THE ROLE OF DIGITALIZATION, AGILITY, AND CAPABILITY ON INTEGRATION AND ITS IMPACT ON PERFORMANCE: A STUDY ON THE RETAIL HEALTHCARE SUPPLY CHAIN IN JAKARTA

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Abstract

This study aims to explore the influence of supply chain digitalization on various aspects of supply chain management. Based on the results of the research and analysis that have been presented, it can be concluded that supply chain digitalization has a positive impact on supply chain agility and capability. Furthermore, supply chain agility and capability contribute positively to supply chain integration. Supply chain integration, in turn, has a positive influence on supply chain performance. This study also shows that supply chain digitalization has a positive effect on supply chain performance through the mediation of supply chain integration. However, the results of this study indicate that supply chain digitalization does not have a direct effect or does not significantly affect supply chain integration. These findings provide important insights into how supply chain digitalization affects overall performance through various mediation mechanisms and contribute to the understanding of theory and practice in supply chain management.

Keywords: Digitalization, Agility, Capability, Integration, Performance, Supply Chain

INTRODUCTION

Industry 4.0 is a trend that describes the spread of automation technology in various industrial fields (Isbahi et al, 2022). Today's industry requires effective integration between workers, machines, products, and consumers to provide benefits to businesses and increase competitiveness by reducing production costs, lead times, and production times (Mashat et al., 2024; Rahman et al, 2023). One of the important parts of operations to realize effective integration is supply chain digitalization. Supply chain digitalization facilitates decision-making, analysis, business development, improving service quality, maintaining competitive value, and reducing costs.(Verma, 2024). In addition, it allows us to make inventory decisions to maximize profits, meet product demand, invest in automated monitoring to avoid human error, set safety stocks, and reorder points. This is important both internally (between departments) and externally (between suppliers and buyers) (Mashat et al., 2024).

Table 1.
Comparison of the Digital Society Index of Indonesia, Malaysia, and Singapore in 2023

	Indonesia (%)	Malaysia (%)	Singapore (%)
Ranking (from 82 countries)	55	48	1
E-commerce	54.82	63.52	82.96
E-government	47.23	57.26	80.93
Telecommunication	63.40	74.48	88.10
Human Resources	52.88	62.20	84.58
Infrastructure	69.40	78.56	93.82

Source: Kata Data Indonesia Data and Economic Conference (IDE)

In 2023, the results of the Indonesian Digital Society Index (IMDI) survey stated that digital skills in Indonesia reached 56.59% where the level of digital empowerment in Indonesia was categorized as 26.19% and the use of digital in work was 32.14%. Based on Table 1, Indonesia is in 55th position, Malaysia is ranked 48th and Singapore is ranked 1st out of 82 countries. This shows the low level of digitalization utilization in Indonesia. Quoted from the Ministry of Industry (2019), according to the Secretary-General (*Sekjen*) of the Ministry of Industry Achmad Sigit Dwiwahjono, supply chain digitalization is very necessary considering social trends and changes in business patterns in the digital era. This drives changes in methods and efficiency. Several industrial sectors are a priority for Making

Indonesia 4.0, namely food and beverages, textiles and fashion, automotive, health, and electronics. These sectors still face problems with effective and efficient supply chains, as well as end-to-end supply chain transparency.

Supply chain digitization will affect company performance. However, it is still unclear because of the involvement of various components outside of technology. Building a digital supply chain by combining internal and external resources is increasingly recognized as an important strategy. In supply chain digitization, effective integration between workers, machines, products, and consumers is needed. This will provide benefits to businesses and increase competitiveness in terms of lower production costs, shorter lead times, and quality products. In addition, digital supply chain integration allows for faster data collection, analysis, and decision-making due to optimal workflows and more flexible procedures (Mashat et al., 2024).

