

## **BENEFIT INCIDENCE ANALYSIS ON BIDIKMISI PROGRAM AT DIPONEGORO UNIVERSITY**

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### **Abstract**

*One of the ways to improve the quality of human resources is by providing educational assistance programs for students who wish to continue their education to higher education. Bidikmisi is one of the scholarship programs provided by the government in helping prospective students, especially those who are less fortunate, to pursue higher education. This study focuses on analyzing the impact of the application of the Bidikmisi scholarship using the Benefit Incidence Analysis (BIA) method. The data used in this study are primary data. Data was collected using a survey method through questionnaires distributed to Bidikmisi students who were the sample. The sample used is Bidikmisi students with active status at Diponegoro University from class 2017, 2018 and 2019. The results of this study indicate that the Bidikmisi program at Diponegoro University is a progressive policy. The university as the organizer of the bidikmisi program is considered appropriate in providing the obligations of bidikmisi recipients to bidikmisi students at Diponegoro University. The group of students with the lowest level of parental income gets a 33 percent distribution of benefits from the Bidikmisi program funds. The concentration curve lies above the 45 degree diagonal line, so the 10 percent of students with the lowest income level (first quintile) in the population receive more than 10 percent of the benefits of the subsidy so that the distribution of benefits can be said to be progressive in absolute terms.*

### **1. INTRODUCTION**

In 2010, the government program launched "Bidikmisi" through the Directorate General of Higher Education (Ditjen Dikti), Ministry of Education and Culture, to increase community participation in higher education, especially for the lower middle class. The Bidikmisi program is one of the 100-day work programs of the Minister of National Education. This Bidikmisi program is not like most other scholarships. This program is educational assistance aimed at prospective students who are not financially able but have adequate potential.

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Of the many universities that have hosted the Bidikmisi Program, researchers conducted research at Diponegoro University, which became the organizer after the program was first launched in 2010 until now. Diponegoro University demands bidikmisi management with Bidikmisi implementation guidelines, namely, 3T (on Target, on Time, and on Total), to achieve Bidikmisi goals. In 2019 the realization of bidikmisi recipients at Diponegoro University reached 1125 students.

Quoting from the 2018 Belmawa Program Monitoring and Evaluation Report, Higher Education should be able to carry out more thorough verification to reduce the possibility of not being on target (Kemenristekdikti, 2018). According to Yusuf & Roziqin (2018), according to the results of the evaluation of the 2015 Directorate General Belmawa annual report, there are problems, namely: lack of supervision in distribution so that Bidikmisi recipients are not on target. The author conducted a pre-survey to strengthen allegations about not being on target for bidikmisi. The survey was conducted on 30 bidikmisi student respondents at Diponegoro University. It was concluded that the majority of 67% of respondents answered that there was an incompatibility problem between the applicable provisions and the bidikmisi recipient. Judging from the main objectives of the Bidikmisi program, it is necessary to have an evaluation to measure the benefits of the Bidikmisi program for Bidikmisi recipients.

This research examines the mechanism for channeling Bidikmisi program funds, the suitability of the Bidikmisi program with beneficiaries, and the distribution of the benefits of the Bidikmisi scholarship at Diponegoro University.

## **2. THEORETICAL FRAMEWORK AND HYPOTHESES**

### **Government Spending Theory**

Mangkoesebroto (1993) mentions several government spending models developed by economists, such as the development model of government development. Rostow and Musgrave developed this model and linked the development of government spending with the stages of economic development, distinguishing between the initial, intermediate and advanced stages. In the early stages of economic development, the percentage of government investment to total investment is significant because, at this stage, the government must provide infrastructure, such as education and health. In the intermediate stage, the role of government investment is still needed, but private investment is getting bigger. This increasing role of the private sector causes market failure to increase, forcing the government to provide more and better public goods and services.

### **Government Spending on Education**

Mongan (2019) states that government spending on education is government spending that is very basic in human development. Education is integral to achieving human capabilities, which are essential for people's lives. Education is vital in increasing a country's ability to absorb modern technology, especially in developing countries like Indonesia. In addition, education also plays a vital role in developing the capacity to achieve sustainable growth and development. Government expenditure in the education sector will affect developments in the higher education sector, namely by increasing the number of students who complete their studies. The higher the average level of

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knowledge and skills possessed by the community, the easier it will be for every individual at working age to understand, apply and obtain results from technological advances and ultimately improve the nation's economic and living standards. According to Meier (in Winarti, 2014), a nation must increase investment in education and health to achieve development.

