

The Effect of Accountability, Socialization, and Aid Suitability on Human Resource Quality among Underprivileged Scholarship Recipient Students

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Abstract	This study aims to describe and analyze the effects of accountability, program dissemination, and the appropriateness of assistance on human resource quality among students from economically disadvantaged backgrounds who receive scholarships in Magetan Regency. This study employed a quantitative approach with an explanatory research design. The study population consisted of 161 students who received scholarships for economically disadvantaged students in Magetan Regency in 2024. A census sampling method was applied, whereby all members of the population were included as research respondents. Data were collected using a Likert-scale questionnaire and analyzed through Partial Least Squares–Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS version 3.2.9. The findings indicate that accountability has a positive and significant effect on human resource quality. Program dissemination also has a positive and significant effect on human resource quality. Similarly, the appropriateness of assistance has a positive and significant effect on human resource quality and is identified as the most dominant variable. The findings confirm that improving the human resource quality of scholarship recipients requires transparent and accountable program management, effective dissemination of information, and assistance that corresponds to the recipients’ academic needs and socioeconomic circumstances. This study is expected to provide evaluative input for the Government of Magetan Regency in improving the accuracy of beneficiary targeting, the quality of program management, and the sustainability of the scholarship program	
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1. INTRODUCTION

Human resource development has become a strategic priority in addressing the increasing demands of global competitiveness and labor market transformation. The quality of human resources determines the ability of individuals and societies to adapt to economic, technological, and social changes. Contemporary human resource development emphasizes not only formal knowledge acquisition but also the enhancement of soft skills, creativity, digital literacy, and problem-solving abilities as essential components of individual productivity and competitiveness (Tran, 2024). Individuals with higher

levels of knowledge and skills contribute more effectively to economic growth and social development because human capital represents a critical investment in sustainable development (OECD, 2019).

In Indonesia, improving human resource quality has been incorporated into regional development strategies through educational policies and financial support programs. Law Number 9 of 2015 concerning Regional Government mandates local governments to provide basic public services, including education, as part of their responsibility to improve community welfare. In response to this mandate, local governments have developed scholarship programs to expand access to higher education, particularly for students from economically disadvantaged backgrounds. These programs are expected not only to reduce educational inequality but also to strengthen human capital development by providing opportunities for students to improve their knowledge, skills, and future competitiveness.

Magetan Regency is one of the local governments that has implemented a scholarship program for university students from underprivileged families. The program has experienced significant growth, with the number of recipients increasing from four students in 2022 to 122 students in 2023, 165 students in 2024, and 325 students in 2025 (Department of Education, Youth, and Sports of Magetan Regency, 2025). This expansion reflects the government's commitment to improving access to higher education and developing local human resources. However, the increasing number of beneficiaries also raises important questions regarding program effectiveness, particularly related to accountability mechanisms, information dissemination, and the suitability of assistance provided to students' actual needs.

Accountability represents a fundamental element in ensuring that scholarship programs achieve their intended objectives. Effective accountability requires transparent planning, objective selection processes, appropriate distribution mechanisms, and clear responsibility among program stakeholders. Accountability is not limited to government institutions as program providers but also involves scholarship recipients who are expected to maintain academic performance and comply with program requirements. Previous studies indicate that accountability in public programs can improve organizational effectiveness, resource efficiency, and the achievement of development objectives (Sulila, 2022; Novalia, 2024). Therefore, accountability may function as an important determinant in ensuring that educational investment contributes to human resource improvement.

Besides accountability, effective socialization plays a crucial role in determining the accessibility and utilization of scholarship programs. Socialization refers to the process of delivering information to ensure that target communities understand program objectives, requirements, and procedures. Clear, consistent, and accessible information dissemination can increase public awareness and participation in educational programs (Judijanto et al., 2024). Previous research highlights that communication

strategies through multiple channels, including direct communication, digital platforms, and community networks, can improve the effectiveness of public policy implementation (Essing et al., 2025). In contrast, limited access to information may create unequal opportunities among potential beneficiaries and reduce the impact of scholarship programs on human resource development.

