

The Economics of Social Capital: Cultural Practices, Nationalism, Tolerance, and Household Helping Behavior in Aceh

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Abstract : Mutual assistance among households is one area that reflects the critical need for social capital in society—such as trust, shared norms, and collective memory manifested in the form of assistance that others can tangibly experience. From an economic perspective, this mutual assistance functions as a crucial informal safety net, reducing transaction costs and mitigating economic vulnerabilities. This study examines these dynamics by estimating the relationship between cultural practices, nationalism, and social tolerance using a measure of helping behavior among households in Aceh, Indonesia. This analysis uses a logistic regression model with household-level microdata from the 2021 and 2024 SUSENAS conducted by BPS, which included 2,903 and 2,914 observations. The results show that in 2021, cultural practices and nationalism were positively correlated with mutual aid behavior, while tolerance was not statistically significant. In 2024, the relationship between cultural practices and nationalism remained robustly positive, while tolerance showed a negative relationship. In 2024, the relationship between cultural practices and nationalism remained robustly positive, while tolerance showed a negative relationship. A key implication of mutual aid is that it reflects active community support. These findings encourage the public and the government to strengthen social cohesion by facilitating helping behavior within communities. This can be achieved if social activities address issues of social cohesion and promote local wisdom, nationalism, and tolerance to achieve inclusive community development.

Keywords : *Cultural Practices, Nationalism, Social Tolerance, Helping Behavior, Social Capital, Informal Economy*

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INTRODUCTION

A household's helping behavior is a simple act that has an extraordinarily large social and economic impact. A bag of rice sent to a neighbor in need, time set aside for community activities, information shared during an emergency, or small, regular donations may seem ordinary. However, each of these actions transforms shared trust and hope into tangible economic resources that others can truly utilize. In this context, helping is not merely an expression of personal kindness. It is a form of behavior through which social capital becomes economically and socially productive, serving as an informal insurance mechanism for households facing economic shocks. Research on the economics of social capital has long argued that networks and norms reduce coordination and transaction costs, make reciprocal economic actions more credible, and enable communities to respond to risks that individual households cannot handle on their own

due to market failures (Coleman, 1988; Ostrom, 2000; Woolcock & Narayan, 2000). Prosocial research reaches similar conclusions from a different perspective: helping behavior is influenced not only by individual dispositions but also by moral cues, reputational expectations, social learning, and the relational context in which resource allocation decisions are made (Capraro et al., 2019; Penner et al., 2005; Rand et al., 2014; Thielmann et al., 2020).

The explanation above holds particular relevance and significance within the socio-economic and cultural context of Acehese society. This province is characterized by strong Islamic social ethics, distinctive customary institutions, and a collective memory shaped by conflict, political transition, and the 2004 Indian Ocean tsunami. Traditions such as gotong royong and meuseuraya are not mere relics of the past serving only as ornamentation; both are tangible forms of economic cooperation and resource pooling. These traditions teach the community when to step in, whose burdens to share, and why a community must sometimes act as a unified whole to sustain local livelihoods. Research in Aceh indicates that local narratives, school-community networks, traditional knowledge, and religiously significant forms of association can support disaster awareness and resilience (Kasim et al., 2021; Oktari et al., 2018; Rahman et al., 2018). The Smong narrative in Simeulue may be the clearest example: a story passed down from generation to generation that becomes a collective response that saves lives when the sea recedes (McAdoo et al., 2006; Rahman et al., 2018).

However, strong local ties have an ambiguous side. Bonding ties can strengthen close-knit families and communities. However, they can also concentrate aid on people who already know one another, share social similarities, or are recognized as legitimate group members. Research on disasters and development has repeatedly shown that bonding, bridging, and linking social capital serve distinct functions (Siregar et al., 2025; Aldrich & Sawada, 2015; Hawkins & Maurer, 2010; Norris et al., 2008). The first fosters intimacy and reciprocity, the second connects socially distinct groups, and the third links communities to institutions and resources. Therefore, a community can be cohesive without necessarily being broadly inclusive. This distinction is particularly important in Aceh, where the emotional power of local identity coexists with national citizenship as well as with daily interactions that transcend differences in ethnicity, religion, migration history, and place of residence.

