

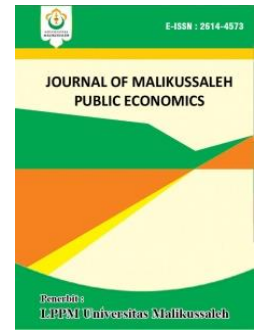
Effects of Income, Education and Number of Family Members Towards the Development of Child Worker in Bireuen District

Cut Nurul Hikmah ^{a*}, Hijri Juliansyah ^{b*}

^{*} Faculty of Economics and Business, Malikussaleh University

a Corresponding author :cutnurulhikmahekp@gmail.com

b hijri.juliansyah@gmail.com



ARTICLE INFORMATION

ABSTRACT

Keywords:

Income, Education, Number of Family Members, Child Labore.

This study aims to analyze of effect of income, education and the number of family members on the development of child labour in Bireuen Regency. The data in this study are obtained by distributing questionnaires to 69 respondents who are child workers in Bireuen Regency. The sampling technique used is Random Sampling and the data are analyzed by using Multiple linear regression. The results of the study indicated that the Head of household income and education have a significant and negative effect on the development child workers in Bireuen Regency, The number of family members has a positive and significant effect. Simultaneously, the income and education of the Head of household and the number of family members significantly affect the development of child workers in Bireuen Regency.

1. INTRODUCTION

The problem of child worker is one of the challenges of development in Indonesia. The National Survey in 2006 find that 2,749,353 children aged 10-15 years in 33 provinces work in various sectors. According to a 2007 national labor force survey find 0.4 million girls and 0.6 million boys aged between 10-14 years are seen in the field of work. These children work in shoe factories, child domestic workers, child sexual exploitation, child markets, and delman coachmen.

Increasing the number of child workers every year continues to occur in Bireuen district. According to the survey that the number of child worker in Bireuen district is 223 workers spread across 17 sub-districts. According to observations, these children prefer to work rather than study because they do not have money to the school fees, this is due to the inadequate income of their parents to meet their needs and finance their school. Their reason for working is to help family needs not for school needs.

Rational child worker helps to full fill the economic needs of the family, helping parents. Child worker should enjoy education, but instead they must work.

The high level of unemployment in an area will also lead to higher levels of poverty. In this case will motivate to move children to work to help their parents. Here, working becomes a demand. Other factors that cause children work in factories are caused by high labor demand and the willingness of children to be paid cheaply. This is a very vulnerable situation for children to experience exploitation (Suryanto, 2010).

According to (Ayu and Bachtiar, 2016) child worker is influenced by factors such as the condition of the child itself, his family background, such as the parents who work in the agricultural sector both in cities and in rural areas. Other factors are the age of the child, the child's education, the household, his culture and environment. (Ayu and Bachtiar, 2016) further explain that there were nine determinants of working children including the value of child worker, sex of children, number of family members, age of head of household, income

of all family members, and education of head of household.

Bireuen Regency is an area that has a lot of jobs including plantations, agriculture, mining and other informal sectors that allows children to work. In the informal sector does not require age criteria to become workers. Then many jobs that do not require special skills. It is estimated that this has encouraged children in Bireuen District to work.

Previous studies focusing on income for child worker have been conducted by Ariyanti (2016), Suryati and Suryaningsih (2015) and Nurwati (2008) showing that income has a positive and significant effect on child worker. Thus research related to education on child worker has been conducted by (Ayu and Bachtiar, 2016) showing that education has a negative effect on child worker, in contrast to the results of research conducted by (Asnidar (2016), Ariyanti (2016), Suryati and Suryaningsih (2015) shows that education has a positive and significant effect on child worker, then research related to the number of family members to child labor conducted by Ariyanti (2016), Suryati and Suryaningsih (2015).

The purpose of this study is to analyze the influence of income, education of head of households, number of family members on child worker in Bireuen District.

Furthermore, the second part of this research discusses the theoretical review of related variables, the third part is the discussion, we can see research methodology. To see the results and discussion in the fourth part of this study, then the fifth part is a conclusions and suggestion.

2. THEORITICAL REVIEW

Child Labor

According to ILO or IPEC states that child worker is children who work in all types of work that endanger or interfere physically, mentally, intellectually and morally.

According to (Sahu, 2013) Low household income or family income makes the family will mobilize all family members to work to meet their daily needs, including mobilizing children

below working age. The lower the household income, the higher the working hours of child worker will be.

