

Supplementary Materials

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Table S1a. Sample flow from the 639 surveyed households to the primary analytical sample.

Group	Households (<i>n</i>)	Would not join under any conditions (<i>n</i>)	Valid willingness response (<i>n</i>)	Stated willingness, <i>n</i> (%)
All ten service items recorded; at least one service named (primary sample)	465	0	443	343 (77.4)
Service items partly recorded; indices calculated with the available-item procedure	12	0	12	11 (91.7)
Service items partly recorded; indices not calculable	12	8	12	0 (0.0)
None of the listed services named	150	124	145	9 (6.2)
Total	639	132	612	363 (59.3)

Note: Stated willingness refers to a valid response to the willingness item described in Section 2.5. “Would not join under any conditions” is a separate response recorded in the survey. Percentages in the last column are calculated among households with a valid willingness response.

Table S1b. Comparison of included (*n* = 465) and non-included (*n* = 174) households.

Characteristic	<i>N</i>	Test	Effect size	Holm- adjusted <i>p</i>
Region	639	χ^2	0.230	< 0.001
Gender	639	χ^2	0.008	1.000
Resident status	639	Fisher	0.089	0.411
Education level (three levels)	639	χ^2	0.030	1.000
Employment status	639	Fisher	0.158	0.095
Household income	639	χ^2	0.098	0.273
Forest ownership	638	χ^2	0.069	0.411
Age	639	Mann–Whitney	−0.209	< 0.001
Household size (category)	639	Mann–Whitney	0.072	0.411
Cooperation with other collectors	633	χ^2	0.254	< 0.001
Awareness of collectors' associations in Serbia	632	χ^2	0.189	< 0.001
Stated willingness	612	χ^2	0.597	< 0.001

Note: *N* is the number of valid observations. Fisher denotes Fisher's exact test with a simulated *p*-value, used when the smallest expected cell frequency was below 5. The effect size is Cramer's *V* for categorical characteristics and the rank-biserial correlation for age and household size (negative values indicate lower values among included households). The *p*-values are Holm-adjusted for the twelve tests.

Table S2. Membership degrees of the attainable index values under the reference membership functions.

Services named	Index value	μ Low	μ Medium	μ High	Predominant term
Three-item indices (administrative support; information and education support)					
0	0.00	1.000	0.000	0.000	Low
1	0.33	0.167	0.444	0.000	Medium
2	0.67	0.000	0.444	0.167	Medium
3	1.00	0.000	0.000	1.000	High
Four-item index (market and infrastructure support)					

Services named	Index value	μ Low	μ Medium	μ High	Predominant term
0	0.00	1.000	0.000	0.000	Low
1	0.25	0.375	0.167	0.000	Low
2	0.50	0.000	1.000	0.000	Medium
3	0.75	0.000	0.167	0.375	High
4	1.00	0.000	0.000	1.000	High

Note: μ denotes the membership degree. The predominant term is the linguistic term with the highest membership degree.

Table S3. Initial 12-rule base used in the sensitivity analysis.

Rule	Administrative support	Information and education support	Market and infrastructure support	Output support priority
1	Low	Low	Low	Low
2	Low	Low	Medium	Medium
3	Low	Medium	Medium	Medium
4	Medium	Medium	Medium	Medium
5	Low	Low	High	Medium
6	Low	Medium	High	High
7	Medium	Medium	High	High
8	Medium	High	High	High
9	High	High	High	High
10	High	High	Medium	High
11	High	Medium	Medium	Medium
12	High	Low	Medium	Medium

Note: Each of these twelve rules has the same consequent in the complete 27-rule base (Appendix A, Table A1). A household received the fallback score of 0.20 when none of the twelve rules was activated.

Table S4. Logistic regression of stated willingness on support-priority group and covariates (non-members, $N = 441$).

Term	OR	95% CI	p
Intercept	0.41	0.11–1.54	0.186
Support-priority group: Medium (vs. Low)	1.29	0.69–2.44	0.424
Support-priority group: High (vs. Low)	4.72	2.06–10.85	< 0.001
Region: Southern and Eastern Serbia (vs. Šumadija and Western Serbia)	3.59	2.14–6.02	< 0.001
Age (per year)	1.01	0.99–1.03	0.379
Gender: male (vs. female)	1.56	0.95–2.58	0.080
Household income: €501–1,000 (vs. less than €500)	1.08	0.63–1.85	0.773
Household income: more than €1,000 (vs. less than €500)	0.99	0.46–2.12	0.971
Education: secondary (vs. primary or less)	1.12	0.61–2.05	0.715
Education: university or higher (vs. primary or less)	0.78	0.30–2.05	0.615
Forest ownership: yes (vs. no)	1.53	0.90–2.59	0.113

Note: The analysis included non-members with a valid response to the willingness item and complete covariate data ($N = 441$). The p-values shown for individual model coefficients are unadjusted. Holm-adjusted p-values for the three pairwise contrasts between support-priority groups are reported in Table 6.