Nationalism can expand the circle of perceived obligations. The social identity perspective suggests that people are more willing to bear personal costs when they view themselves as part of a meaningful collective. A higher-order identity can recategorize previously separate groups as members of a shared community, although the content of that identity remains important. National identity can be civic and solidarity-based, or exclusive and narrow-minded. Cross-national evidence points to both possibilities. Stronger national identification is associated with support for collective public health measures in 67 countries (Bavel et al., 2022), while experiments across 42 countries reveal widespread national parochialism. In this context, cooperation often prioritizes fellow citizens (Romano et al., 2021). For households in Aceh, nationalism is therefore neither clear-cut nor automatically positive. Its empirical role is worth investigating precisely because this province has a unique historical relationship with the Indonesian state—one marked by past conflict—as well as a deeply rooted regional identity.

Tolerance raises different moral questions. It concerns what people do when they encounter practices, identities, or groups with which they may not fully agree.

Contemporary research distinguishes tolerance from indifference and prejudice: a person may acknowledge genuine differences—and even oppose them—yet still accept the other party's equal social standing (Hjerm et al., 2020; Verkuyten & Yogeewaran, 2017). Positive intergroup contact generally reduces prejudice, particularly when such contact is sustained and supported by equal status and norms of cooperation (Paluck et al., 2019; Pettigrew & Tropp, 2008; Pettigrew & Tropp, 2006). Norms that support diversity can also change behavior by signaling that inclusion is socially expected (Murrar et al., 2020). However, accepting diversity is not the same as providing routine assistance. The former is an orientation toward coexistence; the latter requires the investment of time, attention, money, or effort. This small conceptual gap lies at the heart of this study.

Scientific research still has some gaps. First, cultural participation, national identity, and tolerance are generally studied in separate sociological contexts, often neglecting their combined impact on household economic behavior. Second, much of the evidence on prosocial behavior comes from laboratory experiments or individual psychological measurements, whereas everyday acts of helping are deeply embedded in household budget constraints and economic obligations (House et al., 2020; Van Doesum et al., 2021). Third, research on economic resilience often treats social capital as a macro-level community asset without identifying which cultural and civic orientations are associated with repeated resource sharing at the household level (Cutter et al., 2008; Patel et al., 2017; Aslam et al., 2018). Finally, the literature on Aceh naturally focuses on disasters, peacebuilding, and reconstruction, so the cultural and psychosocial correlates associated with everyday informal economic assistance at the household level have been relatively under-explored (Daly et al., 2020; Oktari et al., 2018). From the perspective of the economics of social capital, mutual aid among households is a household-level mechanism that transforms trust, norms of reciprocity, and social networks into flows of economically valuable resources (Glaeser et al., 2002; Fafchamps & Lund, 2003). Assistance in the form of financial resources, food, goods, labor, time, or services enables the reallocation of scarce resources through informal networks. This can alleviate short-term liquidity constraints, smooth consumption following economic shocks, partially compensate for imperfect credit and insurance markets, and help recipients maintain their productive capacity. While assisting incurs direct financial and opportunity costs for donor households, it can also engender reciprocal claims and enhance access to future support, thereby strengthening informal insurance arrangements and inter-household economic resilience. The economic contribution of this study lies in approaching inter-household helping behavior not only as an expression of prosocial attitudes but as an observable form of resource allocation and risk-sharing, in which social capital can generate economic value. The present study examines the relationship between cultural participation, national identity, and tolerance in relation to this behavior, providing household-level evidence on the cultural and civic foundations of informal economic protection in Aceh.

The novel approach of this study lies in integrating bonding cultural capital, national identity, and social tolerance into a household-level economic behavioral model. The theoretical contribution of this research enriches the literature on the economics of social capital by demonstrating that abstract social concepts – such as cultural attachment, citizenship orientations, and tolerance – are not merely social ornaments, but function as tangible economic catalysts that drive routine informal safety nets. The present study examines these dynamics by estimating the relationship between cultural practices,

nationalism, and social tolerance using a measure of helping behavior among households in Aceh. Furthermore, the study compares the patterns observed in the 2021 and 2024 SUSENAS-based data. The study poses three specific research questions: First, do households that are more active in cultural activities tend to exhibit helping behavior more regularly? Second, is stronger nationalism associated with a greater tendency to provide helping behavior on a more regular basis? Third, does higher social tolerance lead to a greater tendency to engage in helping behavior?

Consequently, three hypotheses strictly guide this analysis to answer the research questions:

H1: Stronger engagement in cultural practices is positively correlated with helping behavior at the household level, as repeated participation leads to ongoing interactions, shared narratives, and enforceable reciprocal expectations.

H2: Stronger nationalism is positively correlated with helping behavior, as national identity can expand perceptions of a shared fate beyond kinship ties and local territories.

