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Relationships with market intermediaries: the case of vegetable cluster marketing in Southern Philippines

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Abstract

Effective relationship among partners is a key in strengthening collaborative marketing efforts. One of the collaborative marketing efforts is through clustering of farmer to link into market. This study examined the level of relationship of vegetable cluster farmers with their market intermediaries - cluster and the downstream buyers. A total of 81 vegetables farmers in Southern Philippines were surveyed to determine their relationship level on trust, power-dependence, relationship-specific investments and satisfaction. Comparison between clusters and downstream buyers were made using ANOVA and Welch Test. The study found that farmers have high level of trust to their clusters compared to their downstream buyers. The high level of trust is attributed to assurance of the market, leadership of the clusters, and openness in sharing and information. Results showed that there benefits offered by clustering which were not found in other buyers. This include provision of training and high prices. Empirical findings showed farmers in Davao had high trust level with their cluster than Bukidnon and South Cotabato.

Keywords

trust, relationships, vegetable, clustering, Southern Philippines

Introduction

Vegetables (along with fruits) comprise a large and dynamic sub-sector within Philippine agriculture (Briones, 2009). About 5.7 million households are involved in vegetable production, where the majority of smallholders farmers (80%), earn less than PhP3,000 per month. Collaborative marketing groups, mostly in form of cooperatives and association, become a major mechanism to link these small-scale producers to the markets. Historically, most of these cooperative marketing groups failed to sustain its operation because of several problems such difficulty in mobilizing savings, insufficient budget, lack of innovativeness and entrepreneurial skill development, and inactive participation of the members, and lack of continuous education and training among members (Deriada, 2005).

To supply consistent volumes of quality products, one of the collaborative marketing efforts is through clustering approach, where a small group or cluster is organized and guided to engage in the market with favourable arrangements to improve their incomes and livelihood. The main objectives of cluster farming are to plant similar crops, to produce good uniform quality, to consolidate the produce to obtain a higher volume, deliver in bulk to save on transportation costs, and increase income (Montiflor et al., 2009).

The cluster marketing approach was adopted by vegetable farmer groups in Southern and Northern Mindanao and has been able to successfully link vegetable farmers to institutional markets. With clustering, the farmer groups experienced more access to traditional and institutional markets, market information, market and production linkages, technical and financial support, and production inputs. The cluster members also had a better understanding of the market dynamics because they were exposed to other markets and other stakeholders in the industry (Montiflor et al., 2009). In Northern Mindanao, clustering was adopted by a vegetable group and that the success of the group was attributed to their production and marketing strategies and factors such as social capital, shared core values, flexibility, and leadership and management competencies (Concepcion et al., 2006).

Meanwhile, effective relationship among partners is a key in strengthening collaborative marketing efforts. Studies revealed trust the critical determinant of good buyer-seller relationships. This study examined the level of relationship of vegetable cluster farmers with their market intermediaries - cluster and the downstream buyers.

Methods

In late 2010 and early 2011, 81 vegetable farmers who are members in cluster in Bukidnon, Davao, and South Cotabato in the Philippines were asked to respond to survey questionnaires that will determine the relationships of the farmers with their clusters and their downstream buyers. The sample size is 23% of the total farmers (356) in the clusters. In Davao, 32% (50 out 156) of the population participated the survey, while South Cotabato and Bukidnon participation rate were 13% (17 out of 35) and 22% (14 out of 65) , each respectively.

The survey instrument was adopted from the study of Peter Batt (2002) regarding the trust and relationship dimensions. Batt included these dimensions: confidence, correct information, trustworthiness, consider my best interests, honesty, Keep the promises, better offer, ease to transfer; power; control of information; freedom to adhere demands; dependency; provision of education; openness to suggest; openness to advice; frequency of information, fairness of treatment; quickness to handle complaints; provision to adequate rewards; expectations met.

Farmers were asked to rate their relationship both with their downstream buyers and the cluster on a school-boy grading system where 75% was low and 100% was high. A comparison of the results between the areas is conducted using ANOVA from the results of SPSS. For their rating of their clusters, 81 respondents were gathered as they are members of one cluster. There were multiple buyers of each respondent, 116 buyers were given ratings.

