term financial performance (Novitasari & Agustia, 2021). This is particularly relevant in the context of corporate social responsibility (CSR), where GSCM practices serve as a conduit through which CSR initiatives can enhance firm performance (Novitasari & Agustia, 2022). The positive impact of GSCM on firm performance is further reinforced by studies showing that organizations actively engaged in GSCM are better positioned to respond to evolving customer demands and reduce operational costs through efficient resource management (Barakat, 2023).

In addition to operational and financial performance, GSCM also contributes to environmental performance, which is increasingly viewed as a critical aspect of overall firm performance. For instance, Khan et al. emphasize that GSCM practices not only aim to reduce environmental impact but also enhance competitiveness and business performance (Khan et al., 2022). This dual focus on environmental and economic outcomes is essential for firms seeking to thrive in a sustainability-driven marketplace. This is to proposed the following hypothesis:

H5: There is a significant link existed between GSC-Performance on leverage firm performance.

RESEARCH METHODS

Population and Sample

Retails existed in Indonesia is identified and obtained the list of all professional supply chain, those retails are the organizations that effort to create the comfort environment for all third parties for the growth of contemporary retails. Sampling technique framework is the organized modern suppliers in Indonesia. The data is collected through electronic survey or google form from 200 supply chain managers. It also included some respondent to increase the variability of data to ensure various responses represented the organization (Boyer & Verma, 2000). The size of small sampling is considered a common problem and not the exception in research of SCM due to the sampling framework gave limitation on

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size sampling which observed by De Beuckelaer and Wagner (2014). Moreover, proposing hypotheses were based on robust theoretical and previous studies. A response non-bias as suggested on literature with small size of sampling.

Data Analysis

This study employs Exploratory Factor Analysis (EFA) and structural equation modeling (SEM) to analyze the relationships between key constructs in the context of supply chain management and firm performance. EFA is used in the first stage to identify the underlying dimensions of each construct and ensure that the measurement model is valid. Specifically, varimax rotation is applied to confirm that each construct is represented by a single significant factor, with all factor loadings meeting the threshold of 0.50. After confirming the validity of the measurement model, the second stage utilizes SEM to test the hypotheses and examine the causal relationships between the constructs. The analysis is conducted using AMOS 21.0 software, which is capable of evaluating the relationship between theory and empirical data, as well as testing the causality between constructs and their measurement items (Fornell & Larcker, 1981). Reliability is also assessed through Cronbach's alpha, Average Variance Extracted (AVE), and Scale Composite Reliability (SCR). This comprehensive approach allows for a robust examination of the relationships and ensures the reliability and validity of the data analysis.

Variable Measurement

All the antecedents, intervening and consequences variables were measured based on existed literatures. The measurement of measurement was adopted from Gawankar et al., (2016).

Data Collection

Data collection was conducted on 200 samples of supply chain practitioners and operational who worked on retail stores in Indonesia. Data collection used (Dillman, 2007) modification version. A pilot test was firstly conducted with 10 the head of supply chain stores and 20 academicians with strategic management background to ensure the instrument is valid. Customer relationship management was measured with four items, green supply chain practices with four items, firm performance, goal congruence and supplier relationship management with five items respectively. A Likert-scale of 10 points used, where 1 administered for strongly disagree and 10 strongly agree. Cronbach α is the internal consistency reliability of the whole steps in six variables as suggested 0.60 (Malhotra & Grover, 1998). Cronbach α for and all showed value above 0.70.

Non-response bias

To ensure free from non-response bias, a response obtained from different sources was investigated as suggested (Armstrong & Overton, 1977). P-value of X^2 was less than 0.05, it meant that there are no differences between the data obtained from the different time collection.

RESULT AND DISCUSSION

Result

The output of the regression weights proposed by Baron and Kenny (1986) supports the relationship between CRM and firm performance mediated by GSCM. This study highlights that CRM is a key determinant of green supply chain management in organized retail settings (Gawankar et al., 2016). Therefore, retailers must focus on innovating and improving their CRM practices. This makes sense because when a firm attracts customers, it is driven by the firm's vision and customer-centric approach, with all members working together to achieve customer satisfaction. When customers are satisfied, it leads to a higher market share and increased profitability (Pandiyan Kaliani Sundram et al., 2011). The indirect relationship between CRM and firm performance, mediated by GSCM, is supported by a CR of 3.91, confirming that H1 is accepted.

