Journal of International Conference Proceedings (JICP) Vol. 6 No. 6, pp. 16-28, Desember, 2023
P-ISSN: 2622-0989/E-ISSN: 2621-993X
https://www.ejournal.aibpmjournals.com/index.php/JICP

Does Supply Chain Information Sharing Affect the Business Performance of Batik MSMEs in Yogyakarta City?

Tety Novanty[1], Yuli Liestyana[2], Yekti Utami[3], Tri Wahyuningsih[4], Agung Satmoko[5]
Universitas Pembangunan Nasional Veteran Yogyakarta[1, 2, 3, 4, 5]
Jl. Padjajaran 104, Condongcatur, Kec. Depok, Kab. Sleman, DIY, 55283
Correspondence Email: yuli.liestyana@upnyk.ac.id
ORCID ID: 0000-0001-7362-2511

ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE

Novanty, T., Liestyana, Y., Utami, Y., Wahyuningsih, T., Satmoko, A. (2023). Does Supply Chain Information Sharing Affect the Business Performance of Batik MSMEs in Yogyakarta City? *Journal of International Conference Proceedings*, *6*(6), 16-28.

DOI:
https://doi.org/10.32535/jicp.v6i6.2641

Received: 07 October 2023
Accepted: 06 November 2023
Published: 04 December 2023

ABSTRACT

The authors of this paper examine how supply chain information sharing affects business performance, mediated by operational performance and supply chain integration. This study uses a questionnaire to collect data. This study includes primary data collected from 53 respondents and is focused on batik MSMEs in Yogyakarta City, Special Region of Yogyakarta, Indonesia. PLS-SEM analysis using SmartPLS 4.0 is the research's analysis method. The results are: 1. Supply chain information sharing positively affects supply chain integration. 2. Supply chain information sharing positively affects business. 3. Supply chain information sharing positively affects operational performance. 4. Supply chain integration positively affects operational performance. 5. Supply chain integration positively affects business performance. 6. Operational performance positively affects business performance. 7. Supply chain information sharing positively affects business performance mediated by supply chain integration. 8. Supply chain information sharing positively affects business performance mediated by operational performance. The research team suggests that batik MSMEs in Yogyakarta City should work to adapt products to satisfy urgent customers' needs quickly.

Keywords: Batik MSMEs, Business Performance, Operational Performance, Supply Chain Information Sharing, Supply Chain Integration

INTRODUCTION

The contribution of MSMEs to the Indonesian economy is significant because of the large number of business entities spread throughout Indonesia, both urban, rural, and remote areas. The growth of MSME in Indonesia is rapidly developed due to the optimal use of technology, information, and communication facilities (Sumarlinah, Sukesi, & Sugiyanto, 2022). Also, MSMEs are labor-intensive, so they have the potential for significant growth in employment opportunities and increased income. During the COVID-19 pandemic, MSMEs in Indonesia continued to survive because online shopping activities have become the people's mainstay.

The COVID-19 epidemic in Indonesia has had a significant impact on the economy, leading to disruptions in market mechanisms and affecting not just real economic fundamentals but also other aspects of the market. The disturbance of the market mechanism has the potential to eradicate the economic surplus, so impacting both demand and supply and causing disruptions within the Indonesian economy. However, it is important to note that these disruptions primarily affect the market dynamics rather than the underlying economic fundamentals. Key components of the economy encompass the concepts of supply, demand, and the supply chain. The disruption of these three components has the potential to precipitate a financial crisis throughout multiple strata of Indonesian society. The demographic most susceptible to the economic repercussions of the current pandemic are individuals whose livelihoods rely on daily wages (Ivanov, Das, & Choi, 2018).

The availability of advanced technology support has increased customer selectivity and intelligence when accessing and acquiring information about their desired products. According to Russell and Taylor (2019), supply chain management effectively manages information flow across the value chain to attain a state of alignment that enhances the supply chain’s responsiveness to consumer demands, primarily emphasizing cost reduction. Customer satisfaction in supply chain management is achieved by effectively coordinating all activities within the supply chain (Heizer, Render, & Munson, 2020).