Another important factor influencing scholarship effectiveness is the suitability of assistance provided to recipients' needs. Educational assistance achieves optimal outcomes when financial support corresponds with students' academic requirements and socioeconomic conditions. The theory of policy targeting emphasizes that public assistance should be allocated accurately to ensure efficiency and maximize social benefits (Ingram et al., 2019). Previous empirical studies demonstrate that appropriately targeted educational support can improve academic motivation, study persistence, and competency development among students (Wicaksono, 2021; Wulandari et al., 2025). Conversely, mismatches between assistance and recipient needs may reduce program effectiveness and limit its contribution to human capital development.

Although scholarship programs have been widely implemented as instruments for improving educational access, previous studies have primarily focused on scholarship availability, academic achievement, or financial barriers. Limited empirical attention has been given to how governance factors, communication processes, and assistance suitability simultaneously influence human resource quality among scholarship recipients, particularly within local government scholarship programs. This gap is important because the success of educational assistance programs depends not only on the availability of funding but also on how effectively programs are managed, communicated, and aligned with beneficiaries' needs.

Therefore, this study aims to analyze the effect of accountability, socialization, and scholarship assistance suitability on human resource quality among underprivileged scholarship recipient students in Magetan Regency. The findings are expected to provide empirical evidence regarding the determinants of scholarship program effectiveness and contribute to improving local government strategies in developing human resources through educational assistance programs.

2. METHOD

This study applied a quantitative explanatory research design to investigate the relationship between accountability, socialization, aid suitability, and human resource quality among scholarship recipients from underprivileged families. A causal-comparative approach was adopted to examine the extent to which the implementation of a scholarship program contributes to improving students' human resource quality. This research was categorized as explanatory research because it aimed to test previously formulated hypotheses and analyze the causal relationships between independent and

dependent variables.

The research focused on human resource management within the context of educational assistance programs. Specifically, the study examined whether accountability in scholarship management, effectiveness of program socialization, and suitability of financial assistance influence the development of students' academic capacity, skills, motivation, and learning performance. The study was conducted at the Department of Education, Youth, and Sports of Magetan Regency, East Java, Indonesia. This institution was selected because it is directly responsible for the implementation, management, and distribution of the regional scholarship program for students from economically disadvantaged backgrounds.

The study population consisted of university students in Magetan Regency who received scholarships for underprivileged students in 2024. Based on data from the Department of Education, Youth, and Sports of Magetan Regency, the total number of scholarship recipients was 161 students. Since the population size was relatively limited, this study employed a census sampling technique, in which all members of the population were included as research respondents. The use of census sampling allowed the study to obtain comprehensive information from the entire target population and reduce potential sampling bias.

The study involved one dependent variable and three independent variables. Human resource quality was positioned as the dependent variable (Y), while accountability (X1), socialization (X2), and aid suitability (X3) were treated as independent variables. Human resource quality was measured through indicators including academic knowledge, technical skills, learning commitment, creativity, and academic performance. Accountability was assessed through transparency, regulatory compliance, financial responsibility, performance accountability, and professionalism of program administrators.

Socialization was measured based on program clarity, completeness of information, intensity of communication media, social support, and recipients' understanding of the scholarship program. Meanwhile, aid suitability was evaluated through indicators related to the alignment of scholarship assistance with recipients' actual needs, recipient characteristics, program objectives, social conditions, and distribution mechanisms.

Primary data were collected using a structured questionnaire developed according to the indicators of each research construct. The questionnaire was distributed to scholarship recipients and measured responses using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This measurement approach was used to quantify respondents' perceptions regarding scholarship management and its contribution to human resource development. Secondary data were obtained from official scholarship program documents, institutional reports, relevant regulations, scientific publications, and academic references to support the theoretical framework and interpretation of

research findings.

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 3. PLS-SEM was selected because it enables simultaneous evaluation of the measurement model and structural model, making it appropriate for analyzing relationships between latent variables and their indicators. The method evaluates both the reliability and validity of measurement constructs as well as the predictive relationships among variables in the structural model.

