



Indonesian Journal of Entrepreneurship Learning and Innovation

Vol. 1, No. 2, June 2026, pp. 72-88

<https://ppjp.ulm.ac.id/journals/index.php/ijeln/issue/view/xxx>

ISSN: XXXX-XXXX (Print) | XXXX-XXXX (Online)



The Relationship Between Education Level And Community Perceptions Of Golden Indonesia 2045

^{1*}Azwa Nabila, ²Suratno Martodiryo

^{1,2}Universitas Lambung Mangkurat, Banjarmasin, Indonesia

Article Info

Keywords:

Social Cognition
Human Capital Theory
Golden Indonesia 2045
Rural Population Perception
Exploratory Factor Analysis

ABSTRACT

This study examines the association between education level and community perceptions of the Golden Indonesia 2045 aspiration among 140 respondents in Karang Indah Village, Mandastana Sub-district, Barito Kuala Regency, South Kalimantan. A quantitative associative survey with a cross-sectional design was employed, using a 28-item instrument measured on a six-point semantic differential scale and validated through Exploratory Factor Analysis (KMO = 0.906; Bartlett's Test = 3,306.968, df = 378, $p < 0.001$; five extracted components; Cronbach's $\alpha = 0.949$). Pearson Chi-Square analysis yielded a non-significant result ($\chi^2 = 13.320$; df = 10; $p = 0.206$), with Cramer's V = 0.218 indicating a weak, non-significant association. A Grand Mean of 5.07 on the six-point scale indicated high overall agreement with the aspiration. Interpreted through Social Cognition Theory and Human Capital Theory, the findings suggest that in the digital information age, informal information channels may narrow perception gaps across educational levels in rural populations. Given limited statistical power and the absence of direct measures of digital exposure, this mechanism remains an interpretive hypothesis awaiting further testing.

This is an open access article under the CC-BY-SA 4.0



*Corresponding Author:

Azwa Nabila

Faculty of Teacher Training and Education, Universitas Lambung Mangkurat

Jl. Brig Jend. Hasan Basri, Pangeran, Kec. Banjarmasin Utara, Kota Banjarmasin, Kalimantan Selatan 70123, Indonesia

Email: 2310113220006@mhs.ulm.ac.id

Submitted 4 Feb 2022; Accepted 06 March 2023; Published 30 April 2023

How to cite: Azwa, N. (2026). The Relationship Between Education Level And Community Perceptions Of Golden Indonesia 2045. *Indonesian Journal of Entrepreneurship Learning and Innovation*, 1(2), 72-88.

1. INTRODUCTION

Indonesia's aspiration to become a developed, prosperous, and globally competitive nation by 2045 has been articulated through the vision of Golden Indonesia 2045. This long-term national aspiration places human development, economic transformation, technological advancement, environmental sustainability, and equitable regional development at the center of Indonesia's future development agenda. The achievement of this vision depends not only on economic resources and physical infrastructure but also on the quality of human capital and the

capacity of society to understand and participate in national development. Human capital encompasses the knowledge and skills possessed by individuals and represents an important component of economic development. Evidence from cross-country learning data indicates that human capital measured through actual learning outcomes has a substantial relationship with economic development, while years of schooling alone may not adequately represent the quality of human capital (Angrist et al., 2021). Previous evidence from the ASEAN Economic Community also indicates that education-related indicators, including the education index and average years of schooling, are associated with economic growth, reinforcing the role of education in human capital development (Budsayaplakorn & Sompornserm, 2021). In the Indonesian context, human capital is also associated with regional economic performance, indicating that differences in human capital can contribute to disparities in development outcomes across regions (Suparman & Muzakir, 2023).

Education therefore occupies an important position in preparing society for long-term national development. Education does not merely provide formal qualifications but can improve individuals' knowledge, skills, and capacity to understand social and economic changes. In the Indonesian context, education is also considered an important component of human capital because improvements in educational quality can contribute to the development of individual capabilities and sustainable economic growth (Yuliyanto, 2023). Research on education and economic development in Indonesia has shown that educational progress can contribute to economic growth, while policies aimed at expanding educational access are important for reducing inequality in learning opportunities (Amala et al., 2022; Romlah et al., 2023). However, the relationship between formal education and the way individuals understand a national development agenda cannot be assumed to be straightforward. Educational attainment represents one aspect of human capital, whereas people's perceptions may also be influenced by their social environment, access to information, personal experiences, and interaction with other members of society. Consequently, individuals with different levels of formal education may develop relatively similar perceptions of a national aspiration when they are exposed to comparable sources of information.

This issue is particularly relevant in rural communities, where educational opportunities, infrastructure, and access to information may differ from those available in urban areas. Nevertheless, the expansion of digital technologies has created new opportunities for rural populations to obtain information and participate in broader social networks. Research on rural digital literacy demonstrates that digital interventions can improve technology-related competencies even among populations with limited previous exposure to computers and digital devices (Nogueira, 2022). Similarly, digital technology has increasingly become a channel for information dissemination in rural areas, including the transmission of knowledge and information that may previously have been limited by geographical distance (Mwanza, 2022). Internet access can also influence the aspirations and decisions of rural populations by connecting them with information and opportunities beyond their immediate communities (Hidayat et al., 2023). However, digital access does not automatically eliminate inequality. Differences in digital skills and the ability to obtain meaningful outcomes from online environments may continue to distinguish rural and urban populations (Laar et al., 2020; Zhao et al., 2022).

The way people interpret national development aspirations can also be understood through the perspective of social cognition. Social cognition emphasizes how individuals acquire, process, interpret, and use information in forming judgments about themselves, other people, and their social environment. Fiske & Taylor (2020) explain that social cognition develops through processes by which individuals interpret social information and adapt their

judgments to different social contexts. From this perspective, perceptions of Golden Indonesia 2045 may not be determined exclusively by formal educational attainment. Everyday interactions, community discussions, digital media, government communication, and other informal information channels may also contribute to how individuals understand national development. In rural communities, these channels can potentially expose individuals with different educational backgrounds to similar information, thereby reducing differences in perceptions associated with formal education.

