The Factors That Contribute to Students Dropping Out of School

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Abstract

Changes that are so fast require rapid response from individuals in order to survive in the digital era. Education becomes an important capital that is owned by individuals in order to have a positive response to change. Then every citizen of Indonesia should obtain the same access to education so that it is possible in the future to become a qualified workforce. With the enactment of the Law on 20% of the state budget for education, it has shown the government's efforts to increase education participation. Reality of School Drop Out Numbers is still found in people in the low expenditure group. By using confirmatory factor analysis using SPSS version 20 an analysis of questionnaires was filled out by 36 respondents who dropped out of school. Based on the processed data it was found that the factors that caused students to drop out were student perceptions about the quality of education and teacher work, the encouragement given by schools, the desire for dynamic and innovative schools, parental support for children's education, the importance of content taught in schools, intention to continue studies in college and the need to help the family economy.

Keywords: factors, dropping out, student

Introduction

The ASEAN Economic Community (AEC) has been going on since 2015, but the stretch of the Indonesian economy has not been felt by most of the population. AEC becomes an opportunity and challenge that can be captured properly by qualified human resources. The data presented by the Head of the Media Press and Information of the Presidential Secretariat in February 2017 shows that 42.5% of Indonesia's workforce are elementary school graduates, 66% are elementary school-junior high school graduates and 82% are elementary-junior-high school-vocational high school graduates. This data shows that most of the workforce still has low education and quality which is still below the foreign workforce.

Every citizen of Indonesia should obtain the same access to education so that it will become a qualified workforce in the future. Quality human beings are obtained through educational processes both formal and informal. With the enactment of the Law on 20% of the state budget for education, it has shown the government's efforts to increase education participation. The products of government policy are in the form of School Operational Assistance (BOS), Poor Student Assistance (BSM), Family Hope Program (PKH), Indonesia Smart Card (KIP) and others. The Reality of School Drop Out Numbers in the low expenditure class also reflects that the free school program for the basic education level has not been fully realized and enjoyed by the wider community. The government has distributed 75.3% of the total recipients of the Smart Indonesia Card. KIP allocations were distributed to Vocational School Students by 78.5%, High School at 75.9%, junior School 74.3% and Elementary School at 75.1%. But the drop out is still happening at all levels of education / school. Following are the drop out data in Indonesia:

Vocational High Schools are the largest receive the KIP budget but when viewed from the Ministry of Education and Culture data published at the end of 2017 presented in table 1 shows that the trend of dropping out in Vocational Schools is indeed decreasing, but the number is greater than the dropout rate at the level Elementary, junior School and Senior High School.

Table 1 Trend Of Public And Private Drop Outs Year :2014/2015-2016/2017

Level and Type of School	2014/2015			2015/2016			2016/2017		Total
	Public	*Private*	*Total*	*Public*	*Private*	*Total*	*Public*	*Private*	
Special School	…	…	…	…	…	…	38	95	133
Primary School	153.917	22.992	176.909	56.744	11.322	68.066	33.177	6.036	39.213
Junior Sec. Sch.	58.022	26.978	85.000	32.750	18.791	51.541	25.714	12.988	38.702
Senior Sec. Sch.	76.438	78.063	154.501	48.160	70.193	118.353	48.055	61.108	109.163
General	45.307	22.912	68.219	21.887	18.567	40.454	21.996	14.423	36.419
Vocational	31.131	55.151	86.282	26.273	51.626	77.899	26.059	46.685	72.744

Source: *Ministry of Education and Culture 2017*

Data released by the Ministry of Education and Culture In 2016/2017 at the National level Vocational School level also occurred in West Sumatra where there were 543 students at X grade class, 540 students at XI grade class, and 257 students at XII class dropped out of school. This figure shows that the dropout rate in Vocational Schools in Padang City is still high. BPS has released data on dropout rates in West Sumatra, following in table 2

Table 2 Dropout Rates According to Education, Education, Residential Areas and ExpenditureGroups in SumatraWest, 2016

