Scholars Journal of Economics, Business and Management (SJEBM) **e-ISSN 2348-5302**
Abbreviated Key Title: Sch. J. Econ. Bus. Manag. **p-ISSN 2348-8875**

A Unit of Scholars Academic and Scientific Society, India
www.saspjournals.com

Supply Chain Integration of Potato Agro-Industry: Primary Management Processes Perspective

Silvana Maulidah[1*], Djoko Koestiono[1], Soemarno[2], A. Wahib Muhaimin[1]
[1]Agribusiness Program Study, Departement of Social Economy, Agriculture Faculty, University of Brawijaya, Malang, East Java, Indonesia
[2]Doctoral Program of Agricultural Science, Agriculture Faculty, University of Brawijaya, Malang, East Java, Indonesia

***Corresponding author**
Silvana Maulidah

Article History
Received: 12.08.2018
Accepted: 20.08.2018
Published: 30.08.2018

DOI:
10.36347/sjebm.2018.v05i08.005

Abstract: Supply chain integration is required for coordination between all processes to proceed without constrain (Krajewski, et al., 2013). The role of management is needed to harmonize operations in the supply chain (Huo, et al., 2008). The SCOR (Supply Chain Operational Reference) model is a reference model that can be used to map, compare, measure, and improve the performance of a primary management process that repeats itself throughout the supply chain, includes 6 (six) primary management processes, namely: plan, source, make, deliver, and return, and enable (Supply Chain Council, 2012). The objectives of this research are analyze priorities in the primary process of supply chain management; analyze the performance of primary supply chain management; and reviewing the integration strategy of agro-industrial potato supply chain. The results of this study are as follows: the primary management process in the potato agroindustry supply chain which is a priority or the most important is the Enable process. The level of achievement of the primary process performance of potato agro-industry supply chain management is in the condition of not reaching the target (medium scale). Strategies that must be carried out for supply chain integration in the perspective of the primary management processes include: management of human resources, supply chain business rules, also data and information. For another strategies, the activities that potato agro-industry must pay more attention are sortation of fresh potato quality, delivery of fresh potato to production field, schedule of potato chips production, and planning of potato chips delivery to the customer.
Keywords: Supply chain integration, primary management processes; potato agro-industry.

INTRODUCTION

In Indonesia, potatoes are one of the horticultural commodities that have comparative and competitive advantages, thus opening up prospective management opportunities [1]. Judging from the technical aspects, Indonesia has endowment factors from natural resources that support the cultivation of potatoes. Potatoes are included in commodities with high economic value, due to several factors, among other things, the types of vegetables that are very important in supporting the improvement of community nutrition, namely as a complement to even food substitution (as a source of carbohydrates). On the other hand, potatoes also have a large added value, because they are among the commodities most likely to develop processed agroindustry compared to other horticultural commodities [2]. This is in accordance with the Central Government's main program in agriculture, namely sustainable agricultural development, one of them with food diversification as outlined in the 2010-2014 agriculture ministry strategy plan, hence the development of horticultural potato commodities is very important and should not be ignored [3].

National potato needs are mostly used for processed industries (potato-based derivatives). This condition is accompanied by national potato production which continues to increase. In 2014, national potato production was recorded at 1,347,815 tons, of which East Java Province was the third largest contributor in Indonesia, with the achievement of potato production of 208,270 tons [4] and Batu City is the largest potato contributor in East Java Province which was recorded at 78,009 tons in 2014, and production continued to increase by 86,371 tons in 2015 and 87,910 tons in 2016 [5].

Batu City is one of the regions in Indonesia that has the potential to develop potato-based agro-industry

in an integrated manner. This is because this region has agroindustry supporting systems that are very strong, ranging from upstream subsystems, production subsystems, and downstream subsystems. As a potato processing agro-industry center (resource-based agroindustry), the increase in potato production in Batu City is one of the entry points for the development of potato-based agricultural industries, while for marketing it is strongly supported by the existence of Batu City which is a tourist destination city. Where one of its superior products is potato-based processed.

Potato agro-industry must have competitive capabilities, with aspects including: cost, quality, time, and dimensions of flexibility [6]. Agro-industry actors must establish competitive priorities, namely that all agro-industry operations must be carried out in an effort to satisfy both internal and external customers, at present and in the future. The main objective can be achieved through integrated management of potato agro-industry supply chain networks. Therefore, the Directorate General of Horticulture of the Ministry of Agriculture of the Republic of Indonesia stipulates supply chain management as one of the six pillars of national horticultural-based commodity development [7].