### **Education as a Public Good**

According to Hyman (2011), education has the nature of public goods and the nature of private goods because the government and the market can provide education. If the government provides education, it must think about how they can continue providing education as a public good. Education can also be provided privately, like a private good. Education is believed to provide external benefits if given widely at a certain level for all children in society. Primary and secondary education is compulsory up to a certain age, for example in Indonesia, it is compulsory to study for 12 years, so the government intervenes in providing these services to achieve at least the minimum level of education that must be implemented.

### **Subsidy Theory**

Subsidies are the opposite or opposite of taxes, therefore they are often also called negative taxes. Additionally, the effect on the market balance is opposite to the tax effect. Subsidies given for the production/sale of an item cause the selling price of that item to be lower. With subsidies, the cost of producing a good or service is lower, so producers are willing to sell their products cheaper. According to the Financial Note and the RAPBN 2014, subsidies are one of the mechanisms in the RAPBN 2014 that are used to carry out the distribution function. The application of the distribution function of the RAPBN 2014 is carried out with efforts to equalize social welfare. Thus, subsidies are paid by the Government to make goods/services cheaper to buy, use, or produce to improve people's welfare.

### **Benefit Incidence Theory**

Benefit Incidence Analysis is a simple and practical method for estimating the impact of government subsidies on various demographic and socioeconomic groups. This analysis involves allocating the unit costs or costs incurred for subsidies according to the benefits that individuals enjoy from these subsidies. The previous study, Benefit Incidence Analysis on public spending on education in the Philippines, conducted by Rosario et al. (2008), revealed that urban areas usually attract higher subsidies than rural areas.

## **3. RESEARCH METHOD**

### **Operational Definition**

This study uses three main variables: government spending on education subsidies, household spending on education, and household income. The followings are the research variables and operational definitions in this study:

1. Government expenditure on education subsidies is a large amount of expenditure made by the government to provide educational facilities for the community. Government spending on

education sector subsidies can be seen from the amount spent on the Bidikmisi subsidy fund used by the Ministry of Research, Technology and Higher Education for 2017-2019. These variables are calculated in Rupiah units (Rp).

2. Household Expenditure is the total expenditure of parents of students who are respondents for each month after Bidikmisi assistance. These variables are calculated in Rupiah units (Rp).

3. Household Income is the total average income of each Bidikmisi assistance recipient who becomes a respondent monthly. These variables are calculated in Rupiah units (Rp).

### **Population and Sampling**

The population in this study was students receiving the Bidikmisi program at Diponegoro University from the 2017-2019 class, with a total of 3486 students.

Determining the number of samples was calculated using the Slovin formula with an estimated error of 10% so that it can be seen that the number of samples taken was 97 Bidikmisi recipient students. Then the sampling was distributed to 3 classes, namely 2017, 2018, and 2019 through sampling the subpopulations using Proportionate Stratified Random Sampling. 37 Bidikmisi students took the distribution of the sample proportions from class 2017, 29 Bidikmisi students from class 2018, and 31 Bidikmisi students from class 2019.

### **Nature and Sources of Data**

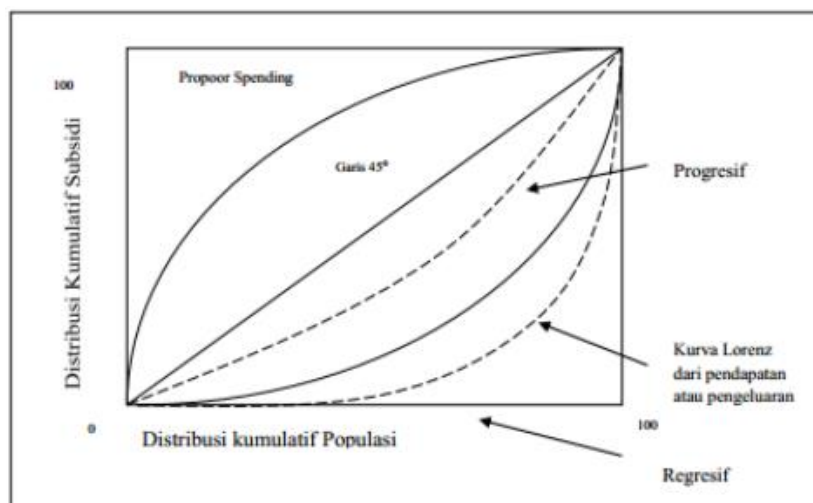
The data used in this study are primary data and secondary data. Primary data was obtained from a questionnaire filled out by respondents, namely Bidikmisi recipients who received free Bidikmisi program benefits at Diponegoro University and were selected as samples. Secondary data in this study consisted of data related to the Bidikmisi Program from Kemenristekdikti and Diponegoro University.

