Int. J Sup. Chain. Mgt

Vol. 9, No. 6, December 2020

# The Effect of Supply Chain Management on the Operational Performance of Small and Medium Industries for Amplang Products in Samarinda City

Maryam Nadir<sup>#1</sup>, Asnawati<sup>#2</sup>, Wirasmi Wardhani<sup>#3</sup>, Denny Maulida<sup>#4</sup>, Made Setini<sup>\*5</sup>

# Faculty Economic and Business Faculty, Mulawarman University Samarinda, East Kalimantan, Indonesia

\*Faculty of Economics and Business, Udayana University, Bali

1maryam.nadir@feb.unmul.ac.id; 2wirasmi.wardhani@feb.unmul.ac.id,

3asnawati@feb.unmul.ac.id; 4maulidadenny@gmail.com,

5Gitan4nd4@gmail.com

Abstract— Industry is an economic activity which processes raw materials, semi-finished goods or finished materials into something that has fine use value as well as aesthetic value. Industries which are developing in Indonesia, both small and medium scale industries, make producers competing to produce a competitive product. Small and medium industries (IKM), Amplang producers, compete to produce a competitive product. The population in this study were 13 business owners and employees of the IKM Amplang producers. The research sample consisted of 30 respondents who are owners and employees of the Amplang industry in Samarinda city. This study used Smart Partial Least Square (PLS) data analysis. The purpose of this study is to examine the effect of information sharing, long term relationship, and integration process on operational performance of Amplang producers in Samarinda city. This research has succeeded in finding a positive and significant influence of information sharing on the operational performance of IKM Amplang producers, long term relationships have a positive but insignificant effect on the operational performance of IKM Amplang producers, and the integration process has a positive and significant effect on operational performance of Amplang producers.

**Keywords:** Industry, small and medium, information sharing, long term relationship, integration process, operational performance.

#### 1. Introduction

Optimal distribution in this case can be achieved through the concept of supply chain management. Supply chain management actually is not a new concept. This concept emphasizes an integrated pattern which concerns the process of product flow from suppliers, manufacturers, retailers up to consumers. Supply Chain Management is a concept concerning product distribution patterns which can

replace product distribution patterns optimally. This new pattern concerns distribution activities, production schedules and logistics.

In implementing supply chain management (SCM), SME implements the same SCM management process in various areas such as service management, demand management, order fulfilment, manufacturing flow management, product development and commercialization, as well as return management [1].

Supply chain management as an integrated approach which covers the entire material management process, provides an orientation to the process for providing, producing, and distributing products to consumers. The material context in the sense of supply chain management, of course, does not only include raw materials and output (finished goods), but also includes supporting materials, components, spare parts, work in process (semifinished goods) and various types of supplies used to support the operational activities of the company and the industry as a whole. The main difference between SCM in large industries and SME is in the information coverage and product flow [2]. SME characteristics which are different from large industries make different or less optimal SCM implementation patterns. Industry is an economic activity which processes raw materials, semifinished goods or finished materials into something which has good use value and aesthetic value. Industrial companies also compete in increasing production in order to produce quality products and meet the consumer desires [3]; [4]. Various efforts have been made by industrial companies to increase quality production by means of good supply chain management.

The large number of industries which are developing in Indonesia, both small and medium scale industries, make producers compete to produce a competitive product. *Amplang* small and medium industry (IKM) players also compete to produce a competitive product.

Based on the IKM data of Samarinda city in 2017, as many as 1,406 types of businesses, in 2018 it increased to 1,430 types of businesses, and in 2019 it increased by 1,713 types of businesses [5]. In an effort to accelerate the development of new industrial areas in accordance with the regional vision, namely the realization of Samarinda city as a competitive and environmentally friendly Metropolitan city with one of the missions to strengthen the service and trade sector as a leading sector, the Samarinda City Industry and Trade Office proposes 8 (eight) industrial estates to be developed as an effort to accelerate economic transformation in East Kalimantan Province. One of the eight leading sectors is the *Amplang* Crackers Industry. According to data from the Samarinda Industry Office in 2018, there were 10 Amplang IKMs scattered throughout Samarinda City. This number has decreased from the previous year, which was 30 IKM in 2017. This decrease in number has recently been in contrast to the increase in IKM in general in Samarinda. Even as one of the industries developed to accelerate economic transformation (eight leading sectors in the province of East Kalimantan), the decline rate is a problem.