According to Wibowo (2008), performance results from work or work achievement. However, performance has a broad meaning: the work results and how the work process occurs. *Company performance* is a result that can be measured and describes an empirical condition of companies of various sizes (Chan, Ngai, & Moon, 2017). In conclusion, performance is the effort, ability, and opportunity of personnel, organizational units, or teams to realize the strategic targets set in carrying out tasks. Strategic initiatives and the success of strategic achievements are the basis for performance measurement, the size of which must be determined to realize these targets. The selection of targets for performance assessment is based on using strategic goals and their corresponding measurements. Performance measurement assesses the operations of different value chains inside the organization. The outcomes of these measurements will thereafter yield insights on implementing a strategy wherein the company necessitates modifications to its planning and control activities, which serve as a means of obtaining feedback.

Companies need several strategies to improve company performance. One of the strategies needed is *supply chain information sharing. "Supply chain information sharing* is an internal function within the company and supply chain partners during transactions and cooperation to manage supply chain processes (Huo, Han, & Prajogo, 2016)". *Supply chain information sharing* is critical for any supply chain system. It is said that sharing constantly updated information makes the supply chain run smoothly. Using available information and sharing it with other collaborating parties can increase the information flow, increase efficiency and effectiveness in the supply chain, and respond to consumers more quickly. Therefore, sharing information increases organizations' long-term competitiveness.

Information sharing is "an information exchange activity for supply chain members to obtain, protect, and convey the information needed to make effective decisions and improve relationships between supply chain members by collaborating as a whole and reducing the risk of bottlenecks in a business (Simatupang & Sridharan, 2012)". Liestyana, Oetomo, Wahyuningsih, and Ariyanto (2022) stated information sharing has a positive and significant effect on trust in SMEs producing silver with silver raw material suppliers in Pelemgede, Sodo, Paliyan, Gunungkidul, The Special Region of Yogyakarta. The survey findings indicate a positive correlation between information sharing and trust, as well as between informal contracts and trust.

Integration in the supply chain shows a collaborative relationship between parties in the supply chain whose management is carried out well. It will be able to increase efficiency and effectiveness in the production process to increase company profits and provide consumer satisfaction (Ariani, 2013). Supply chain integration encourages chain performance (Huo, Han, & Prajogo, 2016). So, if a company is well integrated, its performance will also increase. Supplier integration is "the leading indicator of the flexibility of a manufacturing company (Ivanov, Das, & Choi, 2018)". Supply chain integration positively affects business performance (He, Sun, Ni, & Ng, 2017).

The fashion product category consists of various items such as clothes, trousers, bags, shoes, and accessories such as hats, bracelets, necklaces, and others. Each item has a price range and reasons underlying its respective needs. There are several types of businesses in the fashion industry, including MSMEs. SME Fashion products that have different characteristics in each region are Batik. According to Asti and Arini (2011) batik is a series of words mbat and tik, based on etymology and terminology. Batik is one of Yogyakarta's typical products, with high artistic value, and is also an Indonesian work recognized worldwide. Batik is an illustrated Indonesian cloth specially made by writing or applying night on the cloth, then processed in a certain way that has a specialty, as a whole, technique, technology, and the development of motifs and related culture. UNESCO has designated it as the Masterpieces of the Oral and Intangible Heritage of Humanity since October 2, 2009.

LITERATURE REVIEW

Business Performance

Business performance is the accumulation of the activities carried out within the company (Prasetyo & Harjanti, 2013). Voss and Voss (2000) define it as measuring performance levels, including sales turnover, number of buyers, profits, and sales growth. Chung, Lu Wang, and Huang (2012) describe business performance as profit level, sales growth, product quality, service quality, customer maintenance rate, new products that succeed in the market, and return on investment. According to Chen, Gu, Cai, and Yang (2019), in business performance, there are several indicators first is the company had market share growth, the company had sales growth, and the company had profit growth.

