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State Polytechnic of Sriwijaya – Indonesia

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REMARKS FROM DIRECTOR



AssalamualaikumWaRahmatullahiWaBrakatuh,
In the Name of Allah, the Most Beneficent, the Most Merciful
May the peace, the mercy, and the blessing of Allah be upon you.

Distinguished Participants, Ladies and Gentlemen,
On the behalf of State Polytechnic of Sriwijaya, I would like to welcome you all to the
International Conference FIRST 2016 on Renewable Energy for Sustainable
Development

Forum in Research, Science, and Technology(FIRST)is a meeting organised to accomodate researchers, academics, businessman, and government to follow up research results, to identify industry needs and to keep updated with the government policies. This forum has moved from national scale into an international conference which is conducted annually by State Polytechnic of Sriwijaya. This year, FIRST brings a theme “Renewable Energy for Sustainable Development”. It is realised that efforts to solve environmental problems that we are facing today need long term potential actions for sustainable development; And renewable energy resources is one of the most appropriate solutions. Therefore discussing about renewable energy automatically deals with sustainable development.

All papers presented in the conference are documented in proceedings. The proceeding features 71 papers divided into several fields including Environment, Biomass to Energy, Renewable Energy, Audit Energy, Technology for Energy, Design/Modelling, Economic Sustainability and Management. In brief, the relations between renewable energy and sustainable development are described with practical cases and several issues relating to renewable energy, environment and sustainable development from both current and future perspectives.

Our thanks are conveyed to the Governor of South Sumaterafor providing us direction and views related to the importance of renewable energy resources. Also appreciation and gratitude to the keynote speakers, H. Alex Nurdin, Governor of South Sumatera Province, Prof. TjandraSetiadi, Ph.D., ITB, Indonesia, and Prof. Dr. Werner Rammensee, Cologne University, Germany. Also to invited speakers,Prof. Dr. ErryYulianTriblasAdesta, International Islamic University, Malaysia, Christian Overfeld, Lucas Nuelle, Germany, Dr. Sonny Zuhuda, International Islamic University, Malaysia,Ir. Tri Mumpuni, Kementerian ESDM dan IBEKA, Indonesia, Ir. Fahrurrozi, M.Si., Business Head Chemicals Group, PT. BASF Indonesia and Head of Business Development, FederasiIndustri Kimia Indonesia ontheirpresentation related to renewable energy for sustainable development.

Further we extend deepest gratitude and high appreciation to all presenters and contributors to make this conference possible and these proceedings published. It is realised that publication of these proceedings are still far from being perfect; however, hopefully it will be useful for energy scientist, engineers, policy makers and any other readers as references for enriching their knowledge .

May God bless us all with the health to make this event a successful and enjoyable one!

Thank you.

Dr. Ing. Ahmad Taqwa, M.T.
Director of State Polytechnic of Sriwijaya

MESSAGE FROM THE CHAIRMAN

BISMILLAHIROHMANIRROHIM,
ASSALAMUALAIKUM WW.,

Good Morning Everyone

May the peace, the mercy, and the blessing of Allah be upon you.

The honorable governor of South Sumatra Province, Bapak H. Alex Noerdin
The honorable Director of State Polytechnic of Sriwijaya, Bapak Dr. Ahmad
Taqwa

Distinguishedspeakers, Presenter, Guests, and Participants,

It is my great pleasure to welcome and thank you very much for your contributions to this renewable energy conference. This conference which will take place on 18 up to 19 of October 2016, is conducted firstly this year through the initiation of Chemical Engineering Department, State Polytechnic of Sriwijaya, aims to exchange the ideas from governments, non-governmental organizations, research and academic institutions, international organizations, and industries, to learn from each other and build on successes that advance renewable energy for sustainable development.

I am very happy to inform that the committee is very lucky to have 3 keynote speakers, i.e Bapak H. Alex Noerdin, the governor of SS province, Prof. Chandra Setiady from ITB Bandung and Prof Werner Ramensee from Cologne University of Germany, who supported us from the very beginning with their capabilities to present, sharing knowledge and experiences with us here as well as the invited speaker i.e Prof. Dr. Erry Yulian Triblas Adesta, International Islamic University, Malaysia, Christian Overfeld, Lucas Nuelle, Germany, Dr. Sonny Zuhuda, International Islamic University, Malaysia, Ir. Tri Mumpuni, Kementerian ESDM dan IBEKA, Indonesia, Ir. Fahrurrozi, M.Si., Business Head Chemicals Group, PT. BASF Indonesia and Head of Business Development, Federasi Industri Kimia Indonesia.

