

Advances in Economics, Business and Management Research, volume 192 Proceedings of the Seventh Padang International Conference On Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2021)

# Supply Chain Management Practices on Competitive Advantage with Supply Chain Performance as Moderating Variable

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#### ABSTRACT

The main purpose of this study was to verify the role of supply chain performance among supply chain management practices and competitive advantage in snack food industries in rural areas of Padang. SMEs of the snack food industry in Padang was a population in this study. Total SMEs as a respondent in this study was 131 respondents. The research data were analyzed using the SmartPLS method. The result of this study are (1) supply chain management practices had a significant and positive impact on competitive advantage; (2) supply chain performance had a significant and positive impact on competitive advantage; (3) supply chain management practices had a significant on supply chain performance; and (4) the direct influence of supply chain performance on business performance is significant, so the indirect relationship between supply chain management practices and competitive advantage can be a mediator by supply chain performance.

Keywords: Competitive Advantage, Supply Chain Performance, Supply Chain Management Practices.

## **1. INTRODUCTION**

Amidst the current rapid industrial development, Every business actor is required to increase competitive advantage in order to maintain business continuity. The business performance of a company is the main focus to guarantee the sustainability and competitiveness of the company by utilizing existing resources. [1]. All business actors need to understand what various resources they have and how to manage them to win the competition and create competitive advantage [2], which will have an impact on the company's business performance. According to [3] competitive advantage is the core of company performance.

Achieving competitive advantage in business is not only an obligation for large-scale companies, but it is also important for SMEs — as a business that refers to a productive economy. Also, SMEs greatly contribute to supporting economic growth of countries, one of which is Indonesia. Padang is one of the cities where the development of SMEs is quite rapid. Data from Cooperatives and SMEs Office of Padang, there were 10,211 SMEs in 2019. Although the performance of SMEs in Padang has been quite good, there have been problems that make the SMEs stuck and difficult to develop so that many existing SMEs have experienced difficulty in gaining competitive advantage. One of the challenges in improving the performance of SMEs is that the government is required to open the international market for SMEs' products. For this reason, it is very necessary to improve the operational activities of SMEs to be able to operate effectively and efficiently so that they can produce the products that are competitive in quality and price.

Measuring business performance can be done through several aspects, namely financial performance, operational performance, marketing performance, and human resource performance. In measuring company performance, the company needs to consider both financial activities (turnover, profit, income) and nonfinancial activities (market share, competitors' sales growth) [4]. For SMEs, the important to do is expand market share and increase operational productivity. In addition, the common problem in SMEs is the low capacity of human resources (excellence.asia, 2018). The Dynamic Multi-dimensional Performance (DMP) model is a measuring tool for completing the Dimensions of Success and the Balanced Score Card. Dynamic Multi-dimensional Performance has five dimensions according to [5], consists of performance of financial, performance of market, performance of process, performance of people development, and performance of future. With the dimensions of measuring human resources in Dynamic Multidimensional Performance, measuring SMEs business performance using the Dynamic Multi-dimensional Performance method is considered suitable because it measures the most important factor in SMEs business development.

Many complicated problems faced by the SMEs to improve their business performance. In general, financial issues such as difficulty in raising capital and organizational management problems such as lack of knowledge in business management and problems in production are the major problems faced by SMEs. Then from the marketing side, the problem is the limited ability of SMEs in accessing and using information systems, so that they are not optimal in carrying out promotional and distribution activities. As well as in terms of SMEs' products, they have a low level of innovation to develop their product. Besides that, SMEs' also not maintaining relationships with customers. The mindset of SMEs is still conventional that is managing the business independently. Not many SMEs are willing to cooperate in carrying out business activities together, such as collaborating to obtain raw materials, on-time delivery, and determining quality levels. Then also in terms of collaborating with agents, wholesale, and other business units which can expand the market for SMEs (Inter Active, 2019). Based on these, the problems of SMEs are considered very complex, ranging from the problems upstream such as in terms of raw materials to the problems downstream of business activities such as consumer satisfaction with the SMEs' products. Therefore, it is necessary to have a strategy that is a solution for increasing the productivity of SMEs in terms of operational activities so that they can survive in the market, face competition and threats, and seize and take advantage of opportunities.