Supply Chain Information Sharing

Supply chain information sharing is an internal function within companies and supply chain partners during transactions and cooperation to manage supply chain processes (Huo, Han, & Prajogo, 2016). Supply chain information sharing is critical for any supply chain system because sharing information can make the supply chain run smoothly. According to Chen, Gu, Cai, and Yang (2019), in supply chain information sharing, there are several indicators as follows.

Internal Information Sharing

First, inventory information is visible throughout the company. Second, information about actual sales information can be seen from the whole company. Third, information about demand forecasts can be seen from the whole company. Last, logistics information is visible in the company.

Information Sharing with the Supplier

First, key suppliers share their capacities and the schedules of production. Second, key suppliers share available inventory. Third, companies share the forecasts of demand with critical suppliers. Last, the company shares the level of inventory with critical suppliers.

Information Sharing with Customer

First, key customers share information regarding market conditions with the company. Second, key customers share information regarding sales with the company. Third, key customers share information about demand forecasts with the company. Fourth, the company shares information regarding available inventory with customers. Last, data regarding shipments is always shared with customers.

Supply Chain Integration

Zhao, Xie, and Leung (2002) stated supply chain integration refers to the strategic collaboration between an organization and its supply chain partners and the management of intra and inter-organizational processes. This integration aims to facilitate the efficient and effective flow of products and services, information, money, and decisions. The important goal is to increase customer value by minimizing costs and maximizing speed.

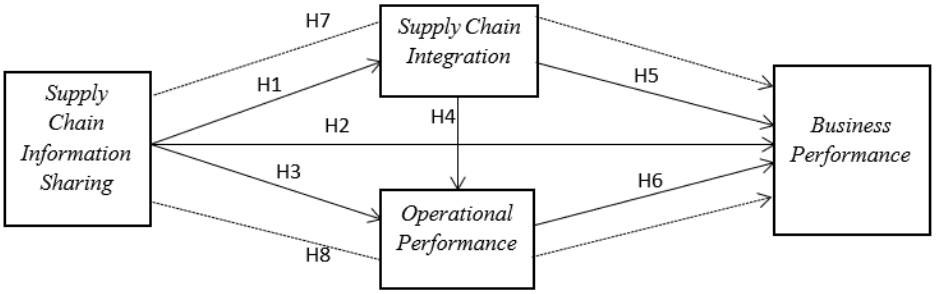
According to Chen, Gu, Cai, and Yang (2019), there are several indicators in supply chain integration, first, efficient processes characterize supply chain integration. Second, the supply chain has flexible products immediately according to market demands. Third, information about the supply chain runs smoothly. Last, suppliers have records and deliver orders promptly according to the level of need.

Operational Performance

Operational performance refers to the effectiveness exhibited in the many processes involved in transporting and distributing commodities, including the entire supply chain from the initial provision of raw materials to the final delivery of finished products to end consumers (Kurniawan & Rinofah, 2017). The measurement of operational performance encompasses various factors, including the provision of services to consumers, the speed of operations, the accuracy of deliveries, the flexibility in product volume, and the adaptability to introduce new products (Danastry, Baihaqi, & Kunaifi, 2018).

The paper of Chen, Gu, Cai, and Yang (2019) wrote about operational performance that has several indicators first, companies can quickly modify products to meet key customer needs. Second, the company has a record of timely delivery to customers. Third, the company has a high inventory turnover rate. Last, the company can introduce new products to the market quickly.

Figure 1. **Conceptual Model**



The research has eight hypotheses:

- H_1: Supply chain information sharing positively affects supply chain integration.
- H_2: Supply chain information sharing positively affects business performance.
- H_3: Supply chain information sharing positively affects operational performance.
- H_4: Supply chain integration positively affects operational performance.
- H_5: Supply chain integration positively affects business performance.
- H_6: Operational performance positively affects business performance.
- H_7: Supply chain information sharing positively affects business performance mediated by supply chain integration.
- H_8: Supply chain information sharing positively affects business performance mediated by operational performance.