Regional type / household economic status	Drop out of school at the level		
	SD	SMP	SMA
(1)	(2)	(3)	(4)
Urban	**0,23**	**3,09**	**3,48**
40 % Lowest	0,11	1,49	5,79
40 % Midle	0,49	5,96	3,58
20 % high	0,00	0,18	1,38
Rural	**1,48**	**3,94**	**10,93**
40 % Lowest	1,89	4,93	11,14
40 % Midle	0,88	3,17	12,38
20 % High	1,42	2,89	4,23
Urban and Rural	**1,01**	**3,59**	**7,29**
40 % Lowest	1,35	3,72	9,14
40 % Midle	0,73	4,33	8,36
20 % High	0,56	1,36	2,13

Source: Central Bureau of Statistics 2017

The data in table 2 shows that the higher the level of education make more higher the dropout rate. The dropout rate at the elementary level is 1.01 percent. When it rises to junior high school level, the dropout rate rises to 3.59 percent (up more than 3 times). When it reaches high school, the dropout rate rises to double that which is 7.29 percent. The increase in dropout rates from elementary to high school levels is also seen in almost all expenditure groups. This occurs in both urban and rural areas.

Meanwhile, if viewed according to the expenditure class and the area of residence, the pattern of dropout rates that exist in the elementary education level is different from the dropout rate at the junior and senior high school level. Drop out rates in elementary schools are actually the lowest in the low expenditure group in rural areas. At the junior secondary level, the highest dropout rate is in the moderate expenditure class in urban areas. While for the high school level, the highest dropout rate is in rural areas in the expenditure group. At the junior secondary level, the highest dropout rate is in the moderate expenditure class in urban areas. While for the high school level, the highest dropout rate is in rural areas in the medium expenditure group.

The high dropout rate in the low expenditure group is very worrying because the government has launched a number of aid programs, which aim to keep children in school especially those from low expenditure groups. This can occur due to many factors. For example, the lack of motivation for children to attend school or the problem of economic limitations, among others, because there is no cost, work, get married / take care of the household, lack of adequate educational facilities, locations and others. The foregoing is a common reason among the public.

Ahmad (2011) revealed that dropping out was the cessation of learning from a student either in the middle of the school year or at the end of the school year for various reasons that required or forced him to quit school. School Drop Out Rates reflect school-age children who are no longer in school or who have not completed a certain level of education. This indicator can also be used to see the failure rate of the education system according to its level (BPS, 2009). Willis and Setyawan (1984: 11) also revealed that lack of costs can cause children to drop out of school.

Educational experts have done a lot of research to reveal the factors causing students to drop out of school. Liansyah (2013) found that the causes of school dropouts include internal factors such as the lack of willingness or willingness of the child to not go to school. Secondly there is a willingness to go to school but it has not been achieved. External factors, the first is the economic capacity of parents is only enough for daily needs. Both of the economic abilities of parents who are only able to meet the living needs of their families and children play most children who are low educated.

Oreopoulus (2007) considers that education should be a form of investment but different from the view of a student who finally decides to drop out of school. The amount of money that must be spent on the education process actually causes someone to quit school. So the government needs to understand the phenomenon in order to make the right decision. Neri (2009) revealed that more information was needed about different people, school institutions and extra intra and school relationships to understand why students were not interested in school and did not graduate from high school.

Soares, Fernandes, Nóbrega & Nicholella (2015) classify the factors that cause students to drop out into 3 main dimensions namely student self dimensions, intra-school dimensions and family dimensions. Students 'self dimensions are represented by socieconomic and sociodemographic factors which include: age, gender, difficulties faced in general in studying existing subjects, desire for dynamic and innovative schools, student perceptions of opportunities to work after college and students' desire to college. School dimensions include students' perceptions of school quality, quality of teaching, and reasons for students choosing the school. Whereas family factors include parental attention to children's education, parental education, and family economic conditions that cause students to need to help through working to earn income.

Methods

This research is an ex post facto study which reveals the relationship between the variable drop out and other variables, after the facts occur in Vocational Schools students in Padang. The research was conducted in Padang. The study was conducted by visiting students who had dropped out of school and giving a questionnaire containing a statement that would reveal the cause of their dropping out of vocanal school in Padang. The population in this study were all students dropping out of school in Padang. While a sample of 36 dropouts were registered at the Region 1 Padang Non-Formal Education Unit Learning Activity Studio, which was taken based on the cluster sampling technique.