Table 1. Research Variables, Items, Factor Loadings, Cronbach's α, SCR, and AVE

Variable	Indicators	Factor Loading	Cronbach's α	CR	AVE
Customer relationship management	• To assess regular formal and informal pain points	0.66	0.71	0.74	0.65
	• To assess, evaluate and measure customer satisfaction	0.70			
	• To anticipate and quick respond regarding on customers' evolving preferences, needs, and wants	0.74			
	• To regular seek methods to leverage the core product service	0.71			
Goal congruance	• SC and network partners share in common, approval to achieve goals	0.85	0.75	0.78	0.68
	• SC and network partners are regularly and actively engaged	0.85			
	• SC and network partners worked together to define role and responsibilities	0.68			
	• SC and network partners precisely notice the duty	0.69			
	• SC partners quickly response	0.67			
Supplier relationship	• Relies on dependable suppliers	0.58	0.70	0.72	0.84
	• Relies on high quality suppliers	0.65			
	• Firm provided aids for suppliers to leverage quality	0.76			
	• Firm owned holistic rating system assessment	0.83			
	• Suppliers knowledge sharing capability on core business	0.68			
Supply chain performance	• Forecasting and configuration material planning resources accuracy	0.80	0.82	0.86	0.78
	• Capability on-time delivery channel	0.87			
	• Consistency on delivery channel and credibility	0.80			
	• Cost control and knowledge capability	0.81			
Firm performance	• Credible inventory management and standardization	0.61	0.76	0.80	0.70
	• High ROI	0.99			
	• Higher revenues	0.62			
	• Higher profit	0.98			

Source(s): Statistical output (2024)

Table 2. Discriminant Validity

Construct	1	2	3	4	5
Customer Relationship Management	**0.78**				
Goal Congruance	0.66	**0.84**			
Supplier Relationship Management	0.74	0.74	**0.82**		
Supply Chain Performance	0.65	0.75	0.76	**0.75**	
Firm Performance	0.72	0.77	0.74	0.72	**0.78**

Source(s): Statistical output (2024)

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Hypothesis 2 estimated the relationship between goal congruence and firm performance mediated by GSCM. The explanation for this finding is that goal congruence among supply chain partners, established through teamwork, helps achieve coordinated goals, reliability, and better supply chain management. This finding aligns with existing GSCM research, which identifies goal congruence as a crucial antecedent to firm performance and green supply chain practices (Cao & Zhang, 2011). Therefore, H2 is accepted with a CR of 4.59.

Hypothesis 3 proposed that supplier relationship management significantly impacts GSCM and firm performance. The reasoning behind this finding is that firms deploying effective processes, supplier technology, and competencies enhance their competitive advantage. The current finding shows that retailers need to develop mutual relationships with suppliers, which strengthens inter-dependence and improves product availability in stores, ultimately boosting firm performance (Gawankar et al., 2013; Gunasekaran & Chung, 2004). H3 and H4 are accepted with CR values of 3.31 and 4.48, respectively.

The impact of GSCM on firm performance can be explained by the sharing of information and making it accessible to third parties in the supply chain, which enables quick and accurate decision-making as a competitive advantage. Real-time inventory data helps suppliers plan delivery schedules, improving services and reducing inventory costs. This requires continuous communication between suppliers and firms (Pandiyan Kaliani Sundram et al., 2011). H5 is also accepted with a CR of 5.37, as detailed in Table 3. The hypotheses were assessed as proposed in the conceptual models using Structural Equation Modeling (AMOS). Exploratory Factor Analysis (EFA) was conducted, along with reliability and validity tests. For more details, see Table 1.

Exploratory Factor Analysis

Using valid scale and reliable based on literature reviewed to measure constructs. There are 24 items used to measure CRM, GC, SRM, GSCP and FP. Each item scale inserted in every constructs into EFA by using varimax rotation to identify the dimension. Eigen value is more than 1. All variable held one significant factor with a single factor. The lowest loading factor was 0.58 which is above of the threshold 0.50. All factors could be defined and grouped became a logic factor based on literature and previous studies. Convergent validity refers to the consistency in measuring in many operationalization (Campbell & Fiske, 1959).