The analysis consisted of two main stages. First, the measurement model (outer model) was evaluated through convergent validity, discriminant validity, composite reliability, and Cronbach's Alpha to confirm the quality of the constructs and indicators. Second, the structural model (inner model) was assessed by examining the coefficient of determination (R^2), predictive relevance (Q^2), and hypothesis testing to determine the explanatory power and predictive capability of the proposed model.

Hypothesis testing was performed using the bootstrapping procedure in PLS-SEM to evaluate the significance of relationships between constructs. The decision criteria were based on the path coefficient, t-statistic, and p-value. A hypothesis was accepted when the t-statistic value was greater than 1.96 or the p-value was below 0.05 at a 5% significance level. In addition, the coefficient of determination (R^2) was analyzed to determine the extent to which accountability, socialization, and aid suitability explained variations in human resource quality among scholarship recipients.

3. FINDINGS AND DISCUSSION

This study was conducted at the Department of Education, Youth, and Sports of Magetan Regency, East Java, Indonesia. The institution is a regional government agency responsible for supporting the Regent in implementing governmental affairs related to education, youth development, and sports. Its responsibilities include formulating educational policies, implementing development programs, providing recommendations, and conducting monitoring and evaluation activities aimed at improving educational quality and strengthening human resource development within the Magetan region.

The Department of Education, Youth, and Sports of Magetan Regency manages a scholarship program specifically designed for university students originating from Magetan Regency. The program was established to expand access to higher education, increase students' academic motivation, and support the improvement of regional human resource quality. In implementing the program, the department is responsible for developing technical guidelines, conducting recipient selection processes, determining eligible beneficiaries, distributing financial assistance, and evaluating program implementation. Therefore, this institution was selected as the research setting because it represents the main organizational context for examining scholarship program accountability, socialization effectiveness, and the contribution of educational assistance toward improving human resource quality.

among scholarship recipients.

The respondents in this study were university students from economically disadvantaged backgrounds who received need-based scholarships. These students represent individuals with academic potential but limited financial capacity, where educational costs may become a major barrier to continuing higher education. The scholarship program provides financial support that helps recipients meet various educational needs, including tuition fees, learning materials, transportation costs, and other academic requirements. Through this support, students are able to focus more effectively on academic development and personal capacity improvement.

The scholarship program also contributes to strengthening students' motivation and sense of responsibility. Recipients tend to perceive the scholarship not only as financial assistance but also as an opportunity and responsibility to improve their academic achievements. Many students attempt to maintain their academic performance, participate in extracurricular activities, engage in student organizations, and contribute to community activities. These experiences encourage the development of discipline, commitment, leadership, and other competencies that support future professional and social participation.

A total of 161 respondents participated in this study. Based on age distribution, respondents were predominantly between 20 and 21 years old, with 46 respondents in each age group, representing 28.6% of the total sample. Respondents aged 18 and 24 years represented the smallest proportion, with only 5 respondents in each category (3.1%). This distribution indicates that most scholarship recipients were young adults who were actively pursuing higher education.

Regarding gender characteristics, female respondents represented the majority of the sample, with 116 participants (72%), while male respondents consisted of 45 participants (28%). Female respondents dominated almost all age groups, particularly among respondents aged 20 and 21 years, with 35 and 34 participants respectively. Overall, 118 respondents (73.3%) were within the age range of 20–22 years, indicating that the study population was primarily composed of young female university students receiving need-based scholarships.

The measurement model evaluation was conducted to assess the validity and reliability of the research instruments. The validity test aimed to determine whether each indicator accurately measured its corresponding latent construct. The analysis was performed using SmartPLS version 3.2.9 by evaluating the outer loading values of each indicator. An indicator was considered valid when the loading factor value exceeded 0.70, indicating that the indicator had a strong contribution to measuring the related construct.

The validity testing results showed that all indicators achieved loading factor values above the recommended threshold of 0.70. The accountability construct consisted of five indicators, including

transparency of the education office, compliance with regulations, financial responsibility, performance accountability, and implementer professionalism, with loading factor values ranging from 0.731 to 0.793. The socialization construct was measured through program clarity, information completeness, socialization media intensity, social support, and recipient understanding, with loading factor values ranging from 0.738 to 0.778.