Supply chain integration will affect supply chain performance. This is seen in the availability of logistics services, warehouse transportation, and packaging as an added value to the organization. To implement efficient and effective supply chain management and company performance, the distribution section, focus organization, and raw material procurement process must be integrated (Verma, 2024). In addition, digital supply chain integration enables faster data collection, analysis, and decision-making due to optimized workflows and more flexible procedures (Mashat et al., 2024).Agility and capability are important internal factors that can significantly affect a company's performance. In situations where market trends, consumer expectations, and technology can change rapidly, companies that prioritize agility are better prepared to thrive. Therefore, agility and capability affect supply chain performance (Wang & Prajogo, 2024).

The results of the study (Wang & Prajogo, 2024) stated that supply chain digitalization is related to supply chain agility and capability. According to research (Verma, 2024), supply chain capability affects supply chain integration. This is supported by research (Argyropoulou et al., 2024) which states that supply chain capability affects supply chain integration. Research (Mashat et al., 2024) states that supply chain integration affects supply chain performance. Research (Argyropoulou et al., 2024; Verma, 2024) only considers 1

dimension of supply chain digitalization (Internet of Things) and has not considered agility as a factor influencing supply chain performance.

REVIEW OF LITERATURE

Supply Chain Management

A supply chain is the activity of planning and managing all actions related to procurement, procurement, conversion, and all logistics management activities. It also includes coordination and cooperation with channel partners, suppliers, third-party service providers, and customers (Taj et al., 2023). Supply chain management is an activity between actors to ensure that the managed system runs well and produces optimal results, people involved in the supply chain system work together to ensure effective supply chain management (Yusriana et al., 2023).

Supply Chain Digitalization

Supply Chain Digitalization or supply chain digitalization is the technological resources that organizations use to interact with their networks to shift physical activities to digital. These resources are applied in an integrated manner in both physical and digital activities which are later used to minimize resource consumption and support increased productivity, network visibility, and real-time feedback, including tools for specialized production and supplier collaboration at all stages of the network, supported by appropriate techniques and provisions (Argyropoulou et al., 2024).

Supply Chain Agility

Supply chain agility is one of the important concepts in supply chain digitalization (Seyedghorban et al., 2020). Customers' continued need for product customization and variety has made it imperative for businesses to anticipate changing trends and adapt their strategies to meet these needs (Tjhin et al, 2023). Companies that can adapt to market fluctuations and anticipate changing conditions will have a greater advantage in terms of profitability and competitive advantage (Verma, 2024).

Supply Chain Capability

Supply chain capability or supply chain digitalization capabilities are the set of technological resources that organizations use to interact with their networks to shift physical

to digital activities. These resources are applied in an integrated manner across both physical and digital activities to minimize resource consumption and support increased productivity, network visibility, and real-time feedback, including tools for specialized production and supplier collaboration at all stages of the network, supported by appropriate techniques and provisions (Argyropoulou et al., 2024).

Supply Chain Integration

Supply chain integration or integration in the supply chain is how businesses work together with their supply chains to manage intra- and inter-organizational operations and integrate various flows, such as physical, informational, and financial flows (Tiwari, 2021). Strategic alliances are meaningful relationships between organizations, suppliers, and customers that enable the sharing, interaction, or development of resources or functionality to achieve better benefits and competitive advantages through strategy implementation.

Supply Chain Performance

Adoption of digital technology in supply chain performance can result in shorter lead times, and a more agile supply chain (Kurpjuweit et al., 2021). Logistics clarity, real-time supply chain, and better inventory management can be achieved through the Internet of Things (Lee et al., 2022; Taj et al., 2023).

RESEARCH METHOD

The research conducted aims to examine the role of agility and capability on the influence of digitalization on integration and its impact on performance: a study on the retail healthcare supply chain. The research conducted is quantitative in a multiple cross-sectional period and data is obtained from primary data through surveys. The survey is made in the form of a digital questionnaire (google form) which will be given to owners or people who play a role in the field of supply chain management. This questionnaire will be divided into two parts, the first part regarding demographic data and the second part regarding components for the measurement scale.