Result and Discussions

Figure 1 presented the buyers of the different areas. Aside from selling to their cluster, Bukidnon have other buyers like consolidators, wholesalers, and retailers. South Cotabato buyers are wholesalers and consolidators. Davao buyers are composed of wholesalers and retailers. The consolidators acts as agent or traders of vegetables and usually they sourced from the several farmers and sell it to several players. The wholesalers on the other hand are located in wet market (wholesale market) and usually sell the produce to the retailers in the area or institutional markets.

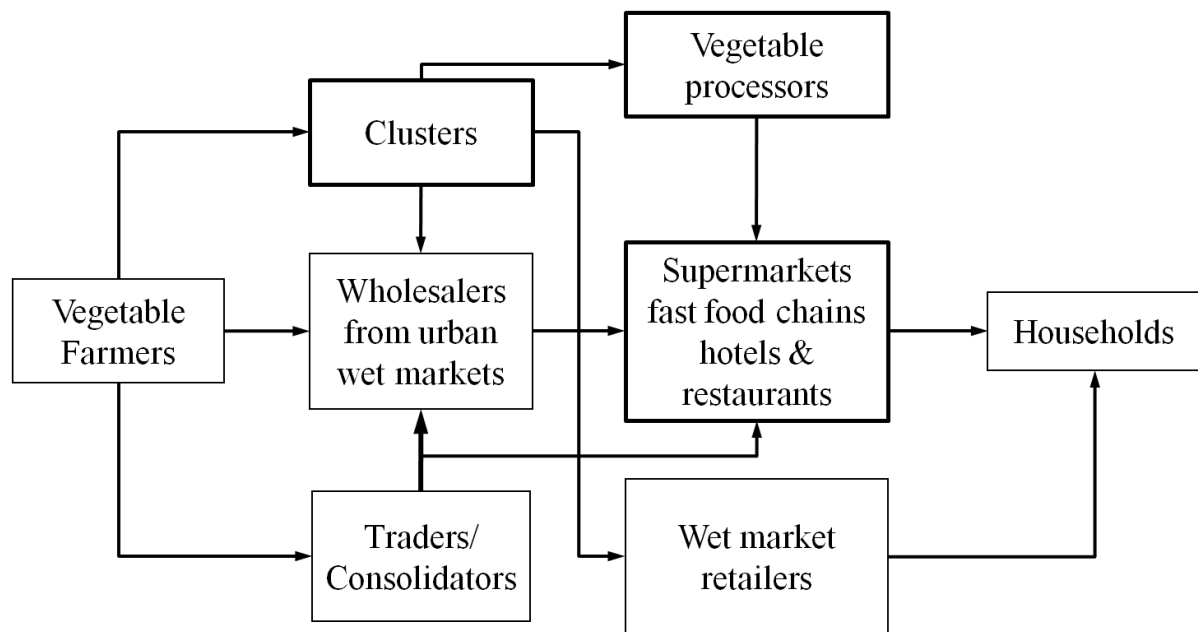


Figure 1. Vegetables players in Southern Philippines

Relationship between Farmers and Cluster

Table 1 Ratings for the clusters, n=81

Dimensions	South Cotabato (n=17)	Bukidnon (n=14)	Davao (n=50)	Average
Trust	86.12	85.36	91.34	89.21
Confidence	86.76	85.00	91.00	89.07
Correct information	85.59	84.64	92.84	89.90
Trustworthiness	86.00	85.00	91.50	89.22
Consider my best interest	86.47	86.07	92.74	90.27
Honesty	86.47	85.71	90.34	88.73
Keep the promise	85.00	85.36	89.06	87.57
Power-dependence	86.00	85.57	89.84	88.30
Better offer	86.47	86.43	91.64	89.65
Power in relationships	84.71	85.71	90.94	88.73
Control of information	84.71	84.64	88.80	87.22

Freedom to adhere demands	87.35	86.00	90.84	89.27
Dependence with the cluster	86.76	85.00	87.04	86.63
Relations specific investments	87.83	86.29	89.96	88.88
Provision and frequency of education and trainings	88.53	86.07	90.40	89.26
Openness to suggest	87.65	86.79	90.68	89.37
Frequency of information	87.35	86.07	88.82	88.04
Satisfaction	86.53	86.36	90.08	88.69
Fairness to treatment	86.76	87.50	93.56	91.09
Quickness to handle complaints	87.06	86.79	90.00	88.83
Provision of adequate rewards	86.00	84.64	85.80	85.64
Expectation met	86.29	86.43	90.32	88.80
Average	86	86	90	89

