

# Determining Risk Attitudes of Paddy Farmers in KETARA Granary, Malaysia

Nurul Asrin Roslan, Amin Mahir Abdullah, Mohd Mansor Ismail, and Alias Radam

**Abstract**—Paddy and rice industry has been an important agricultural sub-sector to the economy even prior to the independence. Despite heavy government investments in the forms of infrastructure development, provision of input and price subsidies, to enhance the growth of paddy and rice industry, paddy production faces numerous risks. This study examines paddy farmers' attitudes towards risk. Data were collected via personal interview in North Terengganu Integrated Agriculture Development (Ketara) Terengganu Malaysia, as the study area. The purpose of the study is to develop a scale for assessing risk attitudes of paddy farmers. The study used a standard questionnaire to elucidate information pertaining to demographic and risk attitudes. Respondents were asked to respond to 47 statements about managing risk, using Likert scales as the measurement. A total of 235 farmers were surveyed. The set of 47 statements on how farmers manage risks were included to develop the final refined scale of risk attitude statements. Reliability analysis indicates which statements contribute in explaining the risk attitudes and by deleting the statements will affect the reflection of risk attitudes. Cronbach's coefficient alpha was employed to evaluate the degree of communal variation of risk attitudinal scale. From 47 statements, the analysis established a refined 24 items scale which can be applied to measure the risk attitude of paddy farmers in the study area. The refined 24 item scale has the levels of communal variation of 73% caused by risk attitude, which is in an acceptable alpha Cronbach range. The further study on the 24-items refined scale of paddy farmer's risk attitudes revealed that farmers in Ketara are slightly to risk seeking than a risk neutral person.

**Index Terms**—Risk Attitude, attitudinal scale, reliability.

## I. INTRODUCTION

Paddy sector in Malaysia has traditionally been a smallholder based activity for over last decade ago. However, after the green revolution, the paddy industry has been organized and yields have increased significantly. In 1965, the concept of integrated agriculture development project was introduced with the implement of first granary area in Northern Peninsular Malaysia. Today, to ensuring the rice production and sufficient, the government has designated cluster of eight granary areas in Malaysia.

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The importance of paddy and rice industry can be classified, at least in three perspectives: government investment in infrastructure such as development of drainage and irrigation, provisions of subsidies and incentives to improve production and farmer's income, and controlling retail prices of ST 15 to cater for lower income consumer groups. Besides being the staple diet for the population, rice is considered as a strategic crop of the country, thus, it is listed as the most important food security crop. Recent food crisis, has mooted the government to reemphasize the significance of the commodity to achieving food security goals. Despite heavy government investment in terms of provision of infrastructure and input incentives, paddy production since the last decade has not shown a significant improvement. Producers' attitude is expected to partially contribute to this problem. Farmers are observed to shrink from investing into farm inputs due to their dependence on subsidy. The periodic of drought, irregular amount of rainfall, and seasonal monsoon floods are a threat to the rice crop [1]. Other risks involved include pests and diseases. If farmers were hit by any sources of risks, depending at what stage of production, possible losses can be considerable. Currently, farmers cover their losses due any uncharted risk source, from their saving or partial supports from the government. However, the government support in this situation is on ad-hoc basis.

This study intent to: develop an attitudinal scale and determining paddy farmer's attitudes toward risk in Ketara granary, Terengganu, Malaysia. The study area is located in the east coast of Peninsular Malaysia. Mostly, agriculture producers are mostly risk averse. Studies by [2], [3] confirmed this finding. Risk attitudes of farmers which are revealed from the study will provide guidelines to undertake proper interventions either on terms of policy development or extension services.

## II. LITERATURE REVIEW

Risk attitude is defined as the extent to which a decision-maker seeks to risk aversion or prefers to face risk or risk preference [4]. It is a personal characteristic that deals with the decision maker's interpretation of the risk and how much they dislike the outcome from the risk [5]. Risk attitudinal scales have been developed by many researches. Reference [6] developed an attitudinal scale to measure risk attitudes by various responses to risks sources, such as financial, marketing, and production, in production agriculture for a set of 86 farmers in Illinois. Farmers' responses to the attitudinal scales showed levels of communal variation is 68.6% with the proposed twelve statements scale including, financial, production, social and marketing responses statements towards risk. The finding shows that the sample farmers behave in a moderately risk

averse manner. Reference [7] measured dairy farmer's attitudes towards risk in India using attitudinal scale similar to that was used by reference [6], [8]. The findings established a scale on risk attitude of 22-item scale that can be applied to measuring the risk attitude of Indian dairy farmers. The risk attitude scale has high degree of reliability test as farmers' responses to the risk management statements revealed a communal variation of 85%. Evidence from Sweden on assessing farmers' risk attitudes based on economic, social, personal, and environmental sources of risk has been done [8]. Finding from this study shows farmers' responses to the attitudinal scales showed between 80% and 83% levels of communal variation.