There are several problems which occur at *Amplang* IKM, especially those related to supply chain management, such as difficulty in sharing information about production and sales with distributors and employees, lack of cooperation with other parties in the supply of raw materials and sales activities, no long-term relationship which will assist industry in producing and marketing products, as well as non-optimal production and sales processes. With these problems, it can certainly disrupt the production performance of the *Amplang* industry.

In carrying out good supply chain management practices, there are several important factors such as information sharing, long-term relationship, cooperation and also process integration. Accurate information sharing will accelerate the process of supply chain management activities from the supplier to the consumer, while long-term relationship can be created with a continuous relationship between all parties involved in a supply chain management network and with cooperation. Mutual benefit between producers, employees, suppliers and consumers, so that long-term relationships can be achieved. Meanwhile, the integration process is a combination of all supply chain management activities in order that all activities run smoothly. [6] In his research on SME in Tanzania found that SCM does not pay sufficient attention to SCM strategy compared to large industries. Reluctance to integrate the system transparently and the absence of a clear

organizational structure are obstacles to SME planning and strategy. This has resulted in SME inefficiency and low share of national income.

Research [7] found that important factors in supply chain management such as information sharing, cooperation and process integration have a positive effect on company performance, but long-term relationships have a negative effect on company performance by implementing information sharing, cooperation and good process integration can ignore long-term relationships. This is in contrast to the research of [8] which showed information sharing, long term relationship and process integration, have a positive effect on supply chain management performance but cooperation has a negative effect on supply chain management performance.

Poor flow of information will result in misunderstanding and incompatibility of information. Cooperation and bad relationships with suppliers will also hamper the flow of raw materials. Processes which are not well integrated will have an impact on the quality of the *Amplang*. Such conditions will result in decreased production performance. If the *Amplang* industry is unable to manage the supply chain properly, it will have the potential to fail or stop producing *Amplang*.

# 2. Theory and Hypotheses

To determine the standardization of achievements obtained by the organization in accordance with the vision and mission it adheres to, it is necessary to have satisfactory performance. "Performance is: (1) the process or manner of performing, (2) a notable action or achievement, (3) the performing of a play or other entertainment" [9].

Ref [10] explains that operational performance is something which is produced by a company to provide consumer satisfaction which can be obtained with employee morale, production productivity, and output quality and delivery performance in a certain period by referring to the company standards which have been set. Business performance refers to what extent the company is market-oriented and to what extent the company is achieving its profit goals.

Operational performance indicators include: a. Consumer satisfaction, b. Employee morale, c. Production productivity, d. Output quality and e. Delivery performance within a certain period with reference to the company standards which have been set.

#### 2.1 Supply Chain Management

The system, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long term performance of the individual companies and the supply chain as a whole [11].

#### 2.2 Supply Chain Management Indicator

The theory of the pillar of SCM integration, the pillar of supply chain integration is cooperation, collaboration, information sharing, partnership, technology sharing and a change in the management process from an individual process to an integrated process [12];[13];[4]. The key activities required for successful implementation are integrated behavior, mutually beneficial information sharing, risks and rewards sharing, cooperation, common goals and common focus on consumers, process integration and partner building as well as maintaining long-term relationships [15].

Ref [16] mentions several variables in Supply chain management which become indicators in good Supply Chain Management, including: information sharing, long-term relationship and the integration process.

#### 1. Information sharing

Ref [17] Information is an important link between all supply chain processes and companies. Information does change the way supply chains are managed and these changes can lead to lower inventory. Without information technology, supply chain management is unlikely to be achieved at the desired level.