H3: Higher social tolerance is positively correlated with helping behavior, as lower social distance should make others who are different more acceptable as recipients of help.

RESEARCH METHODS

This study employs a quantitative, cross-sectional, household-level design. Empirical data were obtained from the National Socio-economic Survey (SUSENAS) for Aceh Province. Specifically, this study utilizes data from the Social, Cultural, and Educational Module MSBP (Modul Sosial, Budaya, dan Pendidikan) of SUSENAS, which gathers detailed behavioral and civic indicators at the household level. The dataset provided contains 2,903 observations for 2021 and 2,914 observations for 2024. To ensure analytical comparability across the two time periods, we verified the measurement equivalence: the wording of the questionnaire items, the reference periods, and the response categories used to construct the dependent and independent variables remained structurally consistent between the 2021 and 2024 survey instruments.

SUSENAS is conducted by the Central Statistics Agency (BPS) and is designed to provide nationally representative socio-economic information through a complex sampling framework. Consequently, to account for this complex multi-stage cluster sampling design, all statistical analyses and logistic regression models in this study incorporate the appropriate sampling weights, strata, and primary sampling unit (PSU) clustering provided by BPS. Applying these survey weights is crucial to adjust for unequal probabilities of selection, ensuring that standard errors are correctly estimated and that the findings are robust and accurately representative of the household population in Aceh (BPS, 2021; BPS, 2024).

This study uses a binary (dummy) dependent variable, namely helping behavior. This variable equals 1 if a household reports helping behavior and 0 otherwise. Next, the independent variable is cultural practices, represented by an index based on two household indicators: 1) whether any household member purchased or used traditional products during the previous year, and 2) whether any household member organized or attended a customary or traditional ceremony. This index does not comprehensively measure the depth of Acehnese culture. Rather, it captures observable participation in selected cultural practices covered by the survey. This distinction matters: interpret this measure as cultural engagement, not as an essential or fixed cultural identity.

The nationalism index uses four available indicators: 1) flying the Indonesian flag during Independence Day celebrations, 2) correctly identifying Pancasila as the state ideology, 3) the presence of a household member who was eligible to vote in the most recent general election, and 4) the methods of collective decision-making practiced in the local community. These items combine symbolic attachment, civic knowledge, political inclusion, and deliberative practices. Therefore, the resulting index is broader than emotional national pride and is more accurately understood as a civic-national orientation at the household level.

The social tolerance index is based on three indicators: 1) interaction or communication with people of different ethnicities, religions, or beliefs over the past six months; 2) acceptance of activities carried out by people from other ethnic groups; and 3) acceptance of activities carried out by people of other religions or beliefs. This measure combines contact and statements of acceptance. Because contact can be influenced by place of residence, occupation, or local demographic composition, this index is not purely psychological. It should be understood as a combination of exposure and acceptance—an important consideration when interpreting the phenomenon's coefficients. This study uses an urban-rural place of residence as a control variable. The logistic regression model provided has the following general form (Hosmer & Lemeshow, 2000):

$$\text{Logit}(\rho) = \text{Ln} \left(\frac{\rho}{1-\rho} \right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \gamma D_Z + \varepsilon$$

The equation above is defined as follows: $\text{Ln} \left(\frac{\rho}{1-\rho} \right)$ is the probability that a household reports routinely helping others. β_0 is a constant; $\beta_1 X_1$ is the regression coefficient for the cultural index; $\beta_2 X_2$ is the regression coefficient for the nationalism index; $\beta_3 X_3$ is the regression coefficient for the social tolerance index; γD_Z is a dummy control variable distinguishing between rural and urban areas; and ε is the error term. Results are presented as odds ratios with standard errors, z-statistics, p-values, and 95% confidence intervals. The odds ratio describes a multiplicative change in the odds for a one-unit increase in each index; since these indices are roughly bounded between zero and one, a one-unit change covers nearly the entire scale. For a more intuitive interpretation, the discussion also considers the implied changes associated with a 0.10-point increase, while avoiding causal language. Logistic coefficients and odds ratios should not be mechanically compared across samples because unobserved heterogeneity may alter the scale of latent outcomes (Mood, 2010). Therefore, evaluate any interaction effects using appropriate nonlinear modeling methods (Norton et al., 2004).