Distinguished Guests, Presenter, and Participants,

On this special occasion, I would like to report that the conference manage to succesfully attract more than 71 academician to present their abstract, i.e from Kuwait, Germany, Algeria, Malaysia, Cambodia and of course Indonesia. Amongst others there 69 abstract to be presented in this seminar under professional selective review. And for that reason, I personally would congratulate you all as distinguished speaker to this event.

This conference has collaborated with two international journal i.e Journal of Engineering and Technological Science, ITB and Gadjah Mada International Journal of Business. All selected papers are then peer-reviewed to meet the publication standard. The peer reviewer of each manuscript is rigorous and concentrates on objective and technical concern to determine whether the research has been sufficiently well conceived, executed and described.

Excellencies, Distinguished Guests, Ladies And Gentlemen

I would also like to give special welcome to Lucas Nuelle, PT. Merck Chemicals and Life Sciences, CV. BestariSetiaAbadi, PT. BangunEnergi, PT. Ditek Jaya, PT. Bank MandiriTbk., PT. Indofood SuksesMakmur and individual who support this conference through sponsorship. I believe that we could never thank you enough for that.

Finally, I expect all participants have memorable moment through this conference and enjoy your stay in Palembang, South Sumatra Province, Indonesia. Thank you.

Sincerely
Chairman of Organizing Committee
H. Firdaus

KEYNOTE SPEAKER



H. Alex Noerdin
Governor of South Sumatera



Prof. Tjandra Setiady, Ph.D
ITB, Indonesia



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INVITED SPEAKER



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**HOUSEHOLD CONSUMPTION PATTERNS OF PRODUCTION WORKERS, OPERATORS,
AND BLUE-COLLAR WORKERS IN PALEMBANG, SOUTH SUMATERA**
Neneng Miskiyah¹, Taufiq², Tatang A.M. Sariman², Rosmiyati Chodijah²

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Abstract. The study analyzed the consumption pattern of households of production workers, operators, and blue-collar workers, both for consumption of food and non-food then compared the consumption patterns among households of workers who switched to other sectors and those who did not. In this study, the type of data used is the cross section and using a questionnaire. The model of analysis applied in this study is the multiple linier regression. This research obtains the following findings. *First*, for the consumption of food and non-food consumption, they are strongly influenced by the income of respondents and family income both for workers who switched to other sectors and those who did not. *Secondly*, by only considering the income of respondents, number of family members significantly affects the consumption of food and non-food consumption in the category of workers who switched to other sectors, while the workers who did not, the number of family members only significantly affects food consumption. *Thirdly*, education is only a significant influence on the consumption of non-food for workers who did not switch to other sectors. *Fourth*, the average food consumption expenditure for the families of workers who switched to other sectors is 53.06 percent compared to the average non-food consumption expenditure with 46.94 percent. Furthermore, the average consumption expenditure for working families who did not switch to other sectors, the food consumption is 49.35 percent which is less than the average non-food consumption expenditure with 50.65 percent.

Keywords: consumption pattern, income, Workers mobility

I. INTRODUCTION

Workers who perform mobility from one sector to another are as decision makers in investing in human capital which gives great benefit to the workers themselves (Mincer and Boyan, 1981). The same thing is also expressed by Pack and Paxson (1999), that through the mobility of the workers, they will earn a better income from their previous jobs. The positive impact of mobility of workers is rising household incomes, which will affect household consumption expenditure (Susilowati, 2001).

There is a link between income and consumption, which according to Keynes (Sukirno, 2000) consists of three (3) terms. *First*, it is revealed that consumption is a positive function of income. The higher the income, the more consumption is likely to be done. *Second*, when income increases, the level of consumption will also increase but at a smaller amount than the increase in the income. *Third*, even if a person or a family has no income, they still do the consumption.

Consumption is not only influenced by the relative or absolute income at a certain time, but

also by historical factors and the level of the previous consumption. Therefore, if the income is lower than it is received now, it is difficult for them to change the level of consumption to become below standard. Although it happened, they just did a little change as the reaction to the decline in the income. Instead there is always a tendency to adjust consumption patterns to income levels that existed. Broadly speaking, people's consumption can be classified in two group usage, namely the expenditure for food consumption, and expenditure for non-food consumption (Dumairy, 1999).