According to [14] the application of information sharing in companies can be measured through:

- a. Sharing information in terms of production.
- b. Exchanging information on an ongoing basis.
- c. Always providing information to all parties concerned in any important activity.
- d. Helping all related parties with the information.

#### 2. Long term relationship

Ref [18] defines a long-term relationship as the company's ability to establish long-term relationships with suppliers because the company considers the relationship to be profitable. The company's long-term relationship with suppliers is the strongest collaborative relationship in the context of the value chain or supply chain.

Ref [19] said that the relationship between suppliers, customers and companies should be well managed and always improved so that a sustainable relationship is established, and suppliers can contribute to product quality and the product distribution process from upstream to downstream will be on time in reaching the end user.

According to [14], the level of application of long term relationships in companies can be measured through:

- a. Having a good long-term relationship between the parties involved in the company's production process.
- b. Having a commitment is the basis of relationships in the company.
- c. Having an attitude of mutual trust with related parties.
- d. Maintaining interdependent relationships with related parties in the company.

# **Integration Process**

SCM Integration is carried out to coordinate activities along the supply chain in order to improve the performance of supply chain members. The output of integration can be in the form of performance such as reduced costs, increased production, resource utilization, and increased speed. The integration and reengineering process should be designed to increase the efficiency and effectiveness of the entire supply chain [1]. Stated that the integration of internal processes and external supply chain networks can be improved through communication, partnership, alliance and cooperation [20].

Integration is the combination of parts or activities to form a whole. An integration should be achieved for organizations or companies which are in the supply chain management network and throughout the supply chain [18].

According to [14] the level of application of the integration process in companies can be measured by:

- a. Prioritized logistic activities.
- b. Logistic activities with good integrity.
- c. Coordinated production activities.
- d. Effective material flow.

# 3. Method of the Study

This study examined the effect of SCM which includes: information sharing, long term relationship, and integration process on the operational performance of IKM *Amplang* producers. This research used a quantitative paradigm. Partial least square analysis was used to test the hypothesis.

This study analyzes the influence of the variables of supply chain management, information sharing, long term relationship, and integration process on operational performance. The followings is an operational definition of each of these variables:

- 1. SCM is an approach used to achieve a more efficient integration of various companies from suppliers, manufacturers, distributors, retailers, and customers. This means that goods are produced in the right amount, at the right time and in the right place with the aim of achieving the minimum cost of the overall system and also achieving the desired service level [21].
- 2. Operational performance is the implementation of managerial activities in the selection, design, renewal, operation and supervision of the production system [22].

# 3.1 Population and Sample of the Study

In this study, researchers collected 13 samples from the Samarinda Industry Office, so that the sample obtained is 30 respondents consisting of owners (producers) and employees of the *Amplang* industry in Samarinda.

To test the hypothesis in this study, primary data was used in the form of questionnaire answers that were distributed (in June 2020), to owners and employees of IKM *Amplang* producers in Samarinda.

#### 3.2. Hypothesis

The hypothesis in this study was tested using Partial Least Square (PLS) analysis. PLS analysis has two models, namely the outer model and the inner model. The outer model (outer relation / measurement model) shows the specification of the relationship between variables and their indicators.

Meanwhile, the inner model (inner relation / structural model) shows the specification of the relationship between latent variables, namely between exogenous / independent variables and endogenous / dependent variables [23].

# 4. Analysis and Discussion

The data for this study were obtained by distributing questionnaires to producers and employees of IKM *Amplang* in Samarinda, totaling 30 respondents. The results of the analysis using PLS show that all the variable indicators used have met the requirements for testing the outer model which include: convergent validity, discriminant validity, and composite reliability.

### Convergent Validity

According to [23], convergent validity is a measurement of the correlation between indicator scores and latent variable scores. For this study, the loading factor of 0.5 to 0.6 is considered sufficient, because it is the initial stage of developing a measurement scale and the number of indicators per construct is not large, ranging from 1 to 3 indicators, besides that the score of the t-statistic must also be greater than 1.96. If these two parameters have been met, it can be concluded that the indicators used are valid.