The analysis used is the Confirmatory Factor analysis which is a multivariate analysis method that can be used to confirm whether the measurement model is built according to the hypothesized. In confirmatory factor analysis, there are latent variables and indicator variables. Latent variables are variables that cannot be formed and built directly while indicator variables are variables that can be observed and measured directly. The data Analyzed by SPSS Version 20.

Table 3 Indicators, Latent Variables And Symbols

Laten Variable	Symbol	Indicator	Symbol
School	ξ_1	1. the student's perception about the quality of education and teacher work	X_1
		2. encouragement given by the schools	X_2
		3. The importance of content taught in schools	X_3
Student	ξ_2	4. Sex	X_4
		5. Difficulty the student faces in various	X_5
		6. Desire for a dynamic and innovative schools	X_6
		7. Intention to go to college	X_7
Family	ξ_3	8. Socioeconomic Index	X_8
		9. Parental support for children's education	X_9
		10. Need to help the family economy	X_{10}

Source: Adaptation from Soares

Results and Discussion

The prerequisites that must be fulfilled in factor analysis are:

1. Test the determinant of correlation matrix close to 0.

The calculation results show that the value of Determinant of Correlation is 0.04 this value is close to 0 so the correlation matrix between variables is interrelated.The second prerequisite is to fulfill the requirements for data adequacy through Kaiser-Meyer Olkin (KMO). This method measures the adequacy of sampling thoroughly and measures sampling adequacy for each indicator.

Based on tests on x1, x2, x3, x4, x5, x6, x7, x8, x9 and x10 using spss, it is known that the KMO test results are as follows on table below

The prerequisite for carrying out a factor analysis is the fulfillment of KMO values> 0.05. SPSS output shows that KMO is 0.682> 0.5 and Bartlett's Test of Sphericity is 88,853 with a Sig 0,000 value below 0.05.

Table 4 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.682
Bartlett's Test of Sphericity	Approx. Chi-Square	88.853
	Df	45
	Sig.	.000

MSA Prerequisite Test

Table 5 Measures of Sampling Adequacy (MSA)

Anti-image Matrices		X1	X2	X3	X4	X5	X6	X7	X8	X9	X10
Anti-image Correlation	X1	.692[a]	-.324	.037	.093	-.399	.093	.014	-.253	-.331	.131
	X2	-.324	.788[a]	-.164	-.042	.145	-.127	.080	-.086	-.329	-.028
	X3	.037	-.164	.703[a]	.049	.008	-.231	-.158	.165	.032	-.318
	X4	.093	-.042	.049	.413[a]	-.071	.216	-.042	-.053	-.243	.156
	X5	-.399	.145	.008	-.071	.601[a]	.045	.276	.262	-.100	-.083
	X6	.093	-.127	-.231	.216	.045	.705[a]	.177	-.102	-.417	.014
	X7	.014	.080	-.158	-.042	.276	.177	.634[a]	-.017	-.043	-.272
	X8	-.253	-.086	.165	-.053	.262	-.102	-.017	.481[a]	.145	.126
	X9	-.331	-.329	.032	-.243	-.100	-.417	-.043	.145	.719[a]	-.170
	X10	.131	-.028	-.318	.156	-.083	.014	-.272	.126	-.170	.652[a]

a. Measures of Sampling Adequacy(MSA)

MSA value In the table above, it is shown in the line of anti image correlation with the sign "a". At X1 the value of MSA is 0.692> 0.5 so that it satisfies the MSA domain. X2 with MSA 0.788> 0.5 meets MSA, X3 with MSA 0.703> 0.5 Meets MSA. X4 with MSA 0.413 <0.5 Does not meet MSA. X5 with MSA value of 0.601 meets MSA. X6 with a value of 0.601> 0.5 meets MSA. X7 with MSA value of 0.634> 0.5 meets MSA. X8 with MSA value of 0.481 <0.05 did not meet MSA. X9 with MSA 0.719> 0.5 and X10 0.652> 0.5 meets MSA

Phase 2 Analysis:
The analysis process is repeated without including X4 and X8 and the results known that the determinant value of 0.07 is close to 0.