To support the implemented strategy, SMEs need to consider Supply Chain Management (SCM) [6]. SCM is a tool used to improve performance as well as maintain a competitive advantage. Supply Chain Management is an activity of managing raw materials to be goods-inprocess or semi-finished goods and finished goods then sending these products to consumers through a distribution system. This activity includes purchasing functions between suppliers and distributors [6]. SCM aims to manage the relationship with suppliers, share level, information quality between suppliers and companies, and customer complaints to build a good long-term relationship with customers [7]. Supply Chain Management Practices (SCMP) is an application of SCM. SCMP is a variety of activities along the supply chain go through by companies to promote effective supply chain management, and SCMP is a multidimensional concept [8]. According to [9], Construct SCMP includes upstream supply chain (strategic supplier partnership) and downstream supply chain (customer relationship) and information flow in the supply chain, level of information sharing, and quality of information sharing among supply chain members.

To measure how extent the SMEs implement the SCMP, it is need to measure the performance of SCMP. The measurement of supply chain performance uses a measuring tool of Supply Chain Performance (SCP). Various studies have suggested the importance of supply chain performance because it is a variety of actions to respond to the service level, costs, efficiency, level of inventory, and supplier performance. Then, supply chain performance pays attention to important aspects in the supply chain such as customer satisfaction, costs, time and asset flexibility, information and integration of material flow, and risk management [10]. The supply chain performance measurement enables integration and collaboration among partners of a supply chain network.

Studies conducted by [11] empirically prove that the application of good supply chain management practices will have a positive and significant impact on improving supply chain performance. SCMP is a set of processes of managing coordination and information between suppliers and customers with the aim of improving the performance of the entire supply chain. Wellcoordinated supply chain integration will link internal processes with suppliers and customers. SCMP is adopted to examine the specific character of various contexts in the supply chain which aims to bridge the gap between SCM theory and its implementation [9].

In addition, the short-term goals of supply chain management practices are to reduce inventory, shorten lead times, and increase productivity. The long-term goal is to expand the company's market share [10]. The various interactions carried out in SCMP can lead to the achievement of efficiency in the supply chain. A recent study [12] also showed that supply chain management practices had the same goal of increasing organizational performance. A study conducted by [11] has concluded that SCMP will have a positive and significant impact on the increase SCP and it has been proven empirically that it can increase company performance too.

The contribution of this study is to provide empirical evidence for SMEs' actors regarding how SCMP and SCP can increase the competitive advantage to achieve good business performance. Therefore, this study is expected to provide a source of knowledge for SMEs on how to build a competitive advantage through SCMP. This study presents the effort made by the researchers to understand SCMP in the context of SMEs with certain user types. This study is important to conduct, considering that there is no model available for building competitive advantage of SMEs through the implementation of SCMP and SCP. This study can be used as a reference and learned by businessmen and academicians.

Competitive advantage (CA) means creating a system that has a unique advantage over other competitors [13]. As explained by [14] Competitive advantage is a company's ability to create an efficient and lasting position over competitors. Competitive advantage implies the establishment of a system that has a unique advantage over competitors. CA is defined as the ability of an organization to establish a defensive position against competitors [15]. It consists of the ability that enables an organization to differentiate itself from its competitors. It is the result of a critical management decision. CA can be measured in price/cost, quality, delivery dependability, product innovation, and time to market [15].

Supply Chain Management (SCM) is a crucial concept in the era of globalization and free trade. In this globalization era, competition between companies occurs between supply chains against supply chains, no longer products against products or companies against companies [16]. In SCM, the supply chain is the physical network, as all companies play roles and collaborate in supplying raw materials, producing products, and distributing them to end-users.

As a multi-dimensional concept, SCMP is a series of activities carried out in the supply chain by company to promote effective supply chain management. [8] defines SCMP as an important practice in manufacturing companies as a concept of multi-dimensional which study both sides of the Supply Chain (upstream and downstream). The SCMP is a specific case study adopted by certain countries and industries to study the specific characteristics in a particular context of business organizations in managing SCM. Therefore, in bridging the gap between SCM theory and its application, SCMP is considered to have contributed in this regard [17].

Based on a review of previous research, there are seven most common dimensions in the SCMP construct, namely (1) long-term relationships between companies and suppliers, known as strategic supplier partnerships, (2) information shared in the supply chain network or level of information sharing, (3) the quality of the information shared which consists of the adequacy, accuracy, timeliness, and credibility of information, (4) maintaining good relationships from suppliers to consumers (customer relationship management), (5) identifying and eliminating all aspects that interfere with the entire product flow and improve systems in the supply chain network, (6) Postponement is the practice delay the final manufacturing or distribution of a product to a much later point in the supply chain until receipt of a customer order, (7) Total Quality Management refers to the management of all business activities so that they excel in all aspects of products that are important to consumers. therefore it is important for companies to do things right the first time and make continuous improvements.