Table 4. 1 The Result o					
	Original Sample (O)	Sampe Average (M)	Standard Deviation (STDEV)	T Statistics (  O/STDEV  )	P Values
X1.1 <- IS (X1)	0.637	0.570	0.262	2.435	0.015
X1.2 <- Information sharing (X1)	0.718	0.753	0.082	8.732	0.000
X1.3 <- Information sharing (X1)	0.556	0.530	0.151	3.681	0.000
X1.4 <- Information sharing (X1)	0.737	0.693	0.184	4.009	0.000
X1.5 <- Information sharing (X1)	0.874	0.830	0.160	5.471	0.000
X2.3 <- Long term relationship (X2)	0.819	0.798	0.164	5.001	0.000
X2.4 <- Long term relationship (X2)	0.872	0.809	0.238	3.669	0.000
X3.1 <- Integration process (X3)	0.658	0.650	0.160	4.107	0.000
X3.2 <- Integration process (X3)	0.591	0.575	0.248	2.381	0.018
X3.3 <- Integration process (X3)	0.854	0.857	0.058	14.849	0.000
X3.4 <- Integration process (X3)	0.758	0.732	0.147	5.160	0.000

Y1 <- Operational performance (Y)	0.813	0.808	0.068	11.953	0.000
Y2 <- Operational performance (Y)	0.665	0.650	0.119	5.605	0.000
Y3 <- Operational performance (Y)	0.557	0.578	0.186	2.992	0.003
Y4 <- Operational performance (Y)	0.796	0.790	0.092	8.610	0.000
Y5 <- Operational performance (Y)	0.686	0.669	0.156	4.396	0.000

Source: processed data, 2020

The outer loading value of the information sharing variable in the study has an original sample value (0) which is greater than 0.5, so that all the indicators that make up the variables have met the convergent validity. For the information sharing variable, the biggest contribution of its constituents is given by indicator variable X1.5 (with information that can help all parties, owners, employees in operational activities) and the lowest contribution of its forming is given by indicator X1.3. (Information sharing in the aspect of sales to employees and related parties is necessary). In the long term relationship variable, the biggest contribution to the forming part is given by the X2.4 indicator (commitment maintaining long-term relationships smoothing operational performance), the lowest contribution to the formation is given by the X2.3 indicator (can have good relationships with other parties for a long time). In the integration process variable, the biggest contribution of its formation is given

by indicator X3.3. (The Amplang production activities are well coordinated) the lowest contribution of its constituent is given by indicator X3.2 (Procurement of Amplang raw materials is always as needed and on time). In the operational performance variable, the biggest contribution of its formation is given by the Y1 indicator (consumers are satisfied with the Amplang product, so they will re-order) and the lowest contribution formation is given by the Y3 indicator (we are always productive in carrying out operational activities).

#### Discriminant Validity

The next test in the partial least square analysis is discriminant validity. This value is the value of the cross loading factor which is useful for knowing whether the construct has sufficient discriminant by comparing the loading value of the intended construct, which must be greater than the loading value with other constructs. The following is the cross loading output.

Table 2. The Result of Cross Loading

	Information Sharing	Integration Process	Operational Performance	Long Term Relationship
X1.1	0.649	0.356	0.428	0.388
X1.2	0.690	0.624	0.692	0.420
X1.3	0.573	0.371	0.496	-0.060
X1.4	0.743	0.195	0.458	0.451
X1.5	0.855	0.243	0.587	0.431
X1.6	0.571	0.192	0.282	0.193
X2.1	-0.042	-0.457	-0.480	-0.559
X2.2	-0.081	-0.123	-0023	0.302
X2.3	0.150	0.454	0.418	0.749
X2.4	0.664	0.322	0.491	0.748
X2.5	0.318	0.260	0.342	0.757