According to research from (Gillingan, 2013) entitled An analysis of the determinants of child labor in Nepal, the policy environment and response. The results of the study show that social conditions, education, reproductive conditions affect the level of child labor in Nepal. The same thing is also stated by the results of a study conducted by Ayu & Bachtiar (2015) which concluded that income affects child labor in West Sumatra. The results of research conducted by (Yenipazar, 2013) also show that income influences child labor in industry in Turkey.

Level of Education

According to (Bachtiar, 2015) Education of parents negatively affects child worker. The lower the education, the higher the occurrence of child worker. Furthermore, the number of family members is a major factor involving children as workers. The number of dependents in the family can increase the amount of household consumption. This indicates that if there are a large number of family members, the amount of goods consumed is also more and more dependent on the demand of each individual, if the required costs are not met this can cause the child to work.

According to Robert (2016), states that the level of household income and the level of education affect child worker.

Ayu and Bachtiar (2015) state that education influences child worker in Medan. The same thing is stated by Asnidar (2009), education has an effect on child worker in Medan Denai. Finally Ariyanti (2016) shows that education influences child worker in Sematang Borang Palembang.

Number of family Members

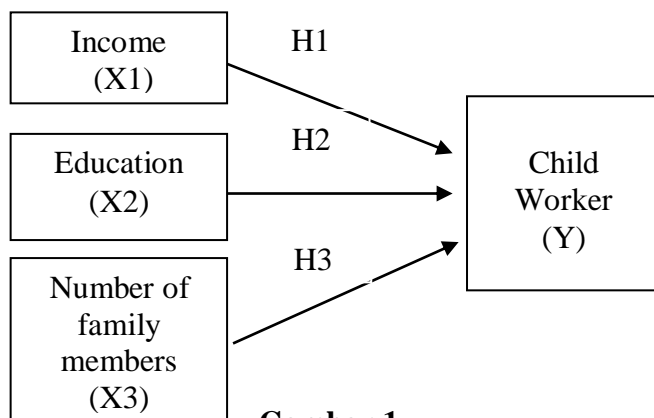
Mantra (2003) revealed that the number of family members is all human beings who live and eat under a household. According to Adiana and Karmini (2014) The number of dependents in a family can increase the amount of household consumption.

Karmini (2014) states that if there are a large number of family members, the number of items

consumed is also increasingly diverse. So the number of family members has a positive effect on child worker.

Yenipazar research (2013) with the title The interaction between child worker and household income: A statistical survey in the industry of Turkey, shows that ultimately the contribution of child worker is present to household income. In addition, working children cannot get adequate education.

Conceptual Framework



Gambar 1

Conceptual Framework

From the conceptual framework in Figure 1 above, it can be seen that the influence of each independent variable is explained based on the H1, H2 and H3 hypotheses below.

Hypothesis

- H₁ : The head of the family has a negative and significant effect on child labor in Bireun District.
- H₂ : The education of the head of the family has a negative and significant influence on child labor in Bireun District.
- H₃ : The number of family members has a positive and significant influence on child labor in Bireun District.
- H₄ : The income of head family the education of head of family and the number of family members positive and significantly affect child worker in Bireun District.

3. RESEARCH METHOD

Population and Sample

1. Population

According to (Sugiyono, 2008), Population is a generalization area that consists of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions are drawn. The population that will be examined in this study are all child workers in Bireuen District, amounting to 223 Child labor spread across 17 Districts, (BPS Bireuen, 2018).

2. Samples

According to (Sugiyono, 2008) The sample is part of the number of characteristics possessed by the population. The sampling technique is done by Non Probability Sampling with Purposive Sampling technique. Purposive Sampling is a sampling technique that is done by taking samples from the population based on certain criteria. The criteria used include as follows:

1. Respondents are child worker of Bireuen Regency
2. Classified as poor people based on direct observation

Operasional Variabel

According to (Sugiyono, 2008) "Variables are things in the form of what are determined by researchers to be studied so that information is obtained about these then the conclusions drawn".

The variables in this study are as follows:

1. Family Head Income (X1)
Income is the work that is obtained by each head of household in the family. Income can be obtained by calculating household income in a month. The unit used is the rupiah.
2. Level of Education of Family Head (X2)
Education is the number of years that have been followed by heads of families who child worker involved in work. The unit of measurement used is the year.
3. Number of family members (X3)
The number of family members is the number of people living in one family. The units used are number of people.

4. Child Worker (Y)
Child is the number of children doing routine work from family members. The units used are number of people.