The relevance of education to national development is further supported by the human capital perspective. Education is generally considered an investment that increases individuals' productive capabilities and contributes to broader economic and social development. However, evidence indicates that schooling and actual learning should not be treated as identical concepts. Angrist et al. (2021) demonstrate that the quality of learning provides a more informative measure of human capital than schooling attainment alone when examining its relationship with economic growth. In addition, human capital has implications for regional development in Indonesia, where disparities in human capital can coexist with regional inequality (Suparman & Muzakir, 2023). These findings suggest that educational attainment is important, but its relationship with people's understanding of development may be more complex than a simple assumption that higher formal education necessarily produces higher levels of perception.

The development of digital information environments adds another dimension to this relationship. Digital literacy research has shown that individuals' ability to communicate and interact through digital technologies has become increasingly important in educational and social contexts, including rural communities (Guillén-gámez & Guillén-gámez, 2022; Kuntarto, 2022; Nogueira, 2022). Kuntarto (2022), in developing a digital literacy learning model for rural communities, demonstrates that digital literacy can be developed through learning activities designed according to the characteristics and needs of rural populations. This indicates that rural residents should not be viewed simply as passive recipients of information because their ability to access and use digital technology can be strengthened through appropriate educational interventions. The increasing availability of online information may allow rural residents to encounter information concerning government programs, economic opportunities, education, infrastructure, environmental issues, and national development without relying exclusively on formal educational institutions. At the same time, differences in digital literacy and digital outcomes remain important considerations because access to technology does not necessarily lead to equal benefits from its use (Laar et al., 2020; Zhao et al., 2022). Therefore, the digital environment may function both as a mechanism for reducing information gaps and as a potential source of new inequalities.

The preparation of Indonesia toward the Golden Indonesia 2045 vision also requires a broader understanding of education beyond formal schooling. Fatimah & Prihantini (2023) emphasize that lifelong learning and universal education are important foundations for preparing Indonesian society to face the challenges of Indonesia Emas 2045. This perspective suggests that the development of community capacity does not stop after individuals complete formal education but can continue through learning experiences in family, community, workplace, and other social environments. Therefore, differences in formal educational attainment may not fully represent differences in individuals' capacity to understand a long-term national development agenda.

These considerations are particularly important in understanding perceptions of Golden Indonesia 2045 among rural communities. The achievement of Indonesia Emas 2045 requires not only economic transformation but also the development of qualified human resources and equitable access to education. Auliaa & Haq (2024) emphasize that education, particularly

higher education, has an important role in preparing qualified and innovative human resources for Indonesia Emas 2045, while government support and broader educational access are necessary to strengthen this process. At the community level, these concerns are also relevant because the national vision ultimately needs to be understood and supported by citizens across different educational and social backgrounds. The national vision will ultimately be implemented not only through central government policies but also through the participation and understanding of communities at the local level. If perceptions of the national development agenda are strongly differentiated by educational attainment, communication and socialization strategies may need to be adjusted according to educational groups. Conversely, if people with different educational backgrounds demonstrate similar perceptions, this may indicate that other information channels and social processes play an important role in shaping public understanding. Empirical evidence concerning this relationship is therefore necessary rather than relying solely on assumptions about the role of formal education.

These considerations are particularly important in understanding perceptions of Golden Indonesia 2045 among rural communities. The national vision will ultimately be implemented not only through central government policies but also through the participation and understanding of communities at the local level. If perceptions of the national development agenda are strongly differentiated by educational attainment, communication and socialization strategies may need to be adjusted according to educational groups. Conversely, if people with different educational backgrounds demonstrate similar perceptions, this may indicate that other information channels and social processes play an important role in shaping public understanding. Empirical evidence concerning this relationship is therefore necessary rather than relying solely on assumptions about the role of formal education.

The present study focuses on Karang Indah Village, Mandastana Sub-district, Barito Kuala Regency, South Kalimantan, a rural community in which residents have diverse levels of formal educational attainment. The study examines whether educational level is associated with community perceptions of the Golden Indonesia 2045 aspiration. In addition to examining the relationship between education and perception, the study identifies the underlying dimensions of the perception instrument through exploratory factor analysis. This approach is intended to provide a more comprehensive understanding of how rural residents perceive the national development aspiration rather than reducing perception to a single overall score.

Accordingly, this study has three main objectives. First, it describes the level of community perception regarding the Golden Indonesia 2045 aspiration among residents of Karang Indah Village. Second, it examines the association between educational attainment and perception using a Pearson Chi-Square test and Cramer's V. Third, it explores the underlying components of community perceptions using exploratory factor analysis. By combining an empirical test of the education–perception relationship with an examination of the multidimensional structure of perception, this study seeks to contribute to the discussion of human capital, social cognition, digital information environments, and public understanding of long-term national development in rural Indonesia.

2. METHOD

2.1 Research Design

This study employed a quantitative associative research design with a cross-sectional survey approach. The design was selected because the study aimed to examine whether educational attainment was associated with community perceptions of the Golden Indonesia 2045 aspiration. Educational attainment was treated as a pre-existing characteristic of respondents and was not manipulated by the researcher. Therefore, the analysis was intended to identify

statistical association rather than establish a causal relationship between education level and community perception.

The study was conducted in Karang Indah Village, Mandastana Sub-district, Barito Kuala Regency, South Kalimantan, Indonesia. The research focused on adult residents who were household heads or primary caregivers because these groups were considered relevant to understanding community perceptions of long-term national development.

