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The Influence of the Indonesia Pintar Program (PIP) on Student Participation in Bali Province

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Abstract: *Education is the most basic development goal. The biggest challenge for Indonesia's education development today is how education services can be accessed by all levels of society, especially the poor. School participation is one of the indicators in education that is used to see the population's access to educational facilities, especially for the school age population . The aim of this research is to determine the influence of the Smart Indonesia Program (PIP) on student participation in Bali Province. This research was conducted in Bali Province. The sample in this study was school age children aged 7 to 18 years who received or did not receive the Smart Indonesia Program (PIP) in Bali Province. The number of observations using the SUSENAS data source in 2015 was 4,260 samples, in 2018 there were 5,169 samples and in 2021 there were 5,783 samples. This research uses data collection methods with non-participant observation techniques. The variables examined in this research are student participation, the Smart Indonesia Program (PIP), gender, number of household members, employment status of the head of the family, and education of the head of the family. The data analysis technique uses logit regression. The results of the research state that 1) All variables in the regression model simultaneously have a positive and significant effect on student participation in Bali Province. 2) The Smart Indonesia Program (PIP) as an interest variable has a positive and significant effect on student participation in Bali Province as shown in regression model 1 and regression model 4. 3) Another important variable, namely the education of the head of the family, partially has a positive and significant effect on student participation in Bali Province which is shown in each regression model.*

Keywords: *Smart Indonesia Program (PIP), gender, number of household members, employment status of head of family, education of head of family, student participation*

BACKGROUND OF THE PROBLEM

Educational development is the main priority of national development with the aim of creating a better society. Making the nation's life intelligent is one of the ideals of the Indonesian nation as stated in the Constitution of the Unitary State of the Republic of Indonesia (UUD 1945). Education is a means to brighten the nation's life and create quality human resources which can later contribute to national development. Todaro (2000) states that education is a fundamental development goal. This means that education plays a key role in shaping a country's ability to develop capacity to create sustainable growth and development.

Education is important and is considered a long-term investment in human resources because the development of the education sector is a key prerequisite for the growth of other development sectors. The value of education contributes to national development through increasing knowledge, skills and productivity (Sudarmono et al., 2021) . Quality education will have implications for society to escape the poverty trap. Educated communities have better

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opportunities to access economic opportunities and improve their living standards so as to break the chain of intergenerational poverty ((Mihai, et al., 2015).

The Global Talent Competitiveness Index (GTCI) is an indicator used to measure the competitiveness index between countries. In this context, competitiveness refers to a set of policies and practices that enable a country to develop and empower human resources. Education is the main key in a country's competitiveness index because quality education will create human resources that can compete globally.

According to UNESCO (2022), Indonesia is in 82nd place out of 125 countries in the world in the 2022 GTCI ranking. Indonesia is one of the countries that has poorer quality education compared to other developing countries. It can be said that the competitiveness of human resources in Indonesia is still inferior compared to other countries. The large number of school age groups who do not attend school, the poor quality of human resources in the education sector and the minimal development of educational facilities can be factors contributing to the poor quality of Indonesian education. Presented in Table 1 ASEAN 2022 *Global Talent Competitiveness Index Data.*

Table 1. ASEAN *Global Talent Competitiveness Index* data

No	Country	2022	*Income*
1	Singapore	75.80	*High Income*
2	Brunei Darussalam	49.26	*Upper-Middle Income*
3	Malaysia	48.28	*Upper-Middle Income*
4	Vietnamese	39.31	*Lower-Middle Income*
5	Thailand	39.23	*Lower-Middle Income*
6	Philippines	38.09	*Lower-Middle Income*
7	Indonesia	37.00	*Lower-Middle Income*
8	Laos	28.95	*Lower-Middle Income*
9	Cambodia	28.43	*Lower-Middle Income*
10	Myanmar	27.57	*Lower-Middle Income*

Source: World Economic Forum (WEF), 2022

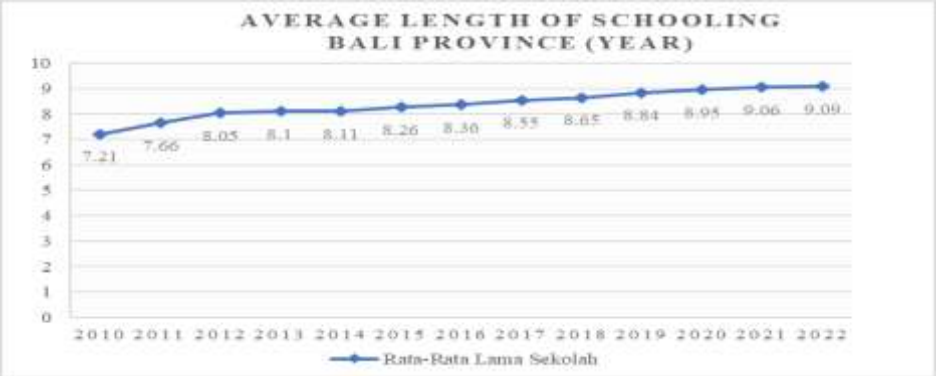
Based on Table 1, it is stated that Singapore is the country with the highest Global Competitiveness Index in ASEAN and Myanmar is the country with the lowest Global Competitiveness Index in ASEAN . Indonesia is ranked 7th in the country on the Global Competitiveness Index in the *lower-middle income category* . This means that Indonesia's human resources are still low and competitiveness, one of which is seen from education indicators in Indonesia, is quite low compared to other countries.