Trust. Farmers in Davao recorder the highest ratings (91.3%) in terms of trust dimension, followed by South Cotabato (86.1%), and Davao City (85.4%) In terms of confidence, farmers in South Cotabato provided high ratings to their cluster due to their assurance that their products have buyers. They also cited the implementation of plans and programs and the active involvement of the cluster members as reasons for high score. In Davao, high confidence ratings to their cluster are results by the good relationship with their member and the unity of the members. Farmers perceived that members are sincere, honest, and trustworthy. However some members perceived that they trusted their cluster but not their colleagues. Like in South Cotabato, farmers in Davao also cited the assurance that there are buyers of their product for high confidence ratings. Farmers in Davao have high level of confidence because of they can deliver in volume and have better prices. Good policies are in place in the clusters which guide the members. Farmers in Bukidnon rated high in confidence

as farmers observed good relationship among members. However, some farmers cited that some clusters are not cooperative.

Davao farmers provided highest ratings with correct information. The cluster provides them correct information. During the cluster meeting, they were informed about the prices. The seminars are also venue where they get accurate information in both production and marketing data. If there were announcements, the cluster members were informed by the cluster leaders. The cluster leaders share their knowledge. He makes sure that information were disseminated, and monitored by the cluster during cluster meeting. Every member of the cluster was informed about the progress. This is somewhat true to South Cotabato farmers. The clusters practiced recording of information. During cluster meeting, farmers recorded information such as schedule of production, buyers profile, technical, marketing delivery, and trainings. There was a monthly evaluation during cluster meeting. The information is updated every month such as the prices of the products, farm development, and how to control pests and diseases. Bukidnon farmers perceived that cluster provides correct information to its members during farmers visit and cluster meeting.

In South Cotabato, Bukidnon, and Davao, farmers perceived that honesty is observed in the clusters. Honesty is instilled in the cluster members as well as transparency of information. There is honesty in clustering in terms of information sharing and the right payment. In terms of trustworthiness, the farmers in three areas perceived that there is trust between the farmers and the cluster. In South Cotabato, it is observed in every meeting, everyone can say what they want say and the group listen. The cluster is open and they can share each other. Some farmers trusted the cluster because of the benefits they received like trainings and the implementation of the plans and programs. Farmers also mentioned that the group adhere to the policies and there are sanctions for those who violated them. In Bukidnon, their evidence of trust is that they can easily market their produce in the cluster. The high level of trustworthiness in Davao was attributed to their cluster leader. The cluster leader very active and can be trusted by the members. There is cooperation among members.

For consider their best interest dimension, South Cotabto farmers believed that the cluster looked at the welfare of the members and their intention is good. The cluster provides them additional source of income or livelihood. Another is the technical knowledge and advices they acquired and shared from the clusters. Although, there are still gaps, farmers follow the

group. The cluster looks the progress of their planting and how to sustain it. In Bukidnon, members felt that were given priority when it comes to benefits. There is a meeting and feed backing. While farmers in Davao cited the support of the cluster such as seedlings and the high prices they received when they consolidate their vegetables. Farmers also learned how to synchronize their planting to be able to have one-time delivery

For keeping the promise dimension, farmers in South Cotabto perceived that the cluster implemented the plans and programs like the trainings. But there are other plans that are not implemented. Some farmers did not pay their dues to their external financier. One farmer mentioned that the cluster keeps the promises but there are often changes. In Bukidnon and Davao, cluster members believed that the clusters kept their promises as evidence of the compliance of the clusters with the terms and condition of the buyers. The cluster provides members with seedlings and farm inputs. In Davao though, some members did not keep their promises. Some of them were not able to pay the seedlings or their obligations. They were instances that there was no consolidation and time of delivery was not followed.