Based on data from Central Bureau of Statistics South Sumatra Province in 2014, the largest percentage of the population of Palembang based on their job type is a group of production workers, operators, and blue-collar workers in the amount of 33.85 percent. Workers who are in this group tend to be less educated, do not have the expertise, and earn low incomes. Such conditions then allow workers to switch to the sector to look for better income from their previous jobs, and switch from less productive sectors to more productive sectors.

The problem often faced by groups of workers whose earned income is relatively low, making it difficult to meet the needs of family life. Through household consumption expenditure approach can provide an overview of the consumption patterns of households and socio-economic variables that affect it. The expected results of this study can be considered to government in decision-making, especially with regard to the welfare of society.

This study differs from previous studies because in this study to analyze the consumption pattern of the households of production workers, operators, and blue-collar workers, which meant workers are those who switched to other sectors and those who did not.

How is consumption expenditure of production workers, operators, and blue-collar workers? In general the amount of consumption expenditures per person will vary depending on many factors. Based on the things that have been mentioned above, there are two issues to be analyzed: (1) what factors that influence the consumption patterns of the household of production workers, operators, and blue-collar workers?, and (2) how is the consumption pattern comparison of household between workers who switched to other sectors and those who did not?

II. LITERATURE REVIEW

Theoretical Overview

Household Consumption Expenditure

Consumption expenditure of a person is a part of the income spent. Consumption patterns between people who already established and those who are not vary greatly. The amount of consumption expenditure not only lies in the comparison of the relative size of the MPC and MPS, but also lies in the pattern of consumption itself (Dumairy, 1999). The consumption patterns of individual and society depend on their income and if there is an increase on the income, assuming the price is constant, the part of income consumed will increase, too (Pindyck, 1999).

Household consumption expenditure is the value of expenditure made by households to purchase various types of needs. Household income received will be used to purchase food and non-food needs. Consumption expenditure made by all households depends on the income received. The greater the income received, the greater the consumption expenditure (Sukirno, 2000).

In the theory of consumption using life cycle hypothesis expressed by Ando-Modigliani (Branson, 1989), he argues that the consumption

of a person at a particular time is affected by two factors: (1) income received throughout his life, and (2) the length of a person's life he does not work anymore. It also expressed by Froyen (2002) who states that the life cycle hypothesis depends on consumption and saving. When they are younger, they tend to make savings and these savings will continue to rise until they retire. The goal of these savings is to finance their consumption when they are older. Life cycle hypothesis provides an important contribution in understanding the behavior of consumption. This hypothesis indicates that consumption is not only determined the present income but also determined by the forecast income in the future. Next, it also shows the role of wealth in influencing consumption.

Engel's Theory

The function that connects the balance amount of goods bought by consumers at all income levels is represented in Engel's curve (Nicholson, 1989). Functionally, Engel's function is a simplification of the demand function which considers the price factor is constant, so the functional form becomes $X_i = f_i(Y)$. In this function, income is the only variable that stays constant and price changes are considered along with changes in income. Engel's theory concludes 4 (four) items as follows:

1. If income increases, the percentage of expenditure for food consumption will be getting smaller;
2. The percentage of the consumption expenditure on clothing expenses is relatively constant and does not depend on income level;
3. The percentage of consumption expenditure for household expenditures is relatively constant and does not depend on income level;
4. If income increases, the percentage of expenditure on education, health, leisure, luxury goods, and savings will also increase.

Keynes states that the most important factor that determines the amount of household expenditures, both for individuals and the whole is revenue (income = Y). Income (Y) at a particular time can simply be used for consumption (C) and for savings (S) (Mankiw, 2007)

Empirical Overview

Khan, Azam, and Qureshi (2014) reveal that income is an important factor in consumption. In long term, the income elasticity and previous consumption is almost the same, but in comparison, the consumption has a

stronger effect than income. In the short term, the income elasticity is greater. If the government gives priority to long-term policy to increase revenue, it will increase the rate of consumption, production capacity, employment, and reduce poverty.

Kolasa (2012) indicates on the findings of the study that income and consumption pattern of the life cycle in Poland only rely on estimated income distribution and consumption as well as labor mobility which impact on the increase of the income. The existence of income inequality between Poland and the United States, where the difference is on the income which is still less than the United States. For educated households, the increase is the most intense in the early phase of life up to the age of 30. In this cycle, average consumption is almost close to the average income.