X2.6	0.401	0.204	0.445	0.705
X3.1	0.409	0.659	0.512	0.463
X3.2	0.237	0.590	0.559	0.244
X3.3	0.507	0.855	0.742	0.397
X3.4	0.319	0.757	0.638	0.337
Y1.1	0.435	0.812	0.815	0.651
Y1.2	0.777	0.466	0.668	0.488
Y1.3	0.519	0.248	0.562	0.379
Y1.4	0.591	0.571	0.797	0.536
Y1.5	0.399	0.817	0.676	0.169

Source: processed data, 2020

Table 2 shows that each construct has the largest loading factor value in the construct that forms it when compared to its value against other constructs Therefore, it can be concluded that all the constructs used have met the discriminant validity criteria based on the results of the cross loading value.

Table 3. The Result of Composite Reliability

Table 3. The Result of Composite Retubility			
	Composite		
	Reliability		
Information Sharing	0.840		
<b>Integration Process</b>	0.811		
Operational	0.833 Table 4, R-		
Performance	square Value		
Long Term	0.682		
Relationship	0.082		

Source: Processed data, 2020

Table 3. shows that the information sharing, process integration, and operational performance variables have a composite reliability value greater than 0.7, it can be concluded that the structural model has high reliability, even though the long term relationship variable has a composite reliability value smaller

than 0.7. Besides the outer model, PLS also tests the inner model. The results of this inner model can be seen through the R-square value.

Table 4. R Square

Operational Performance	R Square	
	0.891	

Source: processed data, 2020

Table 4. shows the value of R square in endogenous constructs is 89.1%, variables of supply chain management consisting of information sharing, long term relationship, and integration process are able to explain operational performance variables, the coefficient of determination on endogenous constructs is very strong (> 0.75) This means that the diversity of research data can be explained by the structural model of 89.1% and the remaining 10.9% is influenced by other factors.

Table 5. Path Coefficients (Mean, STDEV, T-Values, P-Values)

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistic (  O/STDEV  )	P Values
Information sharing (X1) -> Operational performance (Y)	0.422	0.418	0.120	3.523	0.000
Integration process (X3) -> Operational performance (Y)	0.622	0.612	0.128	4.855	0.000
Long term relationship (X2) -> Operational performance (Y)	0.039	0.047	0.094	0.411	0.681

Source: Processed data, 2020

Table 5. explains that the information sharing variable has an original sample of estimate value of 0.422 and a significance of 0.05 ( $t_{count} > t_{table} 1.96$ ). The long term relationship variable has an original sample of estimate value of 0.039 and significance at 0.05 ( $t_{value} < t_{table} 1.96$ ) for the variable integration process has an original sample of estimate value of 0.622 and significance at 0.05% (value of  $t_{count} > t_{table} 1.96$ ).

1. The effect of information sharing on the operational performance of Amplang IKM products based on the results of data analysis, the variable Information sharing (X1) has a positive and significant effect on the operational performance of the IKM Amplang product (Y), with a coefficient value (original sample of estimate) of 0.422 and significant at 0.05% (value  $t_{count} > t_{table}$  1.96). With the provision of information, it can help owners, employees in production activities. The provision and exchange of information between employees and owners regarding the production schedule and store operating schedule, the accuracy and validity of the composition of the materials used until the packaging process and the increase and decrease in sales are conveyed well. The provision and exchange of information affects the operational performance of the Amplang IKM product in providing service attitudes to consumers, and maintaining and improving the Amplang quality.

The results of this study are in line with [3] regarding the effect of linkages and information sharing on supply chain and export performance in Egyptian T&C manufacturers who also stated that information sharing has a positive effect on supply chain management performance. According to [16], with the exchange of information in the supply chain, it helps companies to improve inventory levels and make cost savings. Ref [23] also stated that sharing information with partners in the supply chain can reduce uncertainty and improve services in fulfilling customer orders. Therefore, the high intensity of information sharing can improve the company's supply chain management performance. Ref [18] where information sharing has a positive and significant effect on operational performance, meaning that the activity of providing or exchanging information can have an influence on increasing the operational performance of Amplang producers in Samarinda.