Table 2 illustrated the constructs theoretical framework showed the convergent validity, due to loading factors from all items is 0,6. Showing the CRM is bigger than 0.74 and AVE 0.65. Goal Congruence (0.78 & 0.68), SRM (0.72 & 0.84), SCP (0.86 & 0.78) and FP (0.80 & 0,70) respectively. Discriminant validity referred on the dimension independent (Bagozzi, 1980). To decide the discriminant validity, correlation matrix among factors as illustrated at Table 2 (Fornell & Larcker, 1981).

Diagonal elements which is printed in bold represented the square root of AVE. The lowest part showed the coefficient correlation among the construct within research. If the element of diagonal (bold) is bigger than the value below, then the construct had the discriminant value. All the constructs in the current study had the discriminant. There was not a cross-loading among variable in the loading factors.

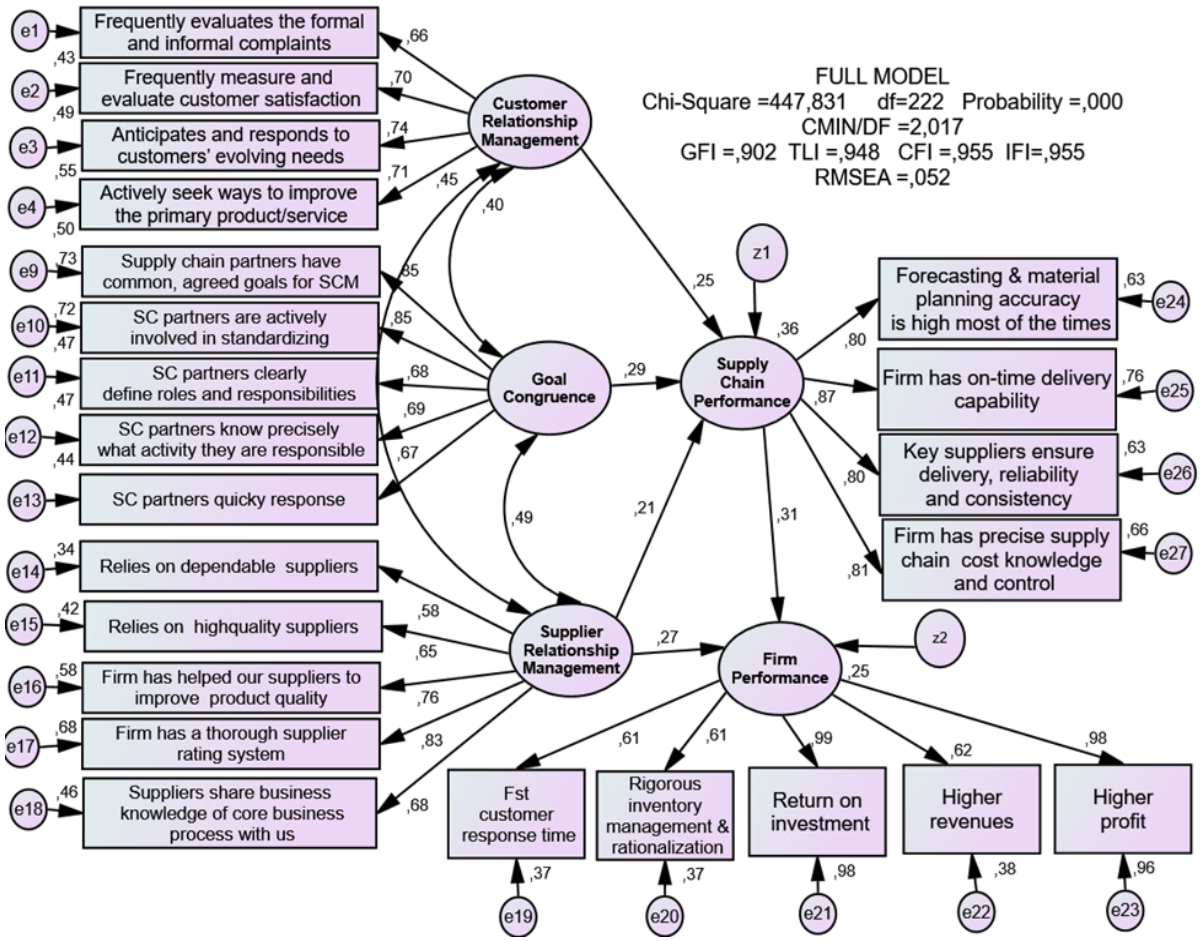

Figure 2. Full Model Structure

Table 3. Regression Weights

Hypotheses			Est	S.E.	C.R.	P	Label
Green Supply Chain Performance	<---	Customer Relationship Management	0.244	0.061	3.991	***	par_23
Green Supply Chain Performance	<---	Supplier Relationship Advantages	0.233	0.070	3.311	***	par_24
Green Supply Chain Performance	<---	Shared-Goal Congruance	0.306	0.067	4.588	***	par_25
Supply Chain Performance	<---	Green Supply Chain Performance	0.425	0.079	5.363	***	par_22
Firm Performance	<---	Supplier Relationship Advantages	0.401	0.089	4.483	***	par_26