Integration in the potato agro-industry supply chain is very complex because it involves various types of entities and flows, both internal and external. The primary process of supply chain management strategies plays an important role in determining the management functions of the company [8, 9]. A competitive management operations strategy can be achieved if management actors are able to link or link one process to another, which is known as supply chain integration [6]. Management is said to be successful if successfully integrate the supply chain or supply chain management.

Internal integration is a function to function integration within the focal firm, which is the first step in operational integration and is the basis of the success of supply chain integration. The highest level of integration is collaborative internal operations, where all lines in management work like an integrated system that will produce better inter-departmental performance and effectiveness [10]. Internal supply chain integration is emphasized in the primary processes of company management. The method used to analyze the supply chain integration (internal) performance in this study, adopted from the concept developed by the SCC (Supply Chain Council); namely: SCOR model (supply Chain Operational Reference), which includes 6 (six) primary management processes, namely: plan, source, make, deliver, and return, and enable.

In this potato supply chain integration research, the approach used is to review the primary process of supply chain management with the SCOR model. The SCOR model is a reference model that can be used to map, compare, measure, and improve the performance of primary management processes from a supply chain. The first objective is to analyze priorities (the most important factor) in the primary process of supply chain management; second: analyze the performance of primary supply chain management processes; third: reviewing the integration strategy of potato agro-industry supply chain.

LITERATURE REVIEW

Supply Chain Management

The term "Supply Chain management" first appeared in the 1980s, used popularly by Oliver and Weber [11], which deals with the issue of the increasing importance of an internal and external relationship of an organization in achieving its competitive advantage. The concept of supply chain management begins with logistic management science, which is then expanded to include aspects other than physical/material movements in the context of operations management [12].

Supply chain management is planning, designing and controlling the flow of materials, information, and money along the supply chain to efficiently meet customer needs both now and in the future [13]. The function of supply chain management is to coordinate the flow of materials, information and money between all related companies such as supplier companies and other companies related to the supply of materials, manufacturing company that processes the supplied material, distributor companies and retailers. One of the most important things in supply chain management is sharing information, therefore in the flow of material, cash flow and information flow are all elements of the supply chain that need to be integrated [14].

Supply Chain Integration

According to Stock and Lambert [15], for a successful supply chain management, an integrated system is needed. Each unit in the supply chain is a unit, not independent. Operations in the supply chain require a continuous flow of information to produce good products at the right time according to the needs of consumers. In this case consumers are the focus in every operation carried out. Regardless of the supply chain design, minimizing supply chain disruptions must begin with the integration of functions and organizational management. In order for an effective supply chain, Thorn [16] suggests that there is an underlying key, namely internal integration and external integration. Internal integration is the integration in operations management level and the integration in planning and controlling level.

Operations in the supply chain involve all processes, ranging from obtaining raw materials to fulfilling orders. This is the level with regard to physical conditions and the basic elements of the supply chain. Supply chain integration must begin with this level of integration, which is the basis of collaboration between all companies. In an organization and its function, integration at the operational management level includes internal integration from a core company (focal firm / focal manufacturer), supplier integration, distributor integration and customer integration. A good operation requires the support of linkages between performance planning and evaluation, which involves the use of multiple techniques for planning, controlling, evaluating and improving performance. Integration in planning and level of control, aims to coordinate all business processes, such as procurement of resources (source), production (make), order fulfillment, and filling supplies (inventory) by utilizing information and coordination.

SCOR Model (S*upply Chain Operational Reference*)

The method used to evaluate the integration (internal) performance of the supply chain in this study was adopted from the concept developed by the SCC (Supply Chain Council); namely: SCOR model (Supply Chain Operational Reference) [17]. The SCOR model is a conceptual framework that combines the primary processes of supply chain internal management with performance measurement based on best practices into an integrated structure, with the aim that the communication process between supply chain actors and supply chain management activities can run optimally [18, 19]. The SCOR model used focuses on the context of the supply chain which includes 6 (six) primary management processes, namely: plan, source, make, deliver, and return, and enable continuous repetition throughout the supply chain [20].