The aid suitability construct demonstrated strong measurement performance, with five indicators consisting of suitability with recipient needs, recipient characteristics, program objectives, social context, and distribution mechanisms. These indicators obtained loading factor values ranging from 0.794 to 0.832. Meanwhile, the human resource quality construct, measured through academic knowledge, technical skills, learning ethics, creativity, and academic performance, showed loading factor values between 0.779 and 0.816.

Table 1. Fornell-Larcker Criterion Results

	Accountability	Aid suitability	Socialization	Human resource quality
Accountability	0,755			
Aid suitability	0,631	0,807		
Socialization	0,728	0,788	0,798	
Human resource quality	0,633	0,569	0,704	0,764

The results presented in Table 3.1 indicate that the Fornell–Larcker criterion values exceeded the recommended threshold of 0.70. Each construct demonstrated a higher square root of AVE value compared with its correlations with other latent variables. This indicates that each measurement item has a stronger relationship with its respective latent construct than with other constructs in the model. Therefore, all constructs in this study demonstrate adequate discriminant validity and are able to represent their respective latent variables appropriately.

Furthermore, collinearity assessment was conducted using the Variance Inflation Factor (VIF) value. A low level of collinearity is indicated when the VIF value is below the threshold of 5, suggesting that the constructs do not suffer from critical multicollinearity issues and remain appropriate for inclusion in the structural model (Setiaman, 2023). The following table presents the VIF values obtained for each construct indicator.

Table 2. VIF Results

	VIF
Accountability	3,888
Aid suitability	4,133
Socialization	4,247
Human resource quality	4,195

The results presented in the table indicate that all Variance Inflation Factor (VIF) values were below the recommended threshold of 5. This finding confirms that the research model does not suffer from significant collinearity issues among the constructs. Therefore, the estimated path coefficients, significance levels, and indicator weights can be interpreted reliably because the predictor constructs do not demonstrate critical multicollinearity problems. These results confirm that all variables included in the model meet the requirements for further structural model evaluation.

The final assessment of discriminant validity was conducted using the Heterotrait-Monotrait Ratio (HTMT) criterion. The HTMT approach evaluates whether each construct in the model represents a distinct concept from other constructs. A construct is considered to have adequate discriminant validity when the HTMT value is below the recommended threshold of 0.90 (Henseler et al., 2015).

Discriminant validity was further assessed using the Heterotrait-Monotrait Ratio (HTMT) criterion. The HTMT approach evaluates the degree of similarity between constructs by comparing correlations between indicators from different constructs with correlations between indicators within the same construct. A research model is considered to achieve adequate discriminant validity when the HTMT value for each construct relationship is below the recommended threshold of 0.90.

Table 3. HTMT Results

Variable	Accountability	Aid suitability	Socialization	Human resource quality
Accountability				
Aid suitability	0,657			
Socialization	0,756	0,817		
Human resource quality	0,658	0,593	0,730	

The assessment of discriminant validity was further confirmed through the Heterotrait-Monotrait Ratio (HTMT) criterion. Based on the results presented in Table 8, none of the HTMT values exceeded the recommended threshold of 0.90. This finding indicates that the correlation between different constructs remained within an acceptable range, demonstrating that each construct in the research model measured a distinct concept.

The descriptive analysis was conducted to examine respondents' perceptions regarding the accountability of the scholarship program managed by the Department of Education, Youth, and Sports of Magetan Regency. The accountability construct (X1) consists of five indicators: transparency, regulatory compliance, financial accountability, performance accountability, and implementer professionalism. The analysis was performed using SmartPLS by evaluating the mean scores of each indicator.

The findings indicate that the accountability variable obtained a high overall mean score, ranging from 3.93 to 3.98. This result demonstrates that respondents perceived the management of the scholarship program as accountable and well implemented. Most respondents selected "agree" and "strongly agree" responses for the statements related to transparency, compliance, financial management, performance reporting, and administrative professionalism.

The transparency indicator obtained an average score of 3.93, indicating that information disclosure within the scholarship program was considered satisfactory. The highest-rated aspect was the ability of the Department of Education, Youth, and Sports to clearly explain scholarship recipient criteria, with a mean score of 3.96. Meanwhile, the lowest score was found in the official announcement of scholarship selection results, with a mean score of 3.89. These findings suggest that although transparency practices have been implemented effectively, improvements in the publication of selection outcomes are still required to strengthen public trust.