Educational problems cannot actually be separated from economic problems. All Indonesian people have the right to education, but some levels of society have not been able to access education due to economic factors. It was found that poor households are trapped in *the Poverty Trap* , where children born to poor families have a low level of education because they prefer to work rather than go to school so their productivity is low (Chzhen et al., 2017) .

The biggest challenge for Indonesia's current education development is how education services can be accessed by all levels of society, especially the poor. Based on data from the Central Statistics Agency (BPS), the number of poor people in Indonesia in September 2022 increased by 9.57 percent compared to March 2022. A sharp increase in the number of poor people in Indonesia occurred in 2020, amounting to 10.19 percent compared to 2019. The increase in the number of poor people in Indonesia is a crucial problem, supported by the UN report, that Indonesia is the 4th most populous country in the world with a population of 275.9 million . soul. This broadens the government's scope in overcoming the problem of poverty in Indonesia, especially in the field of education.

Indonesia continues to pursue programs to overcome poverty with the aim of reducing the poverty rate. According to Putra and Sri Budhi (2015), there are three main strategies used to overcome poverty, namely social assistance, empowering the poor and providing credit assistance to micro and small businesses. Efforts to overcome poverty must be carried out effectively and efficiently so that it is hoped that it will be able to reduce the poverty rate. In the community-based targeting process, a number of program coverage is allocated to certain communities such as rural communities (Ph.D) & Olumide, 2017) .

Bali Province, which is one of the provinces in Indonesia, still has poor people, although poverty in Bali Province is in the low category when compared to national poverty. Judging from its development, Bali Province is one of the provinces that has rapid economic development. However, in the midst of rapid economic development, there are still many poor people and there are still many people who cannot access proper education. Below is the trend for the average length of school in Bali Province for 2010-2022.



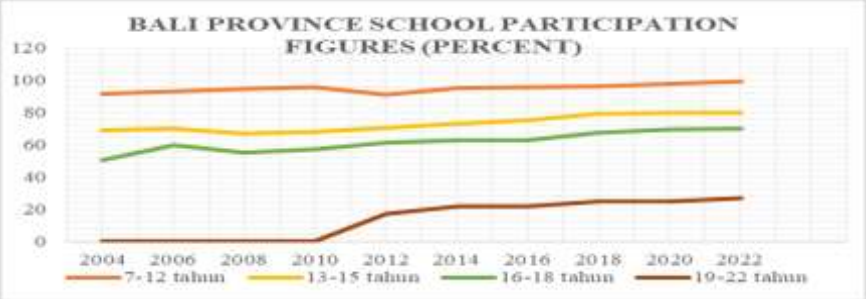
Source: Bali Province Central Statistics Agency, 2023

Figure 1. Trend in Average Years of Schooling in Bali Province, 2010-2022

Based on Figure 1, it shows that the average length of schooling in Bali Province from 2010-2022 is slowly increasing. In 2010 the average length of schooling in Bali Province was the lowest at 7.2 years and in 2022 the average length of schooling in Bali Province was the highest at 9 years. However, this figure has not yet reached the minimum education target of

12 years or equivalent to Senior High School (SMA) which has been proposed by *the United Nation Development Programs (UNDP).* This means that the average number of years of schooling in Bali Province has not yet completed Senior High School (SMA). Someone who has a higher education will have greater access to higher paying jobs, compared to individuals with a lower level of education (Wiguna, 2011).

One indicator of education is school participation. School participation is a measure of absorptive capacity. The measure of the absorption capacity of educational institutions towards the school age population is a basic indicator used to see the population's access to educational facilities, especially for the school age population. The higher the school participation, the greater the number of people who have the opportunity to receive education. According to the Central Statistics Agency, the School Participation Rate (APS) is the proportion of all children who are still in school in a certain age group to the population in the corresponding age group, namely 7-22 years. Below are presented the Trends in Bali Province School Enrollment Rates According to Age Groups.



Source: Bali Province Central Statistics Agency, 2023

Figure 2. Trends in Bali Province School Enrollment Rates According to Age group

Based on Figure 2, it shows that the trend in school participation rates according to ages 7-12 years, 13-15 years and 16-18 years has experienced a slow increase. The highest percentage of school participation rates is at the age of 7-12 years, namely at the elementary school (SD) level, amounting to 99.23 percent in 2022, which indicates that on average children aged 7-12 years can receive basic education. However, in the 19-22 year age group, the percentage of school participation rates is very low, namely 26.97 percent in 2022. This shows a lack of educational attainment caused by the inability of households to send their children to school.

Many poor households in Bali Province cannot meet the facilities and educational needs of their children, forcing children to stop receiving education to earn money because they think that the family's welfare depends on the children. Lack of education causes poverty to increase and poverty that has occurred can limit people's access to education. Other factors that influence the low participation of children in school are the employment status of the head of

the household, the number of household members and the number of children attending school (Kharisma, 2013).

