

# The antecedence of green supply chain management and its impact on business performance in the traditional fashion industry

Farah Muhammad Hadjar, Titik Kusmantini\*, Sabihaini

Master of Management, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia

---

## Article History

Received : 2023-07-26

Revised : 2023-08-21

Accepted : 2023-08-28

Published : 2023-08-31

## Keywords:

Supply chain connectivity; owner commitment; GSCM; business performance.

## \*Corresponding author:

titik.kusmantini@upnyk.ac.id

## DOI:

10.20885/AMBR.vol3.iss2.art5

## Abstract

This study aims to identify and analyze the antecedence of GSCM and their impact on business performance in the traditional fashion industry. This study uses a quantitative method by collecting data through a survey conducted using a questionnaire. For this analysis, the object of this research is a total of 60 traditional fashion industries in Yogyakarta. The sampling method used is a census, namely surveying the population as a whole. The analysis technique used in this research is Structural Equation Modeling (SEM) using Partial Least Squares (PLS) 4.0. Based on the results of this study: supply chain connectivity has a significant positive effect on GSCM; owner commitment has a significant positive effect on GSCM; GSCM has a significant positive effect on business performance; supply chain connectivity has a significant positive effect on business performance; owner commitment has a significant positive effect on business performance; supply chain connectivity has a significant positive effect on business performance through GSCM as a mediating variable; and owner commitment has a significant positive effect on business performance through GSCM as a mediating variable. The recommendation from this study is that hopefully, in the future, more SMEs will increase owner commitment in several aspects such as developing cooperation, working together to create competitive advantage, developing vision and mission, and developing metrics to monitor business success together.

---

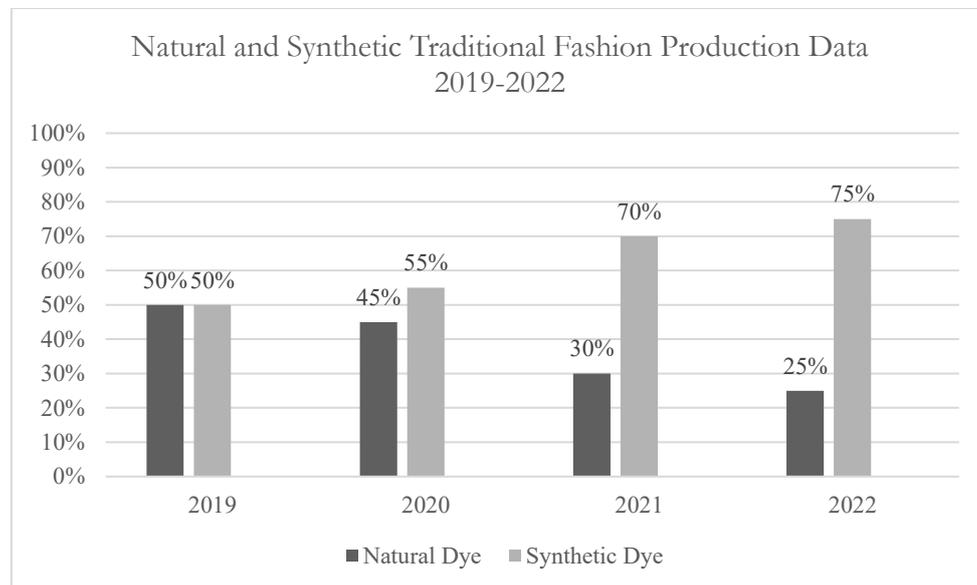
## Introduction

The traditional fashion industry is really well-known in Yogyakarta which is famous for its various cultures and arts, one of them is Batik. Batik is one of the textile products made by the Indonesian people. The traditional fashion industry in Yogyakarta has become the center and source of the economy for this area. International recognition of one of Indonesia's cultures is a challenge for the Indonesian people to preserve its existence and revitalize its cultural heritage from generation to generation so that it is not eroded by foreign cultures. This positive support motivates the government and is expected to elevate the dignity of traditional fashion artisans and be able to make a positive contribution to local economic growth (Alamsyah, 2018).

The rivalry among traditional fashion SMEs are getting tighter, every SMEs must be able to survive and even continue to grow. SMEs need to do and pay attention to maintaining existing customers and continuing to look for new potential customers. Declining market demand has led to low production levels, forcing traditional fashion entrepreneurs to reduce costs so that the business can survive. Especially in 2020, when the Covid-19 pandemic hit, all SMEs' performance weakened. The pandemic in 2020 greatly affected the traditional fashion production process, resulting in a decrease in the number of natural color traditional fashions being produced. The data can be seen in Figure 1.

The decline in traditional fashion production certainly affected the performance of SMEs, traditional fashion craftsmen were forced to reduce production due to market conditions and

falling market interest rates. Several factors have contributed to the decline in the production of traditional fashion, including the instability of the national economy, the lack of motivation to continue doing so consistently as well as the price of traditional fashion materials. These factors have an impact on the commercial performance of traditional fashion SMEs (Sanny et al., 2022).



**Figure 1.** Data on Natural and Synthetic Traditional Fashion Production in Yogyakarta

Green Supply Chain Management (GSCM) is a new concept that emphasizes the integration of environmental concerns into supply chain operations. Over the past decade, there has been a growing awareness of the need to adopt environmentally friendly practices in supply chain operations. GSCM practice is the application of environmental management principles to all supply chain activities, including design, sourcing, manufacturing, assembly, packaging, logistics, and distribution (Alamsyah, 2018). SMEs are increasingly aware of the potential benefits of GSCM such as cost savings, improved brand awareness, and increased competitive advantage (Jardon & Gonzalez-Loureiro, 2013).

SMEs are a driver of economic growth and innovation, but they are also responsible for a large portion of emissions from supply chain activities (Silva et al., 2021). Studies have linked the lack of adoption to many factors such as the lack of awareness among SMEs about their environmental impact, their inability to see environmental performance as a source of advantage competition as well as their limited resources and knowledge (Álvarez Jaramillo et al., 2019).

Currently, SMEs are trying to deploy more effective business models to cope with unpredictable fluctuations of the global market (Famiyeh et al., 2018). GSCM has emerged as one of the best business practices and its implementation has been identified by some authors (Saini et al., 2023) as one of the innovative business strategies that can enable companies like small and medium enterprises to survive and succeed in their business. However, due to various difficulties, small and medium enterprises face many difficulties in effectively applying the GSCM strategy. Panahifar et al. (2018) show that SMEs face various challenges when considering environmental issues in production. These difficulties include a lack of resources, time, money, capacity, skills, knowledge, flexibility, etc.

