

CHAPTER II

LITERATURE REVIEW

A. Theoretical Framework

1. Income

Income is an economics terminology which has various subjective definitions depends on the context and scope of the discussion. However, in language, referring to the Great Dictionary of Indonesian Language, income is defined as the result of work (business and so on). As from the point of view of economics, income is the maximum value that can be consumed by a person in a certain period (Wild, 2003). From that definition, it can be derived that the calculation of income is not only limited to what is obtained but also can be done by calculating the total value of goods and services consumed (Sukirno, 2002). Then, income becomes an indicator which is most often used to determine the economic position of individuals, families, communities, and a state. Thus far, income is considered capable of representing the degree of welfare of a person.

Marbun (2003) defines income as money received by individuals, companies, and other organizations in the form of wages, salaries, rent, interest, commissions, fees and profits. This is relevant when referring to the Circular Flow Diagram which describes the interactions among economic actors which obtain different forms of income from producing different

products. The circular flow model which divides the economy into four sectors can be seen in the picture below.

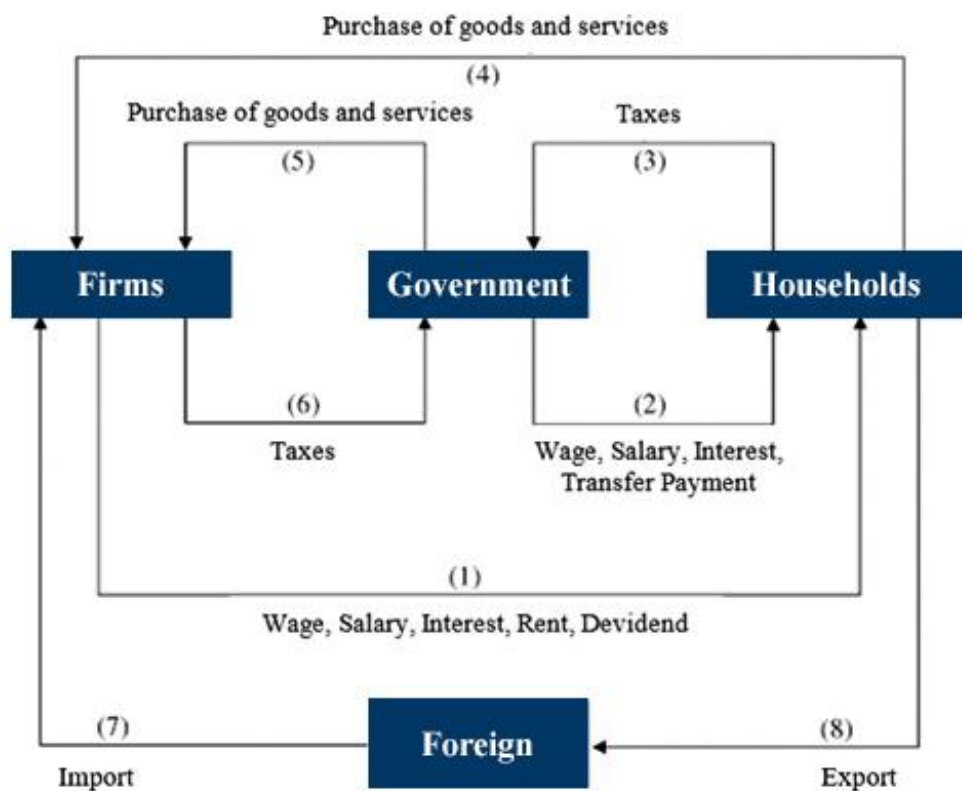


Figure 2.1. Circular Flow of Economic Activity
Source: Curatman (2010) adapted by author

Based on the picture above, it is shown that there are many forms of income received by each sector. Such as salaries which become household income, taxes as government income, dividends as household income from companies, etc. Thus, when talking about personal income, the total income of an individual is the total of all forms of income that he receives either from the government, company or other business he does. For this reason, a person's income at any time can be quite volatile, depending on what he is trying to do at that time. In economics theory, there is a hypothesis assumes that measuring one's income level with only one income at one time is not

adequate to reflect the economic condition of that person. The following is the permanent income hypothesis explained by the economist Milton Friedman.

a. Permanent Income Hypothesis

The permanent income hypothesis (Friedman, 1957) states that a person will tend to have a relatively fixed expenditure on his permanent income. While, the definition of permanent income is the average level of income expected in the long run. Sources of income can come from expected labour income and expected income from assets. Permanent income will increase when an individual experiences an increase in his quality. Because improving self-quality can increase the expected labour income. Expectations about permanent income will also increase if individuals find growth in their wealth. Because that condition can also increase the expected income from assets.