Power-dependence. In terms of power-dependence dimensions, farmers in Davao rated highest score (89.8%) followed by South Cotabato (86%) and Bukidnon (85.6%). In all items in power-dimension, Davao also recorded highest ratings. Farmers in Davao cited seedlings and farm inputs as offerings of cluster. They also mentioned better prices and provision of technical information in the clusters. In terms of power-relationship, farmers mentioned the leadership of the cluster. The cluster leader exercised his power, but member can raise their concerns and suggestions to the cluster. The cluster encourages every member to cooperate. The cluster leader's responsibility is to ensure unity among members. In terms of control of information, the cluster promotes open sharing of information. But the control of information depends on the leader. The cluster initiates what to discuss during cluster meeting. There is openness among members. They can raise their demands and complaints, but the approval will depend on the majority of the members and according to the policies of the cluster. Some farmers in Davao are dependent on the cluster in marketing their produce, access of technical information, and farm inputs. But majority of the farmers can sustain farming even without the cluster because they have been selling vegetable prior to clustering.

South Cotabato, meanwhile, mentioned the better offerings of cluster in terms of its benefits. One is they can minimize the cost. In clustering, the products can be delivered to marketing

officers in the area and it minimizes the cost of delivery. Even in small volume, farmers can deliver to the market through the marketing officers in the cluster. Another benefit of clustering cited by the farmers is the assurance of buyers, availability of seeds, and agro-enterprise trainings. The farmers in South Cotabato can speak about their problems and concerns to the cluster, but they adhered with the policies of the clusters. There was sanction for violating the policies. The cluster listens to the members and openly received their concerns. Cluster members perceived that the power in the cluster is exercised accordingly. There is no abuse of power observed and members are treated equally. All members have rights to give their reactions. There is an observed openness in the cluster. Information in the cluster is made available and disseminated to its members. The members are being informed by their leaders. In terms of freedom to adhere demands, members have freedom to open up their demands. They can raise specific concerns or ideas to the cluster. There is high degree of dependency with their cluster. The cluster farmers attributed their trust with cluster.

Relations -specific investment. Davao posted highest rating in relationship-specific investments. Cluster farmers mentioned the provision of education and trainings like natural farming, marketing, and control of pests and diseases trainings. Cluster meetings are often held to provide the farmers with the necessary inputs when it comes to farming techniques, technical know-how of planting the vegetables, progress of the association, recording, and budgeting. The cluster suggested ways to improve their farming through production scheduling. They see the relevance of production schedules as it helps increase the volume of harvest. This is also true in Bukidnon, where cluster provides the same education and training programs. These trainings provide them with better schemes to improve their farming. These resulted to their trust of the cluster. The cluster is also very open to suggest technical information. There is information about technical matters during cluster meeting. And if there are concerns and complaints; they were quickly addressed during cluster meeting. South Cotabato farmers mentioned the market chain study training and technical advices were some of the benefits they received from clustering.

Satisfaction. Farmers of three areas believed that there is a fair treatment and equal trust in the cluster. In Davao and South Cotabato, cluster leaders were quick to decide for solutions of the problems. Expectations were met when it comes to compliance to the agreements made. This includes the provision of seedlings, trainings and seminars, alternative buyers and better price in the market. They can depend with the cluster because they can sell his produce. They

trust both the buyers and give them equal trust. In terms of provision of rewards, farmers of the three areas mentioned seedlings and trainings. In general, these farmers believed that their expectation was met. The conditions and agreements in marketing were met and the equality is exercised in the cluster wherein all the members are given priority and are heard. Majority of the farmers mentioned that expectation was met.

Relationship between Farmers and Buyers

Table 2 Farmer's Ratings for the buyers , n=116

	Mean score						
Dimension	Bukidnon			South Cot		Davao	
	Wholes (22)	Con (12)	Ret (3)	Whol (19)	Con (10)	Whol (40)	Ret (10)
Trust	80.68	78.83	84.33	81.95	86.20	86.78	87.80
Confidence	82.27	78.33	83.33	82.42	86.00	85.63	87.50
Correct information	79.32	79.17	86.67	81.58	84.70	86.10	87.50
Honesty	82.50	78.33	83.33	81.84	86.00	86.73	88.50
Trustworthiness	77.95	78.75	83.33	81.32	86.50	86.05	87.50
Consider my best interest	81.14	79.58	83.33	81.32	86.60	86.83	89.00
Keep the promise	80.23	78.75	86.67	82.58	87.20	88.38	86.50
Power-dependence	78.91	79.08	81.33	81.47	84.60	86.08	85.67
Better offer	80.23	78.75	86.67	81.05	86.90	86.00	85.00
Power in relationships	76.14	78.75	75.00	77.63	83.89	85.38	88.89
Control of information	76.14	78.33	75.00	78.06	82.22	83.13	82.78
Freedom to adhere demands	78.10	78.75	85.00	86.11	85.00	87.45	86.67
Dependence with the cluster	80.68	80.00	83.33	82.37	82.50	84.36	83.89