### III. MATERIALS AND METHODS

This study uses primary data obtained from personal interview with 235 farmers at Ketara granary area. The granary located at the Northwest Terengganu, a state located in the east coast of Peninsular Malaysia. The whole project covers an area of 258,736 hectares, comprising the districts of Besut (122,831 hectares) and Setiu (139,905 hectares). Since rice is the main crop, Ketara has to play its roles in realizing the national rice self sufficiency policy. A standard questionnaire about managing risk was designed and used to collect all required data. The first section enquired the demographic characteristics of the respondent and second section consisted statements about attitudes toward risk. To assess the farmer's risk, this study employed the attitudes scales developed by [6]-[8] with some modifications. The respondents were asked to state their degree of agreement to 47 statements about managing risk on a 5 point scale where 1 is strongly disagree, 3 is neutral and 5 is strongly agree. The statements were constructed in such a way that a score of higher than 3 (neutral) would represent risk seeking attitudes while less than 3 would be risk averse. To eliminate bias responses some of the statements were negatively worded and were reversed during analysis.

Data analysis was carried out using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics are presented to summarize respondents' demographic and farm characteristics. This study applied a methodology to develop a level of ranking procedure for farmers' risk attitudes using an attitudinal scale approach. The farmer's rating of the items was summed up to yield an average score of farmers, which was a method of measuring farmer's attitude. A lower average score for an individual's indicates to correspond to a high degree of risk aversion. An average score of 3 corresponds to risk neutrality. While strong agreement average score of 5 corresponds a risk seeking attitude.

The method of data analysis for the development of the risk attitudinal scale was implemented by employing reliability test on the risk management statements. Reliability testing is defined as the proportion of variance attribute to the true score of the latent variable [9]. The individual items of the scale should be measuring the same construct and thus be highly inter-correlated. The most frequently used in measuring the reliability is Cronbach's coefficient alpha. Cronbach's coefficient alpha was used to evaluate the degree of communal variation of risk attitudinal

scale [6]-[8]. It is measure as:

$$\alpha = \frac{k}{k-1} \frac{(1 - \sum \alpha_i^2)}{\alpha_y^2} \tag{1}$$

where  $\alpha$  is the Cronbach's coefficient alpha,  $k$  is the number of statements (items) in the scale,  $\alpha_i^2$  is the variance of the  $i$ th statements and  $\alpha_y^2$  is the total variance of the  $k$ -item scale. The Cronbach's coefficient alpha is ranged from 0 to 1 and the acceptable level of the Cronbach's Alpha coefficient is between 0.70 and 0.80 [9], [10]. The reliability test is aim to attain highest alpha.

The reliability of attitudinal scale can improve the Cronbach's coefficient alpha by deleting and removing items from the range of original scale. The Corrected Item Score Correlation (CISC) which have negative and very low item scale correlation were deleted to generate an improved alpha. It is represented as:

$$r_{i(y-i)} = \frac{r_{yi}\sigma_y - \sigma_i}{\sqrt{\alpha_i^2 + \alpha_y^2 + 2\sigma_i\sigma_y r_{yi}}} \tag{2}$$

Where  $r_{yi}$  is the correlation of statements (items)  $i$  with total score  $y$ ,  $\sigma_y$  is the standard deviation of the total score of  $y$ ,  $\sigma_i$  is the standard deviation of item  $i$ , and  $r_{i(y-i)}$  is the correlation of item  $i$  with the sum of scores of all statements (items), excluding of item  $i$  [6]-[8]. If further deleting the statements reduced the overall coefficient alpha, the reliability scale cannot be increased to any further extent and thus, the scale of statements has been optimized in explaining the risk attitudes.