2.2 Population and Sample

The study involved 140 respondents selected using purposive sampling. Respondents were required to be adult residents of Karang Indah Village and to have sufficient knowledge of the conditions and development of their local community. The sample size was also considered in relation to the exploratory analysis of the 28-item perception instrument. With five respondents per item, the minimum ratio resulted in a target sample of 140 respondents. This sampling consideration was consistent with the exploratory nature of the instrument analysis.

Respondents were categorized according to their highest level of formal education into six groups: no formal schooling, elementary school (SD), junior high school (SMP), senior high school/vocational school (SMA/SMK), diploma, and bachelor's degree. For descriptive interpretation, respondents with SMA/SMK, diploma, or bachelor's-level education were considered the higher-education group, whereas respondents with no schooling, SD, or SMP education were considered the lower-education group. The original six educational categories were retained in the cross-tabulation analysis to preserve variation in educational attainment.

The sample size was also considered in relation to the exploratory analysis of the 28-item perception instrument. A ratio of approximately five respondents per item resulted in a target sample of 140 respondents. This consideration was consistent with the exploratory nature of the instrument analysis and the need to obtain an adequate number of observations for identifying latent or component structures. Previous methodological applications of exploratory factor analysis have also demonstrated the use of respondent-to-item considerations in developing and validating measurement instruments (Hapsari, 2023; Nikmard et al., 2023). In addition, statistical power is an important consideration when interpreting inferential results, particularly when examining contingency tables and relatively small effect sizes (Cohen, 1992).

2.3 Research Instrument

Data were collected using a structured questionnaire consisting of 28 items designed to measure community perceptions of the Golden Indonesia 2045 aspiration. The items covered several aspects of the national development vision, including economic transformation, education quality, environmental sustainability, infrastructure equity, digital readiness, and local government accountability.

The questionnaire used a six-point agreement scale ranging from 1 (strongly disagree) to 6 (strongly agree). The six-point format was used to avoid a neutral midpoint and encourage respondents to indicate the direction of their assessment. Because the response anchors represented degrees of agreement rather than opposite semantic adjectives, the scale is more appropriately described as a six-point agreement scale rather than a classical semantic differential scale.

Before the main analysis, the instrument underwent content evaluation and psychometric testing. Content validity was assessed through expert judgment to examine the relevance and representativeness of the items. Item validity was subsequently evaluated using corrected item-total correlations, with a correlation coefficient of approximately 0.30 used as a

reference for acceptable item discrimination. Exploratory component analysis was then conducted to examine the underlying structure of the perception instrument.

The questionnaire used a six-point agreement scale ranging from 1 (strongly disagree) to 6 (strongly agree). The use of an even-numbered response scale was intended to avoid a neutral midpoint and encourage respondents to indicate the direction of their evaluation. The issue of whether a midpoint should be included in rating scales has been discussed in measurement research, particularly in relation to respondents' tendency to select a neutral response when such an option is available (Garland, 1991). Because the response anchors represented degrees of agreement rather than opposite semantic adjectives, the scale is more appropriately described as a six-point agreement scale rather than a classical semantic differential scale.

2.4 Data Collection

Data collection was conducted through direct administration of the questionnaire to eligible residents in Karang Indah Village. Respondents were informed about the purpose of the study and were asked to provide responses based on their own understanding and assessment of the Golden Indonesia 2045 aspiration.

The questionnaire responses were coded numerically from 1 to 6 and entered into a statistical database for analysis. Each respondent contributed one complete response set. The resulting dataset consisted of 140 observations and 28 perception variables.

2.5 Data Analysis

The data were analyzed using IBM SPSS Statistics. The analysis consisted of descriptive statistics, instrument testing, exploratory component analysis, and a test of association between educational attainment and perception category.

First, descriptive statistics were used to summarize respondents' educational characteristics and overall perception scores. The total perception score was calculated by summing the responses across the 28 items. Based on the resulting score distribution, respondents were classified into low, medium, and high perception categories for the cross-tabulation analysis.

Second, the psychometric quality of the instrument was examined. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used to determine whether the correlation matrix was suitable for component extraction. Exploratory analysis was subsequently performed using Principal Component Analysis (PCA) with Varimax rotation. Components with eigenvalues greater than 1 were initially retained. Factor/component loadings were examined to identify the items that contributed most strongly to each component. The resulting component structure was interpreted based on the conceptual similarity of the items.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used to determine whether the correlation matrix was suitable for exploratory analysis. These procedures are commonly applied before factor or component extraction to assess whether the inter-item correlation structure is adequate for further analysis. Recent empirical applications have demonstrated the use of KMO and Bartlett's test as preliminary evidence for the suitability of exploratory factor analysis (Hapsari, 2023; Ihsan et al., 2023; Sigudla & Maritz, 2023). Exploratory analysis was subsequently performed using Principal Component Analysis (PCA) with Varimax rotation. Components with eigenvalues greater than one were initially retained, and component loadings were examined to identify the items contributing most strongly to each component. Similar procedures involving eigenvalues and factor loadings have been applied in recent scale-development and exploratory factor studies (Ihsan et al., 2023; Nikmard et al., 2023).

Third, internal consistency was evaluated using Cronbach's alpha. Corrected item-total correlations were also examined to identify items that contributed insufficiently to the overall instrument. Items that failed to meet the predetermined validity criterion were considered for exclusion from the final interpretation of the instrument.

Fourth, the relationship between educational attainment and community perception was examined using a Pearson Chi-Square test. Educational attainment and perception were treated as categorical variables in the contingency table. The null hypothesis stated that educational attainment and perception category were independent. A significance level of 5% ($\alpha = 0.05$) was applied. A p-value below 0.05 was interpreted as evidence of a statistically significant association, whereas a p-value above 0.05 indicated insufficient statistical evidence of an association.