Test KMO and Bartlett's Test stage 2

Table 6KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.710
Bartlett's Test of Sphericity	Approx. Chi-Square	83.150
	Df	28
	Sig.	.000

The prerequisite for carrying out a factor analysis is the fulfillment of KMO values> 0.05. The SPSS output shows that KMO is 0.710> 0.5 and Bartlett's Test of Sphericity is 83,150 with a Sig 0,000 value below 0.05.

Measures of Sampling Adequacy (MSA) stage 2

Table 7 Measures of Sampling Adequacy (MSA)

Anti-image Matrices

		X1	X2	X3	X5	X6	X7	X9	X10
Anti-image Correlation	X1	.715ᵃ	-.380	.092	-.309	.103	-.020	-.350	.181
	X2	-.380	.792ᵃ	-.138	.139	-.212	.020	-.228	.000
	X3	.092	-.138	.708ᵃ	-.036	-.171	-.159	-.037	-.344
	X5	-.309	.139	-.036	.632ᵃ	.200	.280	-.233	-.098
	X6	.103	-.212	-.171	.200	.710ᵃ	.190	-.421	-.017
	X7	-.020	.020	-.159	.280	.190	.637ᵃ	.052	-.295
	X9	-.350	-.228	-.037	-.233	-.421	.052	.754ᵃ	-.204
	X10	.181	.000	-.344	-.098	-.017	-.295	-.204	.593ᵃ

a. Measures of Sampling Adequacy(MSA)

From the table above it is known that of the 8 tested variables meet the MSA requirements above 0.05. So that they can be used for the next test.

Stage 2 Communalities Testing

Table 8 Communalities

Communalities

	Initial	Extraction
X1	1.000	.664
X2	1.000	.630
X3	1.000	.628
X5	1.000	.401
X6	1.000	.520
X7	1.000	.539
X9	1.000	.780
X10	1.000	.617

Extraction Method: Principal Component Analysis.

Correlation Matrix Tahap 3

The communal table shows the values of X1, X2, X3, X6, X7, X9, X10 is above 0.5 means that it meets the requirements, but X5 has a communal value of 0.401 <0.5 so it must be excluded from the test. Then the step factor analysis is repeated again.

Correlation Matrix Stage 3

Based on the Correlation matrix table, it is known that the determinant value of 0.01 approaches the value of 0. So that it meets the requirements.

Testing of KMO and Bartlett's Test Stage 3

Table 9 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.714
Bartlett's Test of Sphericity	Approx. Chi-Square	70.867
	Df	21
	Sig.	.000

Testing of Measures of Sampling Adequacy (MSA) Stage 3

Table 10 Measures of Sampling Adequacy(MSA)

Anti-image Matrices		X1	X2	X3	X6	X7	X9	X10
Anti-image Correlation	X1	.669^a	-.357	.084	.177	.073	-.456	.159
	X2	-.357	.806^a	-.134	-.247	-.020	-.203	.014
	X3	.084	-.134	.709^a	-.167	-.155	-.047	-.349
	X6	.177	-.247	-.167	.737^a	.142	-.393	.002
	X7	.073	-.020	-.155	.142	.676^a	.125	-.280
	X9	-.456	-.203	-.047	-.393	.125	.720^a	-.235
	X10	.159	.014	-.349	.002	-.280	-.235	.600^a

a. Measures of Sampling Adequacy(MSA)

Based on the Anti Image table above, it is known that the values of MSA X1, X2, X3, X6, X7, X9 and x10> 0.5 so there is no need to retest.

Stage 3 Communalities.

Table 11 Communalities

Communalities		
	Initial	Extraction
X1	1.000	.629
X2	1.000	.679
X3	1.000	.644
X6	1.000	.560
X7	1.000	.543
X9	1.000	.772
X10	1.000	.680
Extraction Method: Principal Component Analysis.		

Based on the data in the table above, it is known that X1 has a value of 0.629, which means that X1 can explain a factor of 62.9%. Likewise with other variables, where everything is> 0.5 therefore it can be concluded that all variables can explain factors.

Factors that can be formed
Table Total Variance Explained is useful for determining what factors might be formed.

Table 12Variance Explained

Component	Total	% of Variance	Cumulative %
		Initial Eigenvalues	
1	2.789	39.850	39.850
2	1.717	24.533	64.382
3	.766	10.938	75.320
4	.556	7.939	83.259
5	.525	7.503	90.763
6	.384	5.488	96.251
7	.262	3.749	100.000

Extraction Method: Principal Component Analysis.