RESEARCH METHOD

Population and Sample

The population of this study is Batik MSMEs located in Yogyakarta City. The survey encompassed the entire population of batik MSMEs located in Yogyakarta City. According to Sekaran and Bougie (2016), a sample refers to a subset or segment of the whole population. The participants in this study consisted of several micro, small, and medium enterprises (MSMEs) specializing in batik production located in Yogyakarta City. The study employed purposive sampling as the sampling methodology, a method used to select research samples with specific criteria to enhance the representativeness of the collected data (Sugiyono, 2019). The selected criteria pertain to MSMEs specializing in batik production within Yogyakarta. These enterprises must have a minimum operational history of three years and actively engage in the production process.

Instrument Test

Instrument testing uses the outer model, including validity and reliability tests. An indicator is valid if the indicator can achieve the measurement objectives of the latent construct appropriately (Yamin & Kurniawan, 2009). Reliability can be measured using Cronbach's alpha and composite reliability (Hair, Black, Babin, & Anderson, 2010). Cronbach's alpha is a reliability coefficient that indicates how well the items in a collection are positively correlated with each other (Sekaran & Bougie, 2016), while the actual value of the reliability of a contract is measured by composite reliability).

Data Analysis Technique

Analysis of Structural Equation Modeling (SEM) is a statistical technique for analyzing the pattern of relationships between latent constructs and their indicators, latent constructs with one another, and direct measurement error. SEM can describe the relationship pattern between latent constructs (unobserved) and manifest variables (indicators). In this study, PLS-PM will be used, where the basic assumptions of researchers are for predictive purposes (Yamin & Kurniawan, 2011).

RESULTS

We had 60 questionnaires distributed, 53 were returned, and all returned questionnaires met the operational criteria for three years or more. Then, the 53 questionnaires were analyzed and processed. The characteristics of these respondents are measured using a nominal scale, which can show the frequency and percentage of the respondent's characteristics. The characteristics of the respondents studied were length of business.

Table 1. Company Characteristics Based on Length of Business

Length of Business (Years)	Frequency	Present
3-5	36	67.9
6-10	9	16.9
11-15	2	3.7
16-20	0	0
21-25	2	3.7
>25	4	7.5

The Outer Model

Figure 2. Outer Model Test Results

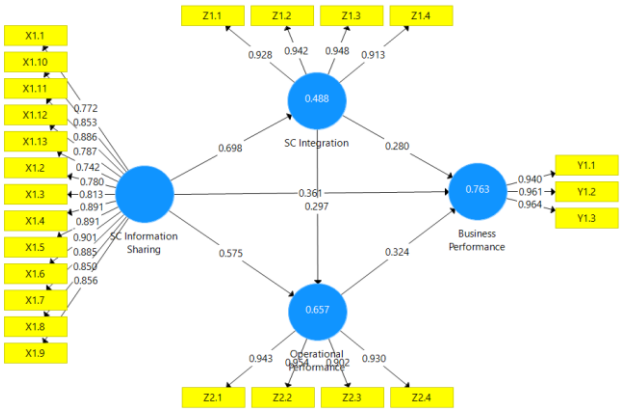


Table 2. The Loading Factor Value

	Supply Chain Information Sharing	Business Performance	Supply Chain Integration	Operational Performance
X1.1	0.772			
X1.2	0.780			
X1.3	0.813			
X1.4	0.891			
X1.5	0.891			
X1.6	0.901			
X1.7	0.885			
X1.8	0.850			
X1.9	0.856			
X1.10	0.853			
X1.11	0.886			
X1.12	0.787			
X1.13	0.742			
Y1.1		0.940		
Y1.2		0.961		
Y1.3		0.964		
Z1.1			0.928	
Z1.2			0.942	
Z1.3			0.948	
Z1.4			0.913	
Z2.1				0.943
Z2.2				0.954
Z2.3				0.902

Convergent validity is “the correlation between the indicator and construct scores. Indicators are valid if the correlation value is above 0.70”. In the table above, the score of each SCIS indicator against SCIS has a value above 0.70. Likewise, the score of business performance, supply chain integration, and operational performance on each construct already has a correlation value above 0.70, so each indicator is valid and can be used further in this study.