The unit of analysis in this study is an individual aimed at a retail healthcare company, located in Indonesia, especially in Jakarta. This study will focus on 6 companies, namely PT Kimia Farma Apotek, PT Guardian Indonesia, PT Pharos Indonesia (Century Healthcare),

PT Watson Indonesia, PT K-24 Indonesia, and PT Sumber Hidup Sehat (Viva Healthcare). Companies will be contacted via electronic communication media such as e-mail, WhatsApp, LinkedIn, and other media. Thus, this study will provide a deep understanding of the relationship between supply chain digitalization, integration, agility, capability, and supply chain performance at a certain point in time. The sampling technique in this study is based on the purposive sampling method using a Likert Scale with a score of 1-5. A score of 1 indicates Strongly Disagree (STS) while 5 indicates Strongly Agree (SS). This is based on considerations that are adjusted to the variables used in this study to obtain appropriate results. Analysis of the relationship between variables and hypotheses will be measured using the Structural Equation Modeling (SEM) analysis tool and analyzed with the help of AMOS software.

In this study, the sampling method used is purposive sampling. The selection of this method is based on considerations that focus on certain objectives. In other words, the sample in this company is a company that has met the specified requirements. The sample of this study includes retail companies that have health products. This study will focus on 6 companies, namely PT Kimia Farma Apotek, PT Guardian Indonesia, PT Pharos Indonesia (Century Healthcare), PT Watson Indonesia, PT K-24 Indonesia, and PT Sumber Hidup Sehat (Viva Healthcare).

RESULTS AND DISCUSSION

Validity Test

A validity test is used to ensure that the instrument used measures what is intended to be measured. Based on the results of the validity test, all variables have a factor loading value above 0.05 so it can be concluded that the data is valid. Details of the validity test results are in the following table.

Table 2.
Validity Test Results

Variables		Factor Loading	Information
Supply Chain Digitalization	SCD1	0.898	Valid
	SCD 2	0.837	
	SCD 3	0.848	
	SCD 4	0.818	
	SCD 5	0.894	
Supply Chain Agility	SCA1	0.883	Valid
	SCA 2	0.891	
	SCA 3	0.873	
	SCA 4	0.895	
Supply Chain Capability	SCC1	0.866	Valid
	SCC2	0.877	
	SCC3	0.852	
	SCC4	0.900	
Supply Chain Integration	SCI1	0.846	Valid
	SCI 2	0.854	
	SCI 3	0.843	
	SCI 4	0.826	
	SCI 5	0.869	
	SCI 6	0.842	
	SCI 7	0.886	
Supply Chain Performance	SCP1	0.866	Valid
	SCP2	0.897	
	SCP3	0.831	
	SCP4	0.902	

Source: Data Processed with SPSS

Reliability Test

A reliability test is used to measure the consistency of a research instrument to know whether the instrument we use can provide the same measurement results if used repeatedly under the same conditions. In this study, Cronbach's Alpha was obtained greater than 0.70, so the research variable was declared valid. Overall, the results of the reliability test have met the criteria so that the data can be used in further testing. The research instrument is statistically proven so that the data can be used for analysis and decision-making.

Table 3.
Reliability Test Results

Variables	Cronbach's Alpha	Results in the Model	Information
SCD	> 0.7	0.911	Reliable
SCA		0.908	Reliable
SCC		0.896	Reliable
SCI		0.937	Reliable
SCP		0.895	Reliable

Source: Data Processed with SPSS

Goodness of Fit Test

A goodness of fit test is needed to ensure that the model used provides a comprehensive picture of the causal influence, a complete fit test must be carried out before conducting a hypothesis analysis. According to Hair et al. (2019), the suitability evaluation can be carried out by assessing the following standards:

1) Absolute fit measures, which refer to the overall fit model (both measurement and structural models). The criteria are based on probability values, RMSEA (Root Mean Square Error of Approximation), and GFI (Goodness of Fit Index).
2) Incremental fit measures, comparing the proposed model (proposed model) with other models identified by the researcher. The criteria are based on the values of NFI (Normed Fit Index), TLI (Tucker Lewis Index), RFI (Relative Fit Index), CFI (Comparative Fit Index), and IFI (Incremental Fit Index).
3) Parsimonious Fit Measures, adjustment of the fit size so that it can be compared between models with the recommended number of coefficients, namely a lower limit of 1 or an upper limit of 5. The criteria are based on the AGFI (Adjusted goodness-of-fit) value.