The Ministry of Industry through the Bantul Regency Handicraft and Batik Center (BBKB) continues to encourage the development of handicraft and traditional fashion industry players by applying the principles of GSCM. The application of the principles of GSCM aims to encourage industry to continuously support the increase in national industrial technology capacity in a sustainable manner, as well as develop industrial competitiveness through the use of technology research and development. Director of the Center for Crafts and Batik (BBKB) Ir. Titik Purwati Widowati highlighted 8 aspects that must be met by traditional fashion entrepreneurs in Yogyakarta, namely: environmentally friendly traditional fashion, raw material and chemical

management, energy and water savings, recycling of traditional fashion wax and used coloring solutions, good housekeeping and health and safety in the workplace (K3), quality of traditional fashion products, processing of waste, green industry standards (Alvarez Jaramillo et al., 2018).

According to previous research (Khan et al. 2023), GSCM is influenced by top management commitment. In his research, top management commitment had a positive impact on GSCM. Owners need to increase their commitment to the environment to achieve sustainable performance (Kalwani & Narayandas, 1995). This study shows that owner commitment plays an important role in improving GSCM for SMEs. Owner commitment is the direct involvement of the owner in the organization's most important business processes. It is known that every action of the owner affects the future performance of small and medium enterprises. Previous literature has identified owner commitment as a key pillar of SMEs success.

Based on the results of Liu et al. (2020), it can be demonstrated that the better the GSCM implementation, the better the business performance. The results of this research support the claim that supporting the business strategy for business operations through supply chain design has a positive impact on the overall business so the supply chain is designed to support management activities. Also supporting other findings, Feng et al. (2019) provides evidence that GSCM is a key driver of business performance and that GSCM's successful strategic vision is built on a foundation of leadership or effectively manages, creates, and communicates the strategic vision of the GSCM business strategic vision.

According to Imtiaz et al. (2023), they showed significant and well-founded results, demonstrating that supply chain connectivity has a significant effect on performance. Supply chain connectivity allows companies to share the resources they own with other companies and in return use the remaining resources they have. Overall, this has a positive impact on supply chain performance, while improving individual company performance (Huhtala et al., 2014). Likewise, it is consistent with previous findings that the availability of necessary resources makes it easier for companies to achieve the desired performance (Chen & Ye, 2022). On the other hand, the present results are inconsistent with previous studies that suggested that supply chain connectivity has no significant impact on SMEs performance (Feng et al., 2018). All supply chain companies engage in collaborative communication with supply chain partners, helping to develop additional communications plans, develop new markets, respond to customer feedback, design or product processes, perform operations, and interact regularly when problems arise (Wu & Chiu, 2018). Then, this connection leads to long-term relationships in achieving common goals and objectives (Um & Kim, 2019).

From the following previous research, it has been revealed that there has been no research that discusses supply chain connectivity and owner commitment that affect business performance in the traditional fashion industry. The topic of GSCM has not been addressed in the context of the traditional fashion industry, where the industry typically has low technological adoption, thus the industry struggles to become environmentally friendly. However, on the other hand, the limited technology implementation allows for minimized energy consumption. The contradiction and scarcity of research within the subject of the traditional fashion industry could potentially offer novelty that contributes to knowledge development. This research is important because there are previous phenomena, and research and empirical evidence are needed about the linkages between supply chain linkages, owner commitment, green supply chain management, and business performance. This makes the authors intend to conduct research on whether supply chain connectivity and owner commitment affect business performance and whether the existence of green supply chain management can have a direct or indirect effect on business performance in the traditional fashion industry in Yogyakarta.

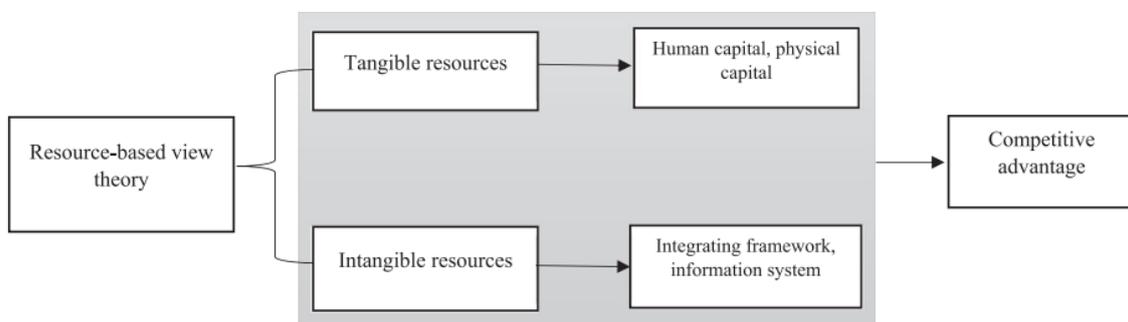
## **Literature Review and Hypotheses Development**

### **Resource-Based View Theory (RBV)**

A resource-based view (RBV) is a management framework used to identify strategic resources that a company can leverage to gain a sustainable competitive advantage (Famiyeh et al., 2018). The

basic principle of RBV is that the foundation of a company's competitive advantage lies mainly in the use of valuable resources within the company. The resource-based view (RBV) is a theoretical concept born of research conducted by economists around the world, in which the theory is believed to provide an answer to the generation of resources. competitive advantage for a company (Saade & Nijher, 2016). Under the resource-based view (RBV) model, a business's above-average return is largely determined by characteristics. This model focuses on developing or acquiring valuable resources and capabilities that are difficult or impossible for competitors to imitate. The RBV view holds that the resources an organization holds are far more important than the industry structure in achieving and maintaining competitive advantage. This approach views the organization as a collection of assets and capabilities. No two organizations are alike, as each has different experiences, strengths, capabilities, and different organizational cultures. The company's assets and capabilities will determine the efficiency and effectiveness of all the work that the company does. Under this approach, certain key assets (resources) will give SMEs a sustainable competitive advantage. However, an SME will succeed if it has the best and most suitable resources for its business and strategy (Terziowski, 2010).

RBV theory has been used in recent studies in various functional areas such as human resource management, strategy, entrepreneurship, operations management and marketing. This theory envisions how an SME should use its strategic resources to gain an edge over its competitors. To explain further, the theory is that SMEs need to acquire a variety of resources to increase their competitiveness, which can be tangible and intangible. It is important to note here that while resources are necessary for success, each resource cannot independently create value for the business. This implies that to create value for the organization, resources must be pooled and combined (Shahbaz et al., 2018). Based on this theory, the authors present supply chain connectivity as an intangible resource of an organization and propose to integrate it in an exact and logical order that will increase the impact of implementing these practices.



**Figure 2.** Review of Resource-Based View (RBV) Theory

### Business Performance

Business performance is a commonly used metric to measure the impact of strategy in the face of competition. This understanding emphasizes that business performance is not something that can happen, but a process (Huhtala et al., 2014). Business performance is a measure of the results of business done, provided the business operates in both quality and quantity (Verheul & Van Mil, 2011). Performance is a description of the achievement of a program of activities or policies to achieve the organization's goals, objectives, vision, and mission as described in its strategic planning.