There are many educational programs that have been carried out by the Bali Provincial government to provide easy access to educational services such as the Smart Indonesia Program (PIP), Direct Cash Assistance Program (BLT), Bidik Misi Program, Family Hope Program (PKH). The success of program implementation needs to be measured to find out how far the program can produce results.

Sustainable development or *SDG's* states that education needs to be equalized as early as possible so that the quality of human resources increases and reduces poverty. To overcome this, the Susilo Bambang Yudhoyono (SBY) government has implemented the Poor Student Assistance (BSM) program since July 2005. The Poor Student Assistance Program is government assistance in the form of cash given directly to students from all levels of education who come from poor and vulnerable families in accordance with established criteria (Directorate of the Republic of Indonesia, 2014). At the end of 2014, President Jokowi's administration launched the Smart Indonesia Card as an inseparable part of the Smart Indonesia Program (PIP).

The Smart Indonesia Program (PIP) is the government's current priority program in the education sector which is specifically designed for school -age children who come from poor and vulnerable families. This program is a refinement of the BSM Program designed by the previous government. The word poor is considered inappropriate for the purpose so it is replaced with smart. The hope is that PIP recipients will also become smart people who are not perpetually poor. The target to be achieved in the Smart Indonesia Program through the implementation of 12 Year Compulsory Education is increasing sustainability and access to education as indicated by increasing school enrollment rates.

The existence of the Smart Indonesia Program is expected to encourage increased school participation and reduce school dropout rates at all levels of education. Based on the technical instructions for the Smart Indonesia Program (PIP), the objectives include:

1) Increase school participation and access for children aged 6 to 21 years to receive educational services until they complete the education unit.
2) Prevent students from the possibility of dropping *out of school* and not continuing their education due to economic difficulties.
3) Attracting students who have dropped out of school to return to receive proper educational services.

The Ministry of Education, Culture, Research and Technology (Kemendikbudristek) has implemented the Smart Indonesia Program (PIP) since 2015 by the Bali Provincial government. Funds will be distributed directly to school-aged children from underprivileged families through the Smart Indonesia Card. Below is presented Table 2 Data on the Number of PIP Recipients for Bali Province and Table 1.3 Number of Distribution of PIP Funds for Bali Province.

Table 2. Number of PIP Recipients in Bali Province

Educational level	Number of PIP Recipients for Bali Province (student)				
	2018	**2019**	**2020**	**2021**	**2022**
elementary school	114,000	106,988	106,746	114,686	107,364
JUNIOR HIGH SCHOOL	53,599	55,247	53,931	60,951	57,672
SENIOR HIGH SCHOOL	16,513	16,882	14,964	17,227	14,926
vocational school	30,655	28,236	26,961	28,102	23,501
Total	**214,767**	**207,353**	**202.202**	**220,966**	**212,463**

Source: Ministry of Education and Culture, 2023

Table 3. Number of PIP Fund Distributions for Bali Province

Educational level	Distribution of PIP Funds for Bali Province (billion rupiah)				
	2018	**2019**	**2020**	**2021**	**2022**
elementary school	46,000,800	43,429,725	42,610,950	46,474,650	43,359,300
JUNIOR HIGH SCHOOL	32,541,375	31,939,875	32,964,375	37,068,750	35,620,875
SENIOR HIGH SCHOOL	13,713,500	13,364,000	12,201,500	14,485,000	12,393,000
vocational school	23,548,000	20,767,000	21,797,000	23,153,000	19,218,000
Total	**115,803,675**	**109,500,600**	**109,573,825**	**121,181,400**	**110,591,175**

Source: Ministry of Education and Culture, 2023

Based on table 2, data on Smart Indonesia Program (PIP) recipients for Bali Province shows fluctuations in the number of PIP recipients every year at all levels of education. The largest number of PIP recipients is at the elementary school (SD) level, which proves that at this level there are many underprivileged children of school age who can receive education through PIP assistance. However, at the Senior High School (SMA) level, the number of PIP recipients in Bali Province is very low every year. This shows that school participation at the high school level is still low and disadvantaged children of school age are not yet able to receive a proper education.

Based on table 3, data on PIP Fund Distribution for Bali Province shows that the funds that have been distributed are very large from year to year. This shows that the government, namely the central government and regional governments, is serious about overcoming the problem of educational disparities and because the funds that have been distributed are very large, amounting to billions of rupiah, it is necessary to measure the influence of this PIP program in providing outcomes *in* the form of educational sustainability.

The main objective of the PIP Program is to increase school participation and achieve equal distribution of educational services by reducing disparities in school participation. However, in reality there is still a disparity in school participation between levels of education and the average length of schooling for children in Bali Province is still low. Where this does not indicate the suitability of the objectives of the Smart Indonesia Program (PIP).

Considering the importance of this program in increasing children's school participation in Bali Province and that a lot of funds have been distributed by the government, it is necessary to review the assistance programs implemented by the government. For this reason, researchers feel the need to conduct research with the title "The Influence of the Smart Indonesia Program (PIP) on Student Participation Rates in Bali Province."