Relation-specific	81.00	80.73	84.00	76.79	79.30	80.13	79.80
Provision and frequency of education and trainings	80.00	81.25	85.00	75.29	77.00	78.98	79.00
Openness to suggest	81.25	83.57	80.00	76.47	79.50	80.13	79.50
Frequency of information	81.00	81.67	85.00	76.58	76.50	79.90	79.50
Satisfaction	80.14	81.33	82.67	82.37	84.70	86.55	84.20
Fairness to treatment	85.45	82.92	83.33	84.21	86.50	88.48	85.00
Quickness to handle complaints	78.64	81.25	83.33	84.21	85.00	87.25	81.00
Provision of adequate rewards	78.18	79.55	83.33	79.33	80.56	86.93	86.50
Expectation met	77.50	80.45	80.00	82.11	86.20	82.93	84.00
Average	79.82	79.90	82.87	80.80	83.82	85.04	84.90

Trust. In South Cotabato, farmers posted high ratings on trust and confidence level for their consolidators due to the prompt payment and the price offering they received which is higher than the wholesalers. Farmers were secured of the consolidator because the mode of payment is cash to cash basis. The consolidators are always available. Although they are confident with the wholesaler, they are not satisfied of the low pricing. The consolidator has clear requirements compared to the wholesalers. The price and the volume are clear for consolidator. They can communicate through cell phones. The wholesalers are not consistent. For some instance, the first buying price is better but there are changes of price afterwards. The consolidator is honest in pricing and payments. The wholesalers are not consistent for other buyers. The consolidators buy their produce anytime. They acted what they promise to them. For the consolidators, they perceived that the consolidators have one word. They can trust in terms of payments because they have receipts. The wholesalers change their minds and not consistent. They cannot be fully trusted. . The two other buyers also considered their

interest because they buy their produce, but the consolidator's high rating was due their facilitation in the delivery of their products and their commitment to buy all the sizes of their produce compared with the wholesalers. In terms of keeping of promise, the consolidator posted the high ratings compared with wholesalers. For instance, in terms of providing information, the consolidators will always give the price in the market and pay them promptly. The wholesalers are always changing their prices. Consolidators have different markets of the sizes. They are not strict in the classification. And if the consolidators knew that they are cluster members, they will give better price. The consolidators also buy other vegetables like carrots and potato. The transportation costs are shouldered by the consolidators. The wholesalers have no better offering. They just buy their produce.

In Bukidnon, farmers rated high with the wholesalers than consolidators. Except of trustworthiness, farmers rated high with their wholesaler than the consolidators in all trust items. The confidence ratings were due to the strict requirements of the consolidators in classifying their products than the wholesalers. The wholesalers buy their products whatever quality they have produced and this made them satisfied. They also observed that were inconsistencies in term of their agreement and the actual transactions in dealing with consolidators. Farmers rated low score in terms of correct information for both buyers as most of these buyers did not provide them enough information. In terms of honesty, farmers cited that wholesalers comply with the agreed terms and condition. The consolidators on the other hand did not give them accurate pricing information. Both buyers received low ratings in trustworthiness. Some of the farmers cited their relationship with these buyers is more on trading. They could not give their full trust with these buyers. In terms of consider the best interest items both buyers received low ratings. The respondents believed that the buyers are only interested with their produce than them as farmers. The buyers always have the final say in terms and agreement. Most of the time, they were not keeping the promises.

