

ASSESSMENT IN THE SUBMISSION OF THE 20% DEVELOPMENT FUNDS IN THE ANNUAL BUDGET OF BARANGAYS IN DAVAO CITY

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ABSTRACT

This study evaluated the utilization of the 20% development funds allocated in the annual budgets of barangays in Davao City, Philippines. The legally mandated 20% development fund is intended to support regional development initiatives and meet community needs. Further, this study examined the distribution, use, and effects of this money in a few Davao City barangays using a qualitative research methodology. Furthermore, the research evaluated the efficacy of development initiatives funded by the 20% allocation and identified factors influencing budget utilization through surveys, financial analysis, and community assessments. The results are intended to give policymakers and barangay officials information that will help them improve the accountability, openness, and effectiveness of how development funds are used for community development.

Keywords: Development Funds, Barangays, Assessment, Utilization, Accountability, Annual Budget, Davao City, Local Governance, Transparency, Community Welfare

1. INTRODUCTION

Background of the Study

Barangays are the essential administrative building blocks in the complex web of local governance; they work closely with communities to meet their various needs and goals. The distribution and application of development funds, which are critical in improving the standard of living and promoting socioeconomic advancement in barangays, are integral to this function. Like many other communities, Davao City devotes a sizable percentage of its annual budget—specifically, 20% of it—to these development funds. The efficient use of these funds and their open accountability, however, continue to be crucial but difficult goals.

An annual allotment of 20% of their entire budget, designated for local development initiatives, is given to barangays in Davao City. It is essential to assess how these funds are being used to guarantee efficient resource management and community development.

The allotment of 20% of the development money is a significant financial resource that will be utilized for the execution of many community projects, infrastructure upgrades, and barangay-level service enhancements. Its importance comes from its ability to spur progress and raise living standards for locals, in addition to its monetary worth. Nevertheless, despite this promise, there is an urgent need for thorough evaluation to guarantee that these monies are used effectively, fairly, and in accordance with the goals and requirements of the communities they support. In light of this, this study sets out to investigate how the 20% development money in Davao City barangays is used and accountable for. This research aims to shed light on the effectiveness and integrity of these funds' utilization by looking at the allocation patterns, spending trends, project outcomes, and accountability mechanisms related to them. Furthermore, it aims to pinpoint the assets, obstacles, and chances for enhancement in the administration of these monies, ultimately advancing sustainable growth and communal well-being.

2. OBJECTIVES

- To analyze the allocation and expenditure of the 20% development funds in selected barangays of Davao City.
- To evaluate the impact and effectiveness of development projects funded by the 20% allocation.
- To identify factors influencing the utilization of 20% of development funds and propose recommendations for improvement.

STATEMENT OF THE PROBLEM

- How are the 20% of development funds allocated and expended in barangays of Davao City?
- What is the impact and effectiveness of development projects funded by the 20% allocation?
- What factors influence the utilization of 20% development funds, and how can their utilization be improved?

3. METHODOLOGY

This study utilized exploratory factor analysis (EFA) to uncover the fundamental hypothetical factors or constructs that account for the variability observed among a set of measured variables. This study involves surveys, financial analysis, and community assessments to evaluate the utilization and impact of 20% of development funds in selected barangays of Davao City. Details on the criteria used to select barangays for the study, ensuring diversity in terms of location, population, and socio-economic characteristics. Details on data collection methods, including surveys of barangay officials and residents, financial analysis of budget reports, and community assessments of development projects funded by the 20% allocation. Explanation of the analytical techniques used to analyze quantitative data, including descriptive statistics, regression analysis, and comparative analysis of project outcomes.

This method concentrates on a select few items that concisely capture the underlying structure, thereby avoiding the inclusion of potentially extraneous factors. By organizing these items into meaningful factors, this method enhances the clarity and interpretability of the findings (Ahmet, 2022).

The researcher created a 30-item questionnaire with a Likert scale response system to gather data. Each questionnaire item aligns with the research objective Assessing in the Submission of the 20% Development Funds in the Annual Budget of Barangays in Davao City. The study was participated in by 150 former and currently elected barangay officials. The data collection was done through an online survey. According to Torrentira (2020), an online survey is a process of distributing the instrument or the questionnaire to the target respondents using online platforms through google forms. The researcher gathers the data by using both printed questionnaires and electronic questionnaires, the latter being an avenue for reaching the intended respondents and achieving the needed number of research participants. The collected data underwent tallying, summarization, and statistical analysis.