Table 3. Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Business Performance	0.913
Operational Performance	0.870
Supply Chain Information Sharing	0.707
Supply Chain Integration	0.870

The table above shows that the AVE value for each construct is more than 0.50. So, from these results, each construct is valid and can be used in this research. The construct is reliable if the composite reliability and Cronbach’s alpha values exceed 0.70.

Journal of International Conference Proceedings (JICP) Vol. 6 No. 6, pp. 16-28, Desember, 2023
P-ISSN: 2622-0989/E-ISSN: 2621-993X
https://www.ejournal.aibpmjournals.com/index.php/JICP

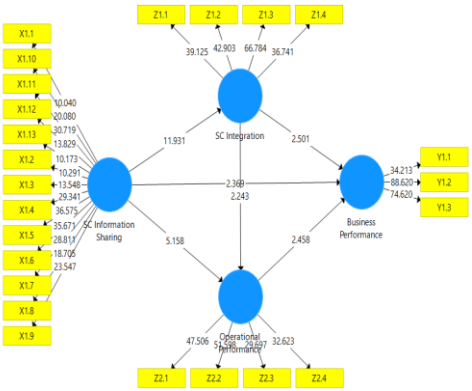
Table 4. Reliability Test Results

	Cronbach's Alpha	Composite Reliability
Business Performance	0.952	0.969
Operational Performance	0.950	0.964
Supply Chain Information Sharing	0.965	0.969
Supply Chain Integration	0.950	0.964

The table above shows that Cronbach's alpha and composite reliability for each construct has a value of more than 0.70 and has good reliability.

The Inner Model

Figure 3. The Inner Model Testing Results



The first assessment of the inner model is to look at the R^2 value for each endogenous latent variable as the predictive power of the structural model.

Table 5. R-Square Values

	R^2	R^2 *Adjusted*
Business Performance	0.763	0.749
Operational Performance	0.657	0.644
SC Integration	0.488	0.478

The table above shows the R^2 value for each endogenous latent variable in the research. R^2 value on variables business performance is 0.763, indicating that the model has moderate predictive power.

Table 6. Path Coefficients Test Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
SCIS → SCI	0.698	0.703	0.059	11.931	0.000
SCIS →Business Performance	0.361	0.346	0.152	2.369	0.018
SCIS → Operational Performance	0.575	0.579	0.111	5.158	0.000
SCI → Operational Performance	0.297	0.290	0.132	2.243	0.025
SCI → Business Performance	0.280	0.292	0.112	2.501	0.013
Operational Performance → Business Performance	0.324	0.327	0.132	2.458	0.014

Table 6. shows that hypotheses are accepted from the first to the sixth, with the p-values being <0.05 and the t-statistic being > 1.96.

Table 7. Indirect Effect Test Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
SCIS → *Operational Performance* → *Business Performance*	0.186	0.190	0.085	2.180	0.030
SCIS → SCI → *Business Performance*	0.195	0.206	0.083	2.350	0.019

The indirect effect can be measured in Table 10. The seventh and the eighth hypotheses are accepted, with the p-values being < 0.05 and the t-statistic being > 1.96.

DISCUSSION

The Influence of Supply Chain Information Sharing on Supply Chain Integration

The first hypothesis testing indicates the positive effect of supply chain information sharing on supply chain integration in batik MSMEs in Yogyakarta City. Additionally, it enables prompt responsiveness to consumer demands. The integration of supply chain processes in an efficient manner has the potential to expedite the process of adapting products to meet market demands. The aforementioned discovery aligns with the study by Chen, Gu, Cai, and Yang (2019), indicating that sharing information within a supply chain positively affects supply chain integration. Lin et al. (2002) conducted a study illustrating the excellent influence of high-level information sharing on supply chain integration. This collaboration results in reduced order cycles and decreased total supply chain costs.