### **Analysis Method**

This study used two analyses, namely qualitative and quantitative analysis. Qualitative analysis using descriptive methods obtained through questionnaires and interviews with BAK Diponegoro University, Kamadiksi, and Bidikmisi students is needed to explain the mechanism for receiving and distributing Bidikmisi program funds, the suitability of Bidikmisi recipients and beneficiaries. Quantitative analysis uses the Benefit Incidence Analysis (BIA) model, which is needed to explain how much the bidikmisi benefits the beneficiaries. It determines whether the bidikmisi program is a progressive policy and the bidikmisi program's targeting.

Benefit Incidence Analysis is an analytical tool used to analyze government policies regarding subsidies for public goods and assess the impact or benefits they provide on people's welfare. In BIA, an analysis of the distribution of government subsidies is carried out among different groups in society, in this case, the difference in total household income.

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**Figure 1 Lorenz and Concentration Curve**

Source: Rosario et al. (1998)

According to (Rosario et al., 1998), The progressivity of public expenditure can be seen from the Lorenz curve by comparing the benefit concentration curve with a 45-degree diagonal line. The 45-degree diagonal line represents perfect equality in distributing subsidy benefits to the community. Suppose the benefit concentration curve lies above the 45-degree diagonal line. In that case, the poorest 10 percent of the population receive more than 10 percent of the benefits from the subsidy, so the distribution of benefits is said to be progressive in absolute terms.

#### 4. DATA ANALYSIS AND DISCUSSION

The mechanism for channeling bidikmisi funds at Diponegoro University starts with accepting bidikmisi students. Accepting bidikmisi students at Diponegoro University begins with registration at the BAK Diponegoro University. Prospective recipients will be asked to complete the required documents. Data verification is subsequent after the files have been submitted to the BAK of Diponegoro University. Data verification is in the form of interviews and residential surveys. However, not all residences of prospective bidikmisi recipients are within reach for surveying. According to research data, 87.6% of students were surveyed, while 12.4% were not. Students whose areas of residence are not reachable for surveying come from outside the province of Central Java, namely D.I. Yogyakarta, East Java, Bengkulu, North Sumatra and West Sumatra. However, there were also students from Semarang who were not surveyed. Diponegoro University sent surveyors for verification, and a team consisting of 3-4 people, conducted a survey starting from the place of residence, interviews with the surrounding community and RT/RW regarding the actual condition of the prospective beneficiary.

Based on interviews with the surveyor team, not all potential beneficiaries could be surveyed; areas outside Java Island were inaccessible due to a lack of human resources and a team of surveyors from outside Java Island. There were several obstacles in conducting this survey, such as the lack of human resources from the surveyor team, the surveyor team's inaccuracy when carrying out direct checks, and the difficulty of reaching the prospective recipient's house. These

things can become gaps for students who should not get bidikmisi but get bidikmisi and cause Bidikmisi program to be less precise.

The distribution mechanism at Diponegoro University, regarding the benefits felt by bidikmisi recipients, is considered lacking because there are gaps in the bidikmisi student admissions process. Many students stated that in their surroundings, several students were seen as having poor economic backgrounds and had academic potential but did not receive Bidikmisi scholarships. There were problems with the lack of targeting of Bidikmisi scholarships, causing reduced benefits that the capable community should have received.

Analysis of the suitability of the Bidikmisi program with beneficiaries is needed to determine the implementation of the Bidikmisi program at Diponegoro University. Program compatibility with benefits is a measure of the success of a program if there is a match between what is offered by the program and what is needed by the target group (Korten & Syahrir, 1988). The University, as the organizer of the bidikmisi program, is considered appropriate in providing bidikmisi recipient obligations to bidikmisi students at Diponegoro University.

The Bidikmisi program waives college registration fees through the SBMPTN and Independent Examinations. Bidikmisi students who enter through the U.M. route will get an exemption from institutional financing contributions (SPI) at Diponegoro University. As the Head of the 2019 Kamadiksi stated, the SBMPTN and U.M. registration fees are free. It is beneficial because the fees can be used for needs after entering college.

