Entrepreneurship and Household Income
In Kotamobagu and Bolaang Mongondow

Paulus Kindangen, Johan Tumiwa
Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi

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Abstract: The City of Kotamobagu and Regency of Bolaang Mongondow are two selected regions for this research. The respondents of this research are the head of households and/or housewives. The respondents were chosen purposively which are those of at least junior high school education. From 3 villages and 3 kelurahan (kelurahan is a village-level administrative region in a city), 60 households were chosen as respondent base. Thus, in average, 10 households were chosen from every village and kelurahan. The result of research shows that every independent variable – commitment and perseverance, initiative and action, and adaptive ability – does have positive and significant partial influence on household income in Kotamobagu and Bolaang Mongondow. It also shows that all the independent variables simultaneously influence household income positively and significantly.

Kata Kunci: pendapatan rumah tangga, kewirausahaan, komitmen dan ketekunan, inisiatif dan tindakan, dan kemampuan adaptif.

INTRODUCTION

Background
One of the four pillars of ASEAN Economic Community is equitable economic development. One of the objective of the equitable economic development is increasing economic welfare materialized in equality at higher level of income and, of course, lower level of poverty. ASEAN Vision 2020 is accomplishing stable, prosperous, and higher competitiveness region with equality economic development indicated by reduction of poverty and social-economic disparity.

Poverty is a fact of social and economic life we can see everyday in cities or villages. Low income results in lack of nutrition, lack of health, low education, lack of knowledge and skill, and low quality of human resources. The further consequences are low productivity as well as low production and income, therefore the existence of poverty remains. Poverty, thus, forms a vicious circle.

To achieve the vision of ASEAN, every member country must have its own endeavor to strengthen national economy. Better prosperity, higher competitiveness, poverty reduction and low social-economic disparity must be realized in every country and, of course, especially in Indonesia, in order to realize the objective of ASEAN – now, ASEAN Economic Community.

Income is one of economic variables which is very interesting for economists to study. Income is usually used as a measure or indicator of living standard of people or households in any society or economy. Low income indicates low standard of living or reveals poverty while high income level indicates higher standard of living which exposes prosperity or better economic welfare.

Entrepreneurship is believed as an important factor of income of a person, a household, a business firm, as well as a society. Developed nations usually have relatively larger number of entrepreneurs compared to the developing countries. David McClelland is well known on his suggestions that a country will be prosperous if it has at least 2 percentage of its population as entrepreneurs (Nugroho, 2009).

Indonesia is a rich country in terms of natural resources. North Sulawesi is one province with a huge potential wealth of natural resources: rich of fish as one of marine resources, fertile soil, and beautiful nature. Soil fertility can be clearly indicated by the fertile coconuts, cloves, and nutmeg as the main traditional commodity plants in this region. Rice and corn are among the main agriculture commodity that can also grow easily and productively.

In the abundance of natural resources, many people work productively and enjoy high income by smartly and diligently making use of the richness of the resources, but there are still people live in poverty. The willingness and capability to utilize and manage the resources as well as opportunity can explain the disparity in production and income of people. Rich natural resources and existence of opportunities clearly require human resources of good quality to use and manage them for enjoying benefit and realizing better standard of living.

This study was conducted to know the reason of income inequality among people based on the research question: how entrepreneurship influence household income in the City of Kotamobagu and the Regency of Bolaang Mongondow?

THEORITICAL CONCEPT

Household income
In macroeconomics, household consumption is function of income, \( C = f(Y) \), where \( C \) is consumption and \( Y \) is income. In The General Theory of Employment, Interest, and Money published in 1936, John Maynard Keynes accentuates the role of income. Keynes gives emphasis on income despite his belief that the other factors such as interest rate and wealth could have influence on consumption (Case et al., 2009).

Households generate income from three sources: (1) upah atau gaji; (2) dari properti seperti modal dan tanah; (3) dari pemerintah (Case et al., 2009). Wage or salary is determined by skill and skill is determined by knowledge as a result of education, training, or experience. In general, education is the most important factor influencing income. Income from property is obtained from the ownership of real asset and financial asset. Income from government is usually known as transfer. It is the payment of government to people without obligation of the people to supply goods or services to the government. The government transfer is generally payed to those of low income or the poor who experience disaster.
Entrepreneurship as a production factor

A household or a business firm can transform inputs into outputs in various ways or methods, using various combination of inputs such as labor, raw materials, and capital or capital goods. The relationship between inputs and outputs is explained by production function. A production function denotes the highest level of production could be achieved by firm for every combination of inputs (Pindyck dan Rubinfeld, 2009).