Data Analysis Method

To determine the effect of income, education of family heads, number of family members on child workers in Bireuen District, the method used in this study is multiple linear regression. The multiple linear regression formula is as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where :

Y = Child Worker

a = constant

β = Regression Coefficient

X1 = Income

X2 = Education

X3 = Number of Family Members

E = Error term

The stages of testing in OLS are as follows:

Normality test

Normality test is to determine whether residuals are normally distributed or not. Normality testing can be done by using the Jarque-Bera (J-B) method (Gujarati, 2004). If the probability value of the J-B statistic is greater than the 5% confidence level (0.05) it means that the residual data is normally distributed. Conversely, if the probability value of the J-B statistic is smaller than the 5% confidence level (0.05).

Classical Assumption Test

According to Gujarati, (2004) the classic assumption test is as follows:

1. Multicollinearity Test

Multicollinearity test is a linear relationship that occurs between independent variables. Testing of multicollinearity symptoms can be done by calculating the variance inflation factor (VIF) from the estimation results. If $VIF < 10$, then there is no linear relationship between independent variables. Similarly, the tolerance value is close to one, so it can be concluded that

there is no multicollinearity problem (Gujarati, 2003).

2. Autocorrelation Test

According to Firdaus (2004), autocorrelation is a disturbance in the regression function in the form of a correlation between the interference factors. Whether or not autocorrelation happened can also be seen from the Chi-Square probability value (X^2). If the probability value is greater than the selected α value, we accept H_0 , which means that there is no autocorrelation. Conversely, if the probability value is smaller than the selected that value, we reject H_0 , which means there is an autocorrelation problem (Widarjono, 2017).

3. Heteroscedasticity Test

Heteroscedasticity test aims to test whether in the regression model exists an unequal variance from the residuals of one observation to another (Ghozali, 2007). Another test method can be used is the White method where the Heteroscedasticity hypothesis is used:

H_0 : There is no heteroscedasticity (> 0.05)

H_a : There is heteroscedasticity (< 0.05)

Hypothesis test

1. T Test

T test is conducted to see the significance of the influence of the independent variables individually on the dependent variable by assuming the other independent variables are constant (Gujarati, 2006). The testing criteria are as follows:

1. If $t \text{ count} > t \text{ table}$ then H_0 is rejected and accepts H_a , which means that the independent variable (X) partially affects the dependent variable (Y).
2. If $t \text{ count} < t \text{ tabel}$ then H_0 is accepted and rejects H_a , which means that the independent variable (X) partially does not affect the dependent variable (Y).

2. F Statistical Test

F test is performed to determine whether the independent variables together affect the dependent variable. If the F test is greater than the F table value, then the independent variable as a whole has

an effect on the dependent variable (Gujarati, 2006). The testing criteria used are as follows:

1. If $F_{count} > F_{table}$, then H_0 is rejected and accepts H_a , which means that the independent variables simultaneously affects the dependent variable.
2. If $F_{count} < F_{table}$ then H_0 is accepted and rejects H_a , which means that the independent variables do not simultaneously affect the dependent variable (Y)

Coefficient of Determination

The coefficient of determination (R^2) basically measures how far the model's are able to explain the variation of the dependent variable. The coefficient of determination is between zero and one ($0 < R^2 < 1$). The smallest value of R^2 means the ability of independent variables in explaining the variation of the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict variations in the dependent variable (Gujarati, 2006).

Correlation coefficient

According to Widarjono, (2017) the correlation coefficient measures the degree of closeness between two variables. The following provisions of the correlation are:

- a. If $r = 0$ or close to 0, then the correlation between the two variables is very weak or there is no relationship between the X variable with the Y variable.
- b. If $r = 1$ or close to 1, then the correlation between the two variables is strong.

4. RESEARCH RESULTS AND DISCUSSION

OLS Research Results by Using Multiple Linear Regression

This regression test aims to find out how the influence of independent variables on the dependent variable. Based on the test results of multiple linear regression analysis, it can be seen in Table 1 as follows:

Table 1
OLS Estimation (Multiple Linear Regression)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.76496	0.792084	21.16564	0.0000
Pendapatan	-3.67E-07	1.72E-07	-2.126128	0.0373
Pendidikan	-0.529489	0.194123	-2.727593	0.0082
Jumlah_Anggota	0.179847	0.081524	2.206068	0.0309
R-squared	0.246547	Mean dependent var	15.84058	
Adjusted R-squared	0.211772	S.D. dependent var	1.632602	
S.E. of regression	1.449460	Akaike info criterion	3.636482	
Sum squared resid	136.5607	Schwarz criterion	3.765995	
Log likelihood	-121.4586	Hannan-Quinn criter.	3.687864	
F-statistic	7.089817	Durbin-Watson stat	1.716856	
Prob(F-statistic)	0.000341			