The Plan Process (Planning) is a process related to the determination of requirements / needs and preventive actions to achieve supply chain objectives. Source Process (Procurement of raw materials) is a process related to ordering, shipping, receiving and transferring raw materials. The Make Process (production process) is the process of adding value to the product, while the deliver process is a process that deals with the management of customer needs / orders. Return is a process of returning damaged / defective products from customers along the supply chain. Enable is a process that deals with building, maintaining and monitoring information, relationships, resources, business rules throughout the supply chain [18].

METHODOLOGY

The research location was determined in Batu City, East Java Province. The method of determining the location was done purposively, with a variety of considerations, including: (1) Batu City as the center for producing potato commodities in East Java; (2) Batu City is a potato processing agro-industry center; and (3) Batu City is a tourist city with its superior products, namely potato chipses. This condition confirms that Batu City has the potential for the development of potato agro-industry and is feasible for the study of its supply chain integration.

Respondents in this study were determined by purposive method, namely the actors of potato processed agroindustry in Batu City as Focal Firms in the supply chain integration with a supply chain management primary process approach. Respondents consisted of 3 (three) existing business scales, namely: medium scale, small scale, and micro scale.

The analytical method used is to answer the objectives in this study. The SCOR (Supply Chain Operation Reference) model is used in assessing the primary processes of supply chain management, with analytical methods including: (1) ANP (Analytic Network Process) method, used to analyze performance factors that are a priority in the primary supply chain management process; (2) OMAX (Objective Matrix) analysis, used to analyse performance level of primary supply chain management processes; and (3) Traffic Light System Analysis, used to evaluate strategies in the integration of potato agro-industry supply chains.

The SCOR® model used is a model developed by Supply Chain Council Version 11 [18]. In the SCOR® Model there are 6 (six) primary management processes in management that are reviewed, including: Plan, Source (Procurement of raw materials), Make, Deliver, Return and Enable (arrangement between planning and execution). Where each of the primary management processes is examined with variables called Key Performance Indicators / KPIs as measured by qualitative data.

RESULTS AND DISCUSSION

Priority in the Primary Process of Supply Chain Management

The business process in this study was examined with the SCOR model's primary management process approach. The SCOR (Supply Chain Operation References) model was developed to describe all interrelated business activities at all stages to satisfy customer demand. This model has 6 (six) primary management processes, each of which is a primary process, measured by key indicators of KPI performance (Key Performance Indicators), including: namely: the Plan Process (planning), measured by 3 (three) KPIs; Source Process (Procurement of raw materials), measured by 4 (four) KPIs; Make process, measured by 3 (three) KPIs; Deliver Process

(Delivery), measured with a 2 (two) KPI; Return process, measured by 3 (three) KPIs; and the Enable Process, measured by 3 (three) KPIs. From the KPI that has been validated, the ANP (Analytic Network Process) method is carried out by describing it in a network.

Table-1: The Primary Management Processes and Key Performance Indicators/KPIs

No	The Primary Management Processes	Key Performance Indicators (KPIs)	
		Variables	Descriptions
1	Plan	P1	Planning of fresh potato procurement
		P2	Planning of potato chips production
		P3	Planning of potato chips delivery
2	Source	S1	Schedule of fresh potato delivery from suppliers
		S2	Fulfillment of fresh potato potato from suppliers
		S3	Sortation of fresh potato quality
		S4	Delivery of fresh potato to production field
3	Make	M1	Schedule of potato chips production process activities
		M2	Production process of potato chips
		M3	Release of potato chips
4	Deliver	D1	Delivery of potato chips to customer
		D2	Schedule of potato chips delivery to customer
5	Return	R1	Return of defective potato chips from customer
		R2	Replacement of defective potato chips from customer
		R3	Replacement time of defective potato chips
6	Enable	E1	Management of supply chain business rules
		E2	Management of data and information
		E3	Management of human resources