Based on the table above, componentscolumn can be seen which show that there are 7 components that can represent variables. In the "Initual Eigenvalues" column that uses the value of 1 (one). The variance can be explained by factor 1 is 2.789 / 7x100% = 39.84%. By Factor 2 of 1.717 / 7x100% = 24.53% so that the total of the two factors will be able to explain the variable of 39.84 + 24.53 = 64.37%. Thus, because the value of Eigenvalues is set to 1, the value to be taken is> 1, namely components 1 and 2.

Loading Factors
Based on the Table Total Variance Explained, it is known that the maximum factor that can be formed is 2 factors. Next, the determination of each variable will be included in certain factors. Then it will be seen in the component Matrix table:

Table 13 Component Matrix

Component Matrix[a]

	Component	
	1	2
X9	.876	-.062
X2	.820	-.081
X6	.746	.058
X1	.694	-.383
X10	.282	.775
X7	-.231	.699
X3	.421	.683

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

The matrix component table shows how much a variable correlates with the factors that will be formed. X9 has a correlation of 0.876 with a factor of 1 and -0.062 with a factor of 2. For the clarity of the variables entered in which factor it is determined by looking at the correlation value on Rotated Component Matrix.

Table 14 Rotated Component Matrix

Rotated Component Matrix[a]

	Component	
	1	2
X9	.871	.115
X2	.820	.085
X1	.757	-.236
X6	.719	.207
X10	.120	.816
X3	.276	.754
X7	-.367	.639

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The table above has been sorted from the largest correlation value. X9 has the largest correlation with factor 1 of 0.871, X2 with factor 1 of 0.820, X1 with factor 1 of 0.757, and X6 with factor 1 of 0.719. While X10 with factor 2 is 0.816, X3 with factor 2 of 0.754, and X7 with factor 2 of 0.639. Then it can be concluded that the members of each factor are:Factors 1: X1, X2, X6, X9 and Factors 2: X3 and X7, X10. The final step in determining the factor is to look at the transformation matrix component table:

Table 15 Component Transformation Matrix

Component Transformation Matrix

Component	1	2
1	.980	.201
2	-.201	.980

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Based on the component matrix table, it is known that in component 1 the correlation value is 0.980> 0.5 and component 2 is the correlation value of 0.980> 0.5. Then the two factors formed can be said to be right in summarizing the seven existing variables.

The results of factor analysis showed that of the 10 factors tested only 7 factors were the causes of the dropout in the study respondents. These factors are student perceptions about the quality of education and teacher work (x1), encouragement given by school (x2), desire for dynamic and innovative schools (x6), parental support for children's education (x9) and variable 2 which consists of the importance of content taught in school (X3), Intention to continue studying in college (X7) and the need to help the family economy (x10).

Student's External Environment

Various factors cause students to decide to stop taking formal education in elementary, junior and high school. The incompatibility between the expectations of students and the expected school environment causes students to decide not to take part in learning activities at school anymore. Students also need the full support of parents to strengthen them to be able to complete their education. But on the other hand parents also face obstacles that cause a lack of time to pay attention and support to children. Research conducted by Moyo, Ncube and Khupe (2016) revealed their findings about the reasons students drop out of school, including: 1. Lack of role of parents' existence,

2. Challenges in financial conditions 3. Difficulties and poverty and hunger 4. Distance from home to school , 5. Student migration 6. Teen pregnancy 7. Pressure of friend 8. Family disorientation. The factors stated were those that encouraged students to drop out of school in their study area.

Hope for the future

Education is an investment. Investments that must be financed by spending money, time and energy to obtain a better life in the future. But the need to fulfill basic needs now causes students to drop out of school and not continue their education to a higher level, because they have to work to help the family's economy. Saroni (2011) suggests that the level of the family economy is one of the inhibiting aspects of the opportunity to take education for someone. Meeting current basic needs is seen as more important than preparing their future

Conclusions

The results of factor analysis showed that the factors that caused the dropout in the study respondents. These factors are student perceptions about the quality of education and teacher work, encouragement given by school, desire for dynamic and innovative schools, parental support for children's education, the importance of content taught in school, Intention to continue studying in collegeand the need to help the family economy.

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