In economic theory, production is influenced by the factors of production. The factors of production are the inputs or resources needed to produce goods or services (Colander, 1998:67) or anything employed by a firm as part of production process (Pindyck and Rubinfeld, 2009). The factors of production are the basic resources available for people or business firms: (1) land, (2) labor, (3) physical capital, (4) human capital, (5) entrepreneurship (Miller, 2010). Other classification, among others: (1) labor; (2) natural resources; (3) capital; (4) entrepreneurship (Boone and Kurtz, 2011) 2009:57). Case et al (2009) argues that most economists of today implicitly assume that entrepreneurship are available in large number; if there is opportunity for gaining profit, the the entrepreneurs arise to take advantage from the opportunity.

Pindyck dan Rubinfeld (2009) mentions only three factors of production: labor, raw materials, and capital; entrepreneurship is assumed included in labor. The labor input is assumed to include skilled workers such as engineer and craftsman, unskilled workers, and entrepreneurship endeavors of manager.

Innovative entrepreneurs (Case et al, 2009) who want to face risks are considered important human resources in any economy. In a developing country, new production techniques are required to be invented because the production techniques are usually adapted from the already developed technology of developed countries.

A production function is shown by an equation of Q = f (K, L); Q is output, K is capital, and L is labor. If the factors of production embracing land, physical capital, human capital, and entrepreneurship are included in the model of production then the function becomes Q = f (L₁, L₂, K, H, E) where L₁ is land, L₂ is labor, K is physical capital, H is human capital, and E is entrepreneurship.

The production in the notation Q can be changed into money value or income by multiplying it by its price. The greater the production volume or the larger the Q, given the price, the larger is the income.

Entrepreneurship has positive influence on production and, hence, on income. The higher the entrepreneur level or entrepreneurship spirit, the higher the production. Miller (2010) suggests that entrepreneurship is the component of human resources with a role of performing the function of increasing capital, organizing, managing as well as assembling the other factors of production, making basic decisions of business, and taking risk. Entrepreneur is someone organizing, managing, and taking or facing risk of a business, grasping or taking new ideas or new products and transforming them into a success business (Case et al, 2009).

Boone and Kurtz (2011) defines entrepreneurship as the willingness to take or face risk to create and operate a business; entrepreneurs are people who see opportunity for making profit and the make a plan to reach success in the market and obtain profit.

A large number of factors can be mentioned linking to the characteristics of entrepreneurs. John Kao suggests 11 general characteristics (Kuratko dan Hodgetts, 1998): (1) total commitment, determination, and perseverance; (2) drive to achieve and grow; (3) opportunity and goal orientation; (4) taking initiative and personal responsibility; (5) persistent problem solving; (6) realism and a sense of humor; (7) seeking and using feedback; (8) internal locus of control; (9) calculated risk taking and risk seeking; (10) low need for status and power; (11) integrity and reliability. Certainly it is not necessary that someone has all the characteristics in order to be an entrepreneur, but the more characteristics owned the higher the quality or the level of entrepreneurship achieved.

RESEARCH METHOD

Data and Source of Data

This research collected primary data of households in Kota Kotamobagu and Kabupaten Bolaang Mongondow, North Sulawesi Province. The sample embraces 60 household respondents represented by head of households and/or housewives. Three kelurahan (village-level territory administration in a city) in Kota Kotamobagu and three villages in Bolaang Mongondow were taken as sample village. In every kelurahan or village, 10 households were selected purposively to be the respondents. The households selected as respondents...
were those with the head of household and/or housewife of at least junior high school education (SMP). The respondents are farmers, micro and small businessmen/businesswomen, civil servants or teachers.

**Method of Analysis**

Data analysis was conducted employing multiple regression method. Household income (HI) as dependent variable was regressed with entrepreneurship (entrepreneurship spirit) represented in three independent variables – commitment and perseverance (CP), initiative and action (IA), and adaptive ability (AA). The regression equation is formulated as

\[ HI = b_0 + b_1 CP + b_2 IA + b_3 AA \]

Household income is the total income of household in a year; commitment and perseverance is a composite value of someone’s ability to have and show commitment and diligence on doing his/her work to achieve objective; initiative and action is a composite value of someone’s ability to initiate something and ability to act in order to solve a problem and achieve goal; adaptive ability is a composite value of someone’s ability to adapt to a change that might take place any time.