Moreover, the Kaiser-Meyer-Olkin (KMO) test was employed among the statistical methods utilized in this study. The KMO test evaluates the adequacy of the sample size for factor analysis. It assesses the suitability of data by measuring sampling adequacy for each variable and the entire model (Shkeer & Awang, 2019).

Additionally, Bartlett's Test of Sphericity was conducted to assess whether the variables in the dataset are independent or unrelated, which would render them unsuitable for factor analysis. A significant result ($p < 0.05$) indicates that the variables are interrelated and warrant factor analysis (Dharmansyah & Budiana, 2021).

Furthermore, two additional techniques, Kaiser's Criterion and the Scree Test, were employed. Kaiser's Criterion, also known as the Eigenvalue Criterion, and the Scree Test assist in determining the number of initial unrotated factors to extract. The Eigenvalue represents the ratio of common variance to the specific variance explained by a particular extracted factor (Shrestha, 2021). These rigorous statistical analyses ensure the robustness and validity of the research findings, making them suitable for publication in academic journals.

4. RESULTS AND DISCUSSION

The data presented in Table 1 includes the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity, which are used to evaluate the suitability of data for factor analysis. The KMO value of 0.885 indicates a very good level of sampling adequacy, suggesting that the sample size is adequate and the data is appropriate for factor analysis. This high KMO value implies that the collected data for assessing the submission of the 20% Development Funds in the annual budget of barangays is reliable, and patterns and relationships among the variables can be effectively identified.

Additionally, Bartlett's Test of Sphericity shows an approximate Chi-Square value of 2575.280 with 435 degrees of freedom and a significance level of 0.000. This significant result ($p < 0.05$) indicates that the null hypothesis, which posits that the correlation matrix is an identity matrix (implying no relationships among variables), can be rejected. Therefore, the data exhibits significant relationships among variables, supporting the appropriateness of using factor analysis. This suggests that the dataset contains underlying structures that can be explored to understand how 20% of Development Funds are being utilized or allocated in the annual budget of barangays.

Overall, the high KMO value and the significant result from Bartlett's Test indicate that the dataset is suitable for factor analysis. This implies that the assessment data regarding the 20% Development Funds in barangay budgets is reliable and can be further analyzed to uncover underlying patterns and factors. These factors might include various dimensions of fund allocation, effectiveness of spending, compliance with regulations, and overall impact on barangay development (Field, 2009; Hair et al., 2010).

Table 1. KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.885
Bartlett's Test of Sphericity	Approx. Chi-Square	2575.280
	df	435
	Sig.	.000

Scree Plot. Figure 1 illustrates the eigenvalues associated with components derived from a factor analysis, with eigenvalues on the y-axis and component numbers on the x-axis. The plot shows an initial steep decline in eigenvalues, indicating that the first few components explain most of the variance in the dataset, followed by a gradual leveling off, forming an "elbow." This elbow point, appearing around the 3rd or 4th component, is typically used to determine the number of significant factors to retain for analysis. In the context of assessing the submission and utilization of the 20% Development Funds (BDF) in the annual budget of barangays, these significant components provide valuable insights into underlying factors affecting the program.

The first component, with the highest eigenvalue, likely captures critical aspects such as accountability for fund misuse and the effectiveness of managing allocated funds by barangay officials. The second and third components may represent other important factors, including the encouragement of innovative approaches, alignment with development goals, and the promotion of sustainable practices. These components might also encompass the clarity of submitted proposals, stakeholder involvement, and the fairness of the evaluation process.

Further, the components identified beyond the initial ones could reflect challenges faced by barangays, such as bureaucratic hindrances, conflicts of interest, and the need for technical assistance and training. By focusing on the first few components (around three to four), stakeholders can effectively capture the major factors impacting the BDF program's implementation and effectiveness. This analysis highlights how barangay officials manage funds, involve the community, and ensure transparency and sustainability in development projects. Understanding these key factors enables better assessment and improvement of the BDF program, ensuring it meets the developmental needs and goals of the barangays.