2. The effect of long term relationship on operational performance of *Amplang* IKM products. Based on the results of data analysis, the variable long term relationship (X2) has a positive but insignificant effect on the operational performance of IKM *Amplang*. With a coefficient value (original sample of estimate) of 0.039 and significant at 0.05% ( $t_{value} < t_{table}$  1.96), commitment and long-term relationships can improve operational performance. Long-term relationships with IKM suppliers of *Amplang* products have no

difficulty in managing the purchase of raw materials, the main raw materials used to produce *Amplang* are flat fish or mackerel fish which tend to be easily obtained by producers. Manufacturers do not depend on just one supplier, if there is a shortage of raw materials, then producers can easily get to other suppliers. Likewise with other ingredients such as flour and other spices so that long-term relationships do not have an effect on increasing operational performance.

The results of research conducted by [21] of supply chain integration and performance: the effects of long-term relationships, information technology and sharing, and logistics integration also state that long-term relationships have a positive effect on supply chain management performance. Ref [23] with a long-term relationship can better integrate information in the supply chain and provide long-term benefits for the company.

Long-term relationship is a perception to be willing to establish long-term relationships and cooperation in providing quality products at low costs. Therefore, SCM is an appropriate approach for companies in building long-term partnerships for suppliers (Khan et al., 2015).

The results of the study are not relevant to previous research conducted by [20]; [23] in which long term relationship has a significant effect on operational performance. However, in research by [18] the variable long term relationship does not have an influence on operational performance. The level of difficulty in managing each item purchase is a factor which affects the relationship with suppliers [24]. Effect of integration process on operational performance of Amplang producers

3. The effect of integration process on operational performance of Amplang IKM products. Based on data analysis, variable Integration process (X3) has a positive and significant effect on the operational performance of SME Amplang products, with a coefficient value (original sample of estimate) of 0.622 and significant at 0.05% (value  $t_{count} > t_{table}$ 1.96). Amplang production activities are well coordinated. Most Amplang producers Samarinda have well-coordinated production activities starting from the purchase of materials, the manufacturing process to sales. The integration process has a significant effect on the operational performance of the Amplang IKM product). A good integration process can be seen from the consistency of Amplang producers in producing Amplang. Even though they have different times in production activities, starting from twice a week, once every two days to every production day. This is because the demand and sales of Amplang are quite good. Coordinated production activities are a benchmark for the success of integrated processes in Amplang production [14]. The results of this study are in line with previous research by [25]; [26]. The research results show that the integration

process variable has a significant effect on operational performance.

# 5. Conclusion and Recommendation5.1. Conclusion

- 1. Information sharing (X1) has a positive and significant effect on the operational performance of *Amplang* producers in Samarinda. This result means that the increase in information sharing will improve the operational performance of IKM *Amplang* products in Samarinda city. Providing and exchanging information between employees and owners regarding the production schedule and store operating schedule, the accuracy and validity of the composition of the materials used to the packaging process as well as the increase and decrease in sales are well communicated.
- 2. Long term relationship (X2) has a positive but insignificant effect on the operational performance of IKM Amplang in Samarinda city. Long-term relationships with IKM suppliers of *Amplang* products have no difficulty in managing raw material purchases.
- 3. Integration process (X3) has a positive and significant effect on the operational performance of IKM Amplang products in Samarinda city. Good integration processes can be seen from the consistency of *Amplang* producers in producing *Amplang*. The production process tends to be different, starting from twice a week, once every two days to every production day. This is because the demand and sales of *Amplang* are quite good.