Table 1. Operational Definitions and Indicator Weighting

Variable	Definition	Measurement	Weight	Unit
Households' helping behavior (Y)	Helping behavior is an individual's tendency to voluntarily assist others without expecting immediate compensation, reflecting prosocial behavior such as concern, empathy, and a desire to improve others' well-being. (Eisenberg et al., 2015; Carlo & Randall, 2002).	Question: Have you ever provided regular assistance to others in need? 1 = Yes, I help regularly; 0 = Never Questionnaire module for 2021 (Qs M 2021) = 1803; Questionnaire module for 2024 (Qs M 2024) = 1612.	-	Dummy
Cultural Practices Index (X1)	The weighted index value for cultural practices, measured using two indicators.	The cultural practices index is calculated using two indicators, namely: 1. In the past year, has any household member ever purchased or used traditional products? (Qs M 2021 = 1801; Qs M 2024 = 1801). 2. In the past year, has any household member ever organized or attended a traditional ceremony or ritual? (Qs M 2021 = 1802; Qs M 2024 = 1802).	$\frac{1}{2}$	Ratio
Civic-National Orientation Index (X2)	The nationalistic sentiment index score, measured using four indicators.	The nationalism index is calculated using four indicators, namely: 1. In the past year, did this household fly or display the red-and-white flag on Indonesian Independence Day? Yes or no. (Qs M 2021 = 1804; Qs M 2024 = 1803). 2. Is "Pancasila" the foundation of the Indonesian state? True or false. (Qs M 2021 = 1805; Qs M 2024 = 1804). 3. In the most recent election (presidential, regional, legislative, or village head), did any member of this household have the right to vote? Yes or no. (Qs M 2021 = 1806; Qs M 2024 = 1805). 4. Over the past year, how have decisions typically been made in the neighborhood around your home? Through deliberation, voting without deliberation, decisions by community or religious leaders, or other methods. (Qs M 2021 = 1807; Qs M 2024 = 1806).	$\frac{1}{4}$	Ratio

Variable	Definition	Measurement	Weight	Unit
Social Tolerance Index (X3)	The social tolerance weighting index value, measured using three indicators.	The social tolerance index is calculated using three indicators, namely 1. In the past 6 months, have you ever interacted or communicated with people of a different ethnic group, religion, or belief system? Yes or no. (Qs M 2021 = 1810; Qs M 2024 = 1807). 2. How would you react if there were an activity in your neighborhood organized by a group of people from a different ethnic group? Disagree, somewhat disagree, agree, and strongly agree. (Qs M 2021 = 1811A; Qs M 2024 = 1808A). 3. How would you react if there were an activity in your neighborhood organized by a group of people from a different religion or belief system? Disagree, somewhat disagree, agree, and strongly agree. (Qs M 2021 = 1811B; Qs M 2024 = 1808B).	1/3	Ratio
Control (Z)	Classification of respondents' residential areas based on administrative status and regional characteristics, specifically whether respondents live in rural or urban areas. This variable serves as a control variable to account for potential differences in socio-environmental characteristics that may influence individual behavior or attitudes.	Respondent's Place of Residence 1. City/urban area = 1 2. Village/rural area = 0 (Qs M 2021 = 105; Qs M 2024 = 105).	-	Dummy

RESULTS AND DISCUSSION

Results of the Multicollinearity and Goodness-of-Fit Tests for the Model

Before discussing the regression estimates derived from this study, preliminary tests for multicollinearity and model goodness were conducted. The results of the multicollinearity test are as follows:

Table 2. Results of the Multicollinearity Test for 2021 Data

Variable	X1	X2	X3	D
X1	1,000			
X2	0,004	1,000		
X3	0,064	0,125	1,000	
D	-0,009	-0,020	0,261	1,000

Source: processed by researchers, 2026

Table 3. Results of the Multicollinearity Test for 2024 Data

Variable	X1	X2	X3	D
X1	1,000			
X2	0,037	1,000		
X3	-0,007	0,059	1,000	
D	-0,128	0,017	0,154	1,000

Source: processed by researchers, 2026

The multicollinearity test findings show that correlations among the independent variables in the 2021 and 2024 data are comparatively minimal. In 2021, the absolute values of the correlation coefficients ranged from 0.004 to 0.261, with the highest correlation found between X3 and D at 0.261. Meanwhile, in 2024, the absolute values of the correlation coefficients ranged from 0.007 to 0.154, with the highest correlation also found between X3 and D, at 0.154. All correlation coefficients for both years were well below the generally accepted threshold of 0.80. The findings suggest no substantial multicollinearity in either the 2021 or 2024 models. Consequently, the variables X1, X2, X3, and D can be used together in regression analysis for both observation periods.