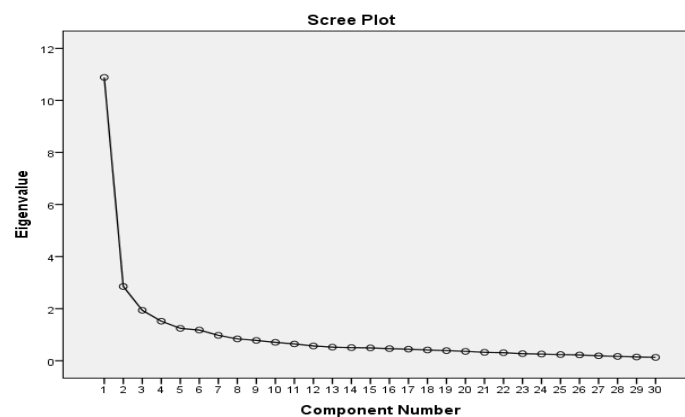


Figure 1. Scree Plot

Component Matrix

There are five factors generated using the SPSS Statistics software. It presents findings on the allocation, expenditure, and utilization of the 20% development funds in selected barangays of Davao City, including trends over time and comparisons between barangays assesses the impact and effectiveness of development projects funded by the 20% allocation, based on community assessments and project outcomes. Identifies factors influencing the utilization of 20% of development funds, including bureaucratic processes, capacity constraints, and community participation. Below are the factors identified based on each question's common denominator.

Table 2 presents the Rotated Component matrix with grouped attributes of Comprehensive and Effective Barangay Development. The Barangay Development Fund program ensures comprehensive and effective barangay development by promoting accountability and transparency among officials, encouraging innovative approaches to community challenges, supporting sustainable development practices, aligning projects with the overall development goals of Davao City, and enhancing the well-being of residents. Additionally, it facilitates effective management and utilization of funds, fosters confidence in the evaluation process, and leverages partnerships with NGOs and private entities to maximize resources.

Table 2. Rotated Component matrix with grouped attributes of “Comprehensive and Effective Barangay Development”

Factor	Attributes	Loadings
Comprehensive and Effective Barangay Development	18. Barangay officials are held accountable for any misuse of BDF funds.	0.662
	19. The BDF program encourages innovative approaches to addressing community challenges.	0.661
	10. Barangay officials can manage and utilize the allocated funds effectively.	0.646
	8. The submitted proposals identify the needs of the barangay residents.	0.636
	16. The BDF program promotes sustainable development practices within the barangays.	0.635
	9. The proposed projects align with the overall development goals of Davao City.	0.63
	17. The BDF projects contribute significantly to improving the overall well-being of barangay residents.	0.617
	20. The BDF program encourages partnerships with NGOs and private entities to leverage additional resources.	0.597
	5. Barangay officials have confidence in the fairness of the evaluation process.	0.504

Table 3 presents the Rotated Component matrix with grouped attributes of Comprehensive and Sustainable Barangay Development. BDF program aims to address various challenges and barriers to effective barangay development, such as hesitancy among barangay officials to prioritize long-term projects due to short electoral cycles, bureaucratic processes hindering the effective formulation of development funds, and conflicts of interest among stakeholders that impede the formulation of the Barangay Annual Investment Plan (BAIP). Additionally, changes in administration can disrupt the implementation of BAIP projects. The program also promotes accountability and transparency, encourages innovative and sustainable practices, ensures alignment with broader development goals, involves community feedback, and provides necessary technical assistance and capacity-building for barangay officials to manage and sustain development projects effectively.

Table 3. Rotated Component matrix with grouped attributes of Comprehensive and Sustainable Barangay Development.

Factor	Attributes	Loadings
Comprehensive and Sustainable Barangay Development	29. There are clear mechanisms for reporting and addressing concerns regarding BDF allocation or project implementation.	0.698
	28. Barangay officials are equipped with the knowledge and skills to ensure the continued benefits of BDF-funded projects beyond initial implementation.	0.687
	30. The BDF program prioritizes projects that promote environmental sustainability within barangays.	0.658
	15. Technical assistance is available to barangays facing difficulties with proposal development.	0.609
	13. The current BDF allocation formula considers factors like poverty incidence and population size.	0.591
	12. Barangay residents are involved in providing feedback on the implementation of BDF projects.	0.531

Table 4 presents the Rotated Component matrix with grouped attributes of the Transparent and Efficient Proposal Evaluation Process. The Barangay Development Fund program ensures a transparent and efficient proposal evaluation process by maintaining an unbiased and fair evaluation system, clearly communicating the reasons for approving or rejecting proposals and providing clear and easy-to-understand guidelines for submitting proposals. It also ensures that barangay officials are informed about the status of their submissions on time and that the application process is streamlined to avoid creating an undue burden on barangays. This transparency and efficiency facilitate greater participation and trust in the BDF program.