The regulatory compliance indicator achieved an average score of 3.93. The statement regarding scholarship distribution according to applicable regulations received the highest score of 3.95, while implementation according to established regulations obtained the lowest score of 3.91. This finding indicates that respondents considered the scholarship implementation process to be consistent with existing procedures and regulatory frameworks.

The financial accountability indicator obtained an average score of 3.95. The highest-rated statement concerned responsibility for scholarship fund distribution according to applicable provisions, with a mean score of 4.00. Meanwhile, transparency regarding the use of scholarship funds received a lower score of 3.87. This result indicates that financial management was perceived positively, although greater openness regarding fund utilization could further improve accountability.

The performance accountability indicator also achieved an average score of 3.95. Evaluation of scholarship implementation according to program targets received the highest score of 3.98, while communication of program achievements to the public obtained the lowest score of 3.92. These findings indicate that program monitoring and evaluation mechanisms have been implemented effectively, although dissemination of performance achievements could still be improved.

The implementer professionalism indicator obtained the highest average score among accountability dimensions, reaching 3.98. The highest-rated statement was related to accurate and objective scholarship administration management, with a score of 4.03. Meanwhile, performing tasks according to competency received the lowest score of 3.90. These results demonstrate that respondents had strong positive perceptions regarding the professionalism and capability of scholarship program administrators.

3.1. Research Findings Analysis

Following the evaluation of the measurement model (*outer model*), the next step was to assess the structural model (*inner model*). The inner model analysis was conducted to examine the relationships among latent constructs in the proposed research framework, including the significance of the path relationships and the explanatory power of the model through the coefficient of determination (R^2). This analysis aims to determine how well the independent variables explain the variation in the dependent variables and to evaluate the predictive capability of the structural model. The assessment of the inner model included the evaluation of path coefficients, significance testing through bootstrapping procedures, and the value of R^2 to determine the extent to which leadership, organizational support, and motivation contribute to explaining Satlinmas member performance.. The estimated R^2 value generated through the PLS algorithm is presented in Table 3.4

Tabel 4. R Square Results

Variable	R-square	R-square adjusted
Human resource quality	0,751	0,746

The coefficient of determination (R^2) was evaluated to determine the explanatory power of the structural model. Based on the results presented in Table 13, the human resource quality construct obtained an R^2 value of 0.751. This finding indicates that the independent variables, namely accountability, socialization, and aid suitability, collectively explain 75.1% of the variance in human resource quality among scholarship recipients. The remaining 24.9% of the variance is explained by other factors outside the proposed research model. Based on the interpretation criteria for the coefficient of determination, an R^2 value of 0.751 indicates that the structural model has strong explanatory capability. Therefore, accountability, socialization, and aid suitability provide substantial contributions in explaining variations

in human resource quality within the context of the scholarship program in Magetan Regency.

The effect size (f^2) analysis was conducted to determine the magnitude of the contribution of each exogenous variable to the endogenous constructs in the PLS-SEM model. The f^2 value indicates the extent to which an independent variable influences a dependent variable by assessing the change in the coefficient of determination (R^2) when a particular construct is removed from the model. According to Cohen's criteria, f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effect sizes, respectively. Therefore, the f^2 analysis provides additional information regarding the strength of relationships among constructs beyond the significance level of the path coefficients. The results of the f^2 test are presented in Table X, which illustrates the effect size of leadership, organizational support, and motivation on Satlinmas member performance..