Kiyabo and Isaga (2020) defines SME performance as referring to business performance. The Business Growth Index is one of the important measures to evaluate the performance of small and medium enterprises. Zeebaree and Siron (2017) identify five common measures of business growth that have been used in previous research: growth in revenue, employees, profits, assets, and equity. Performance is the success of a person in carrying out a task, the result that a person or a group of people in an organization can achieve through their respective powers and responsibilities, or the way in which a person is expected to function and behave by the tasks assigned to it, as well as the quantity, quality and time used to complete the task (Jardon & Gonzalez-Loureiro, 2013).

## **Supply Chain Connectivity**

Connectivity is bringing together diverse parties with different interests to share a common vision, reach an agreement on an issue or problem, create a solution to that problem, and propose values. to make decisions that benefit all parties (Hofer et al., 2012). Supply chain connectivity or supply chain collaboration connects two or more members of a supply chain to build alignment and maintain relationship processes with strategic goals using core competencies to manage changes and challenges accordingly (Ho et al., 2020).

Information sharing is the intensity and interoperability of sharing information with partners about common business strategies (Panahifar et al., 2018). Information sharing enables supply chain members to collect, maintain, and communicate the information needed to ensure effective decision-making. Information sharing is a factor that can enhance connectivity factors in general (Lavie, 2006).

## **Owner Commitment**

Small business owners often play a direct management role and commit to providing the necessary time, costs, and resources to support. Unlike a large-scale company, there are many levels such as senior management, middle management, and front-line management. At the SME level, general management is delegated directly to the owners. It is important that a company's senior management is always able to grow and create value for SMEs to improve organizational performance. Based on previous research, the commitment and leadership of top management with good leadership will influence organizational planning and control processes to improve organizational performance.

Owners need personal commitment and involvement to create and use clear quality goals and values that are aligned with business goals by developing and using systems, methods, and practices, and clearly defined performance measures to achieve these goals (Tarigan et al., 2020). Owner involvement is what turns external influences into managerial action and integrates them with internal knowledge to design new rules or change existing organizational rules (Islam et al., 2017). The owner's commitment itself is the extent of commitment and support, in preserving the environment and implementing environmental practices (Teguh et al., 2020). The organization owner holds leadership responsibility for the quality management system, with input from all managers. This responsibility includes ensuring that resources are available to all managers to improve service in order to achieve the organization's vision and mission. The owner's commitment to sustainable development is demonstrated by a strong desire to continue to participate in improvement projects. The owner's standard commitment is demonstrated by a sense of belonging to the organization. This study applies the definition of senior management commitment from Stevens and Johnson (2016).

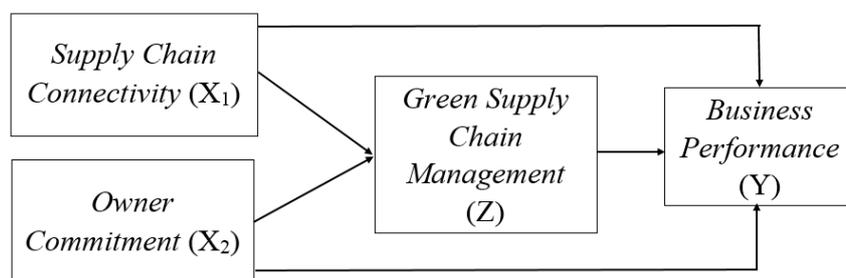
## **GSCM**

The changes in the new industrial era that require the role of industry in protecting the environment by minimizing waste and pollution have led to the emergence of GSCM (in the implementation of the supply chain strategy). GSCM requires industrial activities to improve the balance between marketing effectiveness and environmental issues, which gives rise to new issues such as energy saving and pollution reduction to improve competitive strategy (Shohan et al., 2019). SMEs feel the need to improve their networks or strengthen their supply chains to reduce waste and improve operational efficiency, including the delivery of products and services. Based on this, the goal of a green supply chain is to consider the environmental impact of all products and processes, including the environmental impact of goods or products and processes, from raw materials to finished products and their final disposal. GSCM is also the result of increasing customer pressure on SMEs to adopt environmentally sustainable (green) practices in line with green and eco-friendly strategies, thereby reducing the negative environmental impact of products and services.

GSCM can be defined as the process of SME management business integration using connectivity between partners, supply networks, and other stakeholders (Munir et al., 2020). The

demands to respond to the environment from stakeholders make SMEs tend to be involved in the implementation of GSCM to gain legitimacy, support, and resources from stakeholders. GSCM is the integration of green initiatives into all supply chain network activities. It not only integrates manufacturing and distribution processes to customers, but also involves sourcing, product design, product development, manufacturing, transportation, packaging, collection, disposal, and after-sales service, and includes the management of its after-use products. Resource and energy efficiency, waste reduction, and less use of packaging are some of the activities of SMEs in environmentally friendly processes that help SMEs develop their environmental performance. This allows for reduced production costs and increases the resource efficiency of SMEs (Bambang et al., 2020).

Today's SMEs are environmentally conscious and improve their internal environmental management to stay competitive with their competitors. SMEs design and apply effective internal environmental policies that can improve supply chain operations to enhance GSCM from production to consumption (Rodríguez et al., 2008). In addition to internal environmental management, SME efforts to ensure green procurement also strengthen GSCM. As GSCM requires environmentally friendly internal operations, customer and supplier collaboration, and resource-wise management and recycling, it is also believed that implementing GSCM will have a positive impact on visibility, resiliency, and overall business performance. In the study conducted by Syarief (2021), there is a positive impact if supply chain management practices work well on company performance. The results of this study support the claim that a company's strategic support of the business through supply chain design has a positive effect on the overall business so the supply chain is designed to support operations management. Managing professionally executed supply chain management activities, it positively impacts the business goals that need to be achieved so that the company can enhance the value of the business in a global competition. So this supply chain management approach can affect overall business performance by implementing good supply chain management practices that will have a significant positive impact on business performance where all matters relating to suppliers, customers, and information will be properly circulated. Based on previous research, the framework is as shown in Figure 3.



**Figure 3.** Research Framework

## Research Methods

In this study, the authors will analyze "The antecedence of green supply chain management and its impact on business performance in the traditional fashion industry". This type of research is a type of quantitative descriptive research, namely research that produces data in the form of numbers. The authors distributed questionnaires to several traditional fashion industry in Yogyakarta to analyze supply chain connectivity, owner commitment, GSCM, and business performance. The unit of analysis in this study is organization. SMEs are represented by owners or managers who are also respondents in this study. The sample selection method in this study is to use a non-probability sampling method. The non-probability sampling method used in this research sample collection used a purposive sampling method. Considerations or criteria related to sampling in this study are hand-drawn traditional fashion SMEs with natural colors, and having a commitment to implementing GSCM in their business activities. In this study, samples were taken from 60 traditional fashion industries in Yogyakarta that use natural materials, and have a commitment to implementing GSCM in their business activities.