Assistance for implementation costs, in this case, is assistance with single tuition fees (UKT). Based on interviews with the Diponegoro University BAK Daily Officer, UKT fee assistance will be distributed directly to the University so that students do not need to pay for UKT every semester, but there is a limit for UKT exemption for bidikmisi students, namely eight semesters for S1 and six semesters for Vocational Schools. Bidikmisi student living expenses assistance is provided through each student's account. The assistance given is Rp. 4,200,000.00 per semester, living expenses assistance is given according to a predetermined period, namely for odd semesters in September-December, while for even semesters in March-June.

The management fee given to Diponegoro University is used to carry out the mandate from Kemenristekdikti. The University uses this management fee to finance coaching activities such as training, leadership, TOEFL training and career guidance. It is by what was disclosed by the daily employee of the Diponegoro University Student Administration Bureau (BAK) that management fee is used for activities that benefit Bidikmisi recipients, starting from activities to improve soft skills, TOEFL, community service which aims to increase the activity of Bidikmisi children. The University, as the organizer of the bidikmisi program, is considered appropriate in providing bidikmisi recipient obligations to bidikmisi students at Diponegoro University.

Analysis of the distribution of the benefits of the Bidikmisi program is a general description of whether the distribution of the Bidikmisi program can be channeled correctly. It relates to targeting and progressivity. It can be seen in respondents' perceptions of the Bidikmisi program. The accuracy of the Bidikmisi program is measured using the Benefit Incidence Analysis (BIA) approach.

The distribution of respondents' answers according to perceptions of the benefits of Bidikmisi is the respondent's assessment of the benefits of tuition assistance in the form of UKT and living expenses assistance from Bidikmisi. As many as 86% of respondents considered Bidikmisi to be very useful. They considered that with the Bidikmisi assistance funds, they could continue their education and sometimes help the family economy because they did not ask for pocket money from their parents and did not add to the burden on their parents' living expenses.

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**Table 1**  
**Distribution of Respondents' Responys by Bidikmisi Benefit Incidence Perception**

| <b>Perception</b> | <b>Number of Respondents</b> | <b>%</b>   |
|-------------------|------------------------------|------------|
| Very Beneficial   | 83                           | 86         |
| Beneficial        | 12                           | 12         |
| Sufficient        | 2                            | 2          |
| Ineffectual       | 0                            | 0          |
| Very Ineffectual  | 0                            | 0          |
| <b>Total</b>      | <b>97</b>                    | <b>100</b> |

Source: Primary Data, processed, 2021

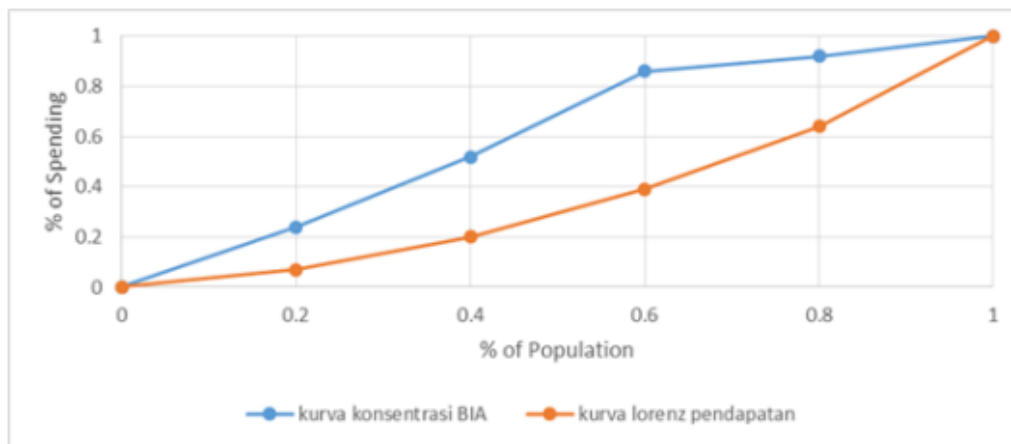
The estimation of benefit incidence explains how the results of the distribution of Bidikmisi at Diponegoro University use the Benefit Incidence Analysis method. The sample was divided into 5 groups (quintiles) based on the income level of each parent who was the sample. The sample distribution is used to see which income groups benefit most from Bidikmisi. The proportion of benefit sharing received by the low-income group (classified as poor) is 33% of respondents. As for the lower middle-income group, 37% of respondents. It shows that the distribution of benefits from the Bidikmisi program is properly on target because most of the respondents who receive Bidikmisi benefits are the poor and lower middle class. The remaining 30% of respondents from the middle, upper-middle and wealthy income groups benefit from the Bidikmisi program.