Table 5. F Square Results

Variabel	Accountability	Aid suitability	Human resource quality	Socialization
Accountability			0,189	0,189
Aid suitability			0,335	0,262
Human resource quality				
Socialization			0,218	

The effect size analysis (f^2) was conducted to evaluate the contribution of each exogenous construct to the endogenous construct in the structural model. The results indicate that accountability has a moderate effect on human resource quality, with an f^2 value of 0.132. This finding suggests that accountability provides a meaningful contribution to explaining variations in human resource quality among scholarship recipients. Furthermore, aid suitability demonstrated the strongest effect on human resource quality, with an f^2 value of 0.489. This value indicates a large effect size, showing that the suitability of scholarship assistance represents an important determinant in improving students' human resource quality. The alignment between the assistance provided and recipients' academic, financial, and social needs plays a substantial role in supporting students' capacity development. Meanwhile, socialization obtained an f^2 value of 0.165, indicating a moderate effect on human resource quality.

The predictive relevance of the structural model was assessed using the *Q-square* (Q^2) value obtained through the blindfolding procedure. The Q^2 value is used to evaluate the model's ability to predict observed values based on the estimated parameters. A structural model is considered to have predictive relevance when the Q^2 value is greater than zero, indicating that the model has adequate predictive capability. Conversely, a Q^2 value below zero indicates that the model has poor predictive relevance. Therefore, the predictive relevance test provides an evaluation of the extent to which the estimated parameters in the structural model can reproduce the observed values. The results of the Q^2 analysis are presented in Table.

Table 6. Predictive Relevance

Variable	Q^2 (=1-SSE/SSO)	Description
Human resource quality	0,732	Has predictive relevance

The predictive relevance of the structural model was assessed using the *Q-square* (Q^2) value. The results show that the Q^2 value of the dependent variable, human resource quality, is greater than zero, indicating that the proposed model has good predictive relevance. This finding confirms that accountability, socialization, and aid suitability provide meaningful predictive information in explaining variations in human resource quality among scholarship recipient.

The structural model analysis was conducted to examine the relationships among the research constructs and determine the influence of accountability, socialization, and aid suitability on human resource quality. The evaluation was performed using the PLS-based approach by analyzing the path coefficients and hypothesis testing results. A hypothesis was considered supported when the p-value was below 0.05 and the t-statistic value exceeded 1.960 at a 5% significance level. The results of the structural model assessment provide the basis for determining the significance and direction of the relationships among variables, which are presented in the following hypothesis testing analysis.

Table 7. Hypothesis Results

	Original sample (O)	T statistics (O/STDEV)	P values
Accountability → Human resource quality	0,259	4,830	0,000
Socialization → Human resource quality	0,273	3,613	0,000
Aid suitability → Human resource quality	0,469	6,281	0,000

The hypothesis testing results demonstrate that accountability, socialization, and aid suitability have positive and significant effects on human resource quality among scholarship recipients in Magetan Regency. The effect of accountability on human resource quality produced a path coefficient of 0.259, with a t-statistic value of 4.830 and a p-value of 0.000 (<0.05). These results confirm that accountability has a positive and significant influence on human resource quality, supporting the hypothesis that effective accountability mechanisms contribute to improving students' competencies and development.

The analysis of the effect of socialization on human resource quality showed a path coefficient of 0.273, a t-statistic value of 3.613, and a p-value of 0.000 (<0.05). This finding indicates that effective dissemination of scholarship information has a significant positive contribution to improving human resource quality. Therefore, the hypothesis stating that socialization positively and significantly affects human resource quality is supported.

Furthermore, aid suitability demonstrated the strongest influence on human resource quality, with a path coefficient of 0.469, a t-statistic value of 6.281, and a p-value of 0.000 (<0.05). These results confirm that scholarship assistance aligned with students' academic, financial, and social needs significantly improves human resource quality. Thus, the hypothesis regarding the positive and significant effect of aid suitability on human resource quality is supported.

Simultaneously, accountability, socialization, and aid suitability contribute positively and significantly to human resource quality among underprivileged scholarship recipients. The effect size analysis shows that aid suitability has the largest contribution with an f^2 value of 0.489, followed by socialization with 0.165 and accountability with 0.132. These findings indicate that the appropriateness of assistance is the most dominant determinant in improving students' human resource quality. However, the optimal development of human resource quality requires the integration of all three factors through accountable program management, effective communication, and targeted assistance that meets recipient needs.