The following section presents and discusses the results of the model's goodness-of-fit test using the Hosmer–Lemeshow test. The Hosmer–Lemeshow test was conducted by dividing the data into seven groups based on the prediction model calculations (n for 2021 = 2,903; and n for 2024 = 2,914) (Beckett et al., 1995; Sonoda et al., 2023). The results of the Hosmer–Lemeshow test are as follows:

Table 4. Results of the Hosmer–Lemeshow Test for the 2021 Regression Model

Goodness of Fit Test After Logistic Model	
Variable: Y	
Number of observations	= 2.903
Number of groups	= 7
Hosmer–Lemeshow $\chi^2(5)$	= 10,62
Prob > χ^2	= 0,06

Source: processed by researchers, 2026

Table 5. Results of the Hosmer–Lemeshow Test for the 2021 Regression Model

Goodness of Fit Test After Logistic Model	
Variable: Y	
Number of observations	= 2.914
Number of groups	= 7
Hosmer–Lemeshow $\chi^2(5)$	= 8,82
Prob > χ^2	= 0,116

Source: processed by researchers, 2026

The Hosmer–Lemeshow test results show that the logistic regression model provides a satisfactory fit to the data for both years of observation. In 2021, 2,903 observations were grouped into seven categories, and the Hosmer–Lemeshow χ^2 (5) value was 10.62, with a p-value of 0.060. Given that this value exceeds the 5% significance level ($p > 0.05$), the null hypothesis cannot be rejected. This indicates no substantial

discrepancy between the probabilities predicted by the model and the observed outcomes. Consequently, the 2021 model exhibits adequate goodness of fit.

In 2024, a test of 2,914 observations and seven groups yielded a Hosmer–Lemeshow χ^2 (5) value of 8.82 with a p-value of 0.116. This p-value, which also exceeds 0.05, indicates no statistical evidence of a mismatch between the observed and predicted values. Consequently, the 2024 logistic regression model demonstrates a satisfactory degree of fit. In conclusion, the findings of the present study demonstrate that the models for 2021 and 2024 are appropriate for subsequent analysis. Although the p-value for 2021 is close to the significance threshold, it remains above 0.05 and does not indicate any statistical issues with model misfit.

Descriptive Results

The descriptive results indicate a change in households' helping behavior toward others in need. In 2021, 28.66% of households reported helping behavior, compared with 10.23% in 2024. This decline is too large to be considered merely a social trend without first ensuring that the wording of the questions, the reference period, the sample design, and the coding were equivalent across both survey rounds. It may reflect a genuine contraction in the practice of routine assistance, a change in the composition of assistance. Therefore, this comparison is presented as an empirical pattern requiring verification, not as evidence that solidarity in Aceh deteriorated between those two years.

The average cultural practices index rose slightly from 0.254 in 2021 to 0.272 in 2024. The nationalism index remained high and virtually unchanged, shifting from 0.914 to 0.913. This stability suggests that the selected indicators of national citizenship are widely distributed, although the high mean and relatively low standard deviation also indicate limited variation for identifying a relationship. The tolerance index rose more sharply, from 0.255 to 0.505. Such a shift may be socially significant, as the people of Aceh have increased their sense of solidarity and social tolerance among fellow community members with diverse individual backgrounds.

Table 6. Descriptive Statistics for 2021 and 2024

Year	Variable	N	Mean	SD	Min	Max
2021	Helping behavior	2903	0,287	0,452	0	1
2021	Cultural practices	2903	0,254	0,164	0	1
2021	Nationalism	2903	0,914	0,142	0	1
2021	Social tolerance	2903	0,255	0,169	0	0,99
2021	Urban/Rural (D)	2903	0,299	0,458	0	1
2024	Helping behavior	2914	0,102	0,303	0	1
2024	Cultural practices	2914	0,272	0,145	0	0,75
2024	Nationalism	2914	0,913	0,144	0,25	1
2024	Social tolerance	2914	0,505	0,246	0	0,99
2024	Urban/Rural (D)	2914	0,296	0,457	0	1

Source: processed by researchers, 2026

Results of The Logistic Regression

The two logistic models for 2021 and 2024 both had a significant combined effect. For 2021, the Wald chi-square statistic was 27,21 ($p = 0,000 < 0,05$), while the 2024 model showed a Wald chi-square statistic of 64,40 ($p < 0,000$). In 2021, cultural practices were positively correlated with helping behavior (OR = 2,587, 95% CI [1,585, 4,221], $p = 0,001$

< 0,05). Since a one-unit increase covers the entire range of the index, an increase of 0.10 points provides a more concrete interpretation. However, it remains an estimate: this is equivalent to an increase of approximately 9,97% in the odds of routinely helping others, controlling for the other included variables. Nationalism also showed a positive association (OR = 2,744, 95% CI [1,489, 5,059], $p = 0,001 < 0,05$), equivalent to an increase in odds of approximately 10,62% for a 0,10-point increase. Social tolerance was not statistically significant (OR = 1,234, 95% CI [0,847, 1,216], $p = 0,396 > 0,05$). Thus, H1 and H2 were supported in the 2021 model, while H3 was not supported.