Table S5. Stated willingness by support-priority group within each region.

Region	Support-priority group	Households (n)	Valid willingness response (n)	Stated willingness, n (%)
Šumadija and Western Serbia	Low	29	29	17 (58.6)
	Medium	98	97	56 (57.7)
	High	50	49	39 (79.6)
Southern and Eastern Serbia	Low	40	37	28 (75.7)
	Medium	155	151	125 (82.8)

Region	Support-priority group	Households (<i>n</i>)	Valid willingness response (<i>n</i>)	Stated willingness, <i>n</i> (%)
	High	93	80	78 (97.5)

Note: Percentages are calculated among households with a valid willingness response.

Table S6a. Sensitivity analysis: classification under the alternative scenarios.

Scenario	<i>N</i>	Low	Medium	High	Agreement (%)	Weighted kappa	ARI	Scores at a threshold (<i>m</i>)
Reference specification	465	69	253	143	–	–	–	0
Input membership functions								
Partition A	465	17	298	150	87.3	0.825	0.698	103
Partition B	465	69	253	143	100.0	1.000	1.000	0
Medium set with peak at 0.4	465	69	253	143	100.0	1.000	1.000	0
Medium set with peak at 0.6	465	69	253	143	100.0	1.000	1.000	0
Domain-specific partition for market and infrastructure support	465	17	342	106	77.8	0.664	0.398	0
Conjunction operator								
Product t-norm	465	69	253	143	100.0	1.000	1.000	0
Classification thresholds								
Thresholds 0.30/0.70	465	69	253	143	100.0	1.000	1.000	0
Thresholds 0.40/0.60	465	69	253	143	100.0	1.000	1.000	0
Output representation								
Singletons 0.10/0.50/0.90	465	69	253	143	100.0	1.000	1.000	0
Singletons 0.25/0.50/0.75	465	69	253	143	100.0	1.000	1.000	0
Centroid defuzzification	465	69	253	143	100.0	1.000	1.000	0
Rule base								
Initial 12-rule base	465	111	220	134	83.4	0.802	0.590	43
Initial 12-rule base, fallback households excluded	422	68	220	134	91.5	0.907	0.757	43
Sample								
Available-item sample	477	75	259	143	–	–	–	0

Note: Agreement, weighted kappa (quadratic weights), and the adjusted Rand index (ARI) compare each scenario with the reference classification. They are not shown for the available-item sample, which includes 12 additional households. Partition A: Low (0, 0, 0.35), Medium (0.15, 0.5, 0.85), High (0.65, 1, 1). Partition B: Low (0, 0, 0.45), Medium (0.25, 0.5, 0.75), High (0.55, 1, 1). Domain-specific partition: Low (0, 0, 0.3), Medium (0.1, 0.5, 0.9), High (0.7, 1, 1) for the market and infrastructure support index only. For the alternative singleton values, the thresholds were set at the corresponding midpoints. The 43 threshold cases under the 12-rule specification are distinct from the 43 households assigned the fallback score.

Table S6b. Sensitivity analysis: stated willingness under the alternative scenarios.

Scenario	Low (%)	Medium (%)	High (%)	Cramer's V	Trend p
Reference specification	68.2	73.0	90.7	0.207	< 0.001
Partition A	47.1	73.4	89.7	0.229	< 0.001
Domain-specific partition for market and infrastructure support	47.1	75.8	88.4	0.190	< 0.001
Initial 12-rule base	58.5	78.7	91.7	0.286	< 0.001
Initial 12-rule base, fallback households excluded	61.5	78.7	91.7	0.246	< 0.001
Available-item sample	70.8	73.2	90.7	0.196	< 0.001

Note: Percentages represent the proportion stating willingness among households with a valid response to the willingness item. Trend p refers to the Cochran–Armitage test. The nine scenarios with a classification identical to the reference classification (Table S6a) have the same values as the reference specification and are not repeated.

Table S7a. Households assigned the fallback score under the initial 12-rule base, by input configuration and by group under the complete rule base.

Administrative	Information and education	Market and infrastructure	Group under the complete rule base	Households (<i>n</i>)	Valid willingness response (<i>n</i>)	Stated willingness, <i>n</i>
Low	Medium	Low	Medium	13	13	6
Medium	Medium	Low	Medium	11	11	6
Low	High	Low	Medium	5	4	1
Medium	High	Low	Medium	5	5	3
Medium	High	Medium	High	2	1	1
Medium	Low	Low	Low	2	2	1
High	Medium	Low	Medium	2	2	2
High	Low	High	High	1	1	1
Low	High	Medium	High	1	1	0
High	Low	Low	Medium	1	1	1
Total				43	41	22

Note: Input levels are the predominant linguistic terms. Under the complete rule base, 2 of the 43 households were classified as Low, 37 as Medium, and 4 as High.