**The Result and Discussion**

**Validity Test.** The result of validity test shows that all the indicators of variables of commitment and perseverance (CP), initiative and action (IA), and adaptive ability (AA) are valid. Pearson correlation value larger than 0.3 is the indication of validity.

**Reliability Test.** Reliability test shows that this research instrument is reliable. Cronbach’s Alpha value larger than 0.6 for all research variables (Table 4.1) indicate the reliability of research instrument.

**Table 1. Result of Reliability Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT</td>
<td>.874</td>
</tr>
<tr>
<td>KK</td>
<td>.885</td>
</tr>
<tr>
<td>KA</td>
<td>.804</td>
</tr>
</tbody>
</table>

*Source: Result of data processing using SPSS, 2013*

**Heteroscedasticity Test.** Heteroscedasticity test is one of the classical assumption tests. The objective of the test is to know whether in the regression model there are similarity of variance of residuals from one observation to the next observation.

![Figure 1. Scatterplot](Source: Result of data processing using SPSS, 2013)
To detect heteroscedasticity, we just need to see the graph of plots (points) between predicted values of dependent variable and its residuals. The basis for making decision that there is no heteroscedasticity in the regression model is that there is no clear pattern of points as shown in the previous scatterplot.

**Multicollinearity Test.** The objective of this test is to find out if there is correlation among independent variables in regression model. A good regression model is one that should be free from multicollinearity problem or that there is no correlation among independent variables. The result shows that there is no multicollinearity problem as shown by VIF < 10.

**Uji Normalitas.** Normality test is conducted to find out whether in the regression model the independent and dependent variables have normal distribution or not. A good regression model is one that has data of normal distribution or close to normal distribution. If the data spread around the diagonal line and follow the direction of the line then it means the normality assumption is fulfilled, as shown in the next figure.

![Figure 2. Normal P-Plot](Source: Result of data processing using SPSS, 2013)

**Multiple Regression Analysis**

The regression of household income (HI) as the dependent variable with three independent variables of commitment and perseverance (CP), initiative and action, and adaptive ability of heads of households and/or housewives in Kotamobagu and Bolaang Mongondow presents the result as shown in Tabel 4.2.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4125811.003</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1114958.607</td>
<td>Beta</td>
<td>T</td>
</tr>
<tr>
<td>CP</td>
<td>855399.257</td>
<td>.304</td>
<td>2.490</td>
</tr>
<tr>
<td>IA</td>
<td>1014578.461</td>
<td>.346</td>
<td>2.641</td>
</tr>
<tr>
<td>AA</td>
<td>674327.986</td>
<td>.090</td>
<td>2.484</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Household Income (HI)

*Source: Primary data processing, SPSS, 2013*
The result shows the regression coefficients of positive sign explaining that the variables of entrepreneurship or entrepreneurship spirit of commitment and perseverance, initiative and action, and adaptive ability positively influence household income.

The result in the table can be expressed in multiple linear regression as

\[
HI = 4125811 + 855399 \times CP + 1014578 \times IA + 674328 \times AA.
\]

**Simultaneous hypothesis test** (F test) is conducted in order to know whether the independent variables of commitment and perseverance, initiative and action, and adaptive ability significantly influence household income. The significance value of 0.00 (<0.05) in Table 4.3 confirms that the three independent variables of entrepreneurship simultaneously influence household income positively.

**Table 3 ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.047E14</td>
<td>3</td>
<td>3.490E13</td>
<td>19.832</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>1.038E14</td>
<td>59</td>
<td>1.760E12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.085E14</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CP, IA, AA
b. Dependent Variable: Household income (HI)

*Source: Primary data processing by SPSS, 2013*

**Partial hypothesis test** (t-test) was conducted to test the partial influence of each independent variable on household income by comparing the counted t value and t-table value at \( \alpha = 0.05 \) or by using the significance value shown in Table 4.2. The significant values are all <0.05 (0.014 for CP; 0.11 for IA; 0.016 for AA). Those values confirm that the independent variables of commitment and perseverance, initiative and action, and adaptive ability each partially and significantly influence household income positively. An increase in any independent variable tend to increase household income in Kotamobagau and Bolaang Mongondow.