The 2024 logistic regression results replicate and reinforce the positive patterns associated with cultural practices and nationalism. Cultural practices have an OR of 6,825 (95% CI [3,025, 15,394], $p = 0,000 < 0,05$); a 0.10-point increase indicates an approximately 21,17% higher probability. Nationalism had an OR of 7,977 (95% CI [2,923-21,771], $p = 0,000 < 0,05$), corresponding to approximately 23,07% higher odds for a 0.10-point increase. Conversely, tolerance is negatively correlated with helping behavior (OR = 0,297; 95% CI [0,179 -0,492], $p = 0,000 < 0,05$); a 0.10-point increase is equivalent to an approximately 11,43% decrease in the odds. Therefore, H1 and H2 are again supported, while the 2024 estimation results reject H3. Interpret the magnitude and changes in odds ratios with caution. Odds ratios from logistic models may vary across samples due to unobserved heterogeneity, even when the underlying substantive effects are stable (Mood, 2010).

Table 7. Logistic Regression of Household Helping Behavior

Year	Predictor	OR	SE	Z	P	95% CI	Decision
2021	Cultural practices (X1)	2,587	0,646	3,81	0,001***	1,585 – 4,221	H1 supported
2021	Nationalism (X2)	2,744	0,856	3,24	0,001***	1,489 – 5,059	H2 supported
2021	Social tolerance (X3)	1,234	0,306	0,85	0,396	0,759 – 2,005	H3 Rejected
2021	Urban/Rural (D)	1,015	0,093	0,16	0,872	0,847 – 1,216	-
2021	Constant	0,117	0,035	-7,09	0,000***	0,065 – 0,212	-
2024	Cultural practices (X1)	6,825	2,833	4,63	0,000***	3,025- 15,394	H1 supported
2024	Nationalism (X2)	7,977	4,086	4,05	0,000***	2,923 – 21,771	H2 supported
2024	Social tolerance (X3)	0,297	0,077	-4,70	0,000***	0,179 -0,492	H3 Rejected
2024	Urban/Rural (D)	1,824	0,244	4,49	0,000***	1,403 - 2,372	-
2024	Constant	0,014	0,007	-8,46	0,000***	0,005 -0,038	-

Source: processed by researchers, 2026

Note: * = Sig 90%; ** = Sig 95%; and *** = Sig 99%.

Cultural practices as enacted social and economic capital

The positive cultural practice coefficient aligns with the idea that culture is most influential when it is practiced and translated into everyday cooperation. Cultural participation places households in recurring social situations where obligations are observed, remembered, and subtly encouraged. People learn who comes when a family is in mourning, who contributes to a ceremony, and who can be trusted when cooperation is needed. These recurring encounters foster trust and reciprocal relationships that transform abstract values into practical prosocial actions. Research across various societies shows that adults' prosocial behavior aligns with locally recognized norms, and that people learn to respond to normative information early in life (House et al., 2020). Processes within cultural groups can also support large-scale cooperation by stabilizing

shared rules and expectations (Handley & Mathew, 2020; Henrich et al., 2005; Henrich et al., 2010).

In Aceh, this mechanism makes emotional sense because collective practices are embedded in social memory. Evidence regarding Smong shows that cultural narratives can preserve not only information but also recognizable action scenarios (McAdoo et al., 2006; Rahman et al., 2018). School-community networks also function when knowledge is conveyed through trusted relationships, rather than as isolated instructions (Oktari et al., 2018). Routine assistance may stem from the same social architecture on a smaller scale. A household participating in traditional events does not merely consume culture; it enters a moral arena where its presence and contributions are acknowledged.