RESEARCH METHODS

The approach used in this research is a quantitative approach that is associative in nature. The quantitative approach method is a research method used to examine a particular population or sample with the aim of describing and testing a predetermined hypothesis (Sugiono, 2019). The research is associative , that is, the research is carried out to determine the effect of the independent variable on the dependent variable. This research was conducted to determine the influence of the Smart Indonesia Program (PIP) on student participation in Bali Province.

DATA AND DISCUSSION RESEARCH RESULT

Inferential Analysis of Research Data

Logit Regression Analysis Results

Logit regression analysis was used to determine how much influence the Smart Indonesia Program (PIP), number of household members, parents' employment status, and parents' education had on student participation in Bali Province. The results of the logit regression analysis test are presented in the following figure.

Table 4. Results of Logit Regression Analysis

Variable	Model 1 (Y_{2015})	Model 2 (Y_{2018})	Model 3 (Y_{2021})	Model 4 (Y_{2021})
PIP_{2015}	1,689*	-0.128	-	0.068
	(1.1003)	(0.4550)	-	(0.2397)
PIP_{2018}	-	-	0.338	0.313
	-	-	(0.2510)	(0.2608)
PIP_{2021}	-	-	-	2,281***
	-	-	-	(0.5284)
Gender	0.322	0.836*	-0.127	-0.125
	(0.8105)	(0.4752)	(0.2191)	(0.2239)
ART_amount	0.666	-0.455**	0.115	0.088
	(0.4582)	(0.2190)	(0.1165)	(0.1177)
Working_Status_Prnt	0	0	-0.879	-0.058
	(omitted)	(omitted)	(0.7994)	(0.8292)
Education_Prnt	0.322**	0.172**	0.107**	0.157***
	(0.1339)	(1.3891)	(0.9846)	(0.0385)

Pseudo R^2	0.1424	0.0849	0.0190	0.0773
Number of Observations	638	638	649	649
LR chi ^{2}	10.98**	16.25***	11.04*	44.91***

Source; Appendix 3, 2024 (processed data)

Information:

*** = p<0 .01

** = p< 0.05

* = p<0 ,1

Model 1

Simultaneous Test

Hypothesis:

H_0 : βi≤ 0, meaning that the Smart Indonesia Program (PIP) in 2015, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously did not have a positive and significant effect on student participation in 2015 in Bali Province.

H_1 : βi> 0, meaning that the Smart Indonesia Program (PIP) in 2015, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect on student participation in 2015 in Bali Province.

The test is carried out by comparing the statistical value of the $G^{2\ test}$ or *likelihood ratio test* and the value of G table = $x^2(v, a)$. H_0 is rejected if the $G^{2\ value}$ > G table or p-value ≤ *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 1 the LR chi $^{2\ value}$ = 10.98 with a significance value *of* < (0.05). So, with a significance level of 5 percent, H_0 is rejected and H_1 is accepted, which means that the 2015 Smart Indonesia Program (PIP), gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect on participation. students in 2015 in Bali Province.

Partial Test

Interest Variable: PIP_{2015} (X_1)

H_0 : $\beta_i \leq 0$; This means that the 2015 Smart Indonesia Program (PIP) did not partially have a positive and significant effect on student participation in 2015 in Bali Province.

H_1 : $\beta_i > 0$; This means that the Smart Indonesia Program (PIP) in 2015 partially had a positive and significant effect on student participation in 2015 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis

show that in Model 1 the regression coefficient for the Smart Indonesia Program (PIP) 2015 variable has a significance value *of a* < (0.1). So, with a significance level of 1 percent, H_0 is rejected and H_1 is accepted, which means that the 2015 Smart Indonesia Program (PIP) partially had a positive and significant effect on student participation in 2015 in Bali Province.

Control Variable: Gender (X_2)

H_0 : $\beta_i \leq 0$; This means that gender does not partially have a positive and significant effect on student participation in 2015 in Bali Province.

H_1 : $\beta_i > 0$; This means that gender partially has a positive and significant effect on student participation in 2015 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 1 the regression coefficient for the gender variable has a significance value *of a* > (0.05). So H_0 is accepted and H_1 is rejected, which means that gender is partially not positive and significant effect on student participation in 2015 in Bali Province.

Control Variable: Number of Household Members (X_3)

H_0 : $\beta_i \leq 0$; This means that the number of household members does not partially have a positive and significant effect on student participation in 2015 in Bali Province.

H_1 : $\beta_i > 0$; This means that the number of household members partially has a positive and significant effect on student participation in 2015 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 1 the regression coefficient for the variable number of household members has a significance value *of a* > (0.05). So H_0 is accepted and H_1 is rejected, which means that the number of household members is partial positive and significant effect on student participation in 2015 in Bali Province.

Control Variable: Employment Status of Head of Family (X_4)

H_0 : $\beta_i \leq 0$; This means that the employment status of the head of the family does not partially have a positive and significant effect on student participation in 2015 in Bali Province.

H_1 : $\beta_i > 0$; This means that the employment status of the head of the family partially has a positive and significant effect on student participation in 2015 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 1 the regression coefficient for the work status variable of the

head of the family has an omitted value. This omission occurs because most of the data distribution on the working status of the head of the family is working so the variables in the regression are automatically removed to avoid bias.