Because statistical significance does not indicate the magnitude of an association, Cramer's V was also calculated as an effect-size measure. Cramer's V was interpreted together with the Chi-Square significance test to distinguish the estimated strength of association from evidence that the association was statistically reliable.

The exploratory component analysis and reliability testing were also used to assess the measurement structure of the perception instrument. The combination of KMO, Bartlett's test, component loadings, explained variance, corrected item-total correlations, and Cronbach's alpha provided complementary evidence regarding the suitability and internal consistency of the questionnaire.

3. RESULTS AND DISCUSSION

Results

Respondent Characteristics

The study involved 140 respondents from Karang Indah Village, Mandastana Sub-district, Barito Kuala Regency, South Kalimantan. The respondents had diverse levels of formal educational attainment, ranging from no formal schooling to bachelor's degree. The largest group consisted of respondents who had completed elementary school (SD), followed by junior high school (SMP) and senior high school/vocational school (SMA/SMK).

Table 1. Distribution of Respondents by Educational Attainment

Educational attainment	Frequency	Percentage (%)
No formal schooling	8	5.7
Elementary school (SD)	45	32.1
Junior high school (SMP)	36	25.7
Senior high/vocational school (SMA/SMK)	36	25.7
Diploma	6	4.3
Bachelor's degree	9	6.4
Total	140	100.0

As shown in Table 1, 89 respondents (63.6%) had an educational attainment of junior high school or below, while 51 respondents (36.4%) had completed senior high/vocational school, diploma, or bachelor's-level education. This distribution indicates that the sample was predominantly composed of respondents with relatively low levels of formal educational attainment. The diversity of educational backgrounds provided an appropriate basis for examining whether differences in formal education were associated with differences in perceptions of the Golden Indonesia 2045 aspiration.

Community Perception of Golden Indonesia 2045

Community perceptions were measured using 28 questionnaire items on a six-point agreement scale. The total possible score ranged from 28 to 168; however, the observed scores ranged from 44 to 196 based on the scoring structure used in the dataset. The mean perception score was 142.06.

Based on the established categorization, 76 respondents (54.3%) were classified as having a high level of perception, 48 respondents (34.3%) had a medium level, and 16 respondents (11.4%) had a low level of perception.

Table 2. Distribution of Community Perception Categories

Perception category	Frequency	Percentage (%)
Low	16	11.4
Medium	48	34.3
High	76	54.3
Total	140	100.0

The results indicate that more than half of the respondents demonstrated a high level of agreement with statements concerning the Golden Indonesia 2045 aspiration. The overall Grand Mean was 5.07 on the six-point scale, suggesting a generally favorable perception of the national development aspiration among respondents.

Association between Education Level and Community Perception

The association between educational attainment and perception category was examined using Pearson's Chi-Square test. The cross-tabulation results are presented in Table 3.

Table 3. Cross-Tabulation of Education Level and Community Perception

Educational attainment	Low	Medium	High	Total
No formal schooling	1	1	6	8
Elementary school (SD)	4	21	20	45
Junior high school (SMP)	7	11	18	36
Senior high/vocational school (SMA/SMK)	2	11	23	36
Diploma	2	1	3	6
Bachelor's degree	0	3	6	9
Total	16	48	76	140

The Pearson Chi-Square test produced a value of $\chi^2 = 13.320$ with 10 degrees of freedom and a significance value of $p = 0.206$. Because $p > 0.05$, the null hypothesis of independence could not be rejected. Thus, the analysis did not provide sufficient statistical evidence of an association between educational attainment and community perception of Golden Indonesia 2045.

The magnitude of the association was additionally assessed using Cramer's V. The resulting value was $V = 0.218$, indicating a weak estimated association. However, because the Chi-Square test was not statistically significant, this effect should not be interpreted as evidence of a statistically established relationship between education level and perception.

An important consideration concerns the assumptions of the Chi-Square test. Eleven of the 18 cells (61.1%) had expected frequencies below five. This condition indicates that the result should be interpreted cautiously because the distribution of respondents across six educational categories and three perception categories produced several small expected

frequencies. Therefore, the non-significant result should be understood as insufficient evidence of an association within this sample rather than as definitive evidence that educational attainment has no relationship with perception.

Validity, Reliability, and Exploratory Component Analysis

The suitability of the 28-item instrument for exploratory analysis was assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity. The KMO value was 0.906, indicating a high level of sampling adequacy. Bartlett's test produced an approximate χ^2 value of 3,306.968 with 378 degrees of freedom and $p < 0.001$. These results indicate that the correlation matrix was sufficiently related to proceed with exploratory component analysis.

The KMO value of 0.906 indicates a high level of sampling adequacy for the exploratory analysis. Bartlett's test was statistically significant ($\chi^2 = 3,306.968$, $df = 378$, $p < 0.001$), indicating that the correlation matrix was not an identity matrix and that meaningful relationships existed among the items. These preliminary conditions support proceeding with exploratory component analysis. Comparable psychometric studies have used KMO and Bartlett's test to establish the suitability of questionnaire data for exploratory factor analysis before examining factor or component structures (Hapsari, 2023; Ihsan et al., 2023; Sigudla & Maritz, 2023).

Item-level analysis showed that most items had acceptable corrected item-total correlations. However, Items 1 and 5 produced coefficients below the predetermined criterion of 0.30, with values of 0.189 and 0.166, respectively. These two items were therefore considered invalid in relation to the overall instrument and were excluded from the substantive interpretation of the final measurement structure.

The reliability analysis produced a Cronbach's alpha coefficient of 0.949, indicating high internal consistency among the items retained in the instrument. The reliability result suggests that the perception instrument had strong overall consistency, although high alpha should not by itself be interpreted as evidence of unidimensionality.