Source(s): Statistical output (2024)

Full model testing

Current research proposed five hypotheses, with three antecedents (CRM, Goal Congruency, SRM), the intervening variable (GSCM) and Firm Performance as the consequences. Goodness of fit measurement for current model described the chi-square = 447.831, df=222, P=0.00, Cmin/DF= 2.017, GFI=0.902, TLI=0.948, CFI= 0.955, IFI = 0.955 and RMSEA = 0.052. For more details, as illustrated at the following Figure 2.

Discussion

The implementation of Customer Relationship Management (CRM) significantly enhances firm performance, especially when integrated with Green Supply Chain Management (GSCM) practices. CRM systems facilitate the creation of strong customer relationships that are vital for improving customer satisfaction and retention, as demonstrated by Adebiyi et al. (2021) and Muahmmad (2022). These relationships play a crucial role in sectors like hospitality, where customer loyalty directly impacts business outcomes. The integration of GSCM with CRM not only helps firms respond to the growing consumer demand for sustainable products and practices but also contributes to operational efficiency and sustainability. Moursellas et al. (2022) highlighted that small and medium-sized enterprises (SMEs) that adopt sustainable practices based on customer demand for sustainability see improvements in performance, indicating that firms' commitment to sustainability, driven by effective CRM, enhances their competitive advantage. Moreover, the involvement of customers in sustainability efforts has been shown to strengthen their loyalty and satisfaction, as they become more engaged in the development of sustainable products and services, which is essential for long-term business success, as emphasized by Fitriyani et al. (2022). Finally, the positive impact of CRM on firm performance is further supported by evidence that CRM practices, when integrated with GSCM, contribute to sustainable business model innovation and improved financial performance, as outlined by Oltra-Badenes & Lozano-Quilis (2020) and He et al. (2023). Thus, firms leveraging CRM to engage customers in sustainability efforts are likely to achieve enhanced performance metrics, both operationally and financially.

Furthermore, the positive correlation between supplier relationship advantage and green supply chain management (GSCM) plays a crucial role in enhancing both environmental performance and competitive advantage for firms. Strong supplier relationships are fundamental for successfully implementing GSCM practices, as they foster collaboration with environmentally conscious suppliers, which in turn drives green innovation and operational efficiencies, as evidenced by Novitasari and Agustia (2022) and Sharabati (2021). The quality of these relationships significantly influences the adoption and effectiveness of GSCM, with robust supplier collaboration being linked to better environmental performance and innovation, as supported by Hanna (2021) and Endyanti et al. (2021). Suppliers that engage in sustainable practices contribute significantly to overall supply chain performance, reducing waste and improving operational outcomes, as demonstrated by Khan et al. (2022) and Xu et al. (2022). Ultimately, strategic alignment between suppliers and firms concerning sustainability goals enhances competitive advantage by enabling firms to better meet regulatory requirements and consumer demands for sustainable products, reinforcing the importance of strong supplier relationships in GSCM implementation (Novitasari et al., 2022).

Additionally, effective Supplier Relationship Management (SRM) practices are critical for enhancing firm performance by fostering strong and collaborative relationships with suppliers, as evidenced by Joshi (2024) and Oduro et al. (2020), who emphasize the importance of SRM in

achieving sustainable competitive advantage. Long-term, trust-based relationships with suppliers, which align shared goals and values, significantly contribute to improved operational and financial outcomes, as highlighted by Adesanya et al. (2020) and Liu (2024), further underscoring the value of collaboration in achieving superior performance. Supplier development practices also play a key role in improving supplier performance, which in turn boosts the performance of the buying firm, as demonstrated by Saghiri & Wilding (2021) and Tarigan et al. (2020). Additionally, integrating supplier capabilities into the buyer's innovation processes enhances competitive advantage and innovation performance, as indicated by Saunila et al. (2021). Overall, this body of research supports the view that managing supplier relationships effectively is essential for driving innovation, improving operational performance, and maintaining a competitive edge in the market.

