

PRODUCER PERFORMANCE ANALYSIS ARGOPURO SPECIALTY COFFEE: STUDY ON SUPPLIER AND B2B CONSUMER PERSPECTIVE

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ABSTRACT: *Argopuro specialty coffee as a niche market product had a fairly short distribution channel, so its customer are quite responsive to quality produced. In specialty coffee market, integrity between distribution channel component are important to do. Walida society, new producer of single origin coffee in Argopuro require to restructure itself. One important restructure are evaluation regarding quality and production capacity of Argopuro specialty coffee which has been produced in the last three years. Performance evaluation could be done from two perspective, which are supplier perspective as raw material supplier and consumer perspective as quality and production capacity evaluation. By this two perspective, it is expected that firm could establish strong supply and also establishing sustainable distribution channel. Performance in this research are measured by using Important Performance Analysis (IPA) method. Variables and indicators used are composed by referring to previous research by Maunu (2003) regarding performance measurement from supplier perspective. Performance indicators from coffee roastery as B2B consumer are also used in this research. Result in this study shows that performance from supplier perspective had reach performance rating of 80%. This shows that supplier are fairly satisfied with firm performance with improvement on several indicators, such as producer quality control assistance (60%), improvement on farmers skills (63%), financing support (61%) and producer's involvement on problem solving (60%). Meanwhile, on B2B perspective, performance rating had reach 90% which shown that firm performance are quite satisfying. However, several key factors required to be improved lies in raw material supply availability (56%) and product quality consistency (75%).*

KEYWORDS: *Specialty coffee, Important Performance Analysis, Performance, Importance*

INTRODUCTION

Argopuro are mountain range area producing coffee in West Java Province. This area are in adjacent of three districts, which are Jember, Probolinggo, and Situbondo district. Lies in height of 1.200 – 1.400 Masl, this area are ideal for Arabica coffee plantation. Development of coffee in the area itself are fairly new, started the development in 2012. Majority of land used by coffee farmers in this area are owned by Perhutani using 30% profit sharing system. Current administered land are about 60 acres with average productivity of 180 tonnes fresh coffee cherry per years, equal to about 30 tonnes of green bean per year. This shows a pretty good

coffee yield ratio of 1:6, which means that it is required 6 kg of fresh cherry to produce 1 kg of green beans.

Several coffee variety are planted in this area, such as Linea S, Kartika and Andungsari. This variety are developed by Coffee and Cacao Development Center (Puslit KOKA). Walida society are using natural process as post-harvest process, meaning that the fresh cherry are directly dried after process without cleaning it first. Despite its high processing difficulty, natural process are the only viable post harvest process due to limited water supply to enable full-wash process. Natural drying process required 25-30 days compared to 10-15 days drying time in full-wash process.

Yield as fresh cherry are sold by farmers on price range of Rp.3.000/Kg to Rp. 8.000/Kg. This price range are due to numbers of collectors in the area. Not all harvest yield will be processed to specialty coffee. Some farmers self-processed the harvest to green beans or coffee powder directly to local stores and consumers. The green beans are sold at price range of Rp. 20.000/Kg – Rp. 27.000/Kg. Meanwhile, coffee processed with specialty coffee standard are valued much higher, at price value of Rp. 95.000/Kg. On 2015, specialty coffee grade produced in the area are only account for 20% of total harvest. This is due to difficulty on obtaining specialty grade raw material, red cherry, since most of farmers do harvesting process traditionally. Therefore, cherry sorting processed are required.

Specialty coffee produced by Walida society had reached cupping score of 80.79 in 2015 graded by Q-grader from Caswell Coffee. This score indicate that Argopuro specialty coffee are qualified as specialty coffee. Uniqueness of Argopuro coffee are hint of banana and strawberry flavors. Despite of it, there are still many factors required for improvement, especially farmer share and production capacity.

Currently farmer share in the area are still low, due to lack of knowledge in specialty coffee standard. Therefore, improvement must be made to improve this farmer share. Improvement could be done by evaluating performance of Walida society as producer of Argopuro specialty coffee from farmers perspective and consumer perspective. By doing this analysis, it is expected that Argopuro specialty coffee will be increased on quality and production capacity in next year to come.

Walida Society Profile

Walida society are a community group based on Tlogosari village, Situbondo District, West Java. Walida society are mainly focused on horticulture and plantation. Established on 2010, Walida society had two main function: functioned as business incubator for champion product potentially developed and designated as business foundation in which 20% of its total profit are donated to non-profit organization. Argopuro specialty coffee itself are the latest product developed by the society in the last three years.