Furthermore, the determination of the relationship between the interests is carried out. The result is priority weighting for each primary management process along with its KPI. Based on Table 2 below, the primary management process in the potato agro-industry supply chain which is a priority or the most important of the 6 (six) processes is the Enable process. This shows that the supporting factors become the process of management that most influences the smooth internal integration of the potato agroindustry supply chain. This process is all activities related to the arrangement so that the implementation process is in accordance with the set plan. Key Performance Indicators (KPIs) that explain enabling processes, in sequence according to their importance, include: managing business rules in the supply chain, managing data and information, and managing human resources. This fact proves that currently agro-industry actors have understood that the smooth process of business is not only influenced by the problem of inputs (fresh potato as raw material) and output (potato chips), however, it will begin to shift to supporting processes that keep the planning and execution process going well. Management of business rules in the supply chain relates to a system that coordinates the flows (goods, money and information) among all entities in an integrated manner. This process is related to the establishment, maintenance and monitoring of information, relationships, resources, assets, business rules, and contracts needed to operate the supply chain of potato agro-industry. Support to regulate and realize the supply chain planning and implementation process which enables interaction with processes in other domains (for example: finance, HR/Human Resources, ICT /Information, Communication & Technology, and marketing). The following in Table 2 is the value of weighting on performance in business management processes.

The Level of Achievement of the Performance of the Primary Process of Supply Chain Management

The achievement of the performance of the primary supply chain management process is done by scoring system calculations using Objective Matrix (OMAX) and Traffic Light System methods. In this method, calculations are performed using data from the potato agro-industry related to 6 (six) primary management processes. The data needed is the 2016 achievement data, 2017 achievement data, realistic achievement targets for 2017 and pessimistic achievement targets for 2017. This process produces values that show the achievement of the performance of each of the primary management processes and their KPIs, as well as the achievement of the performance of the potato agro-industry supply chain. Next, the categorization evaluation is carried out using the Traffic Light System method. There are 3 (three) color categories, namely: green, where the supply chain performance is in accordance with the targets set by management; in yellow, the supply chain performance has not met the target even though it is approaching; and red, which means the supply chain performance is still below the target, thus requiring immediate improvement from management in order to achieve

internal integration of the potato agro-industry supply chain.

Table-2: Value of Priority Weighting in the Primary Process of Management Business and KPI

No	Primary Management Processes	Perspective Weight	KPI	KPI's Weight
1	Plan	0,183	P1	0.250
			P2	0.507
			P3	0.243
2	Source	0,148	S1	0.066
			S2	0.289
			S3	0.330
			S4	0.315
3	Make	0,189	M1	0.218
			M2	0.473
			M3	0.309
4	Deliver	0,197	D1	0.619
			D2	0.381
5	Return	0,081	R1	0.331
			R2	0.465
			R3	0.204
6	Enable	0,202	E1	0.368
			E2	0.361
			E3	0.271

Source: Primary Data, processed (2018)

Table-3: Value of Performance Achievement Levels from the Primary Process of Supply Chain Management

No	Primary Managemen Processes	Level Value	KPI	Level Value
1	Plan	4.15	P1	3.96
			P2	5.12
			P3	2.33
2	Source	4.28	S1	10.00
			S2	7.45
			S3	3.67
			S4	3.98
3	Make	4.64	M1	3.65
			M2	5.19
			M3	4.50
4	Deliver	7.01	D1	5.16
			D2	10.00
5	Return	10.00	R1	10.00
			R2	10.00
			R3	10,00
6	Enable	3.34	E1	3.11
			E2	3.83
			E3	3.00
Total Supply Chain Performance Index		5.57		

Source: Primary Data, processed (2018)

In Table 3, the performance achievement level of the supply chain management primary process is presented. The level of achievement of the supply chain agro-industry supply chain is in the condition of not reaching the target (medium scale), with the achievement value of 5.57 and showing the yellow color of the traffic light. This means that performance targets in the supply chain to meet consumer needs have not been achieved. Furthermore, it can be explained that this condition is due to the existence of several primary management processes, especially those that are still below the intended target. These processes are shown in red, both in the primary management process and in the KPI. The process which achievement performance is still below the target is enable (support), while the process that still does not meet the target is Plan (Planning) and Source (Procurement of raw material for potatoes). KPIs or key performance indicators that are still below the target in sequence, are: Management of human

resources (E3), Management of supply chain business rules (E1), Management of data and information (E2), Planning of potato chips delivery (P3), Sortation of fresh potato quality (S3); Delivery of fresh potato to production field (S4), Schedule of potato chips production process activities (M1).

Supply Chain Integration Strategy in the Primary Process Management Perspective

Business processes in the supply chain that need to be corrected immediately to achieve internal supply chain integration, namely the processes in Table 3 that illustrate the color of red traffic light, both in the primary management process and its KPI. Appropriate and fast action is needed so as not to interfere with performance along the potato agro-industry supply chain. The following is explained the improvement strategies in Table 4.