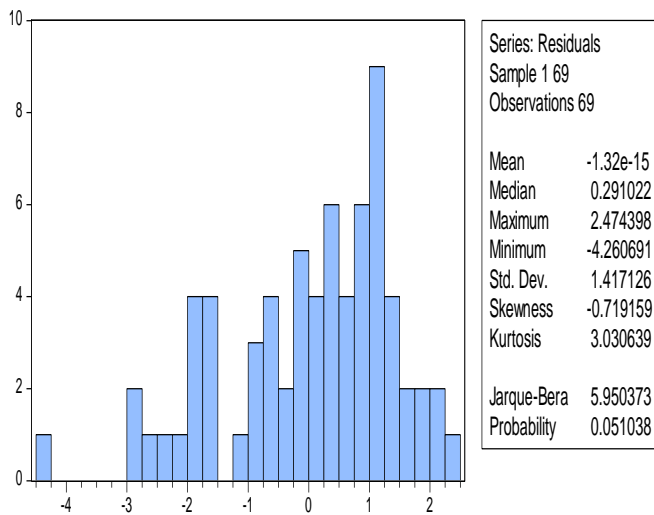
Source: Processed Data, 2019

$$Y = 16,76 - 3,67X_1 - 0,52X_2 + 0,17 X_3$$

The results of the above formula can be interpreted as follows:

1. Constanta of 16.76 shows that if the variable of parent income, education, and the number of family members is zero then the dependent variable of child worker is 16.76 number of people.
2. The variable coefficient of parents income has a value of - 3.67 This shows a negative relationship between parents income and child worker. This means that if the income of parents increases 1000 Rupiah, the number of child workers will decrease by 3.67 number of people.
3. The variable coefficient of parents education has a value of -0.52 This shows a negative relationship between parent education and child worker. This means that if the education of parents increases 1 year, the number of child workers will decrease by 0.52 number of people.
4. Variable coefficient of the number of family members has a value of 0.17 This shows a positive relationship between the number of family members and child worker. This means that if the number of family members increases by 1 person, the number of child workers will increase by 0.17 number of people.

Normality Test



Source: Processed Data, 2019

Picture 1
Normality Test Results

From Figure 1 above it can be seen that the histogram graph can form symmetrical distribution patterns, thus it is stated that the residuals are normally distributed.

Normality test results can also be seen by comparing the value between the probability of JB and a significant value of 5%. The results of the normality test indicate that the Prob JB value > 0.05 is equal to $0.051 > 0.050$, so it can be concluded that the residuals are normally distributed.

Classic Assumption Test

1. Multicollinearity Test

Table 2
Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
Pendapatan	2.98E-14	3.022306	1.028379
Pendidikan	0.037684	9.918979	1.022130
Jumlah_Anggota	0.006646	8.038242	1.029165
C	0.627397	20.60531	NA

Source: Processed Data, 2019

The results of multicollinearity test can be seen in table 2 above which shows that this model is free from multicollinearity problems where the value of centered VIF from the variables of parents income, parents education and the number of family members, each of them is

above 0.10, namely parents education value of $1.02 > 0.10$, education worth $1.02 > 0.10$, number of members worth $1.02 > 0.10$.

2. Heteroscedasticity Test

Table 3
Heteroscedasticity Test Results

Heteroskedasticity Test: ARCH

F-statistic	1.154666	Prob. F(1,66)	0.2865
Obs*R-squared	1.169200	Prob. Chi-Square(1)	0.2796

Source: Processed Data, 2019

From the results of table 3 above, it can be seen that the value of obs * R-square for the estimation results of the ARCH test is 1.16 and the value of the chi square table with a degree of confidence of 5% and df (5) is 90.53 because the value of Obs * R- squared $1.16 < 90.53$, it can be concluded that the above model is free from the problem of heteroscedasticity. This can also be seen from the Chi-Squared probability of 0.279, the value is $0.279 > 0.05$.