SCMP has an impact not only on organizational performance but also on competitive advantage [8]. The implementation of SCMP is expected to increase

organizational competitive advantage through price/cost, quality, quick response, and product innovation. Previous studies have shown that various components of SCMP, such as strategic supplier partnerships, have an impact on many aspects of competitive advantage (such as price/cost).

The company's ability to measure its performance is a key success factor for the company. SCP has become a crucial factor for the survival of companies in many industries [9]. SCP is defined as the process of measuring the level of efficiency and effectiveness of activities/strategies implemented by companies related to supply chain members as well as integration and coordination of member performance to provide that performance responsively in meeting end-customer requirements. [10] and [18] shows SCP measurement in terms of costs, level of inventory, level of service, efficiency, and performance of supplier. Supply chain performance is a measurement that can be used to create a competitive advantage. As stated by [18], [19], to create a competitive advantage in the supply chain, a tool is needed to measure supply chain performance. [9] suggest that, by improving supply chain management practices, a company can improve its supply chain performance by focusing on determinant factors that give a significant impact on SCP.

Based on some of the literature that has been reviewed previously, several dimensions can be used to measure supply chain performance. According to [20], According to [20], these dimensions are as follows, supply chain flexibility, where companies are able to adapt to changes in their environment and supply chain integration which includes construction related to the level of cooperation, coordination, integration, collaboration, and customer responsiveness. It is usually associated with innovative products or short lead-time products, and it describes the level of collaboration required, Supplier performanceIt defines a supplier's ability to identify expectations of the buyer in terms of quantity, quality, delivery, service, and price. And then helps companies to improve their quality and reduced costs in competition.

## 2. METHOD

A total of 539 SMEs in the packaging culinary in Padang are the population in this research. The research

sample was taken using the purposive sampling technique, with the criteria that the SMEs had run for more than three years and that they had a workforce of more than five people. This study was a survey study. One of the advantages of a survey study lies in its generalization, so the more respondents participate, the better it is [21]. The minimum number of respondents for a survey study is 30 people [22]. Therefore, the researchers tried to get respondents more than the minimum requirement and total sample of 131 snack food industries selected using the purposive sampling method.

The research data were obtained through the distribution of the questionnaire. The questionnaire was designed containing questions related to supply chain management practices, supply chain performance, and competitive advantage and constructed of literature review and previous studies. The technique of data collection by distributing the questionnaire aimed to obtain the data needed to be analyzed and to make research decisions. The data that had been collected were analyzed using SmartPLS software. PLS (Partial Least Square) is a variant-based Structural Equation Modeling (SEM) analysis that can simultaneously perform structural model testing. The measurement model was used to test the validity and reliability, while the structural model was used to test the causality (hypothesis testing with predictive model). Rule of thumb used for convergent validity includes outer loading > 0.7, communality > 0.5 and Average Variance Extracted (AVE) > 0.5 [23]. The discrimination validity test was measured based on cross-loading with the construct or by comparing the AVE root for each construct with the correlation between

#### 3. RESEARCH RESULT

The number of research data used in this study was 135 data, meaning that the number of data exceeded the minimum requirement for a survey study i.e. 30 data. The collected data were analyzed using the Structural Equation Modeling (SEM) approach with SmartPLS 3. The initial stage of data analysis was the measurement model, which was to ensure that the data met the validity and reliability tests.

According to [24], convergent validity is the adjustment between measures of the same construct

assessed through different methods. The convergent validity test for reflexive indicators was seen from the value of the loading factor for each construct indicator. convergent validity can assess with the rule of thumb was used with the condition that the value of the loading factor was higher than 0.7 with the value of Average Variance Extracted (AVE) was higher than 0.5. The table 1 shows the value of the loading factor for each indicator:

From table 1, it can be seen that all the research data indicators had the value of loading factor > 0.70, meaning that all of these indicators could be used for further analysis. After ensuring that the value of loading factor for all indicators was above 0.7, the measurement of construct validity was carried out.