**Table 1.** Convergent Validity Testing Results

Construct	Measurement Items	Factor Loading	AVE
Business Performance (BP)	GSCM practices help our SMEs in better asset utilization	0.885	0.816
	GSCM practices help our SMEs gain a stronger competitive position	0.880	
	GSCM practices help our SMEs increase profits	0.936	
	GSCM practices help our SMEs improve performance	0.911	
Supply Chain Connectivity (SCC)	Our SMEs and partners plan programs together	0.888	0.698
	Our SMEs and partners jointly develop demand forecasts	0.914	
	Our SMEs and partners jointly develop a long-term collaborative implementation plan (including extended producer responsibility)	0.773	
	Partners continue to provide technical support and training to our business	0.892	
	Our SMEs and partners jointly identify problems and seek solutions	0.843	
	Our SMEs and partners share information and knowledge when coordinating business processes	0.801	
	Our SMEs and partners jointly identify the needs of end customers	0.844	
	Our SMEs and contracted partners believe that our common goals can be achieved through collaboration	0.705	
	Our SMEs and partners are willing to share the costs and risks that may occur in logistics operations for the collection and repair of used products	0.699	
	Our SMEs believe that partners do not use our resources for their own interests and vice versa	0.792	
	Our SMEs and partners seek sustainable channel relationships with each other	0.870	
	Our SMEs promise to jointly achieve common goals with partners, and vice versa	0.833	
Owner Commitment (OC)	Our SMEs and partners develop cooperation based on the benefits of all parties	0.858	0.714
	Our SMEs and partners work together to create a competitive advantage	0.663	
	Our SMEs and business partners develop a vision together	0.841	
	Our SMEs and business partners formulate strategies together	0.935	
	Our SMEs and business partners develop metrics to monitor business success together	0.902	
Green Supply Chain Management (GSCM)	Our SMEs are committed to GSCM	0.696	0.680
	Our SMEs support GSCM	0.852	
	Our SMEs coordinate with suppliers	0.753	
	Our SMEs strive to recycle waste used and product production (such as wax dissolution waste that is recycled to become raw material for new candles)	0.867	
	Our SMEs utilize waste/fabric waste for production to produce other products (such as pillowcases)	0.826	
	Our SMEs offer environmentally friendly product designs using wood fuel	0.910	
	Our SMEs offer product designs for reuse (recycling)	0.876	
	Our SMEs use environmentally friendly raw materials such as natural materials	0.820	
Our SMEs always choose more economical raw materials such as wood raw materials for the combustion process	0.897		

The value of convergent validity is the value of outer loading on latent variables with their indicators. Expected value > 0.7. According to Hair et al. (2016), for research in the early stages of developing a measurement scale, a loading value of 0.5–0.6 is considered sufficient. This study uses a loading factor limit of 0.5.

**Table 2.** Discriminant Validity Testing Results

Variables	BP	GSCM	OC	SCC
BP	0.903 (1)			
GSCM	0.829	0.836 (1)		
OC	0.740	0.716	0.845 (1)	
SCC	0.777	0.734	0.566	0.824 (1)

This value is a cross-loading factor value which is useful for knowing whether a variable has adequate discriminant, that is, by comparing the loading value on the target variable, it must be greater than the loading value with other variables.

**Table 3.** Cronbach's Alpha and Composite Reliability

Variables	Cronbach's Alpha	Composite Reliability	Criteria	Decision
BP	0.925	0.947	>0.7	Reliable
GSCM	0.945	0.954	>0.7	Reliable
OC	0.897	0.925	>0.7	Reliable
SCC	0.960	0.965	>0.7	Reliable

It can be seen that all constructs have Cronbach's alpha loading values and composite reliability above 0.70. Thus it can be concluded that all constructs meet the reliability requirements.

**Table 4.** Coefficient of Determination ( $R^2$ )

	R Square	R Square Adjusted
GSCM (Y)	0.672	0.660
Business Performance (Z)	0.785	0.773

Based on the research results, the value of the coefficient of determination of GSCM is 0.672, meaning that the ability to model the factors that influence company performance is 67.2%. The coefficient of determination of business performance is 0.785, meaning that the modeling ability of the factors influencing green innovation is 78.5%.

## Results and Discussion

**Table 5.** Characteristics of Respondents

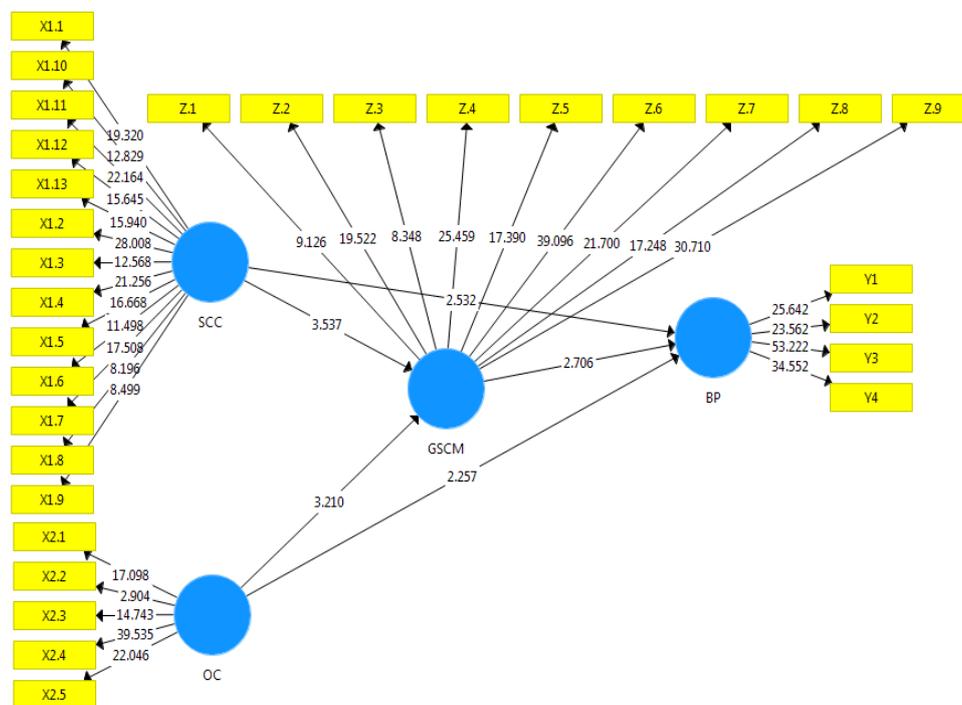
	Category	Frequency (n = 60)	Percentage (%)
Gender	Male	17	28.33
	Female	43	72.67
Age (years)	21 - 30	10	16.67
	31 - 40	23	38.33
	41 - 50	14	23.33
	51 - 60	11	18.33
	>60	2	3.33
Education background	Elementary School	4	6.67
	Junior High School	11	18.33
	Senior High School	20	33.33
	Bachelor Degree	25	41.67
Business experience (years)	<5	25	41.67
	5 - 10	20	33.33
	11 - 15	9	15.00
	16 - 20	5	8.33
	20 - 30	1	1.67
Income per month (in million)	Rp. 10,000 – Rp. 15,000	35	58.33
	Rp. 16,000 – Rp. 20,000	20	33.33
	Rp. 21,000 – Rp. 25,000	5	8.33
Target market	Domestic	55	91.67
	Overseas	5	8.33

In Table 5, regarding the profile of respondents who are the subjects of this study, they can be differentiated based on gender, age, tertiary education, length of business, income, and target market. Following are the results of the research description of 60 respondents.