Stronger associations in 2024 should not be interpreted as evidence that culture has causally become stronger. This may reflect changes in composition or unobserved differences in household characteristics. Nevertheless, the consistency of positive signs in both years supports the core intuition of H1: cultural practices appear to function as actualized social capital. This aligns with disaster research showing that social networks and collective competencies are not merely incidental comforts, but adaptive capacities that channel information, attention, and material support during times of stress (Aldrich & Sawada, 2015; Norris et al., 2008; Patel et al., 2017).

The policy implication is not to romanticize tradition or treat every cultural practice as inherently inclusive. Strong bonds can have external effects, including excluding outsiders and unequally distributing aid (Aldrich & Meyer, 2015; Hawkins & Maurer, 2010).). A more useful lesson is that public programs should be implemented through socially legitimate practices and institutions, while deliberately building bridges beyond existing circles. Cultural events, village assemblies, religious gatherings, and local products can serve as vehicles for social assistance. However, their design must involve women, migrants, minority groups, people with disabilities, and economically marginalized households in visible and respected roles.

Nationalism and the widening of obligation

Nationalism was positively associated with helping behavior in both years. This pattern suggests that the national citizenship index reflects more than just ceremonial symbolism. From a civic perspective, national identity may catalyze broader social solidarity. Taken together, these indicators (such as flag flying and voting participation) may reflect an awareness that a household is part of a broader public narrative. When national identity is perceived as a shared civic responsibility, helping behavior can become an obligation directed not only toward relatives or neighbors but also toward fellow citizens, thereby expanding mutual support across a wider geographic area. These findings are consistent with a large-scale cross-national study by Bavel et al. (2022), which found that stronger national identification was associated with collective public health behaviors. These findings also align with social identity theory, which posits that higher-order identities can motivate actions that are personally disadvantageous for the sake of the group. However, these findings need to be contextualized alongside evidence regarding national parochialism (Romano et al., 2021). National identity can extend solidarity beyond local boundaries while still establishing boundaries around the nation. Therefore, its prosocial value depends on whether nationalism is civic, pluralistic, and aligned with equal membership, or framed as cultural ownership by a dominant group.

Aceh lends unusual depth to this issue. Regional identity, Islamic commitment, customary institutions, and Indonesian citizenship do not always compete in a zero-sum

game. The three can support one another. The positive coefficient suggests that households with a stronger citizenship-citizenship orientation may link local reciprocity to a broader sense of duty. In a policy context, national symbols are likely to be most influential when linked to concrete practices of justice, deliberation, and mutual protection. Flag ceremonies alone cannot create solidarity; institutions must make these national promises credible in everyday life. These results indicate that Acehnese society's sense of nationalism remains very high and that it has confidence in the nation's grand goals.

Tolerance was not followed by material assistance.

The findings related to tolerance represent the most intellectually challenging results of this study. In 2021, tolerance was not statistically associated with routine helping behaviors; in 2024, the association was negative. At first glance, this contradicts the expectation that accepting differences should expand the circle of people considered deserving of economic support. However, this contradiction may be more apparent than real, as the tolerance index and helping behavior outcomes capture different forms of socio-economic life. Tolerance is fundamentally concerned with the legitimate presence of differences. It may involve acceptance, respect, or appreciation, but does not necessarily require material sacrifice or the reallocation of household budgets (Hjerm et al., 2020; Verkuyten & Yogeeswaran, 2017).

In contrast, assisting requires concrete resources and social channels. A household may welcome the activities of an ethnic or religious group but still lack the income, time, information, or relational opportunities needed to provide regular assistance. This distinction helps explain why interventions that change pro-diversity norms can enhance inclusion without automatically generating every form of prosocial behavior (Murrar et al., 2020).

Effective communication and interaction typically reduce prejudice, but their effects depend on the quality, equality, institutional support, and social significance of such encounters (Paluck et al., 2019; Pettigrew & Tropp, 2006; Pettigrew & Tropp, 2008). Interactions across groups may be more common in urban, commercial, or dynamic settings, where social networks are broader but routine reciprocal obligations are weaker.

The substantial increase in the average tolerance index between 2021 and 2024 also raises questions regarding comparability. The 2024 coefficients may partly reflect different constructs and respondents. Therefore, these negative results should be viewed as a signal for further investigation, rather than as evidence that tolerance undermines solidarity. These models should then incorporate socio-economic control variables and district-level data and report average marginal effects.