More than that, goal congruence plays a pivotal role in facilitating collaboration among supply chain partners, which is essential for the effective adoption of green practices and the success of Green Supply Chain Management (GSCM). Research by Novitasari et al. (2022) and Endyanti et al. (2021) highlights that shared environmental goals between firms and suppliers lead to improved cooperation, communication, and the pooling of resources and knowledge, which enhances the effectiveness of GSCM initiatives and results in better environmental performance. This alignment of goals is crucial for achieving sustainability objectives, as it integrates the objecttives of various stakeholders, as noted by Acquah et al. (2020). Furthermore, information technology plays a significant role in aligning the goals of supply chain partners, facilitating the smooth implementation of GSCM practices and enabling firms to respond more effectively to environmental regulations and consumer demands, as emphasized by Guo (2023). Ultimately, the integration of green practices into the supply chain depends on the degree of goal congruence among partners, and firms that actively pursue alignment with their suppliers not only enhance their GSCM capabilities but also strengthen their competitive advantage in the marketplace, as demonstrated by Bui et al. (2021).

Lastly, the implementation of Green Supply Chain Management (GSCM) practices has been shown to positively impact both environmental and economic performance. Studies by Appiah and Odartey (2029) and Novitasari et al. (2022) reveal that GSCM practices lead to cost reductions by optimizing resource utilization and avoiding regulatory penalties, while also improving firm performance through their integration with corporate social responsibility initiatives. The role of green innovation as a mediator in the relationship between GSCM and firm performance is also crucial, as demonstrated by Novitasari and Agustia (2022), who argue that GSCM encourages innovation, thus enhancing a firm's competitive position. This is further supported by research from Geyi et al. (2029), which highlights that sustainable supply chain practices contribute to improved operational performance and market differentiation. Empirical evidence from diverse industries, including the restaurant sector (Abbas & Hussien, 2029) and the electronics industry (Nguyen et al., 2029), further reinforces the notion that GSCM practices enhance firm performance, making their integration into corporate strategy essential for long-term sustainability and competitive advantage, as noted by Mehregan (2029) and Agyabeng-Mensah et al. (2029).

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CONCLUSION AND RECOMMENDATION

Conclusion

GSCM has a significant implication on firm performance. It covered the all activities engaged in production, distribution and service and product sales. It will deal with operational efficiency, service and product quality, market demand response, flexibility and customer satisfaction, transportation and logistics cost, risk management, sustainability and CSR, service and product innovation, data analytics and technology, and financial performance. Thus, the effective of GSCM could trigger the competitive advantage and increase firm performance. Firms should invest resources and focused on the improvement and SC optimization.

Managerial Implication

Strong and health customer relationship could deliver many managerial implications which significant on firm performance such as, income and profitability, Strong customer relationship could leverage firms' income, satisfied customers will keep in repetitive buying or asking for added services. Secondly customer loyalty, acquisition customer cost, sustaining existed customers is more economy instead of new customers. Customer feedback, firm reputetion, performance measurement, service and product measurement, employee training, crisis management, market expansion. Meanwhile, strong managerial implication of supplier relationship is crucial on firm growth and sustainability. Management should be proactive to manage customer relationship and engage customer as a partner to achieve long term relationship.

Theoretical Implication

The implementation of GSCM could have significant theoretical implication on firm performance. GSCM is the approach which focused on the integration of sustainable principles in SCM. Some implication could lead into the efficient of energy and resources improvement, process and product innovation improvement, environmental risk reduction, customer satisfaction improvement, continuous improvement, transportation and logistics cost reeducation, low inventory cost, increase level of CSR, the SC partner engagement and low risk of supply. The implementation of GSCM should be supported by strong commitment by upper management and deeper organizational culture changes. Theoretical implication of GSCM showed that this approach could lead on firm performance improvement in many aspect, included the financial, environmental and social.

Limitations and Future Study

Like other fundamental study, present study has some limitations. A weakness response regarding on low response rate, the authors had to reminded and re-sent the google form which took time. To handle this, response test bias was conducted. Secondly, a multi-purpose questionnaire was used to gain data from a company. Though there were not significant differences between the answers provided by different respondent from the same companies. For future research, it is strongly recommended to correlate others variables which is not still measured in this model. some worth to mention such as firm technology capability, willingness to knowledge sharing and distribution advantage.

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