Tapsin and Hepsag (2014) suggest that household consumption expenditure is as a significant financial planning tool. Household consumption expenditure is also considered as a primary economic indicators in determining the welfare of the family. In this study, the income is a proxy of the Gross Domestic Product (GDP). This study which is conducted for the Euro Zone, the result shows that an increase of 1 (one) dollar of GDP will increase household consumption of 0.566 dollars.

Barigozzi et al (2009) discuss the statistical properties of household consumption expenditure for the purchase of certain categories of commodities in Italy. It is found that the distribution of bylaws from time to time (period 1989-2004) is stable enough for any given category, and (1) it is consistent with that observed statistical properties of the underlying rate of household consumption expenditure distribution; (2) it can accommodate all categories of the heterogeneous distribution of bylaws. The resulting classification is that household consumption expenditure is consistent between luxurious commodities and traditional ones.

Wang (2013) analyzes the mobility of workers on multinational enterprises (between the United State and Canada) and its implications for welfare. The result shows that mobility of workers can increase welfare, especially for those who have the skills for all types of jobs in both countries. On the other hand with the mobility of workers can narrow the space for native workers who live in the country of origin. The results of the study support to the view that greater openness to mobility can bring prosperity for everyone.

Saptanto et al (2011) study the mobility of labor from coastal areas to the goal area of migration because through migration, people

can get jobs and incomes, to escape from poverty and food insecurity. The migration activity encourage the flow of labor, money and goods and services between destinations and regions of origin of migrants. Labor migration to the migration destination is at least able to transfer money to their village of origin of migrants around Rp 500 million per month. The migration also boosts the expenditure on food consumption and non-food in coastal village.

Framework

The study analyzed the consumption pattern of households of production workers, operators, and blue-collar workers, both for consumption of food and non-food consumption then compared the consumption patterns among households of workers who switched to other sectors and those who did not. With a limited income either earned by workers who switched to other sectors to earn a better income from a previous job or earned by workers who did not, it can be compared from both sides to see the proportion of household consumption expenditure for consumption of food and non-food.

In addition to household income, production workers, operators, and blue-collar workers are also influenced by education, age, number of family members, and working experience. Different from previous studies, this study compares the patterns of household consumption between groups of workers who switched to other sectors and those who did not.

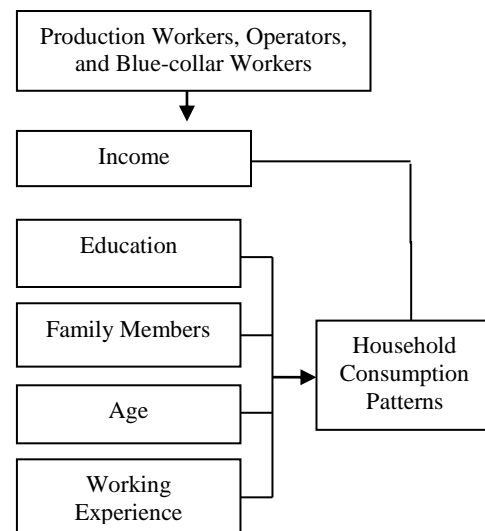


Fig. 1 Operational Framework

Hypotheses

1. There are differences in the patterns of household consumption expenditure for food consumption between workers who switched to others sectors and those who did not;

2. There are differences in the patterns of household consumption expenditure of non-food consumption between workers who switched to other sectors and those who did not;
3. Respondent income and family income significantly influences expenditure of food consumption and non-food consumption;
4. Education significantly influences expenditure of food consumption and non-food consumption;
5. The more number of family members, the greater the expenditure of food consumption and non-food consumption;
6. Age significantly influences expenditure of food consumption and non-food consumption; and
7. Working experience significantly influences expenditure of food consumption and non-food consumption both for workers who switched to other sectors and those who did not.

III. METHODS OF RESEARCH

The Scope of the Study

This study discusses the consumption patterns of households of production workers, operators, and blue-collar workers: a comparison between workers who switched to other sectors and those who did not in Palembang, South Sumatera. The analysis in this study focuses on workers employed in the primary sector, the secondary sector and the tertiary sector.

This research was conducted in Palembang as the capital of South Sumatera Province. Palembang is one of the major cities located in South Sumatera with population of more than 500,000 people.