### IV. RESULTS AND DISCUSSION

#### A. Descriptive Analysis

TABLE I: PADDY FARMERS' DEMOGRAPHICS

Category	
Number of respondents	235 Farmers
Average age	48 Years old
Average number of dependents	6 Dependents
Average years paddy farming work	20 Years
Average farm size	3.3353 Hectares
Average paddy production per season	
Paddy	11.22 Metric tonne
Paddy seed	12.01 Metric tonne
Average selling price	
Paddy	RM 984.69
Paddy seed	RM 1151.94
Average net income per season	RM 15872.20

Table I shows the summarized demographic profile of paddy farmers in the study area. The table shows that the average age of paddy farmers was 48 years old, and had six dependents including farmer himself. The average years of paddy farming experience in farm of paddy farmer is about 20 years. An average farm size was 3.34 hectares with the average of paddy production 11.22 metric tonne while paddy seed production was 12.01 metric tonne. The average net total income for farmers was about RM 15872.20 per season.

#### B. Farmers' Risk Attitude

Risk attitudes of paddy farmers were measured based on farmers' responses to the set of 47 risk management statements which were summed up to yield an aggregate

score, and are presented in Table II.

TABLE II: RISK ATTITUDES SCALE OF RISK MANAGEMENT STATEMENTS

Statement	Average	Median	Mode	Standard Deviation	Maximum	Minimum
1 First producers in area to adopt new technology	3.46	4	4	1.148	5	1
2 Enough money or cash in hand to pay all my bills	3.37	4	4	1.052	5	1
3 Working on other crops or livestock, other than rice	2.88	2	2	1.235	5	1
4 Not rely heavily on market information in making my marketing decisions	2.64	2	2	1.158	5	1
5 Off-farm income is not important for the survival of family(Reversed)	3.21	4	4	1.210	5	1
6 Off-farm investments are not important sources of income for family(Reversed)	3.19	4	4	1.247	5	1
7 Do not have health insurance	3.60	4	4	1.230	5	1
8 Do not owe in term of capital or input in my rice production operations.	2.97	3	2	1.240	5	1
9 Most of my machinery is not in good repair. (Reversed)	2.64	2	2	1.121	5	1
10 In case of emergency, do not have sufficient back-up management/labour to carry on production	3.16	4	4	1.147	5	1
11 Use very specialized machinery for my production practices.	3.46	4	4	1.137	5	1
12 Do not have life insurance	3.63	4	4	1.157	5	1
13 Postpone needed purchases of farm machinery and other capital items(Reversed)	2.78	2	2	1.132	5	1
14 Do not consider myself to be a low-cost producer.	3.16	4	4	1.240	5	1
15 Do not have enough time to participate in desired social activities. (Reversed)	3.43	4	4	1.093	5	1
16 Do not concern with environmental in my production activity. (Reversed)	3.76	4	4	1.032	5	1
17 Do not invest in the farm operation to create opportunities for expansion (Reversed)	3.03	3	2	1.164	5	1
18 Do not have thorough and well-documented controls of crop production (Reversed)	3.08	3	4	1.154	5	1
19 I never pay my bills on the due date	2.75	2	2	1.124	5	1
20 Do not participate in training relevant to paddy production activity (Reversed)	3.45	4	4	1.121	5	1
21 Not burn the rice straw before planting the following season	2.06	2	2	0.968	5	1
22 Use herbicides/pesticides in large quantities before/after planting rice	3.03	3	2	1.201	5	1
23 Practice integrated pest management (IPM).	3.79	4	4	0.928	5	1
24 Bought extra fertilizer other than fertilizer subsidies/additional provided by government	3.49	4	4	1.189	5	1
25 Bought additional agriculture chemical other than incentives chemical provided by government	3.88	4	4	0.962	5	1
26 Do not use uncertified seeds in my rice production operations	1.99	2	2	0.917	5	1
27 Do not believe it to be important to take part in social activities. (Reversed)	3.95	4	4	0.907	5	1
28 Do not produce to the highest possible quality even if it means higher costs. (Reserved)	3.43	4	4	1.197	5	1
29 Check account/debts other than for the purpose of rice production from time to time	3.81	4	4	0.951	5	1
30 Check account when buying machinery/input for agriculture(Reversed)	2.06	2	2	0.883	5	1
31 Few hobbies outside agriculture	3.24	4	4	1.332	5	1
32 No workers/assistant helpers to my farm if I sick	2.79	2	2	1.164	5	1
33 Never invest a large part of income outside the agricultural firm(Reversed)	2.68	2	2	1.131	5	1
34 Never saving a large part of income(Reversed)	3.40	4	4	1.191	5	1
35 Never test the function of the farm equipment on a regular basis.	2.30	2	2	0.998	5	1
36 Do not have insurance for accidents.	3.61	4	4	1.106	5	1
37 Member of Area Farmer Organization (PPK)(Reversed)	3.69	4	4	1.192	5	1
38 Collaborate more with other farmers (using machinery, buying input supplies)	4.18	4	4	0.830	5	1
39 Do not have good contact with other farmers to discuss firm related issues(Reversed)	4.15	4	4	0.881	5	1