Table 4.
Goodness of Fit Model Results

Types of Measurement	Measurement	Mark	Suggested Acceptance Limits	Conclusion
Absolute fit measures	p-value	0,000	≥ 0.05	Poor Fit
	RMSEA	0.151	≤ 0.08	Poor Fit
	GFI	0.720	≥ 0.90	Poor Fit
Incremental fit measures	NFI	0.834	≥ 0.90	Marginal Fit
	TLI	0.838	≥ 0.90	Marginal Fit
	RFI	0.791	≥ 0.90	Poor Fit
	CFI	0.901	≥ 0.90	Goodness of Fit

	IFI	0.903	≥ 0.90	Goodness of Fit
Parsimonious fit measures	AGFI	0.609	≤ GFI	Goodness of Fit

Source: Data Processed Using AMOS

Based on the results of the goodness-of-fit test, the type of absolute fit measures, the measurement value of the probability value of P-value, RMSEA, and GFI show a poor fit value. The type of incremental fit measures measurement of NFI and TLI gets a marginal fit value, RFI gets a poor fit value, and CFI and IFI get a Goodness of Fit value. The type of parsimonious fit measures measurement by looking at the value of AGFI shows a value that meets the criteria below the GFI value, then it is stated as goodness-of-fit. According to(Hair, Black, et al, 2019)If one of the goodness-of-fit criteria is met, then the model can proceed to the hypothesis testing stage.

Hypothesis Testing with Structural Equation Modeling

The data was tested for hypothesis using SEM statistically with the help of AMOS. A model was made as in Figure 8, then the test results were obtained according to Table 4.

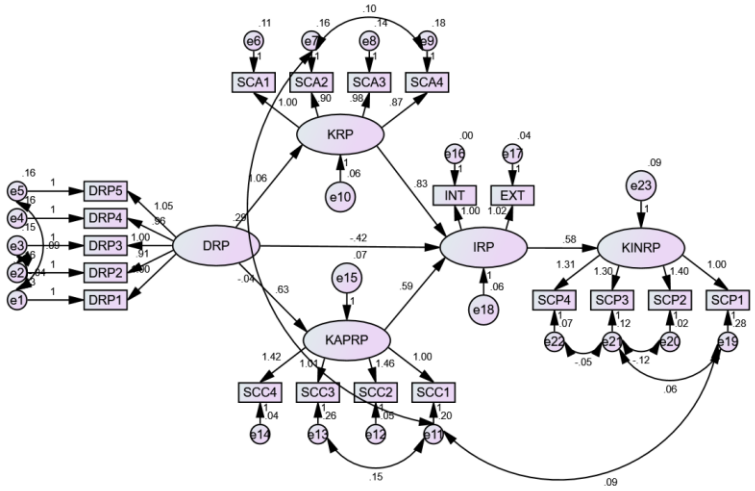

Figure 1.
Structural Equation Modeling Study

Table 5.
Results of Research Hypothesis Testing using SEM

Indicator	Estimate	p-value
SCD→SCA	0.920	0,000
SCD→SCC	0.785	0,000
SCD→SCI	-0.390	0.119
SCA→SCI	0.899	0,000
SCC→SCI	0.448	0,000
SCI→SCP	0.737	0,000

The p-value is obtained at 0.000 < 0.05 in hypotheses 1 and 3 where supply chain digitalization statistically has a significant positive effect on supply chain agility and supply chain capability. The p-value is 0.119 > 0.05 in hypothesis 2 where supply chain digitalization statistically does not have a positive effect on supply chain integration. In hypotheses 4 and 5, the p-value is obtained at 0.000 < 0.05 where agility and capability statistically have a significant positive effect on supply chain integration. In hypothesis 7, the p-value is obtained at 0.000 < 0.05 which means that supply chain integration statistically has a significant positive effect on supply chain performance. Based on the estimated value, the relationship between SCD→The highest SCA value is 0.920 followed by the relationship between SCA→SCI (0.899), SCD→SCC (0.785), SCI→SCP (0.737), SCC→SCI (0.448), and the lowest relationship between SCD→SCI (-0.390). The relationship between supply chain digitalization and supply chain agility has the strongest relationship.