Table 1: Value of Loading Factor

	СА	SCMP	SCP
CA1	0.908		
CA2	0.914		
CA3	0.935		
SCMP1		0.906	
SCMP2		0.918	
SCMP3		0.906	
SCMP4		0.747	
SCMP5		0.900	
SCMP6		0.865	
SCMP7		0.832	
SCP1			0.915
SCP2			0.921
SCP3			0.822
SCP4			0.921

Source: Primary Data Processing (2021)

The reliability of the data was seen from the value of Cronbach alpha, rho-A, and composite reliability, which was above 0.7. Then, the validity of the data was seen

from the AVE value, which was  $\geq 0.5$ . The results of construct validity can be seen in the table below:

Table 2. AVE

	Cronbach's Alpha	Rho_A	<b>Composite Reliability</b>	AVE
	Value	Value	Value	Value
CA	0.908	0.911	0.942	0.845
SCMP	0.945	0.948	0.956	0.756
SCP	0.917	0.921	0.942	0.803

Source: Primary Data Processing (2021)

The results of the final structural model showed that the 0.70. AVE value of all variables met the required rule of thumb (AVE > 0.50). Referring to the rule of thumb that the required outer loading value was 0.70, all indicators in this study were declared valid because each indicator had met the requirement for outer loading value > 0.70 and Cronbach's alpha value >

Discriminant validity is related to manifest variables of different constructs which should not be highly correlated [25]. Discriminant validity can be measured using two ways, namely by using a cross-loading table or by comparing the square roots of AVE.



	CA	SCMP	SCP	
CA	0.919			
SCMP	0.843	0.870		
SCP	0.838	0.924	0.89	

Table 3. The Square Roots of AVE

Source: Primary Data Processing (2021)

The diagonal value of SCP and SCP was not higher compared to other variables, meaning that the data does not fulfill the criteria for the discriminant validity test. For this reason, the multicollinearity of the data was checked by referring to the value of collinearity (VIF). The data with the VIF value above five were excluded for further analysis. After several times running data by removing the data that had the VIF value higher than 5, and lower than 2.5, the results of square roots of AVE can be seen as follows:

**Table 4.** The Square Roots of AVE (2)

	CA	SCMP	SCP
CA	0.919		
SCMP	0.846	0.861	
SCP	0.816	0.900	0.935

Source: Primary Data Processing (2021)

From the output results shown in Table 4, the diagonal comprises the square roots of AVE, and the values below them are inter-construct correlations. So, it can be seen the square roots of AVE were higher than the correlation values. Therefore, it can be concluded that the estimated model was valid because it met the criteria for discriminant validity.

After the estimated model had met the criteria for discriminant validity, the structural model (inner model) was then tested. The structural model was done by seeing the R-squared value, which was the goodness-offit test of the model. The following is the table of Rsquared value in this study:

Table 5. R-Squared	Value
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	<b>R-Square</b>	Adjusted R-Square
CA	0.732	0.728
SCP	0.810	0.808

Source: Primary Data Processing (2021)

The coefficient of determination uses R-squared, which shows how large the percentage of variation in the independent or dependent variable that can be explained by the hypothesized variable can affect it. The higher the Rsquared of a variable is, the better model is. To be noted, Rsquared is only found in endogenous constructs. From Table 5 can be seen that the value of R-Squared from competitive advantage was 0.732. This means that SCMP and SCP contributed to the CA of the SMEs by 73.2%, while the rest was explained by other variables. Likewise, from the table above, it can be seen that the R-squared value of SCP (variable Z) was 0.810. Therefore, it could be said that contribution of SCP to SCMP is 81%.

According to [26], a model is said to be fit if it has SRMR value < 0.11. The SRMR value in this study was 0.062. The value was lower than 0.11, meaning that this research model met goodness of fit.



#### Table 6. Fit Model

	Saturated Model	Estimated Model	
SRMR	0.062	0.062	
d_ULS	0.250	0.250	
d_G	0.292	0.292	
Chi-Square	215.776	215.776	
NFI	0.859	0.859	

Source: Primary Data Processing (2021)

# 4. DISCUSSIONS



Figure 1. Model of Structural

Direct Effect, The testing could be carried out by seeing the results of the path coefficient presented in table 7.

Table 7.	. Path	Coefficient
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Hypothesis		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDE V )	P Values
H1	SCMP -> CA	0.587	0.588	0.113	5.195	0.000
H2	SCMP -> SCP	0.900	0.901	0.015	58.882	0.000
H3	SCP -> CA	0.288	0.288	0.107	2.689	0.007
H4	$SCMP \rightarrow SCP \rightarrow CA$	0.259	0.259	0.097	2.685	0.007

Significance Level 0.05

Source: Primary Data Processing (2021)

## 4.1. The Direct Effect: SCMP on Competitive Advantage

Having a competitive advantage is a must for a company to maintain their sustainability. In creating a competitive advantage, the company realizes that increasing company efficiency is not an effective way to make a competitive advantage because the sustainable competitive advantage is not created by the company itself, but the entire supply chain related to the company must also create a competitive advantage. The understanding and practice of Supply Chain Management (SCM) have become the main prerequisite to have an advantage in global competition and increase competitive advantage. A company can have one or more competitive advantages over its competitors: lower price, higher quality, and quick response. A company's competitive advantage will increase its overall performance [27].