The Influence of Supply Chain Information Sharing on Business Performance

The second hypothesis shows a positive correlation between supply chain information sharing and business performance in batik MSMEs in Yogyakarta City. Enhancing firm performance can be achieved by implementing measures such as making inventory information accessible to all departments and ensuring the availability of accurate data about demand projections and logistics. According to prevailing discourse, the consistent dissemination of up-to-date information is purported to facilitate the efficient operation of the supply chain. The efficacy of a seamless supply chain significantly influences market share, sales performance, and a company's overall profitability. This finding opposes the research conducted by Chen, Gu, Cai, and Yang (2019), which posits that supply chain information sharing has no substantial impact on business performance. However, information is vital in influencing corporate performance. Furthermore, Widjaja, Chanti, and Setyawan (2022) found that supply chain information sharing affected business performance. Organizations must consider not just their internal strategic resources but also the allocation and value of internal strategic resources for their supply chain partners.

The Influence of Supply Chain Information Sharing on Operational Performance

The findings from the third hypothesis indicate that supply chain information sharing affected operational performance positively in batik MSMEs in Yogyakarta City. This finding is consistent with the research conducted by Chen, Gu, Cai, and Yang (2019) and Widjaja, Chanti, and Setyawan (2022), which stated that supply chain information sharing affected operational performance. Huo, Han, and Prajogo (2016) wrote the same result, that is, sharing information has the potential to improve a company's capacity to immediately respond to various situations and effectively achieve a high inventory turnover rate.

The Influence of Supply Chain Integration on Operational Performance

The fourth hypothesis about how supply chain integration positively affects operational performance in batik MSMEs in Yogyakarta City is accepted. Efficient supply chain integration will speed up product adaptation to market demands. In addition, when the supplier has records regarding estimated demand, order delivery can be done on time according to needs. This aligns with Widjaja, Chanti, and Setyawan (2022) research, which states that supply chain integration positively influences operational performance. This shows that integration in the supply chain has a collaborative relationship between parties in the supply chain whose management is carried out well and will be able to increase efficiency and effectiveness in the production process to increase company profits and provide consumer satisfaction (Ariani, 2013).

The Influence of Supply Chain Integration on Business Performance

The results of testing the fifth hypothesis show that supply chain integration positively affects business performance in batik MSMEs in Yogyakarta City. Prajogo and Olhager's (2012) research shows that supply chain integration affects business performance positively. Business collaboration in the batik MSMEs in Yogyakarta City can improve business performance for the collaborating parties; when the supply of fashion products is available according to demand, fashion retailers can feel business benefits.

The Influence of Operational Performance on Business Performance

The results of testing the sixth hypothesis show that operational performance positively influences business performance in batik MSMEs in Yogyakarta City. This means that if operational performance is well integrated, it will impact inventory management throughout the supply chain, shortening waiting times and reducing bottlenecks, increasing cash flow to improve business performance. This aligns with Widjaja, Chanti, and Setyawan (2022) research, which found that operating performance on MSMEs fashion in Surabaya positively influences business performance. Meanwhile, Yu, Jacobs, Salisbury, and Enns (2013) also argue that increasing operational performance can be used as a guarantee for improvement in business performance.

The Influence of Supply Chain Information Sharing on Business Performance Mediated by Supply Chain Integration

The findings from examining the seventh hypothesis indicate that supply chain integration mediates the relationship between supply chain information sharing and business performance in batik MSMEs in Yogyakarta City. The findings of Chen, Gu, Cai, and Yang (2019) align with the current study, as they provide robust evidence that supply chain integration is a mediator in the association between supply chain information sharing and business performance.