Correlation coefficient measuring the strength of correlation of independent variables (CP, IA, and AA) and dependent variable (HI) is 0.709. This coefficient of correlation states that the correlation between independent variables and dependent

**Table 4. Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.709*</td>
<td>.503</td>
<td>.477</td>
<td>1326617.6687</td>
<td>2.004</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CP, IA, AA
b. Dependent Variable: Household Income (HI)

*Source: Primary data processing by SPSS, 2013*

Variable is strong enough. It means that the coefficient of correlation value is in line with the result of regression showing positive influence of independent variables on household income, partially and simultaneously.

**Coefficient of determination** (\( R^2 \)) is needed in order to know the contribution of the three independent variables on household income. The value of \( R^2 = 0.503 \) explain that 50.3% of variation in household income is explained by the variation in commitment and perseverance, initiative and action, and adaptive ability and remaining 49.7% variation can be explained by other variables outside of the model.

The result of analysis that show positive influence of entrepreneurship -- expressed in the variables of commitment and perseverance, initiative and action, and adaptive ability -- on household income, fulfills
theoretical expectation. Theoretically, the spirit or the action of entrepreneurship affects production and, hence, income positively. The higher the spirit of entrepreneurship, actualized in various action, the higher the performance or the production and thus the higher the income.

In Kamus Lengkap Bahasa Indonesia commitment is defined as contract or agreement to do something. A head of household or a housewife with a commitment to achieve a personal or a household objective at least make an agreement or contract to himself or herself that he/she will be loyal to accomplish his/her goal. With the agreement, he/she will keep making effort or doing work to make the objective achieved. Thus, commitment causes someone to be persistent to work until the goal achieved. Commitment and perseverance are the important qualities of entrepreneurship energizing someone to accomplish objective. Commitment and perseverance of a head of household and/or a housewife enable the household to keep struggling and working to achieve the result in the form of higher production and income.

A head of household or housewife with initiative and action usually wants to think of various possibilities of endeavor or various steps to accomplish ideas and realize objective. He or she would like to act immediately instead of procrastinate to overcome problems and achieve goals. Thinking is a beginning of an initiative to obtain ideas, making plans, and doing actions to obtain results. Action based on thinking and planning gives better chance to get better result. If the objective of a household is to reach a certain level of income or a high income level, then thinking could help the household to have better ideas to materialize the objective.

Adaptive ability as another characteristic of entrepreneurship enable someone owning it to see various alternative of actions to overcome his or her problems of job or business. Changes of business or economic conditions causing difficulties in achieving objectives could be faced more easily or more successfully by those having adaptive abilities due to their ability to adapt to the new or different situation.

During Asian financial crisis in Indonesia in 1997-1998, also known as monetary or economic crisis, many workers or employees faced difficulties as a result of company policy to lay off workers, many business units were encounter with extreme difficulties to remain in operation as usual. Those who were capable of doing adjustment then find ways to sustain, conduct different endeavor or even run different business and, hence achieve objective or higher objective.

Entrepreneurship which in this research are represented by the variables of commitment and perseverance, initiative and action, and adaptive ability are important variables in increasing household income or more generally in increasing income of a community. People with spirit of entrepreneurship can easily see and grasp opportunities for achieving higher income or better standard of living.

Higher income and better standard of living is usually considered as an objective of an individual, a household, a community, and a nation. The result of this research supports the view that income is positively influenced by entrepreneurship. Thus, an effort to increase income requires the existence of entrepreneurship. Thus, the spirit of entrepreneurship needs to be grown or promoted in a society or community. The endeavor to increase entrepreneurship, hence, needs to be promoted through government policy and program.

**CONCLUSION AND IMPLICATION**

Based on the description and discussion of the result of analysis, four conclusions can be formulated. First, commitment and perseverance partially and significantly influence household income positively in Kotamobagu and Bolaang Mongondow. Second, initiative and action partially influence significantly household income positively. Third, adaptive ability partially influence household income positively in Kotamobagu and Bolaang Mongondow. Fourth, the three independent variables of entrepreneurship – commitment and perseverance, initiative and action, and adaptive ability – simultaneously influence significantly household income positively in Kotamobagu and Bolaang Mongondow.

The conclusions have implication that the increase of income of household can be made a reality by increasing entrepreneurship or improving the spirit of entrepreneurship of local people. Increasing entrepreneurship requires long-term as well as short-term programs of government or regional government as well as education institutions. In the short run, entrepreneurship can be promoted through various entrepreneurship trainings; in the long run, it can be developed through school education as well as university education.
REFERENSI