In gaining a competitive advantage, one way that a company can do is implementing SCM. Supply Chain Management Practices (SCMP) is defined as a series of activities carried out by a company to promote effective management of its supply chain. As stated by [28], the more collaboration the suppliers and consumers do at all levels in the supply chain, the more likely the organization can gain a competitive advantage. SCMP has an impact on not only the overall performance of a company but also the competitive advantage of the company. The company is expected to increase its competitive advantage through price/cost, quality, response time to the market, and product innovation.

Table 7 above shows the results of inter-construct correlations. Based on the table 7, the direct effect of SCMP on competitive advantage was significant at alpha 0.05 with the parameter coefficient of p-value 0.000. Thus, the first hypothesis in this study was accepted that SCMP has a positive and significant effect on competitive advantage, which means that the more collaboration and integration a company does in implementing SCMP, the greater opportunity the company has in order to create competitive advantage. This indicates that a company can achieve CA in its business activities if the company is able to implement SCMP well, especially in collaborating with the companies in the supply chain. SCM focuses on how a company benefits the relationship with suppliers, uses technology, has the ability to improve CA, and coordinates manufacture, logistics and materials in the company [29].

This result of the study is in line with the previous research done by [28], [8], [30], [29] that the application of SCMP had a positive and significant effect on competitive advantage. Good implementation of SCMP is an important factor for companies with low performance to have a competitive advantage in today's global race. [31], [8].

# 4.2. The Direct Effect: Supply Chain Management Practices on Supply Chain Performance

In the increasingly competitive global market, most companies compete at a high level of market pressure around the world. To be successful, companies need to develop better ways to ensure that customers are satisfied with a high level of service at an acceptable price [32]. A key factor for success in any company is the ability to measure its performance. To get a sustainable advantage in many industries, supply chain performance has become a critical source to reach that [9]. Supply chain performance is defined as the efficiency that takes into account various performance measurements associated with supply chain members as well as the integration and coordination of the members' performance [10]. Supply chain performance is an approach to optimize the integration among suppliers, manufactures, warehouses, and storage so that the production and distribution of products can be carried out in the right quantity, in the right location, and at the right time, and to minimize costs, and provide satisfaction for customer service [33]. Many argue that the competition is no longer between organizations, instead, between supply chains [20].

Based on the results of data analysis presented in Table 7, supply chain management practices have a positive and significant impact on the supply chain performance of the SMEs in the snack food industry in Padang with the significance value of 0.000 < 0.05. This means that if SCMP increases, the supply chain performance of SMEs in the snack food industry in Padang will also increase. This indicates that SCMP which is applied properly will be able to improve the supply chain performance. Supply chain management practices can increase the flexibility of the supply chain, respond to customers quickly, and improve the supplier performance for SMEs in Padang. [9] suggest that companies can improve their supply chain performance by improving supply chain management practices and focusing on the determinant factors that significantly impact supply chain performance.

This research finding is also reinforced by the finding of a previous study conducted by [7] that supply chain management practices have a positive and significant impact on supply chain performance.

# 4.3.The Direct Effect: Supply Chain Performance on Competitive Advantage

Discussing supply chain performance means discussing a large number of different performance measurements in a system such as production, distribution, inventory, etc. [18] and [19] state that SCP as an indispensable tool, performance matrix provides the assistance needed to improve performance to create competitive advantage in the supply chain. The main difference between supply chain performance measurement and other performance measurements lies in the "extended" supply chain concept that includes suppliers and distributors, etc. [34].

Based on the results of data analysis, supply chain performance had a significant effect on competitive advantage of the SMEs in the snack food industry in Padang with the significance value of 0.007 < 0.05. this indicates that if the supply chain performance increase, the ability of SMEs in the snack food industry in Padang to reach competitive advantage will also increase. It means that if SMEs can assess their supply chain performance well in each dimension of assessment, it will provide the opportunity for the SMEs to gain a competitive advantage. [9] suggest that supply chain performance has become a key success factor in sustainable advantage in many industries. The ability to do performance measurement is the success factor for every company.

This result of study is in line with the result of previous study conducted by [19] that supply chain performance had a positive and significant impact on competitive advantage.