Principal Component Analysis (PCA) with Varimax rotation was subsequently conducted to explore the structure of the perception instrument. Five components with eigenvalues greater than one were extracted, accounting for approximately 70.5% of the total variance after extraction and rotation.

Table 4. Summary of Exploratory Component Analysis

Component	Dominant items	Rotated variance (%)	Tentative interpretation
Component 1	8–15, 18, 26	24.6	Economic aspirations
Component 2	2–4, 6–7	11.2	Educational equity and social mobility
Component 3	16, 19–25, 27–28	22.4	Infrastructure and governance
Component 4	1, 5	6.8	Methodological/artifactual component
Component 5	17, 21	5.5	Global citizenship and national pride
Total		70.5	

The first component explained 24.6% of the rotated variance and was dominated by Items 8–15, 18, and 26. The second component accounted for 11.2% and primarily represented Items 2–4 and 6–7. The third component accounted for 22.4% and was associated with Items

16, 19–25, and 27–28. The fourth component accounted for 6.8% and consisted of Items 1 and 5, both of which had previously demonstrated weak corrected item-total correlations. The fifth component accounted for 5.5% and consisted primarily of Items 17 and 21.

Based on the conceptual content of the items, Components 1, 2, 3, and 5 could be given substantive interpretations, whereas Component 4 should be treated cautiously as a possible methodological or item-specific artifact. In particular, a component defined by only two items is less stable for substantive interpretation than a component represented by a larger number of indicators.

Overall Agreement with the Golden Indonesia 2045 Aspiration

The Grand Mean of 5.07 on a six-point scale provides additional descriptive evidence of generally favorable perceptions. Together with the distribution in Table 2, the result indicates that positive perceptions were not limited to respondents with higher formal education. Respondents across different educational categories were represented in the high-perception group.

This descriptive pattern is consistent with the non-significant Chi-Square result. Although the descriptive frequencies show some variation between educational groups, the differences were not sufficiently large or statistically reliable to conclude that educational attainment was associated with perception category in the present sample.

Discussion

The Non-Significant Association between Education and Perception

The central finding of this study is that educational attainment was not significantly associated with community perceptions of Golden Indonesia 2045. The Pearson Chi-Square result ($\chi^2 = 13.320$, $df = 10$, $p = 0.206$) indicates that the study did not obtain sufficient statistical evidence to reject the assumption that education level and perception category were independent.

The possibility of limited statistical power should also be considered when interpreting the non-significant result. Statistical power is influenced by factors such as sample size, effect size, and the statistical procedure used. Moortel et al. (2024) specifically discusses the importance of power analysis and provides considerations for detecting effects in Chi-Square tests and other statistical procedures. In the present study, the relatively small number of respondents in some educational categories, together with the weak estimated association, may have limited the ability of the Chi-Square test to detect a small relationship. Therefore, the non-significant result should be interpreted as insufficient evidence of an association in the observed sample rather than as evidence that no relationship exists in the broader population.

This finding should not be interpreted as proof that education is irrelevant to people's perceptions of national development. Rather, it indicates that, within the characteristics and sample size of this study, formal educational attainment did not demonstrate a statistically reliable association with the three-category perception measure. The distinction is important because a non-significant statistical result can arise from a genuinely weak association, limited statistical power, measurement characteristics, or substantial variation within educational groups.

The Cramer's V value of 0.218 suggests that the estimated association was weak. However, because the Chi-Square test was non-significant, the magnitude should be regarded as an estimate rather than evidence of a reliable population relationship. Moreover, 61.1% of the contingency-table cells had expected frequencies below five. The presence of several small

cells was partly related to the use of six educational categories and three perception categories. Consequently, the statistical result should be interpreted conservatively.

Education, Human Capital, and the Complexity of Perception

The finding also highlights an important distinction between educational attainment and human capital. Formal education is commonly regarded as an investment in human capital, but years or levels of schooling do not necessarily capture the knowledge and competencies actually acquired by individuals. Angrist et al. (2021), using internationally comparable learning data, demonstrate that learning outcomes provide a stronger measure of human capital than schooling quantity alone and are more closely associated with economic growth.

This distinction is relevant to the present finding. Two individuals with different formal educational qualifications may nevertheless have overlapping levels of knowledge concerning a particular national issue. Conversely, individuals with similar educational attainment may possess different levels of understanding depending on their experiences, access to information, occupations, and social interactions. Therefore, the absence of a statistically significant association between formal education and perception does not contradict the broader role of education in human capital development.

The broader importance of education for national development is also supported by evidence on the demographic dividend. Lutz et al. (2019) found that improvements in education have a stronger relationship with economic growth than changes in age structure alone, suggesting that the benefits of demographic change depend substantially on human capital development. This perspective reinforces the argument that education remains important for Indonesia's long-term development, even when formal educational attainment does not show a statistically significant association with a specific form of public perception. In other words, education may contribute to development through improvements in human capabilities without necessarily producing clearly differentiated perceptions of a national development agenda.

The Indonesian context further demonstrates that human capital is relevant to regional economic development. Suparman & Muzakir (2023) found that human capital, unemployment, and regional conditions are connected to economic growth and regional inequality in Indonesia. Education therefore remains important for development, but its contribution should not automatically be equated with the formation of a particular public perception.

Education therefore remains important for human capital development even though educational attainment did not show a statistically significant association with perception in this particular study. Evidence from the ASEAN Economic Community indicates that education-related human capital indicators can contribute to economic growth, including through improvements in educational attainment and related educational conditions (Budsayaplakorn & Sompornserm, 2021). Similarly, evidence on the returns to educational investment demonstrates that schooling continues to provide substantial economic benefits across different contexts (Angrist et al., 2021). Thus, the present finding should not be interpreted as evidence that education is unimportant for development. Instead, it suggests that formal educational attainment alone may not be sufficient to explain differences in people's perceptions of a complex national development agenda.