40	Willing to take insurance for crop if the insurance scheme was introduced(Reversed)	1.93	2	2	0.869	5	1
41	Never have enough of cash or liquid funds to pay invoices or credits. (Reversed)	3.21	4	4	1.190	5	1
42	Never discuss issues related to farm operation with professional advisors(Reversed)	3.88	4	4	1.010	5	1
43	Very good contacts with my neighbours.	4.51	5	5	0.694	5	1
44	There will be no family members/close relative to continue to farm operation when retire	2.23	2	2	1.041	5	1
45	Never use too much fertilizer	3.30	4	4	1.161	5	1
46	Use fertilizer subsidies for other purposes	1.68	2	2	0.670	5	1
47	Withdrawal of price subsidies by the government will not affects to the operation of rice production	1.74	1	1	1.164	5	1

The finding shows the lower of average score for individual statements on risk management indicate the farmers are more towards risk aversion attitude. Farmers were risk aversion on statement: uncertified seeds, crop insurance, fertilizer subsidy and withdrawal of price subsidy had lower average score between 1.68 and 1.99. The farmers were strongly disagreed on statements: farmers are not willing to take insurance for crop if the insurance scheme was introduced, score of 1.93. Here, it shows that farmers were willing to prevent their crop from catastrophic risks by insuring their crops. Thus, the farmers were strongly disagreed for the negatively worded statements and farmers were more likely to utilize and agree with the implement on risk management tools in the paddy production.

Statements 1, 25, 38 and 43: adopt new technology, bought additional agriculture chemical, collaborate with others farmers, and good contact with neighbour have average scores between 3.46 and 4.51 for positively worded statements. The highest average score of 4.18 relates that farmers would like to collaborate more with other farmers (in terms using machinery and buying input supplies) and the average score of 4.51 for farmers have very good contacts with neighbour shows that the farmers in Ketara are mostly good in social relation with the others. These statements with highest level of agreement indicate that farmers are more towards risk taker attitude and less likely farmers disagree with the importance of using risk management method in their paddy operation.

The average score of 3.03 for statements 17 and 22: invest in the farm operation to create opportunities for expansion, use herbicides or pesticides in large quantities before or after planting rice imply that farmers were neither agreed nor disagreed with the risk statement. These statements with average score of 3 indicates that farmers were risk indifferent (risk neutral). This group of paddy farmers was neither agreed nor disagreed with the implementation of risk management tools.

#### C. Reliability Test

Reliability tests are especially important to be conducted before any further discussion on the scale of risk attitudes. A set of 47 statements on how farmers manage risks were included in the final refined scale of risk attitude statements. Reliability analyses identify which statements contribute in explaining the risk attitudes and by deleting the statements will affect the reflection of risk attitudes. Table III presents the reliability testing and corrected item-score correlation (CISC) of each risk attitude statements and the overall

coefficient alpha for all 47 statements. The overall coefficient alpha of 0.396 indicates that the 47 statements account for 40% of total variation. Therefore, this level is rather low and unacceptable. The acceptable level of the Cronbach's Alpha coefficient is between 0.70 and 0.80 [9]. The scale was optimized by deleting statements with negative and very low item scale correlation to generate an improved alpha. For example, by deleting statement 35 about 'never test the function of the farm equipment' will increase the overall coefficient alpha for all 46 statements to 0.430.