# 4.4.Supply Chain Performance: Mediates between Supply Chain Management Practices and Competitive Advantage

SCMP is defined as several management activities that purpose to improve supply chain performance [8], [11], [35], [36]. Supply chain performance is then considered the main key factor for gaining competitive advantage [19]. If SMEs want to increase the competitive advantage of the business they run, it is very important for them to implement supply chain management practices. The SCMP also should have good supply chain performance in order to have a positive impact on the creation of MSME's competitive advantage.

Based on the result of the data analysis, from table 7, supply chain performance had a significant impact on the competitive advantage of the SMEs in the snack food industry in Padang. This indicates that if supply chain performance increases, the ability of SMEs to reach competitive advantage will also increase. If SMEs can assess their supply chain performance well in each dimension of assessment, it will provide the opportunity for the SMEs to gain a competitive advantage. [9] point out that supply chain performance has become a key success factor in sustainable advantage in many industries.

The effect of supply chain performance on advantage is competitive examined while still incorporating the mediator effect (supply chain performance) to see whether supply chain performance provides full or mediation effects. From this study result, when the effect of the mediator is included in the model, supply chain performance has a positive and significant impact on competitive advantage. However, this was not different from the first step when the mediator's effect had not been incorporated in the model. When the supply chain performance had not existed, the supply chain management practices had been a positive and significant impact on the competitive advantage of the SMEs in the snack food industry in Padang. Thus, it could be said that supply chain performance had a partial mediation effect.

### **5. CONCLUSIONS**

Based on the analysis and discussion in the previous section, it can be concluded that: (1) there is a direct and

practices on competitive advantage. This illustrates that practices supply chain management when are implemented properly, it will provide opportunities for SMEs to reach a competitive advantage; (2) there is a direct and significant influence between supply chain management practices on supply chain performance in SMEs. This means that when supply chain management practices are implemented properly, it will increase the implementation of supply chain performance. Then with the increase in supply chain performance will be able to create a competitive advantage for SMEs in the snack food industry in Padang. (3) there is a direct and significant influence between supply chain performance on competitive advantage. This means that increasing supply chain performance will increase the competitive advantage of SMEs. (4) there is a partial effect of mediation by supply chain performance between supply chain management practices and the competitive advantage of SMEs in the snack food industry in Padang. It means that the variable of supply chain management practices remains influential without a supply chain performance as a mediator. However, the supply chain performance as a mediator can strengthen the influence of the supply chain management practices on the competitive advantage for SMEs in the snack food industry in Padang City. Overall, this research contributes to the knowledge of the role of SCMP in the field of supply chain management. The research findings show that to gain a competitive advantage, SMEs need to integrate supply chain management assessment into supply chain management practices. For further research, it is suggested that research be carried out on different types of SMEs to produce diverse insights regarding the role of SCMP in creating competitive advocacy. Then the limitation in this research is that the sample was taken from one type of food SMEs so that the conclusions concluded could not be generalized to other food SMEs.

significant influence between supply chain management

### **AUTHORS' CONTRIBUTIONS**

The author's contribution in this study is to build a competitive advantage model on SMEs, so that through this research it is expected that SMEs provide a source of knowledge about how to build competitive advantage through SCMP by SMEs.

#### ACKNOWLEDGMENTS

We thank UNP for funding this research. We would also like to thank colleagues from the Management Department, Faculty of Economics who have provided input and suggestions that have greatly helped this research for the perfection of research.

#### REFERENCES

- Muthuveloo, R., Shanmugam, N., and Teoh, A. P., "The impact of tacit knowledge management on organizational performance: evidence from Malaysia." Asia Pacific Management Review, Volume 22, Issue 4. Pages 192-201, Desember 2017. <u>https://doi.org/10.1016/j.apmrv.2017.07.010</u>
- [2] Kuncoro, Wuryanti dan Suriani, Wa Ode, "Achieving sustainable competitive advantage through product innovation and market driving." *Asia Pacific Management Review*. Volume 23, Issue 3. September 2018.

https://doi.org/10.1016/j.apmrv.2017.07.006

- [3] Porter, Michael, E. *Strategi bersaing (Competitive strategy).* Tanggerang: Karisma publishing group, 2008.
- [4] Bhasin, S., "Lean and performance measurement." *Journal of Manufacturing Technology Management*, Volume 19, Issue 5. pp.670–684, June 2008.