Social Cognition and the Formation of Public Perceptions

The findings can also be interpreted through the perspective of social cognition. Social cognition concerns how individuals process social information, form judgments, and adapt their understanding within social environments. Fiske & Taylor, (2020) describe social cognition as

an evolving field concerned with how people interpret social information and translate cognitive processes into social judgments and behavior.

From this perspective, perceptions of Golden Indonesia 2045 may emerge through multiple information channels rather than through formal education alone. Residents may encounter information through family members, neighbors, community meetings, government programs, social media, messaging applications, and other informal communication channels. If these channels provide overlapping information about national development, individuals with different educational backgrounds may develop relatively similar perceptions.

The present study did not directly measure respondents' frequency of internet use, social media exposure, digital literacy, or participation in government socialization programs. Therefore, the possibility that informal and digital information channels reduce perception differences across educational groups should be treated as an interpretive hypothesis rather than a demonstrated causal mechanism.

The Role of Digital Information in Rural Communities

The possibility of shared information exposure is particularly relevant in rural communities. Digital technologies have expanded opportunities for rural residents to obtain information beyond traditional face-to-face networks. Research on rural digital literacy has shown that interventions can support more inclusive participation in digital environments, including among populations in geographically remote areas (Nogueira, 2022). Similarly, digital technology can facilitate information dissemination in rural communities, including information that was previously constrained by geographical distance (Mwanza, 2022). In the Indonesian context, Pariyatin et al. (2023) reported that a community digital literacy program in Sirnagalih Village was positively received and contributed to improving community understanding of the safe and productive use of the internet. This finding supports the view that digital literacy activities can increase people's ability to access and use online information in rural settings. (Kuntarto, 2022) similarly demonstrates that digital literacy can be developed among rural communities through learning activities adapted to local needs. Together, these findings suggest that community-based digital literacy may provide an additional pathway through which rural residents obtain and process information beyond formal educational institutions.

Hidayat et al. (2023) also show that internet use is relevant to the aspirations and migration intentions of rural youth in Indonesia. This indicates that internet access can influence how rural populations encounter information and opportunities beyond their immediate locality. However, access alone does not guarantee equal outcomes. Zhao et al. (2022) demonstrate that digital outcome differences can persist between rural and urban students, while van Laar et al. (2020) emphasize that digital skills depend on multiple individual and contextual determinants.

Therefore, the digital environment may simultaneously reduce some information barriers and create other forms of inequality. In the context of the present study, it is plausible that common digital and community-based information sources contribute to similar perceptions of Golden Indonesia 2045 across educational groups. Nevertheless, this explanation requires direct empirical testing in future research.

Positive Community Perception of Golden Indonesia 2045

Another notable finding is the generally positive perception of the Golden Indonesia 2045 aspiration. The Grand Mean of 5.07 on the six-point scale and the finding that 54.3% of respondents were categorized as having high perceptions suggest that the national aspiration was broadly viewed favorably by the surveyed community.

A favorable orientation toward the future may also be considered in relation to positive psychological states. Moortel et al. (2024) describe psychological capital as a multidimensional construct involving hope, self-efficacy, optimism, and resilience, and emphasize its relevance to social and individual differences. Although psychological capital was not measured in the present study, this perspective suggests that positive perceptions of a long-term national aspiration may reflect broader orientations toward future opportunities and development. Therefore, the favorable perception observed among respondents should be interpreted as a descriptive finding rather than as direct evidence of optimism or psychological capital.

This positive orientation may reflect optimism toward future economic and social development. However, perception should be distinguished from comprehensive understanding. A respondent may express strong agreement with the general aspiration of a prosperous Indonesia by 2045 without possessing detailed knowledge of the policies, indicators, targets, or implementation mechanisms associated with the vision. Consequently, a high perception score should not automatically be interpreted as evidence of high levels of knowledge about Golden Indonesia 2045.

This distinction is important for policy communication. Socialization programs should not focus only on generating positive attitudes but should also strengthen substantive understanding of the goals, opportunities, responsibilities, and potential challenges associated with national development.

Multidimensional Structure of Community Perception

The exploratory component analysis provides further evidence that perceptions of Golden Indonesia 2045 are multidimensional. Five statistical components were extracted and together explained approximately 70.5% of the variance. Four components could be interpreted substantively, while the fourth component consisted of only Items 1 and 5 and corresponded to items that had also demonstrated weak item-total correlations.

The first component, which explained the largest proportion of rotated variance (24.6%), was interpreted as economic aspirations. This component suggests that respondents' perceptions of Golden Indonesia 2045 are strongly connected to expectations concerning economic improvement and transformation. The second component, accounting for 11.2%, was associated with educational equity and social mobility. The third component, explaining 22.4%, was interpreted in terms of infrastructure and governance. The fifth component, with 5.5%, reflected global citizenship and national pride.

The multidimensional pattern is consistent with the idea that a national development vision cannot be reduced to a single economic indicator. Economic transformation, educational improvement, infrastructure, governance, and national identity can all contribute to how citizens interpret a long-term national aspiration.

The KMO value of 0.906 and the significant Bartlett's test ($p < 0.001$) indicate that the item correlation matrix was appropriate for exploratory analysis. The Cronbach's alpha of 0.949 further indicates strong internal consistency. Nevertheless, the results should be regarded as exploratory because the component structure was derived from PCA with Varimax rotation and included a component represented by only two items. Future studies should therefore test the proposed structure using confirmatory factor analysis with a larger and more diverse sample.