**Table 6.** Descriptive Statistical Test

	N	Minimum	Maximum	Mean	Std. Deviation
Supply Chain Connectivity	60	1.85	4.00	3.1077	.47105
Owner Commitment	60	2.00	4.00	3.1533	.43000
GSCM	60	1.89	4.00	3.1926	.49134
Business Performance	60	1.75	4.00	3.1917	.58289
Valid N ( <i>listwise</i> )	60				

In Table 6, the value of N or the amount of data studied in this study was 60 respondents. The results of descriptive statistics have a minimum value of 1.85 and a maximum value of 4.00, which means that more respondents answered the question with the highest score on the questionnaire item regarding work stress. This can be seen from the mean value of the GSCM variable of 3.1926.



**Figure 4.** Path Coefficient Results

Based on Figure 4, explained that the greatest path efficiency value is shown by the effect of supply chain connectivity on business performance with a value of 3.537. Meanwhile, the smallest path coefficient value is shown by the influence of GSCM on business performance of 2.706.

**Table 7.** Bootstrapping Direct Effect Result

	Original Sample (O)	T-Statistics (O/STDEV)	P-Values	Result	Hypothesis
GSCM → BP	0.382	2.706	0.007	Significant	Accepted
OC → BP	0.272	2.257	0.024	Significant	Accepted
OC → GSCM	0.443	3.210	0.001	Significant	Accepted
SCC → BP	0.343	2.532	0.012	Significant	Accepted
SCC → GSCM	0.483	3.537	0.000	Significant	Accepted

- a) Supply chain connectivity has a significant positive effect on GSCM  
 In Table 7, it can be seen that the results of testing hypothesis 1 show that the direct effect of the supply chain connectivity variable (X1) on GSCM (Z) obtained a path coefficient of 0.483 with a t-count (CR) of 3.537 and a probability of  $0.000 < 0.05$  so that the hypothesis research is supported which means supply chain connectivity (X1) has a significant effect on GSCM (Z). Therefore, H1 is accepted.
- b) Owner commitment has a significant positive effect on GSCM  
 In Table 7, it can be seen that the results of testing hypothesis 2 indicate that the direct effect of the owner commitment variable (X2) on GSCM (Z) obtained a path coefficient of 0.443 with a t-count (CR) of 3.210 and a probability of  $0.001 < 0.05$  so that the research hypothesis supported which means owner commitment (X2) has a significant effect on GSCM (Z). Therefore, H2 is accepted.
- c) GSCM has a significant positive effect on business performance  
 In Table 7, it can be seen that the results of testing hypothesis 3 show that the direct effect of the GSCM (Z) variable on business performance (Y) obtained a path coefficient of 0.382 with a t-count (CR) of 2.706 and a probability of  $0.007 < 0.05$  so that the research hypothesis supported which means GSCM (Z) has a significant effect on business performance (Y). Therefore, H3 is accepted.
- d) Supply chain connectivity has a significant positive effect on business performance  
 In Table 7, it can be seen that the results of testing hypothesis 4 show that the direct effect of the supply chain connectivity variable (X1) on business performance (Y) obtained a path coefficient of 0.343 with a t-count (CR) of 2.532 and a probability of  $0.012 < 0.05$  so that the research hypothesis is supported which means supply chain connectivity (X1) has a significant effect on business performance (Y). Therefore, H4 is accepted.
- e) Owner commitment has a significant positive effect on business performance  
 In Table 7, it can be seen that the results of testing hypothesis 5 show that the direct effect of the owner commitment variable (X2) on business performance (Y) obtained a path coefficient of 0.272 with a t-count (CR) of 2.257 and a probability of  $0.024 < 0.05$  so that the research hypothesis is supported owner commitment (X2) has a significant effect on business performance (Y). Therefore, H5 is accepted.

**Table 8.** Bootstrapping Indirect Effect Result

	Original Sample (O)	T-Statistics (O/STDEV)	P-Values	Result	Hypothesis
OC → GSCM → BP	0.169	1.993	0.047	Significant	Accepted
SCC → GSCM → BP	0.185	1.970	0.049	Significant	Accepted

- f) Supply chain connectivity has a significant positive effect on business performance through GSCM as a mediating variable  
 In Table 8, it can be seen that the results of testing hypothesis 6 show that the indirect effect of the supply chain connectivity variable (X1) on business performance (Y) through the mediation variable GSCM (Z) obtained a path coefficient of 0.185 with a t-count of 1.970 and a probability of  $0.049 < 0.05$  so that the research hypothesis is supported which means GSCM (Z) is significantly proven as an intervening variable in the effect of supply chain connectivity (X1) on business performance (Y). Therefore H6 is accepted.
- g) Owner commitment has a significant positive effect on business performance through GSCM as a mediating variable

In Table 8, it can be seen that the results of testing hypothesis 7 show that the indirect effect of the owner commitment variable (X2) on business performance (Y) through the mediation variable GSCM (Z) obtained a path coefficient of 0.169 with a t-count of 1.993 and a probability of  $0.047 < 0.05$  so that the research hypothesis is supported which means GSCM (Z) is significantly proven as an intervening variable in the effect of owner commitment (X2) on business performance (Y). Therefore H7 is accepted.

### **Supply Chain Connectivity on GSCM**

Based on the results of testing the first hypothesis, it can be seen that there is a positive effect of supply chain connectivity on GSCM. The results of this study are in line with previous research conducted by Sheu (2014) which stated that supply chain connectivity has a positive and significant effect on GSCM. It can be interpreted that supply chain connectivity means it is very important in improving GSCM in SMEs. The higher the supply chain connectivity, the higher the SME's GSCM. In contrast to the results of Rahadi et al. (2020), research by Syarief (2021) states that supply chain connectivity has a negative and insignificant effect on GSCM.

Through collaboration, supply chain members can easily identify the resources needed and critical problems to solve. In particular, the close connectivity linkages that underlie the GSCM of cooperative producer retailers likely facilitate the fulfillment of not only the (green) marketing strategy but also the logistical services provided to end customers through joint planning and action, thereby enhancing the brand image of green, value-added friendly environment, and customer satisfaction is green (Liu et al., 2020).

Connectivity in the supply chain utilizes information technology owned by SMEs to collect and exchange information. Connectivity in the supply chain refers to tools that facilitate the flow of information between various supply chain departments (Brandon-Jones et al., 2014). In addition, connectivity can improve integration along the supply chain, thus improving supply chain performance and also reducing frequent errors.