#### 5.2 Recommendation

- 1. Amplang Producers IKM in Samarinda can increase information sharing on indicator X1.3 related to sharing information in the sales aspect to employees and related parties which is very necessary in improving operational performance. In addition, they can increase or maintain the X1.5 indicator. With this information, it can help owners, employees, in providing information to consumers or distributors regarding the latest products.
- 2. Amplang Producers IKM in Samarinda can increase long term relationships on indicator X2.3 and can have good relationships with suppliers for a long time. In addition, they can maintain the X2.4 indicator. With high commitment and by maintaining good relationships with all suppliers, consumers, it can improve the operational performance of Amplang producers.
- 3. Amplang Producers IKM in Samarnda can increase the integration process on indicator X3.2. The supply of raw material for Amplang was not according to the needs and was not on time. In addition, they can maintain the X3.3 indicator. Amplang production activities are well coordinated, so the management of production flows is more effective and

- efficient in supporting the operational performance of *Amplang* producers.
- 4. This research only focuses on the operational performance of *Amplang* producers, which are assessed by producers (owners) and employees. For further research, it is recommended to use consumer variables. For SCM variables, it is recommended to use other variables such as cooperation, and a wider range of objects that represent various parties in the supply chain management.

# Acknowledgments

The authors would like to express their deep gratitude to the players of the SME Amplang in Samarinda City, and also to the local government of Samarinda City who have helped to obtain data.

#### References

- [1] Kitchot, S., Siengthai, S., & Sukhotu, V. (2020). The mediating effects of HRM practices on the relationship between SCM and SMEs firm performance in Thailand. Supply Chain Management: An International Journal.
- [2] Ali, Z., Gongbing, B., & Mehreen, A. (2019). Supply chain network and information sharing effects of SMEs' credit quality on firm performance. *Journal of Enterprise Information Management*.
- [3] Setini, M., Yasa, N. N. K., Gede Supartha, I. W., Ketut Giantari, I., & Rajiani, I. (2020). The Passway of Women Entrepreneurship: Starting from Social Capital with Open Innovation, through to Knowledge Sharing and Innovative Performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(2), 25.
- [4] Yasa, N., Setini, M., Asih, D., Rahmayanti, P, Telagawathi, N., and Adi, I. (2020). Innovation Capability towards Business Performance trough Company Resources Industry Creatif Handycraft in Bali. *International Journal of Supply Chain Management*, 9(5), 1686 1694.
- [5] Samarindakota, Industry by Type of Industry, Business Unit, Labor, and Amount of Investment in Samarinda City, 2017-2018, https://samaraktota.bps.go.id/statictable/2019/0 2/14/91/industri-menurut- Industry-unit-typelabor-labor-and-size-investment-in-cities-Samarinda-2017-2018.html (31 October 2020)
- [6] Nkwabi, J. M., & Fallon, J. (2020). The Factors Affecting Supplier Relationship Management in the Food Manufacturing Small and Medium Enterprises (SMEs) in Dar es Salaam Tanzania. *American International Journal of Business and Management Studies*, 2(1), 25-34.
- [7] Abadiyah, R., Eliyana, A., & Sridadi, A. R. (2020). Motivation, Leadership, Supply Chain