https://doi.org/10.1108/17410380810877311

[5] Maltz, A. C., Shenhar, A. J., & Reilly, R. R., "Beyond the balance scorecard: refining the search for organizational success measure." *Long Range Planning Journal*. Volume 36, Issue 2, pp.187-204. April 2003.

https://doi.org/10.1016/S0024-6301(02)00165-6

[6] Heizer, J., Render, B., & Munson, C. Operations Management Sustainability and Supply Chain Management. Pearson Education Limited (12th ed., Vol. 1). 2017.

https://doi.org/10.1017/CBO9781107415324.004

- [7] Al-Douri, J. A., "The impact of supply chain management approaches on supply chain performance in Iraq." *International Journal of Supply Chain Management.* Volume 7, No. 5, pp. 13–21. October 2018.
- https://ojs.excelingtech.co.uk/index.php/IJSCM/article/vi ew/1971
- [8] Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Subba Rao, S. "The impact of supply chain



management practices on competitive advantage and organizational performance." *Omega*. Volume 34, Issue 2 pp.107–124. April 2006. <u>https://doi.org/10.1016/j.omega.2004.08.002</u>

[9] Gawankar, S. A., Kamble, S., & Raut, R., "An investigation of the relationship between supply chain management practices (SCMP) on supply chain performance measurement (SCPM) of Indian retail chain using SEM." *Benchmarking: An International Journal.* Volume 24, Issue 1, pp. 257– 295. February 2017.

https://doi.org/10.1108/BIJ-12-2015-0123

- [10] Dwayne Whitten, G., Green, K.W. and Zelbst, P.J. "Triple-A supply chain performance." *International Journal of Operations and Production Management*. Volume 32, No. 2, pp. 28-48. January 2012. https://doi.org/10.1108/01443571211195727
- [11] Yew Wong, C., Stentoft Arlbjørn, J. and Johansen, J. "Supply chain management practices in toy supply chains." *Supply Chain Management*. Volume 10, Issue 5, pp. 367-378. December 2005. <u>https://doi.org/10.1108/13598540510624197</u>
- [12] Abdi, M.R. & Labib, A., "RMS capacity utilisation: product family and supply chain." *International Journal of Production Research*. Vol. 55, No. 7. pp. 1930-1956. September 2016 <u>http://dx.doi.org/10.1080/00207543.2016.1229066</u>
- [13] Wang, C. L. and Ahmed, P. K. The development and validation of the organizational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*, Vol. 7, Issue 4. pp.303-313. December 2004. <u>https://doi.org/10.1108/14601060410565056</u>
- [14] Bontis, N., Crossan, M. and Hulland, J. Managing an organizational learning system by aligning stocks and flows. *Journal of Management Studies*. Vol. 39 No. 4. 2002.
- [15] Marimuthu, M., Arokiasamy, L. and Ismail, M. Human capital development and its impact on firm performance: Evidence from development economics. *The Journal of International Social Research*, 2 (8), pp. 265-272. Summer 2009 <u>https://citeseerx.ist.psu.edu/viewdoc/download?doi</u> =10.1.1.463.5216&rep=rep1&type=pdf
- [16] Govindan, K., Azevedo, S. G., Carvalho, H., & Cruz-Machado, V. Impact of supply chain management practices on sustainability. *Journal of Cleaner Production*. Volume 85. pp. 212-225. December 2014.

https://doi.org/10.1016/j.jclepro.2014.05.068

- [17] Zimmermann, F., & Foerstl, K. A Meta-analysis of the purchasing and supply management practiceperformance link. *Journal of Supply Chain Management*, 50(3), pages 37-54, July 2014. https://doi.org/10.1111/jscm.12051
- [18] Chan, F. T. S. Performance measurement in a supply chain. *International Journal of Advanced Manufacturing Technology*, 21(7), 534–548. May 2003.

https://doi.org/10.1007/s001700300063

- [19] Li Liu. The effects of manufacturing firm's supply chain performance on competitive advantage. *Proceeding of Fourth International Joint Conference on Computational Sciences and Optimization.* pp.1259-1262. Yunnan, China. 15-19 April 2019. 10.1109/CSO.2011.264
- [20] Al-Shboul, M. A. R., Barber, K. D., Garza-Reyes, J. A., Kumar, V., & Abdi, M. R. The effect of supply chain management practices on supply chain and manufacturing firms' performance. *Journal of Manufacturing Technology Management*, Vol. 28, Issue 5, pp. 577–609. June 2017.