The Influence of Supply Chain Information Sharing on Business Performance Mediated by Operational Performance

The results of testing the eighth hypothesis show that organizational performance mediates the effect of supply chain information sharing on business performance in batik MSMEs in Yogyakarta City. Operational performance is fulfilling the availability of goods, reducing inventory costs, meeting consumer expectations to make repeat purchases, ensuring the quality of goods, handling consumer complaints, creating customer satisfaction, and developing new products (Jajja, Chatha, & Farooq, 2018). This aligns with research conducted by Chen, Gu, Cai, and Yang (2019); this research found that operational performance mediates the influence of supply chain information sharing on business performance.

CONCLUSION

In the context of batik Micro, Small, and Medium Enterprises (MSMEs) in Yogyakarta City, several key interrelationships have been identified regarding the impact of supply chain dynamics on various aspects of business performance. Firstly, the sharing of supply chain information emerges as a catalyst, fostering positive influences on both supply chain integration and business performance within the batik MSME sector. This reciprocal relationship extends further as supply chain information sharing is found to exert a positive influence on operational performance, contributing to the overall efficiency of batik MSMEs in Yogyakarta City. Additionally, supply chain integration emerges as a significant factor positively affecting both operational and business performance in this context. The intricate web of connections is further highlighted by the mediation roles played by supply chain integration and operational performance. Supply chain integration, for instance, is revealed to mediate the positive effects of supply chain information sharing on business performance. Simultaneously, operational performance is identified as a mediator in the relationship between supply chain information sharing and business performance within the batik MSME landscape in Yogyakarta City. These findings collectively underscore the intricate and interdependent nature of supply chain dynamics in shaping the operational and business landscape of batik MSMEs in this region.

LIMITATION

The limitation of this research is that it only conducts research in one sector, one area, so this study cannot be generalized and does not represent existing businesses in other sectors in other regions.

DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interest.

REFERENCES

Ariani, D.W. (2013). The Relationship between employee engagement, organizational citizenship behavior, and counterproductive work behavior. *International Journal of Business Administration*. 4, 46–56. doi:10.5430/ijba.v4n2p46

Asti, M., & Arini, B.A. (2011). *Warisan Adiluhung Nusantara*. Yogyakarta: ANDI.

Chan, A.T., Ngai, E.W. and Moon, K.K. (2017). The effects of strategic and manufacturing flexibilities and supply chain agility on firm performance in the fashion industry. *European Journal of Operational Research*, *259*(2), 486-499. doi:10.1016/j.ejor.2016.11.006

Chen, C., Gu, T., Cai, Y., & Yang, Y. (2019). Impact of supply chain information sharing on the performance of fashion enterprises: An empirical study using SEM. *Journal of Enterprise Information Management*, *32*(6), 913-935. doi:10.1108/JEIM-04-2019

Chung, H. F., Lu Wang, C., & Huang, P. H. (2012). A contingency approach to international marketing strategy and decision-making structure among exporting firms. *International Marketing Review*, *29*(1), 54-87. doi:10.1108/02651331211201543

Danastry, D. A., Baihaqi, I., & Kunaifi, A. (2018). Pengaruh ketergantungan dan relationship commitment pada logistik outsourcing terhadap kinerja operasional perusahaan. *Jurnal Teknik ITS*, *7*(1), A37-A40. doi:10.12962/j23373539.v7i1.28641

Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R. E. (2010). *Multivariate Data Analysis 7th ed.).* New York: Pearson.

He, Y., Sun, H., Ni, W., & Ng, S. C. (2017). Re-examining the effects of supplier integration on operations performance: a relational view. *International Journal of Operations & Production Management*, *37*(12), 1702-1721. doi:10.1108/IJOPM-04-2016-0205

Heizer, J., Render, B., & Munson, C. (2020). *Operation Management Sustainability and Supply Chain Management (13th ed.).* New York: Pearson.

