

Determinants of trust in the Indonesian potato industry: a comparison among groups of potato farmers



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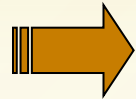
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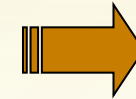
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Introduction

Rapid
transformation



Relational
Problem



TRUST



- Promoting efficiency, productivity, and effectiveness (Morgan and Hunt, 1994)
- decreasing transaction costs (Kwon, 2004)

Trust

'One party believes that its needs will be fulfilled in the future by actions taken by the other party' (Anderson and Weitz, 1990)

- **honesty** trust : a belief that a partner stands by its word, fulfill promised role obligations and sincere (Geyskens and Steenkamp 1995).
- **goodwill** trust : the expectations of other's moral obligations and responsibility in social relationships to demonstrate a special concern (dependability, responsibility and integrity) for other interests above their own (Barber, 1983; Ring and Van de Ven, 1992; Rempel et al., 1985)

Objectives

to investigate the determinants of trust
within the three groups of potato
farmers in Indonesia

The three groups

	Farmer Field School (FFS)	Indofood	General potato farmers (GPF)
Overview	involved in a FFS potato-brassica (ACIAR) project learning-by-doing, non-formal education, and developing integrated pest management (IPM)	under contract, vertical coordination	not involved in the FFS project or the Indofood partnership
Potato variety	Granola (for consumption and seed)	Atlantic (cannot for seed)	Granola (most for consumption)
Market arrangement	selling to the markets or for seed	selling to a firm (company)	selling to the market or other middle men
Type of market	Traditional	Modern	Traditional

Methods

- Location: West Java → 16 villages, 8 sub-districts
- Respondents: 302 consisted of ;
 - 50 FFS (random selection)
 - 60 Indofood (40% of Indofood farmers random selection)
 - 192 GPF (stratified random sampling by location)
- Questionnaire: Likert scale (1=strongly disagree - 5=strongly agree)

Methods

PCA with varimax rotation
Factor loading, CA,
and KMO-MSA > 0.5

Factor analysis

P-value,
the Benferroni test,
Tukey test

MANOVA

R-square
Significance 5%

Regression analysis

Results

Principal component analysis of trust

Factors and items	Factor loading
Honesty (Cronbach's alpha 0.697, KMO-MSA 0.650)	
Even when the buyer gives us a rather unlikely explanation, we are confident that it is telling the truth	0.8
The buyer usually keeps the promises	0.7
We can count on the buyer to be sincere	0.8
Goodwill (Cronbach's alpha 0.799 , KMO-MSA 0.787)	
Though circumstances change, we believe that the buyer will be ready and willing to offer us assistance and support	0.8
When making important decisions, the buyer is concerned about our welfare	0.8
When we share our problems with the buyer, we know that he will respond with understanding	0.8
Whenever the buyer gives us advice on our business operations, we know that he is sharing his best judgments	0.8

Principal component analysis of relational variables

Factors and items	Factor loading
<p>Flexibility (Cronbach's alpha 0.529, KMO-MSA 0.571)</p> <p>My buyer is flexible in their contract and arrangement to fit with the current scenario</p> <p>My buyer can adjust the contract condition to fit with my present requirement</p> <p>When I have problem, my buyer will make sure the problem does not jeopardize our business relationship</p>	<p>0.8</p> <p>0.7</p> <p>0.6</p>
<p>Price transparency (Cronbach's alpha 0.690, KMO-MSA 0.604)</p> <p>Price changes are communicated to me properly and timely</p> <p>The price information provided by the buyers is complete, correct and frank</p> <p>I know what I pay and what I get</p>	<p>0.8</p> <p>0.9</p> <p>0.6</p>
<p>Relative price</p> <p>Terms and condition of my buyer/processor are better than those of other buyers/processors</p>	<p>0.9</p>
<p>Price quality ratio (Cronbach's alpha 0.710, KMO-MSA 0.500)</p> <p>I am satisfied with the potato price and grading system</p> <p>I get a good price-quality ratio</p>	<p>0.6</p> <p>1.0</p>

Principal component analysis of relational variables (continued)