- Management toward Employee Green Behavior with Organizational Culture as a Mediator Variable. *International Journal of Supply Chain Management*, 9(3), 981-989.
- [8] Seman, N. A. A., Govindan, K., Mardani, A., Zakuan, N., Saman, M. Z. M., Hooker, R. E., & Ozkul, S. (2019). The mediating effect of green innovation on the relationship between green supply chain management and environmental performance. *Journal of cleaner* production, 229, 115-127.
- [9] Li, Y., & Bates, T. C. (2019). You can't change your basic ability, but you work at things, and that's how we get hard things done: Testing the role of growth mindset on response to setbacks, educational attainment, and cognitive ability. *Journal of Experimental Psychology: General*, 148(9), 1640.
- [10] Goshime, Y., Kitaw, D., & Jilcha, K. (2019). Lean manufacturing as a vehicle for improving productivity and customer satisfaction. *International Journal of Lean Six Sigma*.
- [11] Müller, J. M., Veile, J. W., & Voigt, K. I. (2020). Prerequisites and incentives for digital information sharing in Industry 4.0–An international comparison across data types. *Computers & Industrial Engineering*, 148, 106733.
- [12] Reaidy, P. J., Lavastre, O., Ageron, B., & Chaze-Magnan, L. (2020, February). Consumer integration in supply chain management: a taxonomy. In *Supply Chain Forum: An International Journal* (pp. 1-16). Taylor & Francis.
- [13] Colicchia, C., Creazza, A., Noè, C., & Strozzi, F. (2019). Information sharing in supply chains: a review of risks and opportunities using the systematic literature network analysis (SLNA). Supply chain management: an international journal.
- [14] Peng, X., Prybutok, V., & Xie, H. (2020). Integration of supply chain management and quality management within a quality focused organizational framework. *International Journal of Production Research*, 58(2), 448-466.
- [15] Riazi, S. R. M., Nawi, M. N. M., Salleh, N. A., & Ahmad, M. A. (2019). Collaborative Supply Chain Management (SCM) Tools for Improved Teamwork in Construction Projects. *International Journal of Supply Chain Management*, 8(5), 473-480.
- [16] Putra, I., Sunarsih, N., Novitasari, L., & Setini, M. (2020). Exploring the relationship between social capital, innovation capability and innovation during the coronavirus pandemic. *Uncertain Supply Chain Management*, 8(4), 857-864.
- [17] Lei, J., Hock, O. Y., & Karim, A. M. (2020). The Influence Of Entrepreneurship Education On Innovation Capability Among Chinese

- Undergraduate Students In COVID-19 Pandemic Era: A Framework Of Analysis. Solid State Technology, 63(6), 2279-2297.
- [18] Guo, C., Sarkar, S., Zhu, J., & Wang, Y. J. (2020). R&D investment, business performance, and moderating role of Guanxi: Evidence from China. *Industrial Marketing Management*, 91, 55-63.
- [19] Jermsittiparsert, K., Joemsittiprasert, W., & Phonwattana, S. (2019). Mediating Role of Sustainability Capability in Determining Sustainable Supply Chain Management in Tourism Industry of Thailand. *International Journal of Supply Chain Management*, 8(3), 47-58
- [20] Chen, C. J. (2019). Developing a model for supply chain agility and innovativeness to enhance firms' competitive advantage. *Management Decision*.
- [21] AlNouss, A., McKay, G., & Al-Ansari, T. (2019). A techno-economic-environmental study evaluating the potential of oxygen-steam biomass gasification for the generation of value-added products. *Energy conversion and management*, 196, 664-676.
- [22] Jiao, Y., Ji, C., Yang, S., Yang, G., Su, M., & Fan, H. (2020). Home governments facilitate cleaner operations of outward foreign direct investment: A case study of a cleaner production partnership programme. *Journal of Cleaner Production*, 121914.
- [23] Laverde-Rojas, H., Correa, J. C., Jaffe, K., & Caicedo, M. I. (2019). Are average years of education losing predictive power for economic growth? An alternative measure through structural equations modeling. *PloS one*, 14(3), e0213651.
- [24] Shahzad, F., Du, J., Khan, I., Shahbaz, M., Murad, M., & Khan, M. A. S. (2020). Untangling the influence of organizational compatibility on green supply chain management efforts to boost organizational performance through information technology capabilities. *Journal of Cleaner Production*, 266, 122029.
- [25] Seman, N. A. A., Govindan, K., Mardani, A., Zakuan, N., Saman, M. Z. M., Hooker, R. E., & Ozkul, S. (2019). The mediating effect of green innovation on the relationship between green supply chain management and environmental performance. *Journal of cleaner* production, 229, 115-127.
- [26] Oliech, C. O., & Mwangangi, P. (2019). Effect of strategic procurement management on performance of level five hospitals in Kenya. *International Journal of Supply Chain Management*, 4(1), 39-62.