In the supply chain, connectivity is needed to make it easier to carry out business activities. Supply chain connectivity which includes information sharing in supply chain management can be positioned as a resource that can lead to visibility capabilities through resource pooling. Therefore, the intangible nature of information sharing can be seen depending on the supporting infrastructure or technology. Supply chain connectivity facilitates more successful decision-making and better coordination.

### **Owner Commitment on GSCM**

Based on the results of testing the second hypothesis, it can be seen that there is an influence on the owner's commitment to GSCM. The results of this study are in line with previous studies conducted by Saini et al. (2023), Chinomona et al. (2017), Gao et al. (2021), and Ahmed et al. (2020) which state that owner commitment has a positive and significant effect on GSCM. This research shows that the owner's commitment has a role as a consideration in improving GSCM for SMEs.

Owner commitment is the owner's direct involvement in the most important business processes in an organization. It is known that all actions of the owner affect the future performance of SMEs. Previous literature has identified owner commitment as the main pillar in the success of SMEs. Owner commitment can enhance GSCM practices and motivate organizations to gain a competitive advantage. This shows owner value and support are critical to successful GSCM practices. This shows that if the owner's commitment increases, business performance will also increase.

### **GSCM on Business Performance**

Based on the results of the third test, it can be seen that there is an influence of GSCM on business performance. This is in line with previous research by Sharma et al. (2023) and Chinomona et al. (2017) which states that GSCM affects business performance. A positive value in this research parameter means that the higher the GSCM, the higher the SME business performance.

In managing supply chain management practices that are carried out professionally, it will positively influence the targets to be achieved so that SMEs can increase value in global competition. Thus, this supply chain management practice can affect the performance of SMEs in general by implementing good supply chain management practices which will have a significant positive effect on business performance where all matters related to suppliers, customers, and information will flow properly. If this can run smoothly, the flow of goods to consumers will run without any obstacles, so it is hoped that the performance of SMEs will run smoothly as well.

### **Supply Chain Connectivity on Business Performance**

Based on the results of the fourth test, it can be seen that there is a positive effect of supply chain connectivity on business performance. The results of this study are in line with previous research conducted by Cao and Zhang (2011) and Chen and Ye (2022). Previous research suggests that supply chain connectivity has a positive effect on business performance. The positive value in this study reveals that supply chain connectivity is important in improving the business performance of SMEs, so the higher the supply chain connectivity, the greater business performance will be.

The role of connectivity in the supply chain is quite important because it is a means of communicating with partners that allows them to make further plans in the long term, develop new markets and address customer responses, design processes or products, implement operational activities and interact frequently when there is a problem.

### **Owner Commitment on Business Performance**

Based on the results of the fifth test, it can be seen that there is a positive influence on the owner's commitment to business performance. The results of this study are in line with previous research conducted by Tanuwijaya et al. (2021), Siagian et al. (2020), Setiabudi et al. (2021), and Tarigan and Siagian (2021). Previous research suggests owner commitment has a positive effect on business performance. The positive value of this study reveals the important owner's commitment to improving the business performance of SMEs, so that the higher the owner's commitment to the traditional fashion industry, the greater business performance will be.

SMEs that are committed to improving their business performance through collaboration between partners in the production process are able to maximize the benefits of all parties by minimizing material waste, which will help SMEs achieve cost savings. Therefore, SMEs should maintain and increase their commitment. Increased owner commitment with all parties will affect SMEs in improving their business performance.

### **Supply Chain Connectivity on Business Performance Mediated by GSCM**

Based on the results of testing the sixth hypothesis, the results of the bootstrapping test show that GSCM is able to mediate the relationship between supply chain connectivity to business performance in a positive and significant way as seen from the t-statistic and p-value. Therefore, the influence of supply chain connectivity on business performance will be greater if it goes through GSCM. The results of this study are able to prove previous research conducted by Yu et al. (2014) which suggested that supply chain connectivity had a positive and significant effect on GSCM and Manurung et al. (2019) found that GSCM had a positive and significant effect on business performance.

Through increasing the capability of supply chain connectivity, SMEs are also able to improve and develop environmentally friendly products, processes, and services to meet potential markets and environmentally friendly customer demands and this will ultimately improve the performance of SMEs. So, to improve business performance, supply chain connectivity capabilities such as designing and planning market demand can help GSCM of the traditional fashion industry in Yogyakarta.

### **Owner Commitment on Business Performance Mediated by GSCM**

Based on the results of the seventh test, the bootstrapping test results show that GSCM is able to mediate the relationship between owner commitment to business performance in a positive and

significant way seen from the t-statistic and p-value. Therefore, the effect of the owner's commitment to business performance will be greater if it goes through GSCM. The results of previous research conducted by Balon (2020) suggested that owner commitment had a positive and significant effect on GSCM and Ho et al. (2020) found that GSCM had a positive and significant effect on business performance.

SME business actors who have a high commitment to working with partners to improve their business performance through the implementation of GSCM will generate benefits for all parties. Improving the implementation of the owner's commitment is also able to encourage SMEs to generate higher profits by formulating strategies and creating competitive advantages for the continuity of business performance to meet the needs of environmentally friendly customers and will ultimately improve the performance of SMEs.

## Implication and Conclusion

Based on the explanation of the previous discussion, the conclusions that can be drawn in this study are supply chain connectivity has a significant positive effect on GSCM; owner's commitment has a significant positive effect on GSCM, GSCM has a significant positive effect on business performance, supply chain connectivity has a significant positive effect on business performance, owner's commitment has a significant positive effect on business performance, supply chain connectivity has a significant positive effect on business performance through GSCM as a mediating variable, and owner's commitment has a significant positive effect on business performance through GSCM as a mediating variable.

Based on testing, although it is proven that the owner's commitment plays a role in improving GSCM to improve business performance, the effect is only 0.169 or 16.9%. Therefore from this research, hopefully, in the future, more entrepreneurs will increase owner commitment in several aspects such as developing cooperation, working together to create competitive advantage, developing vision and mission, and developing metrics to monitor business success together. For further research, it is expected to be able to examine other variables not examined in research such as supply chain connectivity and the owner's commitment to provide other references to business actors in the Special Region of Yogyakarta so that they can develop further. It is also hoped that for further research it can use research objects in other provinces outside the Special Region of Yogyakarta or on a national scale to enhance the generalizability issue.