Population and Sample

The population in this study were all workers who work in the primary sector, secondary, and tertiary in Palembang in total of 600,408 people. Respondents were all workers who work in the primary sector, secondary, and tertiary. By using the Slovin formula (Sangadji, and Sopia, 2010) the sample in this study was 100 people. Determination of the sample using the stratified proportional random sampling by primary sector, secondary, and tertiary, then obtained number of samples of each sector is as follows: the primary sector 3 people, 20 people for secondary sectors and tertiary sectors 77 people (Singarimbun, 1995). According to Roscoe cited in Sekaran (2011), in order to determine the size of the sample, if the sample is broken down into subsamples, the sample size for each category is minimum 30. Therefore in

Palembang, the number of samples in the primary sector increased from 3 people to 30 people, and the number of samples in the secondary sector increased from 20 people to 30 people. So overall number of samples was 137 people.

Data Types and Sources of Data

In this study, the type of data used is the cross section which is the data that describe the condition of the sample in a given point in time. Primary data were obtained using a questionnaire or list of questions. Other necessary supporting data obtained from various survey done by Central Bureau of Statistics (BPS) of Palembang and Central Bureau of Statistics South Sumatra entitled Indonesian Standard Industrial Classification 2010 Population Census and the Standard Classification of Occupation in Indonesia in Population Census 2010.

Analysis Technique

The analysis technique used in this research is descriptive analysis of qualitative and quantitative studies (Kuncoro, 2003). Qualitative descriptive analysis is used to obtain an overall description of the observed variables. Quantitative analysis is used to identify the effect of independent variables on the dependent variable using multiple regression analysis. To analyze the function of household consumption by using Engel's theory is done by inserting the variables considered to affect the pattern of household consumption. In this study, the variables used in the regression analysis are as follows:

$$C = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where:

C = Household consumption

X₁ = Income

X₂ = Education

X₃ = Number of family members

X₄ = Age

X₅ = Working experience

e = error term

This study examined the consumption patterns of households of production workers, operators, and blue-collar workers who were specified according to the category of workers who switched to other sectors and those who did not. This study also tried to see to what extent the income of respondents and family income influence the household consumption patterns.

Models of specification are as follows:

Model Category I (workers who switched to other sectors)

$$C_{\text{food (ms)}} = \beta_0 + \beta_1 X_{1R} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

$$C_{\text{non-food (ms)}} = \beta_0 + \beta_1 X_{1R} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

$$C_{\text{non-food (ms)}} = \beta_0 + \beta_1 X_{1K} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Model Category II (workers who did not switch to other sectors)

$$C_{\text{food (nms)}} = \beta_0 + \beta_1 X_{1R} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

$$C_{\text{non-food (nms)}} = \beta_0 + \beta_1 X_{1R} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

$$C_{\text{non-food (nms)}} = \beta_0 + \beta_1 X_{1K} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where:

- $C_{\text{food (ms)}}$ = Consumption of food Category I
 $C_{\text{non-food (ms)}}$ = Consumption of non-food category I
 $C_{\text{food (nms)}}$ = Consumption of food Category II
 $C_{\text{non-food (nms)}}$ = Consumption of non-food category II
 X_{1R} = Income of respondents
 X_{1K} = Income of family members
 X_2 = Education
 X_3 = Number of family members
 X_4 = Age
 X_5 = Working experience
 e = error term

Operational Definition of Variabels

1. Consumption pattern is household consumption expenditure of production workers, operators, and blue-collar workers who switched to other sectors and those who did not for food and non-food needs, expressed in rupiah every month.
2. Respondents income is income received by the respondents as production workers, operators, and blue-collar workers both for workers who switched to other sectors and those who did not, expressed in rupiah every month.
3. Family members income is the sum of income of all family members contributed to fulfill the family's needs and living in one family, expressed in rupiah every month.
4. Education is the length of education received by the respondents formally, expressed in terms of years.
5. Number of family members is the number of people who lives in one household along with the respondents which become their dependents (expressed in terms of person/people).
6. Age is the number of years which respondents are living, calculated from birth

to the time the research was carried out (in terms of years).

7. Working experience are the measurement of the length of time or employment either at the previous jobs and the new jobs that have been taken by the respondents (in terms of years).