Table-4: Supply Chain Integration Strategies in the Primary Management Process Perspective on Potato Agroindustry

No	Primary Management Processes	Internal Integration Improvement Strategy
1	Enable	Management of Human Resources (E3)
		Management of supply chain business rules (E1)
		Management of data and information (E2)
2	Plan	Planning of potato chips delivery (P3)
3	Source	Sortation of fresh potato quality (S3)
		Delivery of fresh potato to production field (S4)
4	Make	Schedule of potato chips production process activities (M1)

IMPLICATIONS

In order to improve the performance of internal integration (operational) of the primary supply chain management process, the potato agro-industry as focal firms/entities, must do: (1) for human resource management, through training in labor of potato agro-industry; (2) for management of supply chain business rules, through documentation of SOP (Standard Operational Procedure) related to potato agro-industry supply chain primary management processes; (3) for data and information management, supported by documentating of data and information related to the flow of goods (fresh potato and potato chips), money, suppliers and customers of potato agro-industry; (4) for planning of potato chips delivery, through forecasting customer demand and requirements of potato chips, fresh potato fulfillment capabilities of suppliers also production capabilities of agro-industry; (5) for sortation of fresh potato quality and delivery of fresh potato to production field, through the creation of a SOP (Standard Operational Procedure) related to the inspection of raw potato ingredients; and (6) developing production timeline for the precision of schedule of potato chips production process activities.

ACKNOWLEDGEMENT

I would like to thank the Ministry of Research, Technology and Higher Education of the Republic of Indonesia; I really appreciate for the opportunities and funding support for doctoral studies and dissertation research. I am also gratefull to the Doctoral Program, Agriculture Faculty, and University of Brawijaya for the best service in supporting my lecture.

Appendix

PLAN

Table-1: Target and Achievement of Process "Plan"

KPI	Achievement		Realistic Target	Pessimistic Achievement Targets	Unit	Achievement Target	Results of Achievement
	2016	2017					
P1	99,20	99,31	100	85	%	Larger is Better	Not Achieved
P2	92,95	95,07	100	85	%	Larger is Better	Not Achieved
P3	86,71	86,33	100	85	%	Larger is Better	Not Achieved

Table-2: Plan's KPIs Performance Achievement Levels

KPI		P1	P2	P3
Performance Achievements		99,31	95,07	86,33
Score	10	100,00	100,00	100,00
	9	99,89	98,99	98,10
	8	99,77	97,98	96,20
	7	99,66	96,98	94,30
	6	99,54	95,97	92,40
	5	99,43	94,96	90,51
	4	99,31	93,95	88,61
	3	99,20	92,95	86,71
	2	94,47	90,30	86,14
	1	89,73	87,65	85,57
	0	85,00	85,00	85,00
Score		3,96	5,12	2,33
Weight		0,05	0,09	0,04
Value		0,18	0,47	0,10
0,76		Total Value		
0,18		"Plan" Weight		
4,15	Supply Chain Performance Achievement of "Plan"			

SOURCE

Table-3: Target and Achievement of Process "Source"

KPI	Achievement		Realistic Target	Pessimistic Achievement Targets	Unit	Achievement Target	Results of Achievement
	2016	2017					
S1	1	1	1	5	Day	Smaller is Better	Achieved
S2	98,02	99,28	100	85	%	Larger is Better	Not Achieved
S3	99.37	99,43	100	85	%	Larger is Better	Not Achieved
S4	99,76	99,76	100	85	%	Larger is Better	Not Achieved

Table-4: Source's KPIs Performance Achievement Levels

KPI		S1	S2	S3	S4
Performance Achievements		1	99,28	99.43	99.76
Score	10	1	100,00	100,00	100,00
	9		99,72	99,91	99,97
	8		99,44	99,82	99,93
	7		99,15	99,73	99,90
	6		98,87	99,64	99,86
	5	3	98,59	99,55	99,83
	4		98,31	99,46	99,80
	3		98,02	99,37	99,76
	2		93,68	94,58	94,84
	1		89,34	89,79	89,92
	0	5	85,00	85,00	85,00
Score		10	7,45	3,67	3,98
Weight		0,01	0,04	0,05	0,05
Value		0,10	0,32	0,18	0,19
0,78		Total Value			
0,18		"Source" Weight			
4,28		Supply Chain Performance Achievement of "Source"			