3.2 . Discussion

The findings indicate that accountability, socialization, aid suitability, and human resource quality among scholarship recipients were perceived positively by students. Accountability represents a fundamental principle in public program governance, emphasizing transparency, responsibility, and professional implementation. According to Bovens' accountability theory, accountability involves the obligation of public actors to provide explanations for their actions, allow evaluation by relevant stakeholders, and accept consequences when necessary. In the context of the scholarship program in

Magetan Regency, accountability is reflected through transparent selection procedures, compliance with program regulations, responsible financial management, performance reporting, and professionalism of program administrators. The positive perception among students suggests that effective accountability mechanisms contribute to building trust in scholarship management and strengthening recipients' confidence that the program is implemented fairly and appropriately.

Socialization was also identified as an important component in supporting scholarship effectiveness. Effective communication enables students to understand program objectives, eligibility requirements, administrative procedures, and their responsibilities as recipients. Public communication theory highlights that message clarity, communication intensity, appropriate information channels, and social support influence the extent to which policy information is received and implemented by target groups. In this study, students perceived the socialization process as adequate, indicating that information dissemination helped them access and utilize scholarship support more effectively. Clear communication reduces uncertainty, improves administrative compliance, and encourages students to maximize the benefits of the program.

The suitability of assistance reflects the extent to which scholarship support corresponds with students' actual educational, economic, and social needs. The results demonstrate that most students considered the scholarship assistance relevant to their academic conditions and financial requirements. Appropriate assistance allows students to allocate more attention to academic activities, develop competencies, and maintain learning motivation. This finding supports the concept that educational interventions achieve greater effectiveness when resources are distributed based on the characteristics and needs of beneficiaries rather than only focusing on financial allocation.

Human resource quality was assessed through academic knowledge, technical skills, learning commitment, creativity, and academic performance. The findings show that scholarship recipients demonstrated good human resource quality, indicating that educational assistance programs may contribute beyond financial support by strengthening students' personal and academic development. This finding supports human resource development theory, which views education investment as an important mechanism for improving individual capability, productivity, and social contribution.

The results demonstrate that accountability, socialization, and aid suitability collectively contribute to improving human resource quality among scholarship recipients. These findings confirm that successful educational assistance programs depend not only on financial support but also on effective governance, communication strategies, and alignment between assistance provided and recipients' needs.

Accountability strengthens program effectiveness by ensuring transparency, procedural compliance, and responsible resource management. When students perceive that scholarship management is

transparent and fair, they develop greater trust in the program and become more motivated to utilize the assistance responsibly. This finding supports Bovens' accountability perspective, which emphasizes that accountable governance improves institutional legitimacy and strengthens relationships between program providers and beneficiaries.

The findings also indicate that socialization plays a strategic role in transforming scholarship assistance into meaningful educational benefits. Information accessibility enables students to understand how to utilize assistance effectively and encourages responsible academic behavior. Previous studies have shown that effective dissemination of educational programs improves beneficiaries' understanding and increases the impact of interventions. Therefore, communication quality becomes an essential factor in ensuring that scholarship programs achieve their intended outcomes.

Furthermore, aid suitability strengthens the relationship between scholarship programs and human resource development. Assistance that matches students' financial conditions and educational needs reduces economic barriers and allows students to focus on academic achievement. The interaction between appropriate assistance, accountability, and effective socialization creates a comprehensive support system that encourages students to improve their competence, discipline, creativity, and academic performance.

The findings confirm that accountability has a positive role in improving the quality of human resources among scholarship recipients. Accountability ensures that scholarship programs are implemented through transparent procedures, fair selection mechanisms, and responsible management practices. Effective accountability reduces the possibility of inappropriate resource distribution and ensures that support reaches students who genuinely require assistance.

From a behavioral perspective, accountability may influence students' attitudes toward responsibility and achievement. Students who perceive the scholarship program as well-managed tend to develop stronger commitment to maintaining academic performance because they recognize the importance of utilizing the assistance appropriately. This condition reflects the principle that external accountability mechanisms can encourage internal responsibility among beneficiaries.

The findings are consistent with previous research showing that accountable public programs are associated with improved beneficiary competence and program effectiveness. In the context of Magetan Regency, accountability does not only function as an administrative requirement but also becomes a mechanism that supports sustainable human resource development through improved academic motivation and student responsibility.