#### D. Developing Scale of Paddy Farmers' Risk Attitudes

The scale 'if items (statements) deleted' was continued, deleting the statements as long as the overall coefficient alpha increased. If further deleting the statements will reduced the overall coefficient alpha, the reliability scale cannot be increased to any further extent and the scale of statements has been optimized in explaining the risk attitudes. Table IV presents the highest attainable overall coefficient alpha from the original 47 risk attitude statements. At first, the following 21 statements were deleted: 1, 4, 7, 8, 10, 12, 14, 19, 21, 22, 26, 30, 32, 35, 36, 40, 41, 44, 45, 46, and 47. The overall coefficient alpha for the new 26 statements scale increased to 72 per cent.

Removal one by one of statement 28 about produce to highest possible quality even if higher costs and statement 6 about off-farm investments provided a 24 statements would lead to a small improvement in overall alpha value of 0.728. While continued deleting one by one for statement 2, 5, 38 and 43 which have low of corrected item-scale correlations value (0.138, 0.181, 0.191 and 0.137, respectively) to yield a 20-item scale, the corresponding overall alpha was decrease to 0.724 after deleting these statements. The corresponding overall alpha for 20-item scale (0.724) is lower than the corresponding overall alpha of the 24-statements (0.728) From the three separate lists of a farmers risk attitudinal scale, the 24-statement scale offers the best explanation of the variance with the overall coefficient alpha of 0.728 indicates that the communal variation of 73% is caused by risk attitudes. The 0.727 is much higher than the acceptable levels of the Cronbach's alpha coefficient of 0.70 as proposed [9]. The scale revealed a communal variation of 73% is higher than reported [6], (69%). The suggested 24 statements scale was the developed scale for assessing risk attitudes of paddy farmers in Ketara. The refined 24 statements scales of risk attitudes includes production, financial, social and environmental statements towards risk. The 24-items attitudinal scale

revealed that farmers in Ketara were slightly to risk seeker than a risk neutral person.

TABLE III: RELIABILITY TEST

Statement	Corrected Item-scale Correlation	Coefficient Alpha	Statement	Corrected Item-scale Correlation	Coefficient Alpha
1 Adopt new technology.	0.175	0.375	2 Bought additional agriculture chemical other than incentives chemical	0.212	0.373
2 Enough money or cash to pay bills.	0.187	0.375	2 Not use uncertified seeds	-0.141	0.416
3 Working on other crops other than rice	0.178	0.373	2 Important to take part in social activities	0.202	0.375
4 Not rely on market information	-0.101	0.417	2 Produce to highest possible quality even if higher costs	0.000	0.402
5 Off-farm income	0.148	0.379	2 Check account/debts other than for the purpose of rice production	0.184	0.377
6 Off-farm investments	0.081	0.389	3 Do not check account when buying machinery/input	-0.265	0.429
7 Do not have health insurance	0.061	0.393	3 Have few hobbies outside agriculture.	0.087	0.388
8 Not owe in term of capital or input	0.052	0.394	3 No workers/assistant helpers if fall sick	-0.149	0.424
9 New and well-maintained machinery	0.147	0.379	3 Invest a large part of income outside the agricultural firm	0.244	0.364
1 Do not have sufficient back-up labour	-0.155	0.424	3 Saving a large part of income	0.163	0.376
1 Specialized machinery	0.263	0.361	3 Never test the function of the farm equipment	-0.237	0.430
1 Do not have life insurance	0.008	0.401	3 Do not have insurance for accidents	-0.023	0.405
1 Purchases of machinery and other capital items immediately	0.243	0.365	3 Member of Area Farmer Organization (PPK)	0.162	0.376
1 Not consider to be a low-cost producer	0.035	0.397	3 Collaborate more with other farmers	0.145	0.383
1 Enough time to participate in social activities	0.068	0.391	3 Good contact with other farmers to discuss farm related issues	0.194	0.377
1 Concern with environmental	0.135	0.382	4 Willing to take crop insurance	-0.105	0.411
1 Invest to create opportunities for expansion	0.207	0.370	4 Enough of cash or liquid funds to pay invoices or credits	0.047	0.395
1 Thorough and well-documented controls	0.201	0.371	4 Discuss issues related to farm with professional advisors	0.265	0.364
1 Never pay bills on due date.	0.018	0.399	4 Good contacts with neighbours.	0.075	0.391
2 Participate in training relevant to paddy production	0.150	0.379	4 No family members/close relative to continue to farm when retired.	-0.140	0.419
2 Not burn the rice straw before planting the following season.	-0.012	0.402	4 Never use too much fertilizer.	-0.046	0.409
2 Use herbicides/pesticides in large quantities before/after planting rice.	-0.087	0.416	4 Use fertilizer subsidies for other purposes.	0.004	0.398
2 Practice integrated pest management (IPM).	0.269	0.366	4 Withdrawal of price subsidies	0.090	0.388
2 Bought extra fertilizer other than fertilizer subsidies	0.258	0.361	<b>Cronbach's Coefficient Alpha for 47 statements</b>		<b>0.396</b>