Eighty percent of Argopuro coffee produced by Walida society are in form of specialty grade green beans. Meanwhile, the rest of ungraded specialty coffee are processed as coffee powder. Specialty grade green bean are marketed online via website and social media. By utilizing this modern marketing system, Argopuro specialty coffee are fairly fast in growth. To date, Argopuro market share had account more than 30 coffee roastery in several coffee in Indonesia,

but mainly lies in Bogor and Jakarta. Market share of Argopuro Specialty Coffee are shown on graph 1.



Graph 1 Argopuro specialty coffee market share

Graph 1 shows that Argopuro specialty coffee had reached 21 cities in Indonesia, showing that demand of Argopuro specialty coffee are fairly high. About 73% of the customers are sold to roasteries and coffee shops in West Java

METHODS

Conceptual Framework

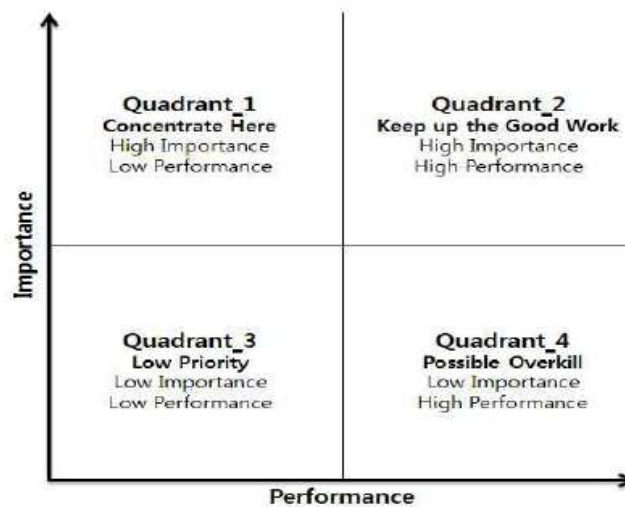
Conceptual framework in this research are done by using qualitative and quantitative approach. Performance evaluation are done by using quantitative method through variables and indicators formed as questionnaire and spread to respondents.

Research Object

Object in this research are distribution channel actors of Argopuro specialty coffee consisted of 20 coached farmers and 7 home roastery whom already used Argopuro specialty coffee in the last 3 years.

Analysis Method

To measure producer performance of Argopuro specialty coffee, Important Performance Analysis (IPA) method are used. Important performance analysis are used to measured importance rating and producer performance from customer and supplier perspective regarding a product or services. Brant on Setiawan (2005) explained that IPA could corelate importance rating and firm performance in a graph which could interpret data and propose practical policy. IPA graph could be seen on graph 2.



Graph 2 IPA cartecius diagram (Isnaini, 2010)

Steps to use IPA method are as follow:

1. Create a range on performance rating and importance rating on each attributes on Likert scale, as shown on table 1.

Table1. Answer scoring criterion

Score	Answer Criterion	
	Performance rating (X)	Importance factor (Y)
1	Not Good	Not Important
2	Less Good	Less Important
3	Fairly Good	Fairly Important
4	Good	Important
5	Very Good	Very Important

2. After respondents fill each scoring of attributes, then the score of each attribute from all respondents will be summed, which will results on total score of importance rating ($\sum Y_i$), and performance rating ($\sum X_i$) to each attributes
3. Calculate average score from each attributes for performance (X_i) and average score for each importance (Y_i) by dividing total score of importance factors ($\sum Y_i$) and total score of performance rating ($\sum X_i$) with respective respondents.
4. From the results of IPA calculation above, then it is assigned to cartecius diagram. This diagram could be used as producer's reference to define correct strategy to increase product quality and distribution channel efficiency.