IV. RESULTS AND DISCUSSION

Influence of Income of Respondents, Education, Number of Family Members, Working Experience, Age on the Consumption of Food and Non-food

Group of Workers who Switched to other Sectors in Category I

The regression results obtained show that R^2 values of 0.590, can be explained by variable of food consumption is influenced by variables of respondents' income, education, number of family members, work experience, and age by 59 percent, while the remaining 41 percent is explained by other variables outside the model.

In this category, income of respondents and number of family members had a positive and significant impact on food consumption expenditure. Value $\beta = 0.274$ shows that if income respondents (X_{1R}) rise 1 percent, the consumption of food would also rise by 27.4 percent. While the number of family members (X_3) indicates that if the number of family members increased by 1 (one) person the food consumption expenditure would also rise by 19.7 percent.

Not much different from the results of food consumption expenditure, the consumption of non-food was significantly influenced by the income of respondents and number of family members because it has a significance value below 0.05. This condition can be explained that when the income of respondents rise by 1 percent, non-food consumption would increase by 22.1 percent, while for the number of family members, if the number of family members increased by 1 (one) member of the family, the non-food consumption expenditures would rise by 13.7 percent.

The relationship between all the variables to non-food consumption was quite closely to food consumption where R^2 value of 0.44 or 44 percent can be explained by variables studied, while 56 percent are influenced by other variables outside the model.

The Group of Workers who did not Move to other Sectors in Category II

The regression results show that variables of respondents' income, number of family members, and work experience significantly

influenced food consumption expenditure. Value β on revenue of 0.291 respondents showed that if income of respondents increased by 1 percent, the food consumption expenditure would also increase by 29.1 percent. While for the number of family members, if there is the addition of 1 (one) member of the family, food consumption expenditure would increase by 15.1 percent. Furthermore, variable of working experience provides a positive and significant effect, meaning that if the respondents work experience increases (in years) then it will affect food consumption expenditure of 1.15 percent.

As for non-food consumption expenditure, variables which significantly influenced the expenditure were income of respondents and education. If the income of respondents increased by 1 percent, non-food consumption expenditures would also rise by 19.9 percent. For the education variable, can be described that educational level of workers increased by 1 (one) year, it would affect non-food consumption expenditure by 5.8 percent.

The relationship between the variables of income of respondents and food consumption was quite closed indicating that R^2 value of 0.517, while for non-food consumption the value of R^2 was not as high as the previous. It was only 0.261

Influence of Family Income, Education, Number of Family Members, Working Experience, Age on the Consumption of Food and Non-food

Group of Workers who Switched to other Sectors in Category I

The regression results obtained for food consumption indicated that the R^2 value of 0.610, meaning that variable of food consumption patterns were influenced by variable of family income, education, number of family members, working experience, and age by 61 percent. While the remaining 39 percent is explained by other variables outside the model.

Calculating by the result that the regression equation for the workers who switched to other sectors, household income had a significance value below 0.05, it is clear that the family income significantly influenced food consumption. If the family income rose by 1 percent, the food consumption would increase by 25.2 percent. The next variable that significantly influenced was the number of family members. The value of the variable β of 0.155, indicates that if there was the addition of 1 (one) member of the family, the food consumption would also increase by 15.5 percent.

Meanwhile for non-food consumption, the

only variable, family income, significantly affected non-food consumption. From the calculation by the regression equation, a constant value of this variable was at 0.254. Although only variable was significant, the R^2 value of 0.527, or 53 percent showed that the variables family income, education, number of family members, working experience, and age affected non-food consumption, the remaining 47 percent was affected by variables outside the model.

The Group of Workers who did not Move to other Sectors in Category II

Results of regression for food consumption obtained show that the R^2 value of 0.547 meaning that 54.7 percent of variable of food consumption pattern was influenced by variables of family income, education, number of family members, working experience, and age, and the remaining 45.3 percent is influenced by other variables not examined. In this second category, only family income and number of family members significantly influenced food consumption. Variable coefficient value of family income was positive, therefore it can be explained that if the family income rise 1 percent, the food consumption expenditure would increase by 32.6 percent. The next positive and significant impact variable is the number of family members, where the significance value of 0.038 was smaller than $\alpha = 0.05$. This value indicates that if the number of family members increased by 1 (one) person, the food consumption expenditure would increase by 9.8 percent.