Farmers in Davao give high ratings to their buyers- wholesalers and retailers (supermarket). Except for relation-specific investment, they have graded their buyers at an average of 84%-88% in other items (trust, power-dependence, and satisfaction). Both buyers received high ratings for trust. The farmers mentioned that the high confidence was mainly because of the assurance of market of the produce. The buyer pays right away the moment they received the vegetables. They mentioned that these buyers are already their *suki* or loyal buyer of their vegetables for quite some time. In terms of correct information, they already knew the prices in the market. The wholesalers and retailers gave them accurate information about the prices

before the delivery. The retailers inform the farmer right away if he will buy or not. In terms of trustworthiness, retailers are more trusted than wholesalers. They give higher prices than wholesalers. The wholesalers were trusted because they always get their vegetables. Both buyers consider their best interest. They get the vegetables at good prices and provided them finances for farm inputs. They perceived that buyers are also honest. They also visited them despite the distance of their farms. The wholesalers bought their vegetables even if the quality is not good.

Power dependence. South Cotabato farmer mentioned that the buyers have no control on them because there is no contract. They share with each other and they are not dictated by the buyer. The consolidators gave them updates in their produce and market. They have confidence that they can deliver to the buyers. In Bukidnon, farmers posted low ratings in all items for both buyers. The average score of consolidators and wholesalers are almost the same. These low ratings can be attributed to lack of incentives from the buyers, their inability to control the price, and their inability to demand from their buyers. Most of the farmers' believed that the buyers set the price and control the information. In Davao, farmers are not dependent on their buyers. They have rights to tell the prices that we want for our vegetables. They can easily shift to other buyers. They have good relationship with their buyers.. The farmers can open up our demands and complaints in pricing. The seller just negotiates with the buyer to increase the price if the vegetable prices would also increase. The buyer provides quality specifications.

Relations-specific investment. South Cotabato farmers mentioned that consolidator give inputs to the market and how to classify their produce. The consolidators and wholesalers advice them to plant other crops so that they can source from them. Majority of the farmers mentioned that information from the buyers are not frequent and no provision of trainings and education. Farmers in Bukidnon rated low for both buyers. Some buyers provide technical knowledge and what vegetables to plant, but their main interest are more on buying their produce. They seldom give them information in technical matters. This is also true in Davao. The wholesalers and retailers provide quality specifications, but they seldom offer other incentives like trainings.

Satisfaction. Farmers of the three areas were satisfied with their buyers. The satisfaction was mainly due their assurance there are markets for their produce. South Cotabato farmers

mentioned that consolidators are more considerate when it comes to pricing. The consolidators provide them seedlings and trainings. Bukidnon farmers are more satisfied with the consolidators than wholesalers. The consolidators accept complaints but not quickly enough to address them while the wholesalers occasionally accept complaints. Bukidnon farmers perceived that rewards are inadequate. Their expectation with their buyers was not met. In Davao, farmers satisfied with both wholesalers and retailers. The price that the buyer sets with the other sellers is also the price that he considers with this seller. Complaints were heard quickly. The buyer could easily come up with measures and agreements if they will talk about the problem. Rewards are more related to the high price they received from the buyers.

Empirical Findings

Between Farmers and Clusters

The study conducted one-way analysis of variance (ANOVA) to determine whether there are any significant differences between the means of Davao, Bukidnon, and South Cotabato for the 18 items. One of the assumptions of one-way ANOVA is that variances of the groups are similar. To test this, the study conducted Levene's Test of Homogeneity of Variance (F statistics). From the output of SPSS, 14 out of 18 items have significant value of greater than 0.05, which means that they met homogeneity of variance. The 14 items were included for ANOVA comparison.

Table 3. Summary of Levene's Test

Dimensions	Levene Statistic	df1	df2	Sig.
Confidence	2.454	2	78	.093
Correct information	1.723	2	78	.185
Honesty	2.542	2	78	.085
Trustworthiness	2.256	2	78	.112
Consider my best interest	2.854	2	78	.064
Keep the promise	1.747	2	78	.181

Better offer	2.341	2	78	.103
Control of information	.883	2	78	.418
Freedom to adhere demands	1.799	2	78	.172
Provision and frequency of education and trainings	2.656	2	78	.077
Openness to suggest	2.918	2	78	.060
Frequency of information	2.318	2	78	.105
Provision of adequate rewards	2.350	2	78	.102
Expectation met	1.897	2	78	.157

Below is the summary of ANOVA from SPSS output. Out of 14 items, 5 items were found to have significance level of less than 0.05. Four of these items belong to trust dimension and one in power relationship. This indicates that there are statistically significant differences between confidence, correct information, trustworthiness, consider best interest, and better offer for the three areas.