Table S7b. Cross-classification of households under the initial 12-rule base and the complete 27-rule base (*N* = 465).

12-rule base	Low (27 rules)	Medium (27 rules)	High (27 rules)	Total
Low	58	49	4	111
Medium	11	200	9	220
High	0	4	130	134
Total	69	253	143	465

Note: Agreement = 83.4%; weighted kappa (quadratic weights) = 0.802; adjusted Rand index = 0.590.

Table S8a. Association with stated willingness for the rule-based classification and alternative approaches.

Approach	Group sizes	Cramer's V (95% CI)	AIC	AUC
Rule-based, 27 rules, fuzzy (reference)	69/253/143	0.207 (0.136–0.288)	457.8	0.622
Rule-based, 27 rules, crisp	69/253/143	0.207 (0.136–0.288)	457.8	0.622
Rule-based, 12 rules, fuzzy	111/220/134	0.286 (0.200–0.383)	442.6	0.679
Rule-based, 12 rules, crisp	215/129/121	0.235 (0.168–0.309)	450.7	0.645
Simple average, thresholds 0.35/0.65	245/114/106	0.201 (0.130–0.282)	459.1	0.623
Simple average, matched to the 27-rule group sizes	41/282/142	0.171 (0.103–0.255)	465.0	0.596
Simple average, matched to the 12-rule group sizes	107/216/142	0.216 (0.129–0.310)	458.3	0.637
k-means clustering, three clusters	156/202/107	0.241 (0.165–0.333)	452.1	0.655
Latent class model, three classes	248/117/100	0.185 (0.122–0.262)	461.4	0.605
Logistic regression on the three indices	–	–	443.1	0.689

Note: Group sizes refer to the primary sample ($N = 465$); the other columns refer to households with a valid response to the willingness item. Confidence intervals are 95% bootstrap intervals based on 2,000 household-level resamples. AIC and AUC are from logistic regression models of stated willingness on the respective classification and were calculated on the analysed sample. For k-means clustering and the latent class model, the three group sizes are listed without implying an order.

Table S8b. Differences in Cramer's V between classifications, with 95% bootstrap confidence intervals.

Comparison	Difference in V	95% CI
27 rules, fuzzy minus 27 rules, crisp	0.000	0.000 to 0.000
27 rules, fuzzy minus simple average, thresholds 0.35/0.65	0.006	–0.042 to 0.056
27 rules, fuzzy minus simple average, matched group sizes	0.037	–0.026 to 0.098
27 rules, fuzzy minus k-means clustering	–0.034	–0.107 to 0.037
27 rules, fuzzy minus latent class model	0.022	–0.045 to 0.082
12 rules, fuzzy minus 27 rules, fuzzy	0.078	0.008 to 0.151
12 rules, fuzzy minus simple average, matched group sizes	0.070	–0.014 to 0.159
12 rules, fuzzy minus 12 rules, crisp	0.051	–0.015 to 0.119

Note: The classifications and thresholds were held fixed across resamples.

Table S9. Stated willingness by input configuration for configurations represented by at least 10 households in the primary analytical sample ($N = 465$).

Rule	Administrative	Information and education	Market and infrastructure	Group	Households (n)	Valid response (n)	Willing (n)	Not willing (n)	Willing (%)
1	Low	Low	Low	Low	41	38	27	11	71.1
2	Low	Low	Medium	Medium	43	43	29	14	67.4
3	Low	Low	High	Medium	19	16	12	4	75.0
4	Low	Medium	Low	Medium	51	51	34	17	66.7
5	Low	Medium	Medium	Medium	45	44	38	6	86.4
6	Low	Medium	High	High	13	12	11	1	91.7
10	Medium	Low	Low	Low	28	28	18	10	64.3
11	Medium	Low	Medium	Medium	13	13	12	1	92.3
13	Medium	Medium	Low	Medium	40	40	25	15	62.5
14	Medium	Medium	Medium	Medium	18	18	14	4	77.8
15	Medium	Medium	High	High	20	18	18	0	100.0

Rule	Administrative	Information and education	Market and infrastructure	Group	Households (<i>n</i>)	Valid response (<i>n</i>)	Willing (<i>n</i>)	Not willing (<i>n</i>)	Willing (%)
27	High	High	High	High	87	77	71	6	92.2

Note: Rule numbers and input levels as in Table A1 of the manuscript; input levels are the predominant linguistic terms. The remaining 15 combinations of input levels, with fewer than 10 households each (47 households in total; three combinations not observed), are not shown. Percentages are calculated among households with a valid response to the willingness item.