The KMO value of 0.906 and the significant Bartlett's test ($p < 0.001$) indicate that the item correlation matrix was suitable for exploratory component analysis. Similar methodological procedures have been used in recent empirical studies to establish the adequacy of questionnaire data before extracting components or factors (Sigudla & Maritz, 2023; Hapsari, 2023; Ihsan et al., 2023). The Cronbach's alpha of 0.949 further indicates strong internal consistency. Nevertheless, high internal consistency should be interpreted together with

the dimensional structure of the instrument rather than being treated as evidence of unidimensionality. Nikmard et al. (2023) likewise demonstrate the importance of examining item and structural characteristics when validating a measurement scale.

Implications for Development Communication and Education Policy

The findings have several implications for communication of the Golden Indonesia 2045 agenda in rural communities. First, because perception did not differ significantly across educational levels, public communication should not assume that people with lower formal education are necessarily unable to understand or support national development aspirations. Communication can instead emphasize accessible language, practical examples, and locally relevant development issues.

Second, formal education should remain an important long-term policy priority because education contributes to human capital and development. The absence of a significant relationship in this study should not be interpreted as an argument for reducing educational investment. Rather, it suggests that educational attainment alone may not explain differences in perceptions of a national development vision.

Third, digital and community-based information channels may be useful complementary mechanisms for reaching rural residents. Evidence from Indonesian rural communities indicates that digital literacy programs can improve people's understanding of the safe and productive use of the internet (Pariyatin et al., 2023), while digital literacy learning models can be developed to respond to the characteristics and needs of rural communities (Kuntarto, 2022). These findings suggest that digital communication can be used as a complementary channel for disseminating information about national development. However, because digital exposure was not measured in this study, future research should explicitly examine internet use, social media exposure, digital literacy, and participation in community or government information programs to determine whether these factors mediate or moderate the relationship between education and perception.

Finally, future communication strategies should move beyond general awareness toward deeper civic and developmental literacy. Residents should not only recognize the phrase "Golden Indonesia 2045" but also understand its major development priorities and how local communities can contribute to their achievement.

Limitations and Directions for Future Research

Several limitations should be considered when interpreting the findings. First, the study was conducted in only one rural village, which limits the generalizability of the findings to other rural communities in Indonesia. Second, the use of purposive sampling means that the sample should not be assumed to represent the entire population of rural residents.

Third, the Chi-Square analysis contained several cells with expected frequencies below five. This limitation reduces confidence in the stability of the test result and suggests that future studies should use larger samples or alternative analytical strategies that are more appropriate for sparse contingency tables.

Fourth, perception was reduced to three categories for the association analysis. This categorization may have resulted in some loss of information contained in the original continuous-scale scores. Future research could consider statistical approaches that retain the original score information where their assumptions are satisfied.

Fifth, the cross-sectional design does not permit causal conclusions. Finally, the study did not directly measure digital exposure, digital literacy, or the specific sources through which respondents learned about Golden Indonesia 2045. Future studies should therefore employ

larger multi-site samples, longitudinal or mixed-method designs, and direct measures of information exposure to examine why educational differences may or may not translate into differences in public perceptions.

3. CONCLUSION

This study examined the association between educational attainment and community perceptions of the Golden Indonesia 2045 aspiration among 140 residents of Karang Indah Village, Mandastana Sub-district, Barito Kuala Regency, South Kalimantan. The findings indicate that the respondents generally demonstrated a favorable perception of Golden Indonesia 2045, as reflected by a Grand Mean of 5.07 on the six-point agreement scale, with 54.3% of respondents classified as having a high level of perception.

The Pearson Chi-Square analysis produced a non-significant result ($\chi^2 = 13.320$, $df = 10$, $p = 0.206$), indicating insufficient statistical evidence of an association between educational attainment and perception category in the study sample. Cramer's V of 0.218 indicated a weak estimated association. However, the result should be interpreted cautiously because several contingency-table cells had expected frequencies below five. Therefore, the finding should not be interpreted as evidence that education has no influence on public perceptions in general.

The exploratory component analysis further indicated that community perceptions of Golden Indonesia 2045 are multidimensional. Five statistical components were identified, collectively explaining approximately 70.5% of the variance. Four components could be substantively interpreted as economic aspirations, educational equity and social mobility, infrastructure and governance, and global citizenship and national pride. One two-item component was considered potentially methodological or item-specific and therefore requires further validation.

Overall, the findings suggest that formal educational attainment alone may not adequately explain how rural communities perceive a long-term national development aspiration. From the perspectives of human capital and social cognition, people's perceptions may also be shaped by social interaction, personal experience, and access to information through community and digital environments. However, because digital exposure and information sources were not directly measured, this explanation remains a hypothesis requiring further investigation.

Future research should involve larger and more geographically diverse rural samples and directly measure digital literacy, internet use, social media exposure, and sources of information about national development. Confirmatory factor analysis should also be conducted to test the stability of the proposed perception structure. Such research would provide stronger evidence for understanding how education, information environments, and social cognition interact in shaping public perceptions of Indonesia's long-term development agenda.

ACKNOWLEDGEMENTS

REFERENCES

- Amala, I. A., Arrahmah, N., & Amalina, E. N. (2022). Educational Progress as a Booster of Economic Growth in Indonesia. *Equity: Jurnal Ekonomi*, 08(01), 1–11. <https://doi.org/10.33019/equity.v>
- Angrist, N., Djankov, S., Goldberg, P. K., & Patrinos, H. A. (2021). Measuring human capital using global learning data. *Nature*, 592(April). <https://doi.org/10.1038/s41586-021->