For non-food consumption R^2 value was 0.397. It is clear that only 39.7 percent of the variables family income, education, number of family members, work experience, and age affect non-food consumption patterns, while 60.3 percent are influenced by other variables outside the model, In this second category, for non-food consumption only family income significantly affected non-food consumption. When the family income rise by 1 percent, non-food consumption also increased by 33.8 percent.

In this study, it turned out that production workers, operators, and blue-collar workers grouped into two categories: those who switched to other sectors and those who did not had different consumption patterns of food consumption and non-food consumption.

From the foregoing description, it has been explained that in this case, an increase in both respondents' income and family income significantly influenced food and non-food consumption. Number of family members affected food consumption expenditures for all

categories, only in Category I (income of respondents), the number of family members affected the consumption of non-food expenditure. It is interesting that actually working experience variables affected household food consumption of respondents who did not switch to other sectors (category II / income of respondents). In the same category for non-food consumption expenditure, education variable influenced significantly.

In theory mentioned and also based on previous research, it is stated that the greater number of dependent family members, the greater the consumption expenditure for food and non-food consumption. For this case, the large number of family members affect food consumption expenditure both groups of workers who switched or did not to switch to other sectors. While only in Category I namely non-food consumption, workers who did not switch to other sectors (for income of respondents) that the number of family members influenced significantly.

Comparison of Household Consumption Patterns between Workers who Switched to other Sectors and Those who did not on Consumption of Food and Non-food

Rising household income levels generally lead to non-food consumption expenditure which tends to be even greater, because all of the needs for food consumption have been fulfilled, or vice versa. This is in accordance with Engel's Theory which states that if there is no different in taste, the percentage of food expenditure will decrease with the increase of income (Nicholson, 1989).

Comparison of household consumption patterns between workers who switched to other sectors and those who did not is presented in Table 1 below.

TABLE 1
COMPARISON OF HOUSEHOLD CONSUMPTION PATTERNS BETWEEN WORKERS WHO SWITCHED TO OTHER SECTORS AND THOSE WHO DID NOT ON CONSUMPTION OF FOOD AND NON-FOOD

Workers' Mobility	The Average of Consumption Expenditure		Total
	Food (%)	Non-Food (%)	
Switched sectors	53,06	46,94	100
Did not switch sectors	49,35	50,65	100

Source: result of data computation, 2016

Based on Table 1, the comparison of household consumption patterns between

workers who switched to other sectors and those who did not on consumption of food and non-food shows differences. The average food consumption expenditure for the families of workers who switched to other sector was 53.06 percent compared to the average non-food consumption expenditure of 46.94 percent. Furthermore, the average consumption expenditure for working families who did not switch to other sectors, food consumption, 49.35 percent was less than the average non-food consumption expenditure of 50.65 percent.

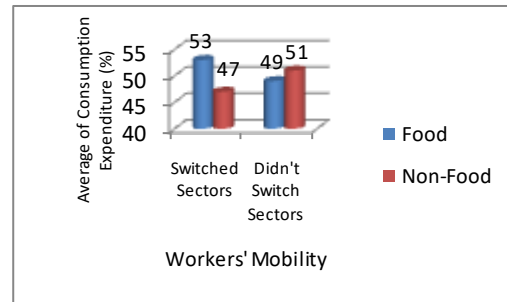


Fig. 2 Comparison of Household Consumption Patterns between Workers who Switched to other Sectors and Those who did not on Consumption of Food and Non-food

Figure 2 shows that there are clear differences between the allocations for food and non food consumption on household of workers who switched to other sectors and those who did not. Household of workers who switched to other sectors allocated more expenditure on food needs, while the household of those who did not allocated more expenditure on non-food needs.

V. CONCLUSIONS

Some conclusions based on the results of data analysis and discussion are presented below:

1. Households of workers who switched to other sectors allocate more expenditure on food needs, while the households of those who did not allocate more spending on non-food needs.
2. For workers who switched to other sectors in category I, the results are; (a) the income of respondents and family income show a significant influence on food consumption and non-food expenditures; (b) taking into account the respondents' income, number of family members turns out to show significant results on food consumption, and will only affect non-food consumption in Category I; (c) education does not significantly affect food consumption, but education only significantly affects non-food consumption (category I).

3. For workers who did not switch to other sectors in category II, the results are: (a) the income of respondents and family income show a significant influence on food consumption and non-food expenditures; (b) taking into account the income of respondents, education turns out to be only a significant influence on the consumption of non-food expenditure.

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