Control Variable: Education of Head of Family (X_5)

H_0 : $\beta_i \leq 0$; This means that the education of the head of the family does not partially have a positive and significant effect on student participation in 2015 in Bali Province.

H_1 : $\beta_i > 0$; This means that the education of the head of the family partially has a positive and significant effect on student participation in 2015 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 1 the regression coefficient of the family head's education variable has a significance value *of* $a < (0.05)$. So H_0 is rejected and H_1 is accepted, which means that the education of the head of the family partially has a positive and significant effect on student participation in 2015 in Bali Province.

Conclusion of Model 1 Testing

Based on Table 4, the results of the Logit Regression Analysis show that Model 1 simultaneously has a positive and significant effect on student participation in 2015 in Bali province and partially the independent variable that influences student participation in 2015 in Bali Province is the Smart Indonesia Program (PIP) variable. in 2015 with a significance level of 10 percent and the education variable of the head of the family with a significance level of 5 percent.

Model 2

Simultaneous Test

Hypothesis:

H_0 : $\beta i \leq 0$, meaning that the Smart Indonesia Program (PIP) in 2015, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously did not have a positive and significant effect on student participation in 2018 in Bali Province.

H_1 : $\beta i > 0$, meaning that the 2015 Smart Indonesia Program (PIP), gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect on student participation in 2018 in Bali Province.

Based on Table 4, the results of Logit Regression Analysis show that in Model 2 the LR chi $^{2\ value}$ = 16.25 with a significance value *of* $< (0.01)$. So, with a significance level of 1 percent, H_0 is rejected and H_1 is accepted, which means that the 2015 Smart Indonesia Program

(PIP), gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect on participation. students in 2018 in Bali Province.

Partial Test

Interest Variable: PIP $_{2015}$ (X_1)

$H_0 : \beta_i \leq 0$; This means that the 2015 Smart Indonesia Program (PIP) did not partially have a positive and significant effect on student participation in 2018 in Bali Province.

$H_1 : \beta_i > 0$; This means that the Smart Indonesia Program (PIP) in 2015 partially had a positive and significant effect on student participation in 2018 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 2 the regression coefficient for the Smart Indonesia Program (PIP) 2015 variable has a significance value *of a* > (0.05). So H_0 is accepted and H_1 is rejected, which means that the 2015 Smart Indonesia Program (PIP) did not partially have a positive and significant effect on student participation in 2018 in Bali Province.

Control Variable: Gender (X_2)

$H_0 : \beta_i \leq 0$; This means that gender does not partially have a positive and significant effect on student participation in 2018 in Bali Province.

$H_1 : \beta_i > 0$; This means that gender partially has a positive and significant effect on student participation in 2018 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 2 the regression coefficient for the gender variable has a significance value *of a* < (0.1) . So, with a significance level of 10 percent, H_0 is rejected and H_1 is accepted, which means that gender partially has a positive and significant effect on student participation in 2018 in Bali Province.

Control Variable: Number of Household Members (X_3)

$H_0 : \beta_i \leq 0$; This means that the number of household members does not partially have a positive and significant effect on student participation in 2018 in Bali Province.

$H_1 : \beta_i > 0$; This means that the number of household members partially has a positive and significant effect on student participation in 2018 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 2 the regression coefficient for the variable number of household

members has a significance value *of a* <(0.05). So, with a significance level of 5 percent, H_0 is rejected and H_1 is accepted, which means that the number of household members partially has a positive and significant effect on student participation in 2018 in Bali Province.

Control Variable: Employment Status of Head of Family (X_4)

$H_0 : \beta_i \leq 0$; This means that the employment status of the head of the family does not partially have a positive and significant effect on student participation in 2018 in Bali Province.

$H_1 : \beta_i > 0$; This means that the job status of the head of the family partially has a positive and significant effect on student participation in 2018 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 2 the regression coefficient for the work status variable of the head of the family has an omitted value. This omission occurs because most of the data distribution on the working status of the head of the family is working so the variables in the regression are automatically removed to avoid bias.

Control Variable: Education of Head of Family (X_5)

$H_0 : \beta_i \leq 0$; This means that the education of the head of the family does not partially have a positive and significant effect on student participation in 2018 in Bali Province.

$H_1 : \beta_i > 0$; This means that the education of the head of the family partially has a positive and significant effect on student participation in 2018 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 2 the regression coefficient of the family head's education variable has a significance value *of a* < (0.05) . So, with a significance level of 5 percent, H_0 is rejected and H_1 is accepted, which means that the education of the head of the family partially has a positive and significant effect on student participation in 2018 in Bali Province.

Conclusion of Model 2 Testing

Based on Table 4, the results of Logit Regression Analysis show that Model 2 simultaneously has a positive and significant effect on student participation in 2018 in Bali Province and partially the independent variable that influences student participation in 2018 in Bali Province is the gender variable with a significance level of 1 percent. , the variable number of household members with a significance level of 5 percent and the education variable of the head of the family with a significance level of 5 percent.