Factors and items	Factor loading
Communication (Cronbach's alpha 0.852, KMO-MSA 0.809) The buyers provide me with information in time the buyers provide me with all the relevant market information We share a common information frequently with the buyer Information sharing on important issues has become a critical element to maintain this partnership	 0.9 0.8 0.8 0.8
Dependence (Cronbach's alpha 0.588, KMO-MSA 0.606) The buyers have all the power in my potato production I have no other alternative buyer My buyers control all the production information	 0.8 0.7 0.7
Reputation The buyers have a high reputation	 1.0
Joint problem solving When I have problem with my buyers, I meet them to get problem solving together	 1.0

Results and discussions

Descriptive statistics of demographic

Descriptive Statistics	Mean		
	FFS	Indofood	GPF
Firm size (ha)	1.2	1.2	0.9
Experience in potato farming (years)	16	19	21
Age (years)	41	44	47
Actual price (rupiah/kg)	3169.0	3462.5	3224.9

The differences among the three farmers groups: Multivariate analysis of variance (MANOVA)

No	Factors	F-value	Group mean		
			FFS	Indofood	GPF
1	Communication	0.815	3.520	3.483	3.390
2	Price transparency	8.529*	3.393	3.817 ^a	3.400 ^b
3	Relative price	4.101*	3.540	3.830 ^a	3.640 ^b
4	Price quality ratio	14.806*	3.500	3.505 ^a	3.560 ^b
5	Joint problem solving	4.295*	3.600	3.850	3.500 ^b
6	Reputation	3.229*	3.840	3.970	3.750 ^b
7	Flexibility	4.882*	3.310	3.513	3.223 ^b
8	Dependence	28.419*	2.720	3.440 ^a	3.677 ^b
9	Land size (ha)	1.334	1.224	1.239	0.911
10	Experience in potato farming (years)	4.276*	16 ^c	19	21 ^a
11	Actual price (rupiah)	3.722*	3169	3463	3225 ^b

* Significance 5%

a = Mean is significantly different than FFS.

b = Mean is significantly different than Indofood.

c = Mean is significantly different than GPF.

Results of regression analysis of honesty trust

	FFS	Indofood	GPF
	Coef	Coef	Coef
Communication	0.124	-0.090	-0.031
Price transparency	0.634**	0.014	0.317**
Relative price	0.414*	0.130	0.078
Price quality ratio	0.069	0.190	0.103
Joint problem solving	-0.059	-0.156	-0.156**
Reputation	-0.122	0.327**	0.134*
Flexibility	-0.474**	-0.268**	-0.069
Dependence	0.064	0.369**	-0.051
Land size (ha)	-0.261**	0.069	0.017
Experience (years)	-0.054	0.001	-0.014
Actual price (rupiah)	-0.062	0.063	0.080
Adjusted R Square	0.492	0.409	0.202
F-test	3.342*	3.026*	4.270*

* Significance 10% , ** Significance 5%

Results of regression analysis of goodwill trust

	FFS	Indofood	GPF
	Coef	Coef	Coef
Communication	0.039	0.187	0.167*
Price transparency	0.089	0.144	0.100
Relative price	-0.011	0.088	-0.099
Price quality ratio	0.123	-0.030	0.099
Joint problem solving	-0.136	0.044	0.150**
Reputation	0.153	-0.098	0.002
Flexibility	0.338	0.296**	0.211**
Dependence	0.249**	0.169	0.341**
Land size (ha)	0.352**	-0.161	-0.041
Experience (years)	0.106	-0.019	-0.046
Actual price (rupiah)	0.358**	0.130	0.124**
Adjusted R Square	0.437	0.401	0.413
F-test	2.681*	2.917*	11.855*

* Significance 10% , ** Significance 5%

Conclusions and implications

Honesty			Goodwill		
FFS	Indofood	GPF	FFS	Indofood	GPF
Price transparency (+)	Reputation (+)	Price transparency (+)	Land size (+)	Flexibility (+)	Flexibility (+)
Relative price (-)	Dependence (+)	Joint problem solving (-)	Dependence (+)		Communication (+)
Flexibility (-)	Flexibility (-)	Reputation (+)	Actual price(+)		Joint problem solving (+)
Land size (-)					Dependence (+)
					Actual price (+)

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Thank you