Huo, B., Han, Z., & Prajogo, D. (2016). Antecedents and consequences of supply chain information integration: a resource-based view. *Supply Chain Management: An International Journal*, *21*(6), 661-677. doi:10.1108/SCM-08-2015-0336

Ivanov, D., Das, A., & Choi, T. M. (2018). New flexibility drivers for manufacturing, supply chain and service operations. *International Journal of Production Research*, *56*(10), 3359-3368. doi:10.1080/00207543.2018.1457813

Jajja, M.S.S., Chatha, K. & Farooq, S. (2018). Impact of supply chain risk on agility performance: mediating role of supply chain integration. *International Journal of Production Economics*. 205. doi:10.1016/j.ijpe.2018.08.032

Kurniawan, I. & Rinofah, R. (2017). Pengaruh lingkungan bisnis dan strategi operasi terhadap kinerja operasional pada UKM kerajinan gerabah kasongan bantul. *Sosiohumaniora: Jurnal Ilmiah Ilmu Sosial dan Humaniora*, *2*(2). doi:10.30738/sosio.v2i2.525

Liestyana, Y., Oetomo, H., Wahyuningsih, T., & Ariyanto, M. K. (2022). Information sharing, informal contracts, and supply chain performance of SMEs in Gunung Kidul Regency, Indonesia. *International Journal of Applied Business and International Management, 7*(1), 151-169 doi:10.32535/ijabim.v6i3.1447

Prajogo, D. & Olhager, J. (2012). Supply chain integration and performance: the effects of long-term relationships, information technology and sharing, and logistics integration. *International Journal of Production Economics, 135*(1), 514-522. doi:10.1016/j.ijpe.2011.09.001

Prasetyo, T., & Harjanti, D. (2013). Modal sosial pengusaha mikro dan kecil sektor informal dan hubungannya dengan kinerja bisnis di wilayah Jawa Timur. *Agora*, *1*(3), 1641-1644.

Russell, R.S. & Taylor, B.W. (2019). *Operations and Supply Chain Management (10th ed.).* New York: John Wiley and Sons.

Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A skill-building Approach, (7th ed.).* Chichester: John Wiley & Sons. Inc.

Simatupang, T. M., & Sridharan, R. (2002). The collaborative supply chain. *The international journal of logistics management*, *13*(1), 15-30. doi:10.1108/09574090210806333

Sugiyono, S. (2019). *Quantitative Research Methods*. Bandung: Alphabeta.

Sumarlinah, Y., Sukesi, S., & Sugiyanto, S. (2022). The Role of Digital Marketing, Service Quality, Product Quality on Purchasing Power through the Satisfaction of Probolinggo MSME Followers during the Covid-19 Pandemic. *International Journal of Applied Business and International Management*, *7*(1), 96-105. doi:10.32535/ijabim.v7i1.1444

Voss, G. B., & Voss, Z. G. (2000). Strategic orientation and firm performance in an artistic environment. *Journal of marketing*, *64*(1), 67-83. doi:10.1509/jmkg.64.1.67.17993

Wibowo, W. (2008). *Manajemen Kinerja*. Jakarta. Rajagrafindo Persada

Widjaja, F. N., Chanti, S. N., & Setyawan, A. B. (2022). Pengaruh supply chain integration terhadap business performance pada UMKM fashion di Surabaya. *PROSENAMA, 2*(1), 93–102.

Yamin, S., & Kurniawan, H. (2009). *SPSS Complete Teknik Analisis Statistik Terlengkap dengan Software SPSS Buku Aplikasi Statistik Seri 1*. Jakarta: Salemba Infotek.

Yu, W., Jacobs, M. A., Salisbury, W. D., & Enns, H. (2013). The effects of supply chain integration on customer satisfaction and financial performance: An organizational learning perspective. *International Journal of Production Economics*, *146*(1), 346-358. doi:10.1016/j.ijpe.2013.07.023

Zhao, X., Xie, J. & Leung, J. (2002). The impact of forecasting model selection on the value of information sharing in a supply chain. *European Journal of Operational Research, 142*(2), 321-344. doi:10.1016/S0377-2217(01)00300-9