https://doi.org/10.1108/JMTM-11-2016-0154

- [21] Kerlinger, F. N., & Lee, H. B. Foundations of behavioral research 2nd. Harcourt College Publisher. 2000.
- [22] Hair, J. F., Black, W. C., Babin, B. J., & Anderson,
   R. E. *Multivariate data analysis*, 7th Edition. Singapore: Simon & Schuster Asia Pte, Ltd. 2010.
- [23] Jogiyanto and Abdillah. Konsep dan aplikasi PLS (Partial Least Square) untuk penelitian empiris. Badan Penerbit Fakultas Ekonomi Dan Bisnis UGM, Yogyakarta. 2014.
- [24] Fraenkel, J.R. and Wallen, N.E. How to design and evaluate research in education, 5th ed., McGraw-Hill, New York, NY. 2003.
- [25] Ghozali, Imam and Latan, Hengky. Partial least square konsep teknik dan aplikasi menggunakan program SmartPLS 3.0 (2nd Edition). Semarang: Universitas Diponegoro. 2015.
- Hair, J. F., Hult, G. Tomas., Ringle, Christian M.,
   & Sarstedt, Marko. A primer on partial least squares structural equiton modeling (PLs-SEM).
   USA: SAGE Publication, Inc. 2014.
- [27] Mentzer JT, Min S, Zacharia ZG. The nature of interfirm partnering in supply chain management. *Journal of Retailing*. Volume 76, Issue 4, pp.



549–568. 4<sup>th</sup> Quarter 2000. https://doi.org/10.1016/S0022-4359(00)00040-3

- [28] Ashish A. Thatte, Subba S. Rao, and T. S. Ragu-Nathan. Impact of SCM practices of a firm on supply chain responsiveness and competitive advantage of a firm. *Journal of Applied Business Research*. Volume 29, No. 2. pp.499-530. February 2013. <u>https://doi.org/10.19030/jabr.v29i2.7653</u>
- [29] Diana Bratić. Achieving a Competitive Advantage by SCM. *IBIMA Business Review*. Vol. 2011. June 2011. DOI: 10.5171/2011.957583
- [30] Moberg, C. R., Cutler, B. D., Gross, A., and Speh, T. W. Identifying Antecedents of Information Exchange Within Supply Chains. *International Journal of Physical Distribution and Logistics Management*, Volume 32, No. 9, pp. 755–770. November 2002. <u>10.1108/09600030210452431</u>
- [31] Duong Vu Xuan Quynh & Nguyen Hoang Huy. Supply Chain Management Practices, Competitive Advantage and Firm Performance: A Case of Small and Medium Enterprises (SMEs) in Vietnam. *Journal of Modern Accounting and Auditing*, Vol. 14, No. 3. Pp.136-146. March 2018. <u>https://pdfs.semanticscholar.org/a13b/b5081871fec</u> <u>149560683607c7989a4a2c6e2.pdf</u>
- [32] Sundram, Veera Pandiyan., Ibrahim, Abdul Razak., Zolait, Ali Hussein. Supply chain management practices and firm performance: an empirical study

of the electronics industry in Malaysia. International Journal of Technology Diffusion. Volume 1, No. 3, pp. 48-55. July 2010. <u>https://www.igi-global.com/gateway/article/46156</u>

- [33] Muhfiatun, and Muh. Rudi Nugraha. Penerapan konsep suply chain management dalam pengembangan pola distribusi dan wilayah pemasaran UMKM Desa Krambilsawit. Jurnal Pemberdayaan Masyarakat: Media Pemikiran dan Dakwah Pembangunan. Vol. 2, No. 2 pp. 371-396. 2018. <u>https://doi.org/10.14421/jpm.2018.022-08</u>
- [34] Ambuj Khare, Anurag Saxsena, and Peeyush Teewari. Supply Chain Performance Measures for gaining Competitive Advantage: A Review. *Journal of Management and Strategy*. Vol. 3, No. 2. April 2012. <u>https://doi.org/10.5430/jms.v3n2p25</u>
- [35] Zhou, H., & Benton, W.C. Supply chain practice and information sharing. *Journal of Operations Management*, Volume 25, Issye 6, pp.1348-1365. November 2007.
   https://doi.org/10.1016/j.jom.2007.01.000

https://doi.org/10.1016/j.jom.2007.01.009

[36] Koh, S.C., Demirbag, M., Bayraktar, E., Tatoglu, E., & Zaim, S. (2007). The impact of supply chain management practices on performance of SMEs. *Industrial Management and Data Systems*, Volume 107, Issue 1, pp.103-124. January 2007. <u>https://doi.org/10.1108/02635570710719089</u>