This study contains mediating variables and tests the mediation hypothesis using the Sobel test. The following are details of the test results in Figure 2.

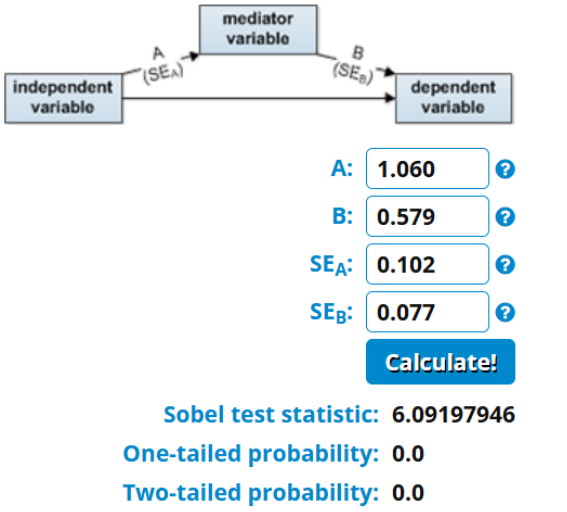

Figure 2.
Sobel Test Results Research

In hypothesis 6 in the Sobel test model, the estimated value is 0.487, which means that Supply chain digitalization has a positive influence on Supply chain performance mediated by Supply chain integration. The p-value is 0.000 <0.05, where statistically there is a significant influence of the mediation role of Supply chain integration in influencing Supply chain digitalization on Supply chain performance. So it can be concluded that there is a significant positive influence between Supply chain digitalization on Supply chain performance mediated by Supply chain integration.

Validity Test

Validity testing is used to ensure that the instrument used actually measures what it is intended to measure. According to (Hair, Black, et al, 2019), if the sample size is 120 respondents, then the ideal factor loading limit value is above 0.05. Based on the results of the validity test, all variables have a factor loading value above 0.05 so that it can be concluded that the data is valid.

Reliability Test

In the reliability test, all variables meet the criteria. Reliability testing is used to ensure that the measurement instruments used in the study provide accurate and consistent results. Cronbach's alpha is commonly used to measure internal consistency reliability, which examines the extent to which different items in a scale or questionnaire measure the same construct. A threshold of 0.70 indicates scale reliability (Hair, 2019). Composite Reliability

(CR) is a measure of internal consistency or reliability of items that measure a construct. If the CR value is greater than the threshold of 0.7, this indicates that the items measure the same construct and the construct has high internal consistency and reliability (Hair, 2019).

Goodness of Fit Test

In this study, a Goodness of Fit model was obtained by looking at the values of CFI, IFI, and AGFI showing values that meet the criteria below the GFI value. All goodness-of-fit indices are above or very close to the permissible limit level, indicating that the given model successfully captures the anticipated relationships between all components. Therefore, the results are in accordance(Verma, 2024). The testing criteria consist of goodness of fit testing consisting of Chi-Square, RMSEA, GFI, AGFI, CMIN/Df, TLI, and CFI, then compared with the cut-off value of goodness of fit obtained from the CFA model. If the construct variable does not meet the requirements, the construct variable can be reduced or deleted until the desired value is achieved.

The goodness of fit test is used to determine how well a statistical model fits the observed data. In other words, this test helps us assess whether the data we have fits a certain theoretical distribution. This test compares the actual frequencies observed in the data with the expected frequencies (based on the theoretical distribution). This test has several indices used, namely Chi-Square ($\chi 2$), ideally the smaller the better the results, Root Mean Square Error of Approximation (RMSEA) close to 0 if the RMSEA value < 0.08 then the model results are acceptable, Comparative Fit Index (CFI), the ideal value is close if the CFI value> 0.90 is considered good, Tucker Lewis Index (TLI), the ideal value is close if the CFI value > 0.90, Goodness of Fit Index (GFI), an acceptable value if GFI > 0.90, Adjusted Goodness of Fit Index (AGFI), an acceptable value if GFI > 0.90 if there is a small difference between the two frequencies, then the model is considered suitable. According to (Hair, Black, et al, 2019)If one of the goodness-of-fit criteria is met, then the model can proceed to the hypothesis testing stage.