Table 4. Rotated Component matrix with grouped attributes of Transparent and Efficient Proposal Evaluation Process

Factor	Attributes	Loadings
Transparent and Efficient Proposal Evaluation Process	4. The process for evaluating proposals is free from bias or favoritism.	0.734
	7. The reasons for approving or rejecting proposals are communicated.	0.716
	1. The guidelines for submitting proposals for the Barangay Development Funds are clear and easy to understand.	0.602
	6. Barangay officials are informed about the status of their submissions on time.	0.569
	14. The BDF application process is efficient and does not create an undue burden on barangays.	0.534

Table 5 presents the Rotated Component matrix with grouped attributes of table Challenges and Barriers to Effective Barangay Development. The Barangay Development Fund program aims to address various challenges and barriers to effective barangay development, such as hesitancy among barangay officials to prioritize long-term projects due to short electoral cycles, bureaucratic processes hindering the effective formulation of development funds, and conflicts of interest among stakeholders that impede the formulation of the Barangay Annual Investment Plan (BAIP). Additionally, changes in administration can disrupt the implementation of BAIP projects. The program also promotes accountability and transparency, encourages innovative and sustainable practices, ensures alignment with broader development goals, involves community feedback, and provides necessary technical assistance and capacity-building for barangay officials to manage and sustain development projects effectively.

Table 5. Rotated Component matrix with grouped attributes of table Challenges and Barriers to Effective Barangay Development

Factor	Attributes	Loadings
Challenges and Barriers to Effective Barangay Development	22. Barangay officials hesitate to prioritize long-term development projects due to short electoral cycles.	0.852
	21. Bureaucratic processes hinder the effective formulation of Barangay Development Funds.	0.732
	23. There are conflicts of interest among stakeholders that hinder effective BAIP formulation.	0.711
	24. Changes in Administration sometimes hinder the implementation of BAIP projects.	0.695

Table 6 presents the Rotated Component matrix with grouped attributes of table Transparent, Efficient, and Supportive Proposal Evaluation Process.

The Barangay Development Fund program ensures a transparent, efficient, and supportive proposal evaluation process by maintaining an unbiased and fair evaluation system, clearly communicating the reasons for approving or rejecting proposals and providing clear and easy-to-understand guidelines for submitting proposals. Barangay officials have access to training or workshops on proposal development, and the evaluation criteria are clearly defined and objective. The program ensures that officials are informed about the status of their submissions on time and that the application process is streamlined to avoid creating an undue burden on barangays. This comprehensive approach promotes greater participation, capacity building, and trust in the BDF program.

Table 6. Rotated Component matrix with grouped attributes of table Transparent, Efficient, and Supportive Proposal Evaluation Process.

Factor	Attributes	Loadings
Transparent, Efficient, and Supportive Proposal Evaluation Process	2. Barangay officials have access to training or workshops on proposal development.	0.813
	3. The evaluation criteria for proposals are clearly defined and objective.	0.603

Table 7 presents the Rotated Component matrix with grouped attributes of table Issues Related to Deeds of Donation and Consent for Donated Property. The process of property donation often encounters significant challenges, particularly related to deeds of donation and obtaining consent from involved parties. One major issue arises when a donor has passed away and there is no clear will. In such cases, locating the heirs and obtaining their consent can be a complex and time-consuming task, complicating the transfer of ownership or the intended use of the donated property. Furthermore, the lack of a formal deed of donation can lead to substantial delays in obtaining approval for projects, such as building a health center on donated land. Without this crucial legal document, the progression of such initiatives is hindered. Additionally, some donors may be hesitant or unwilling to formally surrender ownership through a deed of donation, whether due to personal reservations or legal uncertainties. This reluctance further complicates the donation process, highlighting the need for clear documentation and consent to facilitate smooth and effective property transfers.