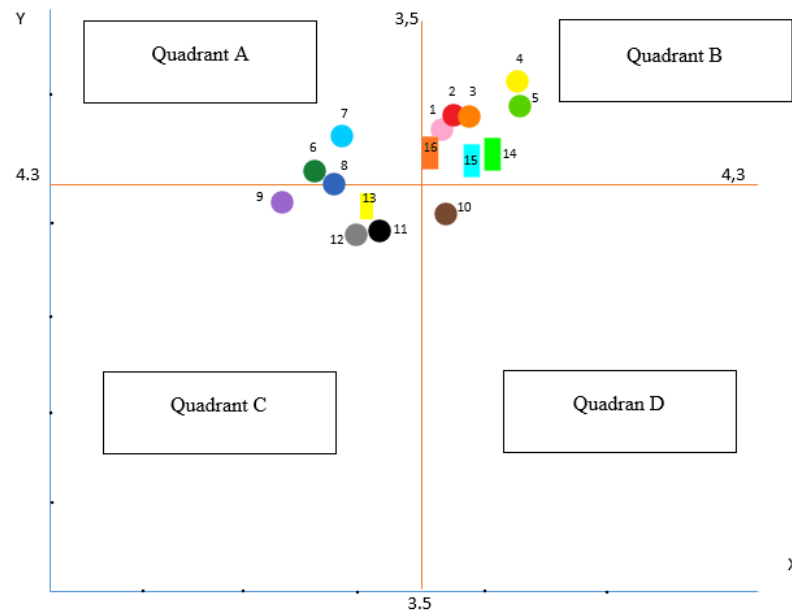
RESULTS**Performance Analysis of Walida Society from Supplier Perspective**

Efficiency of a distribution channel could be studied through producer's performance on distribution channel. Performance could be seen from perspective of each actors in distribution channel and will be reference to established a sustainable and efficient distribution channel. In this research, variables and indicators used to measure performance from supplier perspectives are referred to previous research by Maunu (2003) regarding Supplier satisfaction. The results are as below:

Table 2 Performance analysis from supplier perspective results

Indicator	No	Variable	ΣX	ΣY	\bar{x}	\bar{y}	Ti
Order Management	1	Red cherry price conformity	77	91	3,85	4,55	85%
	2	On time payment	79	92	3,95	4,6	86%
	3	Purchase price transparency	79	90	3,95	4,5	88%
	4	Payment system	83	94	4,15	4,7	88%
	5	Ease of transaction	84	93	4,2	4,65	90%
Partnership	6	Producer quality control coaching	57	85	2,85	4,25	67%
	7	Farmers skill improvement	54	86	2,7	4,3	63%
	8	Funding support	53	87	2,65	4,35	61%
	9	Producer involvement on problem solving	50	84	2,5	4,2	60%
Communication	10	Relationship with producer	73	81	3,65	4,05	90%
	11	Ease of communication	68	78	3,4	3,9	87%
	12	Communication intensity	67	79	3,35	3,95	85%
	13	Collective problem solving	65	80	3,25	4	81%
Personal satisfaction	14	Future business prospect	82	91	4,1	4,55	90%
	15	Profitability	79	91	3,95	4,55	87%
	16	Convenience	71	93	3,55	4,65	76%
Total			1121	1395	56,05	69,75	80%

Result of performance rating from supplier perspective shows that overall performance rating are on 80%. This shows that performance established between coached farmers and processor of Argopuro specialty coffee are fairly good. However, improvement are still requiresince performance score are still under 100%. Several indicators which requires improvement could be seen on cartecius diagram on graph 3.



Graph 3 Cartecius diagram of performance analysis from supplier perspective

Description:

Quadrant	No	Color	Variable	Ti
B	1	●	Red cherry price conformit	85%
B	2	●	On time payment	66%
B	3	●	Purchase price transparency	88%
B	4	●	Payment system	88%
B	5	●	Ease of Transaction	90%
A	6	●	Producer quality control coachin	67%
A	7	●	Farmers skill improvement	63%
A	8	●	Financing support	61%
C	9	●	Producer involvement on problem solving	60%
D	10	●	Relationship with producer	90%
C	11	●	Ease of communication	87%
C	12	●	Communication intensity	85%
C	13	■	Collective problem solving	81%
B	14	■	Future business prospect	90%
B	15	■	Profitability	87%
B	16	■	Convenience	76%

Cartecius diagram shows that indicator 6,7, and 8 are on quadrant A. This shows that these indicators are on priority for improvement. These indicators are quality control coaching by producer, coached farmers skill improvement, and financing support. These three indicators are on improvement priority by walida society as producer to increase quality and raw material supply capacity from coached farmers.

Satisfaction indicators on quadrant B are indicators 1, 2, 3, 4, 5, 14, 15, and 16. These indicators could be reference for Walida society to maintain achieved achievement, to keep high performance rating in the next year to come.

Indicator in quadrant C are 9, 11, 12, and 13. These four indicators are categorized as low improvement priority since its performance are already in good condition, Any improvement made will not give significant impact to quality and production capacity.. Indikator yang masuk dalam kuadran C adalah indikator 9,11,12,dan 13. Keempat indikator ini masuk dalam prioritas rendah karena secara kinerja sudah baik dan indikator tersebut tidak menjadi proitas utama untuk diperbaiki karena tidak memiliki pengaruh besar terhadap kualitas dan kapasitas produksi yang dihasilkan oleh petani binaan.