Hypothesis Testing

Hypothesis testing is a statistical technique used to make decisions about claims or statements based on existing data and to determine whether the results of a data sample can

be applied to a larger population. In this test, data can be validated with a significance value where this is in accordance with the theory (Hair et al, 2019) as follows:

- H0 is rejected if the p-value ≤ 0.05, meaning the hypothesis is supported (there is an influence), so there is a relationship between variables, the data is suitable for factor analysis.
- H0 is accepted if the p-value > 0.05 then it fails to reject the null hypothesis, meaning there is no relationship between variables, so the data is not suitable for factor analysis. The following is a discussion of each hypothesis:

Supply Chain Digitalization (SCD)→Supply Chain Agility (SCA)

In this study, it shows that supply chain digitalization has a positive effect on supply chain agility with a p-value of 0.000. This result is supported by previous research conducted by Zhou et al. (2023) which states that there is a positive relationship between supply chain digitalization and supply chain agility. Digitalization plays an important role as a driver of supply chain agility and capability (Geyi et al, 2020). Agility and capability also affect supply chain performance, this can increase supply chain visibility by tracking products from production to consumption (Somapa et al., 2018). Therefore, to gain a competitive advantage and advantage, the supply chain must have a digital platform. This platform must allow them to monitor all cargo, payments, and other information. Logistics clarity, real-time supply chain, and better inventory management can be achieved through the Internet of Things (Lee et al., 2022; Taj et al., 2023).

Supply Chain Digitalization (SCD)→ Supply Chain Integration (SCI)

In this study, it shows that supply chain digitalization has no positive effect on supply chain integration with a p-value of -0.390 so the hypothesis is not supported. The results of the study (Verma, 2024) state that companies that use digitalization in supply chain integration will experience a significant increase in performance in the long term. In this study, no significant relationship was found between the two even though supply chain digitalization is expected to increase supply chain integration. When compared, there are differences in respondent profiles, differences in research countries and focus on industrial sectors. The results of Verma's (2024) study were conducted globally in the province of Omani during the COVID-19 pandemic in 25 industrial sectors in general (restaurants,

supermarkets, furniture, department stores, etc.), respondents who filled in came from supply chain and information technology backgrounds. In addition, several factors influence the level of integration in the supply chain, such as organizational culture, leadership structure, or even government regulations from each country. The level of utilization of supply chain digitalization is an influence on the results of the study. In Indonesia, the level of utilization of digitalization in the supply chain is still low when compared to other countries, so this difference causes differences in research results.

Supply Chain Digitalization (SCD)→ Supply Chain Capability (SCC)

This study shows that supply chain digitalization has a positive effect on supply chain capability with a p-value of 0.000. This is supported by research (Wang, 2020) which states that digitalization affects supply chain capability. According to (Srai & Settanni, 2019), digitalization in the supply chain will increase transparency and productivity in manufacturing. Digital technology such as Blockchain, and IoT will help in the dissemination of information, integration in the supply chain and also optimize the supply chain and company operations (Wang et al., 2021). These resources are applied in an integrated manner both in physical and digital activities to minimize resource consumption and support increased productivity, network visibility, and real-time feedback, including tools for specialized production and supplier collaboration at all stages of the network, supported by appropriate techniques and provisions (Argyropoulou et al., 2024).

Supply Chain Agility (SCA)→ Supply Chain Integration (SCI)

In this study, it shows that supply chain agility has a positive effect on supply chain integration with a p-value of 0.000. Supply chain agility is one of the important concepts in supply chain digitalization supply chain digitalization (Seyedghorban et al., 2020). Customers' continued need for product customization and variety has made it essential for businesses to anticipate changing trends and adjust their strategies to meet these needs. Companies that can adapt to market fluctuations and anticipate changing conditions will have a greater advantage in terms of profitability and competitive advantage(Verma, 2024). Digitalization offers various ways to enable supply chain agility such as increasing supply chain visibility and transparency (Mistry et al., 2020). Research results(Verma, 2024), companies that use digitalization in supply chain integration will experience significant

performance improvements in the long term. Companies will expand their organizational capacity across partners (such as vendors and clients) thanks to digital infrastructure. An agile approach will emphasize flexibility, adaptability, resilience, and increased sustainability in business (Gligor et al., 2019; Girod et al., 2023).