MAKE

Table-5: Target and Achievement of Process "Make"

KPI	Achievement		Realistic Target	Pessimistic Achievement Targets	Unit	Achievement Target	Results of Achievement
	2016	2017					
M1	5	5	4	7	Day	Smaller is Better	Not Achieved
M2	88,11	91,83	100	85	%	Larger is Better	Not Achieved
M3	99,43	99,55	100	85	%	Larger is Better	Not Achieved

Table-6: Make's KPIs Performance Achievement Levels

KPI		M1	M2	M3
Performance Achievements		5	91,83	99,55
Score	10	4	100,00	100,00
	9		98,30	99,92
	8		96,60	99,84
	7		94,91	99,76
	6		93,21	99,67
	5		91,51	99,59
	4		89,81	99,51
	3	5	88,11	99,43
	2		87,08	94,62
	1		86,04	89,81
	0	7	85	85
Score		3,65	5,19	4,50
Weight		0,04	0,09	0,06
Value		0,15	0,46	0,26
0,88	Total Value			
0,19	"Make" Weight			
4,64	Supply Chain Performance Achievement of "Make"			

DELIVER

Table-7: Target and Achievement of Process "Deliver"

KPI	Achievement		Realistic Target	Pessimistic Achievement Targets	Unit	Achievement Target	Results of Achievement
	2016	2017					
D1	77,58	83,99	100	75	%	Smaller is Better	Achieved
D2	1	1	1	3	Day	Larger is Better	Not Achieved

Table-8: Deliver's KPIs Performance Achievement Levels

KPI		D1	D2
Performance Achievements		83,99	1
Score	10	100,00	1
	9	96,80	
	8	93,59	
	7	90,39	
	6	87,19	
	5	83,99	2
	4	80,78	
	3	77,58	
	2	76,72	
	1	75,86	
	0	75,00	3
Score		5,16	10
Weight		0,12	0,07
Value		0,63	0,75
1,38	Total Value		
0,20	"Deliver" Weight		
7,01	Supply Chain Performance Achievement of "Deliver"		

RETURN

Table-9: Target and Achievement of Process "Return"

KPI	Achievement		Realistic Target	Pessimistic Achievement Targets	Unit	Achievement Target	Results of Achievement
	2016	2017					
R1	100	100	100	85	%	Larger is Better	Achieved
R2	100	100	100	85	%	Larger is Better	Achieved
R3	7	7	7	10	Day	Smaller is Better	Achieved

Table-10: Return's KPIs Performance Achievement Levels

KPI No.		R1	R2	R3
Performance Achievements		100,00	100,00	7,00
Score	10	100,00	100,00	7,00
	9	98,50	98,50	7,30
	8	97,00	97,00	7,60
	7	95,50	95,50	7,90
	6	94,00	94,00	8,20
	5	92,50	92,50	8,50
	4	91,00	91,00	8,80
	3	89,50	89,50	9,10
	2	88,00	88,00	9,40
	1	86,50	86,50	9,70
	0	85,00	85,00	10,00
Score		10,00	10,00	10,00
Weight		0,03	0,04	0,02
Value		0,27	0,38	0,16
0,81	Total Value			
0,08	"Return" Weight			
10,00	Supply Chain Performance Achievement of "Returnr"			

ENABLE

Table-11: Target and Achievement of Process "Enable"

KPI	Achievement		Realistic Target	Pessimistic Achievement Targets	Unit	Achievement Target	Results of Achievement
	2016	**2017**					
R1	84,38	84,62	100	80	%	Larger is Better	Not Achieved
R2	59,52	64,29	100	55	%	Larger is Better	Not Achieved
R3	4,00	4,00	6	1	Person	Larger is Better	Not Achieved

Table-12: Enable's KPIs Performance Achievement Levels

KPI		E1	E2	E3
Performance Achievements		84,62	64,29	4,00
Score	10	100,00	100,00	6,00
	9	97,77	94,22	
	8	95,54	88,44	
	7	93,30	82,65	
	6	91,07	76,87	
	5	88,84	71,09	
	4	86,61	65,31	
	3	84,38	59,52	4,00
	2	82,92	58,02	3,00
	1	81,46	56,51	2,00
	0	80,00	55,00	1,00
Score		3,11	3,83	3,00
Weight		0,07	0,07	0,05
Value		0,23	0,28	0,16
0,68	Total Value			
0,20	"Enable" Weight			
3,34	Supply Chain Performance Achievement of "Enable"			