Indicator on quadrant D are indicator 10, which is relationship with producer. This indicators have a very good performance, therefore not important improvement factors. Relationship with producer are to be maintained so it would not declined.

Performance Analysis of Walida Society from B2B Consumer Perspective

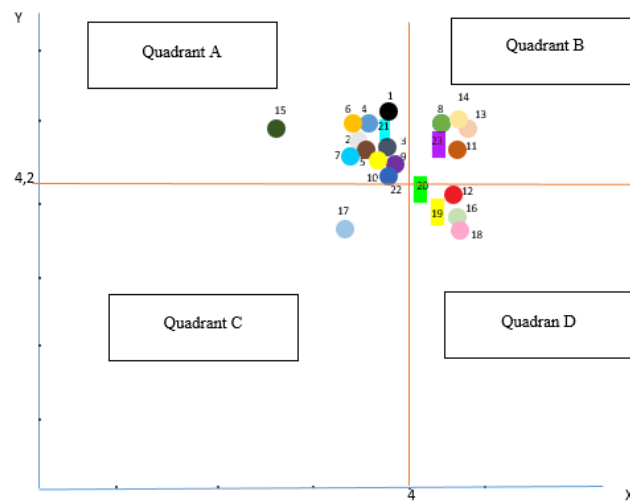
Performance analysis form B2B consumer perspective are taken from seven roasteries and coffee shops whom already used Argopuro specialty coffee in the last three years. These seven roasteries and coffee shops are chosen due to its highest volume order and consistencies, and are in current long term partnership with Walida society. Performance analysis from consumer perspective are important to study in order to establish sustainable distribution channel. Variables and indicators used in this research are referencing to previous research by Lin & Chen (2013) also Kneafsey (2011). The results of this analysis are shown on table 3.

Table 3 Performance analysis from consumer perspective results

Variable	No	Indicator	ΣX	ΣY	\bar{x}	\bar{y}	Ti
Price performance	1	Raw material price	27	34	3,9	4,9	79%
	2	Delivery cost	25	33	3,6	4,7	76%
	3	Quality consistency	27	32	3,9	4,6	84%
	4	Quality conformity	26	33	3,7	4,7	79%
Quality performance	5	Defect amount	25	32	3,6	4,6	78%
	6	Water content	24	33	3,4	4,7	73%
	7	Bean size uniformity	25	32	3,6	4,6	78%
	8	Scent and flavor	31	34	4,4	4,9	91%
	9	Ease of roasting process	27	31	3,9	4,4	87%
Service performance	10	Delivery time	26	31	3,7	4,4	84%
	11	Service time	33	31	4,7	4,4	106%
	12	Service hospitality	32	29	4,6	4,1	110%
	13	After sales services	32	33	4,6	4,7	97%
	14	Completeness information and product specification	32	33	4,6	4,7	97%
	15	Stock availability	19	34	2,7	4,9	56%

Personal relationship	16	Relationship with distribution channel components	32	27	4,6	3,9	119%
	17	Communication	30	26	4,3	3,7	115%
	18	Transparency	33	27	4,7	3,9	122%
	19	Problem solving	29	27	4,1	3,9	107%
	20	Business prospect	29	29	4,1	4,1	100%
Personal satisfaction	21	Profitability	26	32	3,7	4,6	81%
	22	Convenience	26	30	3,7	4,3	87%
	23	Selling speed	30	32	4,3	4,6	94%
Total			646	715	92,3	102,1	90%

Based on the results of performance rating from consumer perspective, total performance rating are at 90%. This shows that the performance on consumer perspective are quite good, based on the indicators studied. However, improvement are still have to be made. Performance indicator mapping on cartecius diagram could be seen on graph 4.



Graph 4 Cartesian diagram of performance rating from customer perspective
Description:

Quadrant	Indicator	No	Color	Ti
A	Raw material price	1	Black	79%
A	Delivery cost	2	Grey	76%
A	Quality consistency	3	Dark Blue	84%
A	Quality conformity	4	Blue	79%
A	Defect amount	5	Brown	78%
A	Water content	6	Yellow	73%
A	Bean size uniformity	7	Cyan	78%
B	Scent and flavor	8	Green	91%
A	Ease of roasting process	9	Purple	87%
A	Delivery time	10	Yellow	84%
B	Service time	11	Orange	106%
D	Service hospitality	12	Red	110%
B	After sales services	13	Light Orange	97%
B	Complete information and product specification	14	Light Orange	97%
A	Stock availability	15	Dark Green	56%
D	Relationship with distribution channel components	16	Light Green	119%
C	Communication	17	Light Blue	115%
D	Transparency	18	Pink	122%
D	Problem solving	19	Yellow	107%
D	Business prospect	20	Green	100%
A	Profitability	21	Cyan	81%
A	Convenience	22	Blue	87%
B	Selling Speed	23	Purple	94%