Model 3

Simultaneous Test

Hypothesis:

H_0 : βi≤ 0, meaning that the Smart Indonesia Program (PIP) in 2018, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously do not have a positive and significant effect on student participation in 2021 in Bali Province.

H_1 : βi> 0, meaning that the Smart Indonesia Program (PIP) in 2018, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect on student participation in 2021 in Bali Province.

Based on Table 4, the results of Logit Regression Analysis show that in Model 3 the LR chi $^{2\ value}$ = 11.04 with a significance value *of* < (0.1). So, with a significance level of 1 percent, H_0 is rejected and H_1 is accepted, which means that the 2018 Smart Indonesia Program (PIP), gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect on participation. students in 2021 in Bali Province.

Partial Test

Interest Variable: PIP $_{2018}$ (X_1)

H_0 : $\beta_i \leq 0$; This means that the 2018 Smart Indonesia Program (PIP) did not partially have a positive and significant effect on student participation in 2021 in Bali Province.

H_1 : $\beta_i > 0$; This means that the 2018 Smart Indonesia Program (PIP) partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 3 the regression coefficient for the Smart Indonesia Program (PIP) 2018 variable has a significance value *of a* > (0.05). So H_0 is accepted and H_1 is rejected, which means that the 2018 Smart Indonesia Program (PIP) partially has no positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Gender (X_2)

H_0 : $\beta_i \leq 0$; This means that gender does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

H_1 : $\beta_i > 0$; This means that gender partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 3 the regression coefficient for the gender variable has a significance value *of a* > (0.05) . So H_0 is accepted and H_1 is rejected, which means that gender does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Number of Household Members (X_3)

H_0 : $\beta_i \leq 0$; This means that the number of household members does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

H_1 : $\beta_i > 0$; This means that the number of household members partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 3 the regression coefficient for the variable number of household members has a significance value *of a* > (0.05) . H_0 is accepted and H_1 is rejected, which means that the number of household members does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Employment Status of Head of Family (X_4)

H_0 : $\beta_i \leq 0$; This means that the employment status of the head of the family does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

H_1 : $\beta_i > 0$; This means that the employment status of the head of the family partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 3 the regression coefficient for the work status variable of the head of the family has a significance value *of a* > (0.05) . H_0 is accepted and H_1 is rejected, which means that the employment status of the head of the family does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Education of Head of Family (X_5)

H_0 : $\beta_i \leq 0$; This means that the education of the head of the family does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

H_1 : $\beta_i > 0$; This means that the education of the head of the family partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 3 the regression coefficient of the family head's education variable has a significance value *of a* < (0.05) . So, with a significance level of 5 percent, H_0 is rejected and H_1 is accepted, which means that the education of the head of the family partially has a positive and significant effect on student participation in 2021 in Bali Province.

Conclusion of Model 3 Testing

Based on Table 4, the results of the Logit Regression Analysis show that Model 3 simultaneously has a positive and significant effect on student participation in 2021 in Bali Province and partially the independent variable that influences student participation in 2021 in Bali Province is the education variable of the head of the family with a level of significance. 5 percent.

Model 4

Simultaneous Test

Hypothesis:

H_0 : $\beta i \leq 0$, meaning that the Smart Indonesia Program (PIP) for 2015-2021, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously do not have a positive and significant effect on student participation in 2021 in Bali Province .

H_1 : $\beta i > 0$, meaning that the Smart Indonesia Program (PIP) 2015-2021, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect on student participation in 2021 in Bali Province.

Based on Table 4, the results of Logit Regression Analysis show that in Model 4 the LR chi $^{2\ value} = 44.91$ with a significance value *of* < (0.01). So, with a significance level of 1 percent, H_0 is rejected and H_1 is accepted, which means that the Smart Indonesia Program (PIP) for 2015-2021, gender, number of household members, employment status of the head of the family, and education of the head of the family simultaneously have a positive and significant effect. on student participation in 2021 in Bali Province.

Partial Test

Interest Variable: PIP $_{2015-2021}$ (X_1)

H_0 : $\beta_i \leq 0$; This means that the Smart Indonesia Program (PIP) for 2015-2021 did not partially have a positive and significant effect on student participation in 2018 in Bali Province.

$H_1 : \beta_i > 0$; This means that the Smart Indonesia Program (PIP) for 2015-2021 partially had a positive and significant effect on student participation in 2018 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 4 the regression coefficient for the Smart Indonesia Program (PIP) 2021 variable has a significance value *of a* < (0.01). So, with a significance level of 1 percent, H_0 is rejected and H_1 is accepted, which means that the 2015-2021 Smart Indonesia Program (PIP) partially has a positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Gender (X_2)

$H_0 : \beta_i \leq 0$; This means that gender does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

$H_1 : \beta_i > 0$; This means that gender partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 4 the regression coefficient for the gender variable has a significance value *of a* > (0.05) . So H_0 is accepted and H_1 is rejected, which means that gender does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Number of Household Members (X_3)

$H_0 : \beta_i \leq 0$; This means that the number of household members does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

$H_1 : \beta_i > 0$; This means that the number of household members partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 4 the regression coefficient for the variable number of household members has a significance value *of a* > (0.05) . H_0 is accepted and H_1 is rejected, which means that the number of household members does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Employment Status of Head of Family (X_4)

$H_0 : \beta_i \leq 0$; This means that the employment status of the head of the family does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

$H_1 : \beta_i > 0$; This means that the employment status of the head of the family partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of the Logit Regression Analysis show that in Model 4 the regression coefficient for the work status variable of the head of the family has a significance value *of a* > (0.05) . H_0 is accepted and H_1 is rejected, which means that the employment status of the head of the family does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

Control Variable: Education of Head of Family (X_5)

$H_0 : \beta_i \leq 0$; This means that the education of the head of the family does not partially have a positive and significant effect on student participation in 2021 in Bali Province.