Table 4. Summary of ANOVA

Items		Sum of Squares	df	Mean Square	F	Sig.
confidence	Between Groups	508.11	2.00	254.06	4.01	0.022
	Within Groups	4945.27	78.00	63.40		
	Total	5453.38	80.00			

Correct information	Between Groups	1135.16	2.00	567.58	10.31	0
	Within Groups	4294.05	78.00	55.05		
	Total	5429.21	80.00			
Trustworthiness	Between Groups	685.50	2.00	342.75	6.00	0.004
	Within Groups	4454.50	78.00	57.11		
	Total	5140.00	80.00			
Consider best interest	Between Groups	797.24	2.00	398.62	8.29	0.001
	Within Groups	3750.78	78.00	48.09		
	Total	4548.03	80.00			
Better offer	Between Groups	515.14	2.00	257.57	4.54	0.014
	Within Groups	4429.18	78.00	56.78		
	Total	4944.32	80.00			

To determine which of the three groups differ from the given items, we computed Post hoc test using SPSS. We selected the Tukey post hoc test which is designed to compare each of the conditions to every other condition. Below are the results of Tukey test. Based on the results, the mean score of confidence differed significantly between Davao and Bukidnon cluster. This indicates that Bukidnon and South Cotabato have similar results for the given items, but not for Davao cluster. The correct information, trustworthiness, and considers best interest, differed significantly between Davao cluster and the two other areas. There is high level of confidence in of farmers in Davao clusters compared with South Cotabato and Bukidnon. Farmers in Davao receive accurate information than Bukidnon and South Cotabato. The high level of trustworthiness in Davao was attributed to their cluster leader. For the better offer, there was a statistically significant difference between Davao and South Cotabato cluster.

Table 5. Post hoc test results.

Dependent Variable	(I) area	(J) area	Mean Difference (I-J)	Std. Error	Sig.
Confidence	Davao	Bukidnon	-5.99800 [*]	2.40762	0.039
Correct information	Davao	South Cotabato	7.25176 [*]	2.08312	0.002
		Bukidnon	8.19714 [*]	2.24351	0.001
Trustworthiness	Davao	South Cotabato	5.50000 [*]	2.12168	0.03
		Bukidnon	6.50000 [*]	2.28504	0.015
Consider best interest	Davao	South Cotabato	6.26941 [*]	1.94689	0.005
		Bukidnon	6.66857 [*]	2.09679	0.006
Better offer	Davao	South Cotabato	-5.16941 [*]	2.11564	0.044

*. The mean difference is significant at the 0.05 level.

Between Farmers and Buyers

The output of SPSS showed that Levene's F Statistics have significant value of less than 0.5 for all the items, which means that one-way analysis of variance (ANOVA) is not possible to determine the significance difference between the groups. Instead of ANOVA, we use Robust Test of Equality of Means One or Welch Test. From the output of SPSS, 12 out of 18 items have significant value of less than 0.05, which means they are statistical differences between Davao, Bukidnon, and South Cotabato with the items.

Table 6. Robust Tests of Equality of Means (Welch Test)

Items	Statistic	df1	df2	Sig.
confidence	5.027	9	36	.000
Correct information	9.893	9	35	.000
Trustworthiness	6.086	9	36	.000

Best interest	13.358	9	35	.000
Honesty	5.891	9	35	.000
Keep promise	4.492	9	36	.001
Better offer	6.881	9	35	.000
Dependence	3.456	9	34	.004
Open suggestion	9.630	9	21	.000
Fairness	6.065	9	35	.000
Quickness to handle complaints	6.746	9	36	.000
Rewards	4.705	9	34	.000

From the output of Welch test, we computed post hoc test and used Tukey test to determine which of the three groups differ from the given relationships for different items, we computed Post hoc test using SPSS. Of the 18 items, 9 items were selected based on their significance value which is less than 0.05. Based on the results on table 7, the mean score of confidence differed significantly between Davao cluster and Davao wholesalers. The same results for the items such as correct information, better offer, and openness to suggestion, and fairness of treatment. Bukidnon wholesalers is statistically different from Davao wholesalers in terms of correct information, consider best interest, quickness to handle complaints, and rewards. Bukidnon cluster is statistically different from the Bukidnon wholesalers in terms of best interest, while South cluster is statistically different from the South Cotabato wholesalers in terms of openness to suggestion. Davao retailers are statistically different from Davao clusters in quickness to handle complaints.