Hypothesis test

1. The t Test Results

The results of testing of the hypothesis in this study are as follows:

- Partially parents income has a negative and significant effect on child worker. This is indicated by the results of the value of t count $> t$ table that is $2.126 > 1.669$ and a significant value of $0.03 < 0.05$. Thus this study received H1.
- Partially parents education has a negative and significant effect on child worker. This is indicated by the results of the t count $> t$ table that is $2.727 > 1.669$ and a significant value of $0.00 < 0.05$. Thus this study received H2.
- Partially, the number of family members has a positive and significant effect on child worker. This is indicated by the results of the t count $> t$ table that is $2.206 > 1.669$ and a significant value of $0.03 < 0.05$. Thus this study received H3.

2. The F Test Results

Provided that if $F_{count} > F_{table}$, H_4 is accepted, if $F_{count} < F_{table}$, H_4 is rejected. This means that if $F_{count} > F_{table}$, there is an influence of income, parents education and number of family members on child worker. Simultaneously the income of parents, education of parents and the number of family members affect the child worker where $F_{count} > F_{table}$ is $7,089 > 2,520$ and a significant value of $0,000 < 0,05$.

Coefficient of Determination (R^2)

Coefficient of Determination test results, show that the value of Adjusted R Square is equal to 0.2465 or 24.65%. This shows that parents income, parents education and the number of family members are able to explain 24.65%. While the rest is influenced by other factors outside the model.

Correlation Coefficient (R)

The Correlation Coefficient (R) is to see the effect of the independent variable on the dependent variable having a positive or a strong negative effect. The number of R is $-1 < R < 1$. The results obtained based on Table 1 for the coefficient of determination (R^2) amounted to 0.2465 then the correlation coefficient (R) amounted to $\sqrt{R^2} = \text{ie } 49,648$. This result is positively related, because the R value approaches positive one.

Relationship of Parents Income to Child Worker

Parents income has a negative effect on child worker, meaning that the more the income of parents increases, the lower the rate of child worker. The income is the amount of income a person receives in a day or month. A person's income will affect the amount of expenditure in the form of a number of needs that will be consumed in a period. The low income received by parents tends to cause children to work for the fulfillment of their needs.

According to (Sahu, 2013) Low household income or family income makes the family will mobilize all family members to work

to meet their daily needs, including mobilizing children below working age. The lower the household income, the higher the working hours of child labor will be.

Relationship of Parents Education to Child Labor

Parents education has a negative effect on child worker, which means that as parents education increases, the level of child worker decreases. The education of the head of the household also triggers the emergence of child worker.

According to the results of the study (Bachtiar, 2015) Education of head of household negatively affects child worker. The lower the education, the higher the occurrence of child worker, (Bachtiar, 2015).

Relationship of Number of Family Members on Child Worker

The number of family members has a positive effect on child worker, meaning that the more the number of family members, the higher the level of child labor. According to (Adiana and Karmini, 2014) the number of dependents in the family is an element that can increase the amount of household consumption. This indicates that if there are a large number of family members, the amount of goods consumed is also more and more dependent on the demand of each individual can cause the child to work. This has been proven from the results of the research.

5. CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the results of the research that has been done, it can be concluded as follows:

1. The income of the head of the family has a very negative and significant influence on child worker.
2. The education of head of family has a negative and significant influence on child worker.
3. The number of family dependents has a positive and significant effect on child worker.

Suggestion

Efforts need to be made by the government together with the community to:

1. Increase the income of the head of the family both through training programs to improve the ability of human resources while providing capital loans for businesses with supervision and assistance.
2. Providing scholarships for poor children to meet their schooling needs
3. Improving the family planning program for the community.