## References

- Ahmed, M., Thaheem, M. J. and Maqsoom, A. (2020), Barriers and opportunities to greening the construction supply chain management: Cause-driven implementation strategies for developing countries, *Benchmarking: An International Journal*, 27(3), 1211-1237. <https://doi.org/10.1108/BIJ-04-2019-0192>
- Alamsyah, A. (2018). Kerajinan tradisional fashion dan pewarnaan alami. *Endogami: Jurnal Ilmiah Kajian Antropologi*, 1(2), 136. <https://doi.org/10.14710/endogami.1.2.136-148>
- Álvarez Jaramillo, J., Zartha Sossa, J. W., & Orozco Mendoza, G. L. (2018). Barriers to sustainability for small and medium enterprises in the framework of sustainable development—Literature review. *Business Strategy and the Environment*, 28(4), 512-524. <https://doi.org/10.1002/bse.2261>
- Balon, V. (2020). Green supply chain management: Pressures, practices, and performance—An integrative literature review. *Business Strategy & Development*, 3(2), 226-244. <https://doi.org/10.1002/bsd2.91>
- Bambang, T., Soewarno, N., Hariyati, H., Nafidah, L. N., Kustiningsih, N., & Nadyaningrum, V. (2020). The role of green innovation between green market orientation and business performance: Its implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 173. <https://doi.org/10.3390/joitmc6040173>

- Brandon-Jones, E., Squire, B., Autry, C. W., & Petersen, K. J. (2014). A contingent resource-based perspective of supply chain resilience and robustness. *Journal of Supply Chain Management*, 50(3), 55–73. <https://doi.org/10.1111/jscm.12050>
- Cao, M., & Zhang, Q. (2011). Supply chain collaboration: Impact on collaborative advantage and firm performance. *Journal of Operations Management*, 29(3), 163-180. <https://doi.org/10.1016/j.jom.2010.12.008>
- Chen, P. K., & Ye, Y. (2022). Influence of creating an oligopoly through government intervention to improve partner collaboration intentions in the context of green supply chains. *Environmental Science and Pollution Research*, 29(5), 6433-6448. <https://doi.org/10.1007/s11356-021-16064-x>
- Chinomona, E., Popoola, B. A., & Imuezerua, E. (2017). The influence of employee empowerment, ethical climate, organizational support, and top management commitment on employee job satisfaction: A case of companies in the Gauteng Province of South Africa. *Journal of Applied Business Research (JABR)*, 33(1), 27–42. <https://doi.org/10.19030/jabr.v33i1.9865>
- Famiyeh, S., Kwarteng, A., Asante-Darko, D., & Dadzie, S. A. (2018). Green supply chain management initiatives and operational competitive performance. *Benchmarking: An International Journal*, 25(2), 607-631. <https://doi.org/10.1108/BIJ-10-2016-0165>
- Feng, M., Yu, W., Wang, X., Wong, C. Y., Xu, M., & Xiao, Z. (2018). Green supply chain management and financial performance: The mediating roles of operational and environmental performance. *Business Strategy and the Environment*, 27(7), 811-824. <https://doi.org/10.1002/bse.2033>
- Gao, S., Qiao, R., Lim, M. K., Li, C., Qu, Y., & Xia, L. (2021). Integrating corporate website information into qualitative assessment for benchmarking GSCM practices for the chemical industry. *Journal of Cleaner Production*, 311, 127590. <https://doi.org/10.1016/j.jclepro.2021.127590>
- Hair, J., Anderson, R., Black, B., Babin, B. (2016). *Multivariate Data Analysis*. UK: Pearson Education.
- Ho, T., Kumar, A., & Shiwakoti, N. (2020). Supply chain collaboration and performance: an empirical study of maturity model. *SN Applied Sciences*, 2, 1-16. <https://doi.org/10.1007/s42452-020-2468-y>
- Hofer, C., Jin, H., Swanson, R. D., Waller, M. A., & Williams, B. D. (2012). The impact of key retail accounts on supplier performance: A collaborative perspective of resource dependency theory. *Journal of Retailing*, 88(3), 412-420. <https://doi.org/10.1016/j.jretai.2011.12.003>
- Huhtala, J. P., Sihvonen, A., Frösén, J., Jaakkola, M., & Tikkanen, H. (2014). Market orientation, innovation capability and business performance: Insights from the global financial crisis. *Baltic Journal of Management*, 9(2), 134-152. <https://doi.org/10.1108/BJM-03-2013-0044>
- Imtiaz, M., Hamid, A. B. A., Nadarajah, D., Mehmood, S. A., & Ahmad, M. K. (2023). Enhancing SMEs performance through supply chain collaboration and moderation of supply chain technology implementation. *Brazilian Journal of Operations & Production Management*, 20(2), 1494. <https://doi.org/10.14488/BJOPM.1494.2023>
- Islam, M. M., Murad, M. W., McMurray, A. J., & Abalala, T. S. (2017). Aspects of sustainable procurement practices by public and private organisations in Saudi Arabia: An empirical study. *International Journal of Sustainable Development and World Ecology*, 24(4), 289–303. <https://doi.org/10.1080/13504509.2016.1209794>
- Jardon, C. M., & Gonzalez-Loureiro, M. (2013). Human capital as source for sustained competitive advantages in SMEs: A core competencies approach. *Economia. Seria Management*, 16(2), 255-276.

- Kalwani, M. U., & Narayandas, N. (1995). Long-term manufacturer-supplier relationships: Do they pay off for supplier firms?. *Journal of Marketing*, 59(1), 1-16. <https://doi.org/10.1177/002224299505900101>
- Khan, M., Ajmal, M. M., Jabeen, F., Talwar, S., & Dhir, A. (2023). Green supply chain management in manufacturing firms: A resource-based viewpoint. *Business Strategy and the Environment*, 32(4), 1603-1618. <https://doi.org/10.1002/bse.3207>
- Kiyabo, K., & Isaga, N. (2020). Entrepreneurial orientation, competitive advantage, and SMEs' performance: Application of firm growth and personal wealth measures. *Journal of Innovation and Entrepreneurship*, 9(1), 1-15. <https://doi.org/10.1186/s13731-020-00123-7>
- Lavie, D. (2006). The competitive advantage of interconnected firms: An extension of the resource-based view. *Academy of Management Review*, 31(3), 638-658. <https://doi.org/10.5465/amr.2006.21318922>
- Liu, J., Hu, H., Tong, X., & Zhu, Q. (2020). Behavioral and technical perspectives of GSCM: Empirical evidence from an emerging market. *Transportation Research Part E: Logistics and Transportation Review*, 140, 102013. <https://doi.org/10.1016/j.tre.2020.102013>
- Manurung, R. T., Zulfikar, A., Sari, I. N., Kurniasih, N., Saddhono, K., & Setiawan, Y. B. (2019, July). Internationalization of Batik in the Creative Industry of Harajutik. In *1st International Conference on Life, Innovation, Change and Knowledge (ICLICK 2018)* (pp. 9-13). Atlantis Press. <https://doi.org/10.2991/iclick-18.2019.2>
- Munir, M., Jajja, M. S. S., Chatha, K. A., & Farooq, S. (2020). Supply chain risk management and operational performance: The enabling role of supply chain integration. *International Journal of Production Economics*, 227, 107667. <https://doi.org/10.1016/j.ijpe.2020.107667>
- Panahifar, F., Byrne, P. J., Salam, M. A., & Heavey, C. (2018). Supply chain collaboration and firm's performance: The critical role of information sharing and trust. *Journal of Enterprise Information Management*, 31(3), 358-379. <https://doi.org/10.1108/JEIM-08-2017-0114>
- Rahadi, R. A., Rahmawati, D., Windasari, N. A., & Belgiawan, P. F. (2020). The Analysis of Consumers' Preferences for Batik Products in Indonesia. *Review of Integrative Business and Economics Research*, 9, 278-287.
- Rodríguez, N. G., Pérez, M. J. S., & Gutiérrez, J. A. T. (2008). Can a good organizational climate compensate for a lack of top management commitment to new product development?. *Journal of Business Research*, 61(2), 118-131. <https://doi.org/10.1016/j.jbusres.2007.06.011>
- Saade, R. G., & Nijher, H. (2016). Critical success factors in enterprise resource planning implementation: A review of case studies. *Journal of Enterprise Information Management*, 29(1), 72-96. <https://doi.org/10.1108/JEIM-03-2014-0028>
- Saini, N., Malik, K., & Sharma, S. (2023). Transformation of supply chain management to green supply chain management: Certain investigations for research and applications. *Cleaner Materials*, 7, 100172. <https://doi.org/10.1016/j.clema.2023.100172>
- Sanny, L., Julianto, T. D., Savionus, S., & bin Yus Kelena, B. W. (2022). Purchase intention in the fashion industry on local and international E-commerce in Indonesia. *International Journal of Asian Business and Information Management (IJABIM)*, 13(2), 1-12. <https://doi.org/10.4018/IJABIM.20220701.oa4>
- Setiabudi, K. J., Siagian, H., & Tarigan, Z. J. H. (2021). The effect of transformational leadership on firm performance through ERP systems and supply chain integration in the food and beverage industry. *Petra International Journal of Business Studies*, 4(1), 65-73. <https://doi.org/10.9744/ijbs.4.1.65-73>
- Shahbaz, M. S., Rasi, R. Z. R., Ahmad, M. B., & Sohu, S. (2018). The impact of supply chain collaboration on operational performance: Empirical evidence from manufacturing of