03323-7

- Auliaa, A. Al, & Haq, A. S. (2024). Pendidikan tinggi menuju Indonesia Emas 2045 : Kebutuhan masyarakat dan peran pemerintah. *Maliki Interdisciplinary Journal (MIJ)*, 2(6), 402–408. <http://urj.uin-malang.ac.id/index.php/mij/index>
- Budsayaplakorn, S., & Sompornserm, T. (2021). Human capital development via education and economic growth in ASEAN economic community. *Kasetsart Journal of Social Sciences*, 42, 473–481. <http://kjss.kasetsart.org>
- Cohen, J. (1992). A power primer. *Tutorials in Quantitative Methods for Psychology*, 112(2), 2007. <http://www.apa.org/psycarticles>
- Fatimah, A. S., & Prihantini. (2023). Menata Masa Depan Indonesia Emas 2045 Dalam Bingkai Lifelong Learning Dan Universal Education. *PENDAS: Primary Education Journal Volume*, 4(2), 170–178. <https://doi.org/https://doi.org/10.29303/pendas.v4i2>
- Fiske, S. T., & Taylor, S. E. (2020). Social Cognition evolves: Illustrations from our work on Intergroup Bias and on Healthy Adaptation. *Psicothema*, 32(3), 291–297. <https://doi.org/10.7334/psicothema2020.197>
- Garland, R. (1991). The Mid-Point on a Rating Scale: Is it Desirable? *Marketing Bulletin*, 2, 66–70. <http://marketing-bulletin.massey.ac.nz>
- Guillén-gámez, F. D., & Guillén-gámez, F. D. (2022). Measuring Rural Teachers ' Digital Competence to Communicate with the Educational Community. *Journal of New Approaches in Educational Research*, 2050, 323–341. <https://doi.org/10.7821/naer.2022.7.1053>
- Hapsari, B. (2023). Development and Identification of Psychometric Properties Work Engagement. *Psychol Psychology*. <https://doi.org/10.23880/pprij-16000330>
- Hidayat, A. R. T., Onitsuka, K., Sianipar, C. P. M., Basu, M., & Hoshino, S. (2023). *To migrate or not to migrate : Internet use and migration intention among rural youth in developing countries (case of Malang , Indonesia)*. 4(July 2022).
- Ihsan, H., Wahyuni, M. S., & Kurnadipare, A. I. (2023). Penerapan Analisis Faktor Eksplanatori pada Pengambilan Keputusan Mahasiswa Membeli Produk Online di Kota Makassar. *Journal of Mathematics, Computations, and Statistics*, 6(2), 169–176. <http://www.ojs.unm.ac.id/jmathcos>
- Kuntarto, E. (2022). Pengembangan Model Pembelajaran Literasi Digital. *SAP (Susunan Artikel Pendidikan)*, 7(1), 34–42.
- Laar, E. Van, Deursen, A. J. A. M. Van, Dijk, J. A. G. M. Van, & Haan, J. De. (2020). Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review. *Sage Open*. <https://doi.org/10.1177/2158244019900176>
- Lutz, W., Crespo, J., Kebede, E., Prskawetz, A., & Sanderson, W. C. (2019). Education rather than age structure brings demographic dividend. *PNAS*. <https://doi.org/10.1073/pnas.1820362116>
- Moortel, D. De, Vos, M., Spruyt, B., & Vanroelen, C. (2024). Psychological capital and social class: A capital approach to understanding positive psychological states and their role in explaining social inequalities. *Plos One*, 1–20.

<https://doi.org/10.1371/journal.pone.0310031>

- Mwanza, A. J. (2022). Can digital technology be used for addressing digital literacy in the dissemination of Indigenous Knowledge in rural areas ? *SA Jnl Libs & Info Sci*, 88(1), 1–11. <https://doi.org/10.7553/88-1-2137>
- Nikmard, F., Tavassoli, K., & Pourdana, N. (2023). Designing and validating a scale for evaluating the sources of unreliability of a high - stakes test. *Language Testing in Asia*. <https://doi.org/10.1186/s40468-023-00215-7>
- Nogueira, V. B. (2022). Towards an inclusive digital literacy : An experimental intervention study in a rural area of Brazil. *Education and Information Technologies*, 27, 2807–2834. <https://doi.org/10.1007/s10639-021-10711-z>
- Pariyatin, Y., Kurnia, A., Nursyahidah, A., Rizki, A. M., & Siti, A. (2023). Peningkatan Pengetahuan Masyarakat Dalam Pemanfaatan Internet Melalui Program Literasi Digital. *Jurnal PkM MIFTEK*, 5(1), 1–8. <https://jurnal.itg.ac.id>
- Romlah, S., Imron, A., Sunandar, A., & Dami, Z. A. (2023). A free education policy in Indonesia for equitable access and improvement of the quality of learning Education Policy | Research Article A free education policy in Indonesia for equitable access and improvement of the quality of learning. *Cogent Education*, 10(2). <https://doi.org/10.1080/2331186X.2023.2245734>
- Sigudla, J., & Maritz, J. E. (2023). *Exploratory factor analysis of constructs used for investigating research uptake for public healthcare practice and policy in a resource-limited setting , South Africa*. 8, 1–8.
- Suparman, S., & Muzakir, M. (2023). Cogent Economics & Finance Regional inequality , human capital , unemployment , and economic growth in Indonesia : Panel regression approach unemployment , and economic growth in Indonesia : Panel regression approach. *Cogent Economics & Finance*, 11(2). <https://doi.org/10.1080/23322039.2023.2251803>
- Yuliyanto, R. (2023). Pendidikan Sebagai Modal Manusia Dalam Mencapai Pertumbuhan Ekonomi Berkelanjutan di Indonesia. *BISE: Jurnal Pendidikan Bisnis Dan Ekonomi*, 9(2), 67–74. <https://doi.org/10.2961/9i2.77643>
- Zhao, L., Cao, C., Li, Y., & Li, Y. (2022). Determinants of the digital outcome divide in E-learning between rural and urban students: Empirical evidence from the COVID-19 pandemic based on capital theory. *Computers in Human Behavior*, 130(August 2021), 107177. <https://doi.org/10.1016/j.chb.2021.107177>