**Table 2**  
**Income Level (monthly)**

| <b>Quantile</b> | <b>Income Level</b>       | <b>Benefit Incidence (%)</b> |
|-----------------|---------------------------|------------------------------|
| 1               | <Rp1,000,000              | 24                           |
| 2               | Rp1,000,001 – Rp2,000,000 | 28                           |
| 3               | Rp2,000,001 – Rp3,000,000 | 34                           |
| 4               | Rp3,000,001 – Rp4,000,000 | 6                            |
| 5               | >Rp4,000,000              | 8                            |
| <b>Total</b>    |                           | <b>100</b>                   |

Source: Primary Data, processed, 2021

The concentration curve in Figure 2 shows that government spending on the Bidikmisi program is mainly utilized by quartiles 1 and 2; the more these quantiles, the more those benefit. The increase in obtaining benefits depends on the composition of Bidikmisi program users, which is determined by the level of income, expenditure and composition of government spending. The concentration curve for the benefits of the Bidikmisi program categorizes the cumulative proportion of parents who receive Bidikmisi sorted from lowest to highest income.



Source: Primary Data, processed, 2021

**Figure 2 Benefit Incidence Bidikmisi Program on Higher Education at Diponegoro University**

The concept of progressivity in BIA is shown from the concentration curve above the 45-degree line. It shows that the income quintile groups 1 and 2 benefit more from government spending than their income or consumption. It can be seen from Figure 4.3 that government subsidies in the form of the Bidikmisi program are progressive in absolute terms. Low-income groups get proportional and targeted benefits, but remember that increasing the proportionate share of expenditure does not mean the targeting has been better. Based on an analysis of the results of research that was empirically conducted on Bidikmisi recipient students, Bidikmisi made a significant contribution in reducing/lightening free family expenses, total expenses, and spending on education. Bidikmisi also assists student families in improving their standard of living in education because even though they come from economically disadvantaged families, they can continue their education up to university. The income received by most of the respondent's parents is only sufficient to meet basic needs, so if there are unexpected expenses, they will cover these expenses by selling assets and debts.

## **5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS**

Based on research conducted on Bidikmisi recipient students at Diponegoro University, several conclusions were found. The mechanism for channeling Bidikmisi funds at Diponegoro University is under existing guidelines. However, in terms of the benefits felt by bidikmisi recipients, it is considered lacking because there is a discrepancy in the process of accepting bidikmisi students.

The suitability of the Bidikmisi program with Bidikmisi beneficiaries is seen from the compatibility offered with what is needed by the target group. The Bidikmisi program has offered assistance according to the target group's needs. Diponegoro University has provided what the Bidikmisi Program offers to Bidikmisi Recipients properly.

The Bidikmisi program at Diponegoro University is a progressive policy. Students with low-income families who receive benefits from the Bidikmisi program are 70%. This policy is progressive because people from the lower middle class are more dominant in receiving benefit sharing, which is equal to 70%, compared to the benefits of the upper middle class, which is 30%.



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It causes the Concentration curve to be above the perfect equality line so that the Bidikmisi program can be said to be progressive. The bidikmisi program has assisted student families in improving their standard of living in education. They were greatly assisted by UKT and living assistance, which were exceptionally helpful and became a financial solution for underprivileged communities.

Based on research results that have been done, some suggestions can be given. First, in implementing the Bidikmisi program, increasing the Bidikmisi acceptance verification process is necessary. Suppose the surveyor team cannot reach the prospective beneficiary's residence. In that case, a video call can show the house's condition. There needs to be clarity regarding the career guidance program in the training program because that will help students later. Second, for further research with similar themes, it is necessary to expand the case study to provide a more comprehensive picture of the distribution of benefits from government subsidies.