### V. CONCLUSION

This study reviews the method of developing a scale for assessing farmers risk attitude towards risks and response to risk. The study has developed 24 refined scales in determining the risk attitude of paddy farmers in Ketara. The importance of understanding of risk attitudes to researchers is that they can predict the paddy farmer's decision-making when facing risks in their operations.

This study focused on only one granary area that is Ketara. There are eight granary areas in Malaysia and the future study should extend to all granaries so that overall and regional risk attitudes of paddy farmers can be investigated and determined. From the findings an inclusive policy intervention can formulated and implemented as to enhance the future development of farmers and the industry. The methodology used in this study can be replicated to

other farmers such as livestock farmers or aquacultures.

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TABLE IV: REFINED SCALE FOR RISK ATTITUDE STATEMENTS

Statement	26-Item Scale		24-Item Scale		20-Item Scale	
	Item-scale Correlation	Alpha	Item-scale Correlation	Alpha	Item-scale Correlation	Alpha
2 Enough money or cash to pay bills	0.138	0.723	0.138	0.728	-	-
3 Working on other crops other than rice	0.200	0.719	0.191	0.726	0.194	0.723
5 Off-farm income	0.240	0.716	0.181	0.726	-	-
6 Off-farm investments	0.145	0.724	-	-	-	-
9 New and well-maintained machinery	0.180	0.720	0.174	0.726	0.185	0.722
11 Specialized machinery	0.217	0.718	0.225	0.722	0.221	0.719
13 Purchases of machinery and other capital items immediately	0.262	0.714	0.256	0.72	0.246	0.717
15 Enough time to participate in social activities	0.261	0.714	0.248	0.721	0.236	0.718
16 Concern with environmental	0.321	0.710	0.294	0.717	0.283	0.714
17 Invest to create opportunities for expansion	0.312	0.711	0.294	0.717	0.311	0.711
18 Thorough and well-documented controls	0.309	0.711	0.309	0.716	0.302	0.712
20 Participate in training relevant to paddy production	0.309	0.711	0.332	0.714	0.359	0.707
23 Practice integrated pest management (IPM).	0.290	0.713	0.340	0.715	0.295	0.713
24 Bought extra fertilizer other than fertilizer subsidies	0.365	0.706	0.379	0.71	0.392	0.704
25 Bought additional agriculture chemical other than incentives chemical	0.272	0.714	0.288	0.718	0.272	0.715
27 Important to take part in social activities	0.348	0.71	0.339	0.715	0.298	0.713
28 Produce to highest possible quality even if higher costs	0.111	0.726	-	-	-	-
29 Check account/debts other than for the purpose of rice production	0.259	0.715	0.272	0.719	0.279	0.714
31 Have few hobbies outside agriculture.	0.210	0.719	0.227	0.723	0.241	0.719
33 Invest a large part of income outside agricultural firm	0.345	0.708	0.336	0.714	0.357	0.707
34 Saving a large part of income	0.296	0.712	0.307	0.716	0.325	0.710
37 Member of Area Farmer Organization (PPK)	0.246	0.716	0.244	0.721	0.240	0.718
38 Collaborate more with other farmers	0.184	0.719	0.191	0.724	-	-
39 Good contact with other farmers to discuss farm related issues	0.356	0.709	0.362	0.714	0.346	0.710
42 Discuss issues related to farm with professional advisors	0.429	0.703	0.453	0.706	0.451	0.700
43 Good contacts with neighbours.	0.128	0.722	0.137	0.727	-	-
<b>Aggregate Cronbach's Coefficient Alpha</b>		<b>0.723</b>		<b>0.728</b>		<b>0.724</b>

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