$H_1 : \beta_i > 0$; This means that the education of the head of the family partially has a positive and significant effect on student participation in 2021 in Bali Province.

The test was carried out by comparing the z test statistic with the standard normal distribution at a significance level *a.* Based on Table 4, the results of Logit Regression Analysis show that in Model 3 the regression coefficient of the family head's education variable has a significance value *of a* < (0.01) . So, with a significance level of 1 percent, H_0 is rejected and H_1 is accepted, which means that the education of the head of the family partially has a positive and significant effect on student participation in 2021 in Bali Province.

Conclusion of Model 4 Testing

Based on Table 4, the results of the Logit Regression Analysis show that Model 4 simultaneously influences student participation in 2021 in Bali Province and partially the independent variables that influence student participation in 2021 in Bali Province are the 2021 Smart Indonesia Program (PIP) variable and the variable education of the head of the family with a significance level of 5 percent.

Overall Model Conclusion:

Based on all Models 1 to Model 4, it can be concluded that all variables in the model simultaneously have a significant effect on student participation in Bali Province. Based on Model 1 and Model 4, it can be concluded that the existence of the Smart Indonesia Program (PIP) has succeeded in increasing student participation in Bali Province as indicated by the significance value of the PIP_{2015} and PIP_{2021} variable coefficients . Meanwhile, another important variable that influences student participation in Bali Province is the education variable of the head of the family which has a significant value in each model.

Table 5. ***Marginal Effects After*** **Logit**

Variable	Model 1 (Y_{2015})	Model 2 (Y_{2018})	Model 3 (Y_{2021})	Model 4 (Y_{2021})
PIP 2015	.007*	-.003	-	,007
	(.0052)	(.0111)	-	(.0275)
PIP 2018	-	-	,043	,034
	-	-	(.0302)	(.0274)
PIP 2021	-	-	-	.169***
	-	-	-	(.0212)
Gender	,001	.021*	-.170	-.014
	(.0041)	(.0126)	(.0290)	(.0257)
ART_amount	,003	-.010**	,015	,010
	(.0023)	(.0052)	(.0155)	(.0136)
Working_Status_Prnt	0	0	-.011	-.006
	(omitted)	(omitted)	(.1009)	(.0924)
Education_Prnt	.001**	.004**	.014**	.018***
	(.0008)	(.0017)	(.004)	(.0044)
Number of Observations	**638**	**638**	**649**	**649**

Source; Secondary Data processed, 2024

Information:

*** = p<0 .01 ** = p<0.05 *= p<0.1

Model 1

Marginal effect value of the 2015 PIP variable = 0.07, meaning that the probability of school-age children receiving PIP in Bali Province in 2015 was 7 percent higher to continue their education at the same level in 2015. This can be explained by the concept of the theory of change (*theory of change*) where by obtaining inputs (*inputs*) the Smart Indonesia Program (PIP) will produce an outcome (*outcome*) in the form of educational sustainability.

Marginal effect value of the gender variable = 0.01, meaning that the probability of male school-age children in Bali Province is 1 percent higher in continuing their education at the same level in 2015 compared to girls. The increase occurred by only 1 percent because in Table 4.26 the gender variable for men was 55.16 percent and women was 44.84 percent, which shows that the data comparison is not too far apart.

The marginal effect value of the variable number of household members = 0.03, meaning that the greater the number of household members, the probability that school-aged children in Bali Province in 2015 will increase by 3 percent in continuing their education at the same level in 2015.

Marginal effect value of the head of family's education variable = 0.01, meaning that the higher the successful years of education of the head of the family , the probability that school age children in Bali Province in 2015 will increase by 1 percent in continuing their education at the same level in 2015. This is in line with research conducted conducted by Nau Dewa and Prasetyo (2022) who tested the influence of the head of the family's education on student participation in continuing their education to a higher level. The education of the head of the family influences student participation because heads of families who are highly educated will have considerable perception and motivation in their children's educational

participation. The higher the education level of the head of the family will have an influence on the income and welfare obtained by the household.

Model 2

Marginal effect value of the $_{2015}$ PIP variable = -0.03, meaning that the probability of school-aged children receiving PIP in Bali Province in 2015 was 3 percent lower in continuing their education at the same level or to a higher level in 2018.