The results show that socialization significantly contributes to improving human resource quality among scholarship recipients. Effective socialization provides students with adequate knowledge

regarding program procedures, available support, and expected responsibilities. This understanding enables students to utilize scholarship resources strategically for academic development.

Clear communication about scholarship objectives and mechanisms may influence students' motivation, learning discipline, and academic planning. Students who understand the purpose of the program are more likely to develop commitment toward educational achievement and personal improvement. These findings are consistent with previous studies emphasizing that effective information dissemination increases accessibility and strengthens the benefits of educational assistance programs.

Beyond administrative understanding, socialization contributes to the formation of academic values, including discipline, responsibility, and continuous learning behavior. Therefore, scholarship communication strategies should not only focus on delivering technical information but also encourage students to maximize the program as an opportunity for personal and professional development.

The findings reveal that aid suitability is an important determinant of human resource quality among scholarship recipients. Scholarship assistance becomes more effective when it corresponds with students' economic conditions, academic requirements, and educational goals. Appropriate assistance reduces financial constraints and enables students to devote greater attention to learning activities, skill development, and academic achievement.

This finding supports the resource allocation perspective, which suggests that investments generate greater outcomes when resources are distributed according to the specific needs of beneficiaries. When scholarship support is relevant to students' conditions, it creates a supportive environment for improving competence, creativity, and academic performance.

The results also indicate that the effectiveness of scholarship programs cannot be measured solely by the amount of financial assistance provided. The alignment between assistance and recipient needs determines whether the program can generate meaningful improvements in human resource quality. Therefore, policymakers should prioritize needs-based scholarship management to maximize educational outcomes and long-term human resource development.

4. CLONCUSION

This study examined the influence of accountability, program socialization, and aid suitability on human resource quality among need-based scholarship recipients in Magetan Regency. The findings demonstrate that effective scholarship management requires not only financial support but also transparent governance, effective communication, and assistance that aligns with beneficiaries' actual needs.

First, accountability emerged as a critical factor in determining the success of the scholarship program. Students perceived the program positively in terms of management transparency, compliance with procedures, administrator responsibility, and implementation competence. Strong accountability mechanisms increase students' trust in the selection and distribution processes while encouraging recipients to demonstrate greater responsibility and discipline in fulfilling their academic obligations. Therefore, accountable scholarship governance contributes to creating a fair and transparent educational environment that supports the improvement of students' human resource quality.

Second, program socialization plays an essential role in ensuring that students understand their rights, responsibilities, and the mechanisms of scholarship utilization. Effective communication enables students to access relevant information, plan their academic activities more effectively, and maximize the benefits of the assistance provided. Furthermore, proper socialization contributes to the development of academic values, learning motivation, critical thinking skills, and non-academic competencies, which collectively strengthen students' human resource capacity.

Third, aid suitability represents an important determinant of scholarship effectiveness. Students considered the assistance relevant to their academic and financial needs, indicating that the program successfully provided support that matched recipient conditions. Appropriate assistance reduces financial barriers, allows students to maintain academic focus, enhances learning motivation, and supports the development of academic and non-academic skills. Thus, needs-based assistance enables educational funding to generate greater impacts on student capability and independence.

Fourth, accountability, socialization, and aid suitability simultaneously have a significant contribution to improving students' human resource quality. These three components interact and reinforce one another in strengthening the effectiveness of the scholarship program. Accountability builds trust, effective socialization improves understanding and utilization of the program, while suitable assistance ensures that resources are directed toward actual student needs. The integration of these factors creates conditions that encourage students to improve competence, discipline, creativity, and academic performance.

Finally, the scholarship program provides long-term implications for human resource development in Magetan Regency. Beyond supporting educational continuity, the program encourages students to enhance academic abilities, soft skills, and social participation. The findings highlight that public policies based on accountable governance, effective outreach strategies, and targeted assistance can contribute significantly to developing competitive and capable human resources. Therefore, scholarship programs should be managed through an integrated approach that emphasizes transparency, communication effectiveness, and beneficiary-oriented support to maximize sustainable educational outcomes.

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