REFFERENCES

1. Budiman Y. Faktor-faktor produksi dan analisis efisiensi usahatani kentang merah (Solanum Tuberasum) Di Desa Talang Lahat Kecamatan Sindang Kelingi Kabupaten Rejang Lebong. Bengkulu (ID): Fakultas Pertanian Universitas Bengkulu.[diunduh 2014 Mei 25]. Tersedia pada: http://umb. ac. id/faperta. 2012.
2. Zulhaedar Fitria. Pentingnya Komoditi Hortikultura Sebagai Bahan Pangan. 2012; Diakses Pada 2017 Juli 10). Available at: Http://Ntb.Litbang.Pertanian.Go.Id/. [Verified on 15th January, 2017].
3. Kementerian Pertanian. Pentingnya komoditi Hortikltura. 2012. Available at: http://ntb.litbang.pertanian.go.id/ind/index.php?option=com_content&view=article & id=542:pentingnya-komoditi-hortikultura-sebagai-bahan-pangan& catid =53:artikel&Itemid=49. [Verified on 25th May, 2017].
4. Batu BK. Statistik Daerah Kota Batu 2015. Kota Batu. 2016.
5. Biro Pusat Statistik Kota Batu. Data Potensi Pertanian dan Kehutanan. Kota Batu. 2017.
6. Krajewski LJ, Ritzman LP, Malhotra MK. Operations management: processes and supply chains. Upper Saddle River, New Jersey: Pearson; 2010.
7. Direktorat Jenderal Hortikultura Departemen Pertanian RI. Rencana Strategis Direktorat Jenderal Hortikultura 2015-2018. Jakarta. 2008.
8. Devaraj S, Hollingworth DG, Schroeder RG. Generic manufacturing strategies and plant performance. Journal of Operations Management. 2004 Jun 1;22(3):313-33.
9. Kathuria R. Competitive priorities and managerial performance: a taxonomy of small manufacturers. Journal of Operations Management. 2000 Nov 1;18(6):627-41.
10. Harrison A, Van Hoek RI. Logistics management and strategy: competing through the supply chain. Pearson Education; 2008.
11. Gabbiani G, Kocher O, Bloom WS, Vandekerckhove J, Weber K. Actin expression in smooth muscle cells of rat aortic intimal thickening, human atheromatous plaque, and cultured rat aortic media. The Journal of clinical investigation. 1984 Jan 1;73(1):148-52.
12. Sujono, Spudnik. Dinamika Penerapan *Supply Chain Management:* Aplikasi Praktis dan Akademis Pengelolaan Rantai Pasokan Industri Pupuk Organik dalam Menopang Ketahanan Pangan Nasional. IBP. Jakarta. 2016.
13. Sheikh K. Manufacturing resource planning (MRP II): with introduction to ERP, SCM and CRM. McGraw-Hill Professional Publishing; 2003.
14. Chen IJ, Paulraj A. Understanding supply chain management: critical research and a theoretical framework. International journal of production research. 2004 Jan 1;42(1):131-63.
15. Simeunović BP. *Razvoj modela za merenje performansi procesa* (Doctoral dissertation, Univerzitet u Beogradu-Fakultet organizacionih nauka).
16. Analisis Sosial Ekonomi Dan Kebijakan Pertanian. Bogor.Thorn J. Taktisches Supply Chain Planning, 22. Frankfurt is Main: Peter Lang. 2002.
17. Huo, Yanfang, Xinyue Jiang, Fu Jia, dan Bingguang Li. 2008. A Framework and Techniques for Supply Chain Integration. Available at: Open Access Database www.intechweb.org. Austria. [Verified on 12nd January, 2017].
18. Supply Chain Council. *Supply Chain Operations Reference Model Revision.* 2012 *11.0.*
19. Rouli, Juliana. Evaluasi Supply Chain Management. Disertasi. Universitas Indonesia. Jakarta.
20. Habib M. Supply chain management (SCM): theory and evolution. InSupply Chain Management-Applications and Simulations 2011. Intech.