Based on cartecius didagram above, could be seen that indicator 1, 2, 3, 4, 5, 6, 7, 9, 10, 15, 21, and 22 are mapped to quadrant A. This shows that these indicators are on improvement priority. These indicators have performance rating ranged from 56% to 87%. Indicators with lowest performance rating in quadrant A are stock availability. Therefore it is crucial for Walida society to improve stock availability to met increasingly yearly demand of Argopuro specialty coffee.

Performance indicators mapped on quadrant B are 8, 11, 13, 14, and 23. These indicators could become reference for Walida society to maintain achieved performance. These five indicators are not in improvement priority, therefore it is suggested that maintaining performance is the best course of action.

Meanwhile, indicator 17 are the only indicator mapped to quadrant C. This indicator are categorized as low priority improvement, since its performance are already good. Improvement in this indicator will not give good impact on improving quality and production capacity.

Lastly, indicators mapped to quadrant D are indicator 12, 16, 18, 19, 20. These indicators already have high performance, thus not in priority to be improved. Maintaining this indicators however, are necessary in order to ensure that there are no decline in current performance.

MANAGERIAL IMPLICATION

Performance improvement suggestion Argopuro specialty coffee

Based on the performance result from supplier and B2B consumer perspective, several suggestion of improvement are proposed. Improvement proposal could be seen on Table 4 below.

Table 4 Performance improvement suggestion

Supplier :

Indicator	Ti	Suggested improvement
• Producer control coachin quality	67%	<ul style="list-style-type: none"> • Processor form a task force specialized in controlling red cherry harvesting quality. • Forming harvester tim specialized on specialty grade red cherry
• Farmer's improvement skill	63%	<ul style="list-style-type: none"> • Invite professional to conduct coffee cultivation technique training • Conduct comparative study to plantation with good governance
• Financing Support	61%	<ul style="list-style-type: none"> • Accessing capital funding source such as KUR • Form cooperative foundation for coached farmers
• Producer involvement on problem solving	60%	<ul style="list-style-type: none"> • Conduct routine discussion forum to explore and solve problem

B2B Consumer

Indicator	Ti	Suggested improvement
• Raw material price	79%	<ul style="list-style-type: none"> • Provide price discount for loyal consumer through minimum order quantity • Form supply contract under certain quantity with certain price
• Delivery cost	76%	<ul style="list-style-type: none"> • Search for better and faster delivery service • Establish outlet on city with good market share
• Quality consistency	84%	<ul style="list-style-type: none"> • Improve quality control especially on sorting fresh cherry and green beans
• Quality conformity	79%	<ul style="list-style-type: none"> • Increase green bean quality by improving post harvest process (e.g. green bean uniformity and reduce defect)
• Defect amount	78%	<ul style="list-style-type: none"> • Improve red cherry quality on farmers side • Improve cherry sorting process
• Water content	73%	<ul style="list-style-type: none"> • Invest on water content measurement
• Bean size uniformity	78%	<ul style="list-style-type: none"> • Invest on green size machine
• Ease of roasting process	87%	<ul style="list-style-type: none"> • Maintain water content and bean size consistency
• Delivery time	84%	<ul style="list-style-type: none"> • Search for better delivery services • Establish outlet in city with high market share
• Stock availability	56%	<ul style="list-style-type: none"> • Increase production quota by increasing red cherry quality • Increase number of coached farmers

CONCLUSSION AND SUGGESTION

Conclusion

1. Performance rating from supplier perspective results show overall performance rating of 80%. This shows a fairly good performance on supplier perspective. However,

several indicators are still required to be improved, such as coaching by producer, financing support, and coached farmers improvement

2. Performance rating from consumer perspective shows overall performance rating of 90%. This shows a very good performance on consumer perspective. However, several indicators are still required to be improved to maintain quality and stock sustainability.

Suggestion

Walida society which acts as producer and marketing on farm need to pay attention on several factors, such as deciding raw material purchase price from farmers to increase farmers share and improving efficient distribution channel. Aside from that, quality control and production capacity are also required to be improved to met increasingly yearly demand..

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