Table 7. Rotated Component matrix with grouped attributes of table Issues Related to Deeds of Donation and Consent for Donated Property

Factor	Attributes	Loadings
Issues Related to Deeds of Donation and Consent for Donated Property	25. Locating heirs and obtaining their consent can be challenging when dealing with a deceased donor and no clear will.	0.849
	27. The lack of a deed of donation significantly delays approval for building a health center on donated land.	0.765
	26. Donors might be hesitant or unwilling to formally surrender ownership through a deed of donation.	0.691

STUDY FRAMEWORK

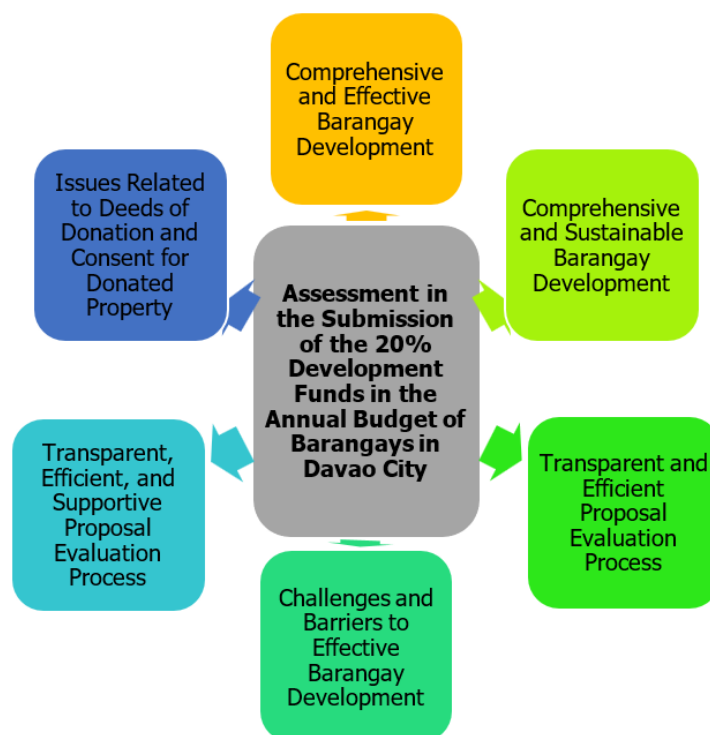


Figure 2. Factors of Assessment in the Submission of the 20% Development Funds in the Annual Budget of Barangays in Davao City

The diagram above represents the assessment in the submission of the 20% Development Funds in the annual budget of barangays, highlighting six key factors. These show how these factors interrelate, highlighting the complexity and interconnectedness of the assessment and implementation processes and crucial for understanding the various aspects of the Barangay Development Fund program. By understanding these relationships, stakeholders can better navigate and improve the Barangay Development Fund program, ensuring effective, sustainable, and transparent development within barangays.

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This work would not have been possible without the collective efforts and dedication of all involved. Together, we are making significant strides towards sustainable and inclusive development in our barangays. Thank you.

5. CONCLUSION

Summarizes key findings from the study, highlighting insights into the utilization and impact of 20% of development funds in barangays of Davao City. Discusses the implications of the findings for policy formulation and practice, offering recommendations for improving the utilization and effectiveness of development funds for community development. Acknowledges the limitations of the study and proposes directions for future research to further explore and address challenges in the utilization of development funds in the barangays of Davao City.

6. REFERENCES

- [1] Abdi, H., & Williams, L. J. (2010). "Principal component analysis." *Wiley Interdisciplinary Reviews: Computational Statistics*, 2(4), 433-459. This article offers a concise explanation of PCA and the use of scree plots for determining the number of significant components.
- [2] Cattell, R. B. (1966). "The scree test for the number of factors." *Multivariate Behavioral Research*, 1(2), 245-276. This paper introduces the scree plot and the concept of using the elbow point to determine the number of significant components.
- [3] Field, A. (2009). *Discovering Statistics Using SPSS* (3rd ed.). Sage Publications.
- [4] Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2010). *Multivariate Data Analysis* (7th ed.). Pearson.
- [5] Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). "Multivariate Data Analysis" (6th ed.). Pearson. This textbook includes detailed discussions on PCA and the use of scree plots in various fields of study.
- [6] Jackson, J. E. (1991). "A User's Guide to Principal Components." *Wiley Series in Probability and Statistics*. This guide includes practical advice on PCA, with sections dedicated to the interpretation of scree plots.
- [7] Jolliffe, I. T. (2002). "Principal Component Analysis." *Springer Series in Statistics*. This book provides a comprehensive overview of PCA, including detailed explanations of the scree plot and criteria for selecting the number of components.
- [8] Torrentira, M. (2020). Online data collection as adaptation in conducting quantitative and qualitative research during the COVID-19 pandemic. *European Journal of Education Studies*, 7(11). DOI: <http://dx.doi.org/10.46827/ejes.v7i11.3336>