A final substantive possibility is that tolerance and helping behavior represent different dimensions of bridging social capital. Tolerance may reduce hostility and enable peaceful coexistence, while helping behavior may remain organized through close-knit networks, religious institutions, kinship ties, and familiarity within the local community. In this scenario, tolerant households are not less compassionate; their prosociality may take forms not captured by routine helping items, such as support for rights, equal treatment, humanitarian causes, or assistance outside traditional channels. Identification with humanity as a whole, for example, predicts humanitarian helping behavior, but this orientation is conceptually broader than mere local intergroup contact (McFarland et al., 2013; Sparkman & Hamer, 2020).

Therefore, these findings illustrate attitudes toward helping behavior within households in Aceh Province. Accepting differences is essential to an inclusive society, but it is not a complete system for channeling aid. To become a form of assistance, tolerance may require organizational bridges: inclusive community associations, transparent donation channels, cross-group volunteer activities, trusted intermediaries, and public programs that make cross-group needs visible. Without these bridges, respect may remain morally sincere but not reflected in behavior.

Implications for Community Solidarity and Social Cohesion

These findings have direct implications for local community development and social cohesion. Regular assistance acts as a form of community solidarity, connecting vulnerable households with local support systems. Similar dynamics emerge in collective action, where the willingness to contribute depends on trust, accountability, participation, and perceptions of shared identity. Helping behaviors have been shown to engender unity and solidarity among community members, enhancing the community's resilience to socio-economic turbulence (Karki, 2024; Ruan et al., 2024). Similar dynamics emerge in environmental contexts and collective action, where the willingness to contribute depends on trust, accountability, participation, and perceptions of effectiveness (Enyew, 2024; Halkos et al., 2024; Valente et al., 2024).

For Aceh, the most promising policy direction is to link cultural and civic strengths with inclusive economic institutions. Programs at the village and urban neighborhood levels can leverage traditional gatherings to coordinate regular assistance and micro-level economic support. The goal is not to replace formal public welfare with charity. Rather, community-based economic assistance should complement rights-based social protection, particularly by improving information flows, reducing moral hazard, and ensuring the efficient delivery of aid down to the grassroots level.

Disaster preparedness offers a practical arena for this approach. The experience in Aceh shows that resilience increases when local knowledge, institutional coordination, and trusted networks come together (Oktari et al., 2018; Rahman et al., 2018). Community drills, emergency savings groups, environmental stewardship teams, and culturally rooted risk communication can transform solidarity into a repeatable capability. Resilience should be measured not only in terms of infrastructure or the speed of recovery, but also in terms of households' ability to reach out to one another across social boundaries when fear and uncertainty are high (Cutter et al., 2008; Aslam et al., 2018)

At the same time, programs must resist the temptation to glorify a romanticized image of a uniform and cohesive Aceh across differing entities. Social capital is unevenly distributed, and those with the greatest needs may have the weakest social ties. Therefore, credible policies must identify those who are left out of cultural and civic networks. Such policies must value bridging activities, protect the participation of minority groups, and create formal links between community groups and social service agencies. The deepest value of local solidarity is not that it allows the state to step back, but that it provides a humane pathway for public policy to enter everyday life.

CONCLUSION AND RECOMMENDATIONS

This study examines the relationship between cultural practices, nationalism, and social tolerance and household helping behavior in Aceh, using data from the SUSENAS survey conducted by the BPS in 2021 and 2024. Cultural practices and nationalism were positively and significantly associated with mutual aid behavior in both years. The

consistency of these results supports the view that repeated cultural participation can foster practical scenarios of social reciprocity. At the same time, a national-citizenship orientation can broaden the understanding of the community's obligation to provide mutual support. Tolerance exhibits a different pattern, suggesting that peaceful acceptance of differences and the routine transfer of resources are distinct outcomes. While this study is limited to measuring the propensity to help, the findings underscore that such mutual assistance serves as a vital indicator of community solidarity.

Here are two recommendations aimed at local community policy. First, cultural and civic institutions should be treated as platforms for social cohesion. Community programs can link traditional gatherings, religious networks, and youth or women's organizations with transparent systems to identify and assist vulnerable neighbors. Second, community development policies should go beyond messages about coexistence by creating cross-group volunteer activities and joint community projects. Inclusive solidarity emerges when local institutions make it possible and normal for people to collaborate and support one another.

Limitations of this study suggest that further research is warranted: the study design is cross-sectional and observational, so reverse causality and unmeasured confounding variables remain possible. Households that have already assisted may be more involved in cultural activities, and unmeasured factors such as income, education, level of religiosity, the size of social networks, or the quality of local institutions may influence all variables simultaneously. Future researchers are advised to include the socio-economic variables listed in the limitations of this study and to use weighted indices and dynamic analysis models.

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