Table 7. Post hoc test results.

Dependent Variable	(I) area	(J) area	Mean Difference (I-J)	Std. Error	Sig.
Confidence	Davao cluster	Davao-wholesalers	5.37500 [*]	1.65027	0.043

Correct information	Davao cluster	Davao-wholesalers	6.74000*	1.55	0.001
	Bukidnon wholesalers	Davao-wholesalers	-6.78182*	1.94	0.020
Best interest	Bukidnon wholesalers	Davao-wholesalers	-8.09545*	1.95	0.002
	Bukidnon wholesalers	Bukidnon cluster	-8.11688	2.51	0.046
Better offer	Davao cluster	Davao wholesalers	5.64000*	1.64	0.024
Keep promise	Bukidnon wholesalers	Davao-wholesalers	-8.14773*	2.10	0.006
Openness to suggest	South Cotabato wholesalers	South Cotabato cluster	-11.17647*	2.07	0.000
	Davao wholesalers	Davao cluster	-10.55500*	1.56	0.000
Fairness of treatment	Davao wholesalers	Davao cluster	-5.08500*	1.49	0.026
Quickness to handle complaints	Bukidnon wholesalers	Davao-wholesalers	-8.61364*	2.05	0.002
	Davao retailers	Davao cluster	-9.00000*	2.72	0.030
Rewards	Bukidnon wholesalers	Davao-wholesalers	-8.74318*	2.10	0.002

Summary and Conclusion

There was a marked difference in the relational measures between farmers and their clusters and with their downstream buyers. Empirical findings showed farmers in Davao rated differently from the farmers Bukidnon and South Cotabato for their cluster in terms of trust. In Davao, while the members generally have high level of trust. The key element it seemed was the transparency within the cluster in terms of exchanging market information and the

complete disclosure of cluster transactions. Another is their trust with their cluster leaders. None of the clusters reported any difficulties associated with either the coercive use of power or any attempt by their downstream buyer to attempt to withhold market information. The assurance that there are buyers of their product gives them high confidence ratings. Farmers in Davao have high level of confidence because of they can deliver in volume and have better prices.

In Bukidnon and South Cotabato, becoming part of the cluster has brought positive outcomes, like building trust and fostering honesty. In addition, the power vested on the cluster officers were used accordingly. Members can express freely their sentiments without being judged directly. Thus, each of them felt that they were treated fairly and equally. And since information always made available to them, especially in terms of cluster records on sales and expenses, members had gain confidence towards one another. Becoming part of the cluster has also provided benefits for the farmer-members. Usually, they can bargain for a better price with their buyers. Also, they become open towards other members in terms of suggesting or advising for an additional knowledge on production techniques that would be of great help for one member.

Results have shown that farmers in Bukidnon have high regards to their buyers because of confidence, trustworthiness, and honesty. Though some buyers would buy in smaller quantities, they can still find the deals as well-arranged. They are also transparent since information, like changes in prices, are always correct, which are also provided to them. Farmers know for a fact that buyers do not take advantage on them especially during hard times, like sudden decrease in prices or crop failure. Buyers always consider the best interest of the farmers since their concerns are always addressed. In addition, farmers revealed that what keep them attached with their buyers is that there are better offers being given to them, like good prices. Also, farmers can go to another buyer if the latter cannot accommodate some bulk of deliveries. In South Cotabato, cluster farmers preferred to transact with their consolidators rather than to transact with wholesalers in the traditional market. The price that the consolidator paid was generally higher than that paid by wholesalers and payment was more prompt. Wholesalers would often agree on a price but then attempt to renegotiate the price after purchase. Whereas the consolidator provided clear guidelines as to the quality of the product required and generally purchased all of the fruit offered for sale, the wholesalers would only purchase some sizes. As farmers were not financially obligated to either consolidators or wholesalers, they were free to choose between alternative buyers.

Consequently, neither buyer was able to exercise any coercive market power. Both consolidators and wholesalers had on occasion offered advice to the farmers on what to grow and how to grade and pack the fresh produce offered for sale. Market information on the other hand was less forthcoming, which farmers suggesting that the receipt of such information was infrequent.

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