Marginal effect value of the gender variable = 0.21, meaning that the probability of male school-aged children in Bali Province is 21 percent higher in continuing their education at the same level or to a higher level in 2018 compared to girls. The gender variable has a significant effect on student participation in Bali Province because it is in line with the opinion of Todaro and Smith (2006) where the school participation rate of female children is much lower than that of male children. This is due to parents' expectations that boys will be the head of the household and be responsible for providing for their family.

The marginal effect value of the variable number of household members = -0.10, meaning that the greater the number of household members, the probability that school-aged children in Bali Province in 2015 will decrease by 10 percent in continuing their education at the same level or to a higher level in 2018. The variable number of household members has a significant effect on student participation in 2018 is in line with research conducted by Sinta Yelpi Sari (2021) with the title "The Influence of Income, Education Level of the Head of the Family and Number of Household Members on the Education Level of Children in Pesisir Selatan Regency", explaining that the greater the number of members in a family So household needs and responsibilities are increasing, making it difficult for households to control and motivate children for education.

Marginal effect value of the head of family's education variable = 0.04, meaning that the higher the successful years of education of the head of the family , the probability that school age children in Bali Province in 2015 will increase by 4 percent in continuing their education at the same level or to a higher level in 2018. Education The head of the family has a significant influence on student participation in 2018 because the higher the education of the head of the family, the higher the understanding of the importance of education in meeting children's needs for education (Rini. ES, 2012).

Model 3

Marginal effect value of the $_{2018}$ PIP variable = 0.43, meaning that the probability of school-age children receiving PIP in Bali Province in 2018 was 43 percent higher in continuing their education at the same level or to a higher level in 2021.

Marginal effect value of the gender variable = -0.17, meaning that the probability of male school-age children in Bali Province is 17 percent lower in continuing their education at the same level or to a higher level in 2021 compared to girls.

The marginal effect value of the variable number of household members = 0.15, meaning that the greater the number of household members, the probability that school-aged children in Bali Province in 2018 will increase by 15 percent in continuing their education at the same level or to a higher level in 2021.

Marginal effect value of the head of family's education variable = 0.14, meaning that the higher the successful years of education of the head of the family , the probability that school age children in Bali Province in 2018 will increase by 14 percent in continuing their education at the same level or to a higher level in 2021. Education The head of the family has a significant influence on student participation in 2021, in line with the opinion of Dreze and Gandhi (2001) which states that parental education influences children's school participation due to strong intergenerational effects, namely that children of educated parents have a greater possibility of attending school. .

Model 4

Marginal effect value of the $_{2015}$ PIP variable = 0.07, meaning that the probability of school-age children continuing their education to a higher level if PIP recipients were in Bali Province in 2015, the individual's probability is 7 percent higher in continuing their education to a higher level in 2021.

Marginal effect value of the $_{2018}$ PIP variable = 0.34, meaning that the probability of school-age children continuing their education at the same level or to a higher level if PIP recipients are in Bali Province in 2018, the individual's probability is 34 percent higher in continuing their education to a higher level. High in 2021.

Marginal effect value of the $_{2021}$ PIP variable = 0.16, meaning that the probability of school-aged children continuing their education at the same level if they are PIP recipients in Bali Province in 2021 and have received PIP in 2015 and 2018, the individual's probability is 16 percent higher in continuing education at the same level in 2021. The Smart Indonesia Program (PIP) in 2021 has a positive and significant impact on student participation in 2021 in Bali Province, which means that by providing the Smart Indonesia Program (PIP) it can significantly increase the opportunities for children in the school age students receive education and continue their education to a higher level. This is in line with research conducted by Chaniago (2021) entitled "Analysis of the Influence of the Smart Indonesia Program (PIP) on Pure Participation in Middle Schools and Senior High Schools in Indonesia", proving that by

providing the Smart Indonesia Program (PIP) school age children with economic status Low or poor families can go to school and continue their education to a higher level.

Marginal effect value of the gender variable = -0.01, meaning that the probability of male school-age children in Bali Province is 1 percent lower in continuing their education at the same level in 2021 compared to girls.

The marginal effect value of the variable number of household members = 0.10 , meaning that the greater the number of individual household members, the probability that school-aged children in Bali Province will increase by 10 percent in continuing their education at the same level in 2021.

Marginal effect value of the family head's employment status variable = 0.06, meaning that the probability of school-age children in Bali Province continuing their education at the same level in 2021 is 1 percent higher if the job status of the head of the family is working.

Marginal effect value of the family head's education variable = 0.18, meaning that the higher the number of successful years of education for the individual head of the family , the probability that school-age children in Bali Province will increase by 18 percent in continuing their education at the same level in 2021. Children of parents who have higher education will not send their children to work. Parents will be more motivated to send their children to school. Therefore, high levels of parental education, especially the head of the family, will reduce children's involvement in work and will increase school participation.

CONCLUSION

Based on the results of the analysis described in the previous chapter , the following conclusions are drawn.

1) All variables in the regression model simultaneously have a positive and significant effect on student participation in Bali Province.
2) The Smart Indonesia Program (PIP) as a variable of interest has a positive and significant effect on student participation in Bali Province as shown in regression model 1 and regression model 4.
3) Another important variable, namely the education of the head of the family, partially has a positive and significant effect on student participation in Bali Province as shown in each regression model.

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