- Malaysia. *International Journal of Advanced and Applied Sciences*, 5(8), 64-71. <https://doi.org/10.21833/ijaas.2018.08.009>
- Sharma, M., Dhir, A., AlKatheeri, H., Khan, M., & Ajmal, M. M. (2023). Greening of supply chain to drive performance through logical integration of supply chain resources. *Business Strategy and the Environment*, bse.3340. <https://doi.org/10.1002/bse.3340>
- Sheu, J. B. (2014). Green supply chain collaboration for fashionable consumer electronics products under third-party power intervention—A resource dependence perspective. *Sustainability*, 6(5), 2832–2875. <https://doi.org/10.3390/su6052832>
- Shohan, S., Ali, S. M., Kabir, G., Ahmed, S. K., Suhi, S. A., & Haque, T. (2019). Green supply chain management in the chemical industry: structural framework of drivers. *International Journal of Sustainable Development & World Ecology*, 26(8), 752-768. <https://doi.org/10.1080/13504509.2019.1674406>
- Siagian, H., Jade, K., & Tarigan, Z. J. H. (2020). The role of affective leadership in improving firm performance through the integrated internal system and external integration FMCG industry. *International Journal of Data and Network Science*, 4(4), 365–372. [doi.org/10.5267/j.ijdns.2020.9.002](https://doi.org/10.5267/j.ijdns.2020.9.002)
- Silva, G. M., Gomes, P. J., Carvalho, H., & Geraldes, V. (2021). Sustainable development in small and medium enterprises: The role of entrepreneurial orientation in supply chain management. *Business Strategy and the Environment*, 30(8), 3804–3820. <https://doi.org/10.1002/bse.2841>
- Stevens, G. C., & Johnson, M. (2016). Integrating the supply chain... 25 years on. *International Journal of Physical Distribution & Logistics Management*, 46(1), 19-42. <https://doi.org/10.1108/IJPDLM-07-2015-0175>
- Syarief, E. (2021). The role of market uncertainty in fostering innovation and green supply chain management on the performance of tourism SMEs. *Uncertain Supply Chain Management*, 9(3), 617-624. <http://dx.doi.org/10.5267/j.uscm.2021.5.009>
- Tanuwijaya, N. C., Tarigan, Z. J. H., & Siagian, H. (2021). The effect of top management commitment on firm performance through the green purchasing and supplier relationship management in the 3-star hotel industry in Surabaya. *Petra International Journal of Business Studies*, 4(2), 169–181. <https://doi.org/10.9744/ijbs.4.2.169-181>
- Tarigan, Z. J. H., & Siagian, H. (2021). The effects of strategic planning, purchasing strategy and strategic partnership on operational performance. *Uncertain Supply Chain Management*, 9(2), 363–372. [doi.org/10.5267/j.uscm.2021.2.006](https://doi.org/10.5267/j.uscm.2021.2.006)
- Tarigan, Z. J. H., Siagian, H., & Jie, F. (2020). The role of top management commitment to enhancing the competitive advantage through ERP integration and purchasing strategy. *International Journal of Enterprise Information Systems*, 16(1), 53-68. <https://doi.org/10.4018/IJEIS.2020010103>
- Teguh, E. D., Devie, and Wijaya, S. (2020). Transformational leadership in the hotel industry: A new look at the service-profit-chain concept. *International Journal of Business Studies*, 3(2), 98-109. [doi.org/10.9744/ijbs.3.2.98-109](https://doi.org/10.9744/ijbs.3.2.98-109)
- Terziovski, M. (2010). Innovation practice and its performance implications in small and medium enterprises (SMEs) in the manufacturing sector: a resource-based view. *Strategic Management Journal*, 31(8), 892-902. <https://doi.org/10.1002/smj.841>
- Um, K. H., & Kim, S. M. (2019). The effects of supply chain collaboration on performance and transaction cost advantage: The moderation and nonlinear effects of governance mechanisms. *International Journal of Production Economics*, 217, 97-111. <https://doi.org/10.1016/j.ijpe.2018.03.025>

- Verheul, I., & Van Mil, L. (2011). What determines the growth ambition of Dutch early-stage entrepreneurs?. *International Journal of Entrepreneurial Venturing*, 3(2), 183-207. <https://doi.org/10.1504/IJEV.2011.03934>
- Wu, L., & Chiu, M. L. (2018). Examining supply chain collaboration with determinants and performance impact: Social capital, justice, and technology use perspectives. *International Journal of Information Management*, 39, 5-19. <https://doi.org/10.1016/j.ijinfomgt.2017.11.004>
- Yu, W., Chavez, R., Feng, M., & Wiengarten, F. (2014). Integrated green supply chain management and operational performance. *Supply Chain Management: An International Journal*, 19(5/6), 683-696. <https://doi.org/10.1108/SCM-07-2013-0225>
- Zeebaree, M. R. Y., & Siron, R. B. (2017). The impact of entrepreneurial orientation on competitive advantage moderated by financing support in SMEs. *International Review of Management and Marketing*, 7(1), 43-52.