REFERENCES

- Arikunto, S. (2002), *Prosedur Penelitian*, RinekaCipta: Jakarta.
- Adiana dan Karmini (2014), pengaruh pendapatan, jumlah anggota keluarga, dan pendidikan terhadap pola konsumsi rumah tangga miskin di kecamatan Gianyar. Jurusan Ekonomi Pembangunan Fakultas Ekonomi Universitas Udayana.
- Afrida, BR. (2008), *Ekonomi Sumber Daya Manusia*, Ghalia Indonesia: Jakarta.
- Arsyad, Lincoln. (2004). *Ekonomi Pembangunan*. Yogyakarta : BPFE Yogyakarta
- Brigham Eugene F. dan Houston Joel F, (2010), *Manajemen Keuangan*, Edisi kesepuluh, Buku Satu, (Terjemahan Ali Akbar Yulianto). Erlangga : Jakarta.
- Dyckman, R.Thomas, Roland E, Dukes And Charles J. Davis, (2002), *Akuntansi Intermediate* (Terjemahan Herman Wibow). Erlangga, Jakarta.
- Ghozali, Imam. (2005). *Aplikasi Analisis Multivariate Dengan Program SPSS*. Semarang : UNDIP.
- Harahap, Sofyan Safri, (2007), *Teori Akuntansi: Laporan keuangan*, PT.Bumi Aksara, Jakarta.
- Hariandja, Marihot Tua Efendi, (2006), *Manajemen Sumber Daya Manusia*, PT. Grasindo. Jakarta.
- Hartati N & Gunarsih T. (2008). Analisis Pengaruh Pendidikan, Kompensasi, Prosi dan Konflik dalam Organisasi terhadap Motivasi Kerja di Dinas Pendidikan dan Kebudayaan kabupaten Karanganyar. Dalam *Jurnal Daya Saing*.
- Hartono, (2007), *Manajemen keuangan*. Universitas Merdeka Malang.
- Irawan & Suparmoko, (2007), *Ekonomika Pembangunan*, BPFE – Yogyakarta, Yogyakarta.
- Kuncoro, Mudrajat, (2004), *Metode Riset untuk Bisnis & Ekonomi*, Bagaimana Meneliti & Menulis Tesis, Erlangga, Jakarta.
- Moekijat, (2007), *Manajemen Tenaga Kerja*, Pionir Jaya: Bandung.
- Mankiw, N.Gregory. (2006). *Teori Makroekonomi*. Erlangga : Jakarta.
- Mantra, Ida Bagus. (2003). *Demografi Umum* . Jakarta : Pustaka Raja
- Nanga, Muana. (2001). *Makro Ekonomi Teori Masalah dan Kebijakan*. PT Raja Grafindo Persada. Jakarta.
- Niswonger, C.Rollin, Philip E.Fess and Carl S.Warren. (2000). *Accounting Principles*. Ahli Bahasa Oleh Herman Wibowo. Prinsip-Prinsip Akuntansi. Jakarta
- Poerwadarminta, W.J.S. (2007), *Pertumbuhan Ekonomi*. Balai Pustaka: Jakarta.
- Prasetyoningrum, Rahayu dan Marwanti (2016) *Analisis Pola Konsumsi Rumah Tangga Petani Jagung Di Kabupaten Grobogan*.
- Raharja, Pratama dan Mandala Manurung. (2005). *Teori Ekonomi Makro*. Jakarta: Fakultas Ekonomi Universitas Indonesia.
- Ranupandojo (2006), *Tingkat Kemiskinan*, Jakarta: Fakultas Ekonomi Universitas Indonesia.
- Saduloh, (2006) *Faktor yang mempengaruhi kemiskinan*, Fakultas Ekonomi UI: Jakarta.
- Simamora, Hendri. (2010). *Manajemen Pemasaran Internasional*. Salemba Jakarta : Jakarta.
- Sitanggang (2014) *analisis faktor-faktor yang mempengaruhi konsumsi di provinsi sumatera utara*.

- Suzana, Premi Widya. (2007) Faktor-faktor Yang Mempengaruhi Tingkat Pendapatan Petani Padi Sawah di Kecamatan BatangKapas Kabupaten Pesisir Selatan. UNP :Padang.
- Sumarwan. (2003). Keluarga Masa Depan dan Perubahan Pola Konsumsi. Warta Demografi. Jakarta:LD.FEUI.
- Sukirno, Sadono, (2006), Ekonomi Pembangunan (Proses, Masalah, dan Dasar Kebijaksanaan). Fakultas Ekonomi UI: Jakarta.
- Sumarsono, Sonny, (2009), Ekonomi Sumber Daya Manusia Teori dan Kebijakan Publik. Graha Ilmu: Jogjakarta.
- Suryawati, C (2005), Memahami Kemiskinan secara Multidimensional. JMPK Vol. 08/No.03/September/2005.
- Sunaryanto, (2005), Manajemen Keuangan, Teori dan Aplikasi, Yogyakarta : BPFE.
- Stice, Earl K., James D. Stice, dan Fred Skousen, (2004). Akuntansi Keuangan Menengah, Edisi Kedua, Salemba Empat, Jakarta.
- Todaro, Michel, p, stevhen, (2004). Ekonomi dalam Pandangan Modern(Terjemahan), Jakarta Aksara.
- Umar, Husen, (2003), Metode Penelitian Kuantitatif, Alfabeta, Jakarta.