### **Reference**

- Badan Pusat Statistik, 2020, Indeks Pembangunan Manusia 2020, Jakarta
- Chakraborty, P., Chakraborty, L., & Mukherjee, A. (2016). Social sector in a decentralized economy: India in the era of globalization. *Social Sector in a Decentralized Economy: India in the Era of Globalization*, 1–204. <https://doi.org/10.1017/9781316258071>
- Dajan, A. (1989). Pengantar metode statistik, Volume 1. LP3ES.
- Davoodi, H. R., Tiongson, E. R., & Asawanuchit, S. S. (2003). How Useful Are Benefit Incidence Analyses of Publik Education and Health Spending?. <http://www.imf.org/external/pubs/ft/wp/2003/wp03227.pdf>
- Demery, L. (2000). Benefit incidence : a practitioner's guide. World Bank, Poverty and Social Development Group.
- Dumairy. (1996). Perekonomian Indonesia. Erlangga.
- Filmer, D., Hammer, J., & Pritchett, L. (1998). Health policy in poor countries: weak links in the chain (Issue 1874) <https://econpapers.repec.org/RePEc:wbk:wbrwps:1874>
- Gruber, J. (2016). Publik Finance and Publik Policy (Fifth Edit). Worth Publishers.
- Hadi, S. (1994). Statistik dalam Basic Jilid IV. Andi Offset.
- Hafidh, A. A., Nurseto, T., & Ngadiyono. (2014). Benefit Incidence Analysis Program Bidikmisi pada Perguruan Tinggi di Provinsi Daerah Istimewa Yogyakarta.
- Hyman, D. N. (2011). Publik Finance : A Contemporary Application of Theory to Policy (10th ed.). South-Western Cengage Learning.
- Kemenristekdikti. (2018). Laporan Monitoring dan Evaluasi Program Belmawa. Direktorat Jenderal Pembelajaran dan Spending on Education in the Philippines.

- Korten, D. C., & Syahrir, C. (1988). *Pembangunan Berdimensi Kerakyatan*. In Jakarta: Yayasan Obor Indonesia. Yayasan Obor Indonesia.
- Mangkoesebroto, G. (1993). *Ekonomi Publik* (3rd ed.). BPFE Yogyakarta.
- Mongan, J. J. S. (2019). Pengaruh pengeluaran pemerintah bidang pendidikan dan kesehatan terhadap indeks pembangunan manusia di Indonesia. *Indonesian Treasury Review Jurnal Perbendaharaan Keuangan Negara Dan Kebijakan Publik*, 4(2), 163-176. <https://doi.org/10.33105/itrev.v4i2.122>
- Musgrave, R. ., & Musgrave, P. . (1993). *Keuangan Negara dalam Teori dan Praktek*. Erlangga.
- Oebaidillah, S. (2019). Tahun Depan, Beasiswa Bidikmisi Ditambah 44%. *Media Indonesia*. <https://mediaindonesia.com/humaniora/210431/tahun-depan-beasiswa-bidikmisi-ditambah-44>
- Pardede, R. H. (2015). *Evaluasi Kebijakan Beasiswa Bidikmisi di Universitas Riau Tahun 2010-2014*.
- Rosario, G., Janet, S., & Eden, C. (1998). *Benefit Incidence of Publik Spending on Education in the Philippines*.
- Samuelson, P. A., & Nordhaus, W. D. (1994). *Makro Ekonomi : Edisi Keempat belas* (14th ed.). Erlangga.
- Sangsaka, S. (2018). *Evaluasi Program Bidikmisi di Universitas Padjadjaran*. Universitas Padjadjaran.
- Stiglitz, J. E. (1999). *Economics of the publik sector* (3rd ed.). W. W. Norton & Company, Inc.
- Sugiyono. (2006). *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. Alfabeta.
- Suparmoko. (1996). *Ekonomika Pembangunan*. BPFE Yogyakarta.
- Supranto, J. (2000). *6, Statistik Teori dan Aplikasi*. Jilid 1 Edisi. Erlangga.
- Todaro, M. P., & Boerhan. (1993). *Pembangunan ekonomi di dunia ketiga / Michael P. Todaro; alih bahasa, Burhanuddin Abdullah*. Erlangga.
- Winarti, A. (2014). *Analisis Pengaruh Pengeluaran Pemerintah Bidang Pendidikan, Kemiskinan, dan PDB terhadap Indeks Pembangunan Manusia di Indonesia Periode 1992-2012*
- Yusuf, I. M., & Roziqin, A. (2018). Implementasi Kebijakan Beasiswa Bidikmisi: Studi Kasus di Universitas Diponegoro (2018). *Journal of Publik Policy and Management Review*, Vol.7 No.2. <https://doi.org/doi.org/10.31314/pjia.8.2.110-122.2019>