Supply Chain Capability (SCC)→ Supply Chain Integration (SCI)

This study shows that supply chain capability has a positive effect on supply chain integration with a p-value of 0.000. Capability with supply chain digitalization is a collection of technological resources that organizations use to interact with their networks to shift physical activities to digital. These resources are applied in an integrated manner in both physical and digital activities to minimize resource consumption and support increased productivity, network visibility, and real-time feedback, including tools for specialized production and supplier collaboration at all stages of the network, supported by appropriate techniques and provisions (Argyropoulou et al., 2024). Supply chain capability refers to the ability to use internal and external resources to facilitate supply chain performance. This shows the relationship between capabilities through intermediaries of supply chain process integration and supply chain and company performance (Rajaguru & Matanda, 2019). Supply chain capability can improve supply chain performance, sustainability, and resilience (Chowdhury & Quaddus, 2017). Supply chain capabilities are related to company performance such as fulfillment rate, order fulfillment time, product quality, supply chain delivery reliability, supply chain flexibility, and productivity-added value (Argyropoulou et al., 2024).

Supply Chain Digitalization (SCD)→Supply Chain Integration (SCI)→ Supply Chain Performance (SCP)

This study shows that supply chain digitalization has a positive effect on supply chain performance mediated by supply chain integration with a p-value of 0.000. This is supported by the results of research (Verma, 2024) stating that companies that use digitalization in supply chain integration will experience a significant increase in performance in the long term. Today's industry requires effective integration between workers, machines, products, and consumers to provide benefits to businesses and increase competitiveness by reducing production costs, waiting times, and production times (Mashat et al., 2024). Companies need

supply chain integration to utilize the resources they have. The results of the study (Mashat et al., 2024; Verma, 2024) stated that there is a positive relationship between supply chain integration affecting supply chain performance and companies. Integration of supply chain digitalization, companies can collect, communicate, and analyze data about consumer demand and their preferences for goods and services, and are able to connect directly with customers and suppliers. Companies are able to face global competition, technological innovation, increasing digitalization, and the pursuit of more diverse products with shorter product life cycles will increase, especially in the face of disruption. (Verma, 2024). To meet the needs and expectations of customers, companies need a high level of internal integration, which is measured by the company's ability to organize practices, and processes, and maintain organizational behavior to be cooperative, coordinated, synchronized, and controlled cooperative, coordinated, synchronized, and controlled operations (Liu & Chiu, 2021).

Supply Chain Integration (SCI)→ Supply Chain Performance (SCP)

In this study, it shows that supply chain integration has a positive effect on the supply chain with a p-value of 0.000. The results of the study (Mashat et al., 2024; Verma, 2024) stated that there is a positive relationship between supply chain integration affecting supply chain and company performance. Integration of supply chain digitalization, companies can collect, communicate, and analyze data on consumer demand and their preferences for goods and services, and are able to connect directly with customers and suppliers. Companies are able to face global competition, technological innovation, increased digitalization, and the pursuit of more diverse products with shorter product life cycles will increase, especially in the face of disruption. (Verma, 2024). To meet customer needs and expectations, companies need a high level of internal integration, as measured by the company's ability to organize practices, and processes, and maintain organizational behavior to be cooperative, coordinated, synchronized, and controlled cooperative, coordinated, synchronized, and controlled operations (Liu & Chiu, 2021).

CONCLUSION

Based on the results of the research and discussion that have been presented, it can be concluded that there is a positive influence of supply chain digitalization on agility and supply chain capability, agility and supply chain capability have a positive effect on supply chain integration, supply chain integration has a positive effect on supply chain performance, and supply chain digitalization has a positive effect on supply chain performance mediated by supply chain integration. Supply chain digitalization does not have a positive effect or does not affect supply chain integration.

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