Current income is not always the same as permanent income. There are times when current income is greater than permanent income, or the contrary. Therefore, the current income is usually called as transitional income and transitional income is assumed cannot properly describe one's economic condition.

2. Life-cycle Hypothesis

Franco Modigliani explained that the pattern of income and expenditure of a person are generally influenced by their life cycle because an individual will tend to receive low income at a young age, high in middle

age and low in old age (Tama, 2014). Therefore, in intergenerational study, as pointed out in Grawe (2004), noise in measured earnings (whether due to mistaken reporting or transitory earnings components) produces an attenuation bias that reduces persistence estimates. In particular, increases in earnings variance over the life cycle lead to smaller estimates of earnings persistence when fathers are observed late in life rather than early; earnings persistence estimates decrease by roughly 50% when fathers are observed at age 55 rather than at age 40. Similarly, as the age at which sons are observed increases, we can expect persistence estimates to increase. Accordingly, due to the fact that lifetime earnings may not be derived with the data at hand, the most important control variable in the matrix is the age of an individual (Altzinger & Schnetzer, 2010).

3. Social Mobility

Social mobility has become a study in various sciences such as economics and sociology. Social mobility is defined as the ability of an individual to transfer social strata both upward and downward (Crawford, Johnson, Machin, & Vignoles, 2011). Social mobility is important to distinguish the extent to which level of accessibility that the community has to the opportunities spread. If the level of social mobility is high, it can be interpreted that every individual in the community has the same opportunity to move social strata in a better direction. Conversely, if mobility is low, it means that opportunities (for instance to get a job, get an education, etc.) are only available to certain individuals or groups.

Sorokin (1959) argues that one's social strata are usually rated based on the economic criteria, which focus on the differences between rich and poor, and also on political and occupational criteria. Then, for community norms, Ralph H. Turner (1960) explains that social mobility can occur in contests or sponsors pattern. The following is the explanation of contest mobility and sponsor mobility.

a. Contest Mobility

According to the contest mobility, the path to achieving a better life condition is openly available for everyone. Each person has unlimited opportunities to compete, where participants will use the abilities, strategies, and determination which they have to contest fairly. Then, if someone fails in order to achieve a better condition, the person has the opportunity to try repeatedly. An example of this pattern of mobility is the phenomenon of job-seeking happens in society. Everyone has the same opportunity to use their respective human capital to get the job they want in the competitive market of job field.

b. Sponsored Mobility

Whereas, in the pattern of sponsors mobility, the upward mobility occurs depends on the determination or selection of individuals by the "elite" group, based on several criteria which are adjusted to certain qualifications. Unlike contest mobility, in sponsor mobility, unelected individuals cannot cancel the assessment of elite groups or seize the

position of the chosen individual. The example is a job promotion received by a certain employee who is considered to have qualified qualifications.

The activities mentioned as examples above are also included as intragenerational mobility. However, social mobility can also occur among generations or intergenerationally. According to Breen (2004), inter and intragenerational mobility are as follows.

a. Intragenerational Mobility

Intragenerational mobility analyses the relationship between one's social strata seen from his first job to his current job. The measurement of this mobility should be profound as someone needs to recall his memory to get adequate information regarding his career track record.

b. Intergenerational Mobility

Whereas intergenerational mobility compares the social strata from one generation to another, such as the generation of fathers to children, which will be carried out in this study. High intergenerational mobility, indicates that parents have less influence on the social strata of the child. This implies a good thing as children from families with lower social strata can get the same access to seize the opportunity to achieve success.

Based on the definitions and types of social mobility above, it can be concluded that social mobility is able to provide an explanation of the inequality occurred from a different perspective.

4. The Great Gatsby Curve

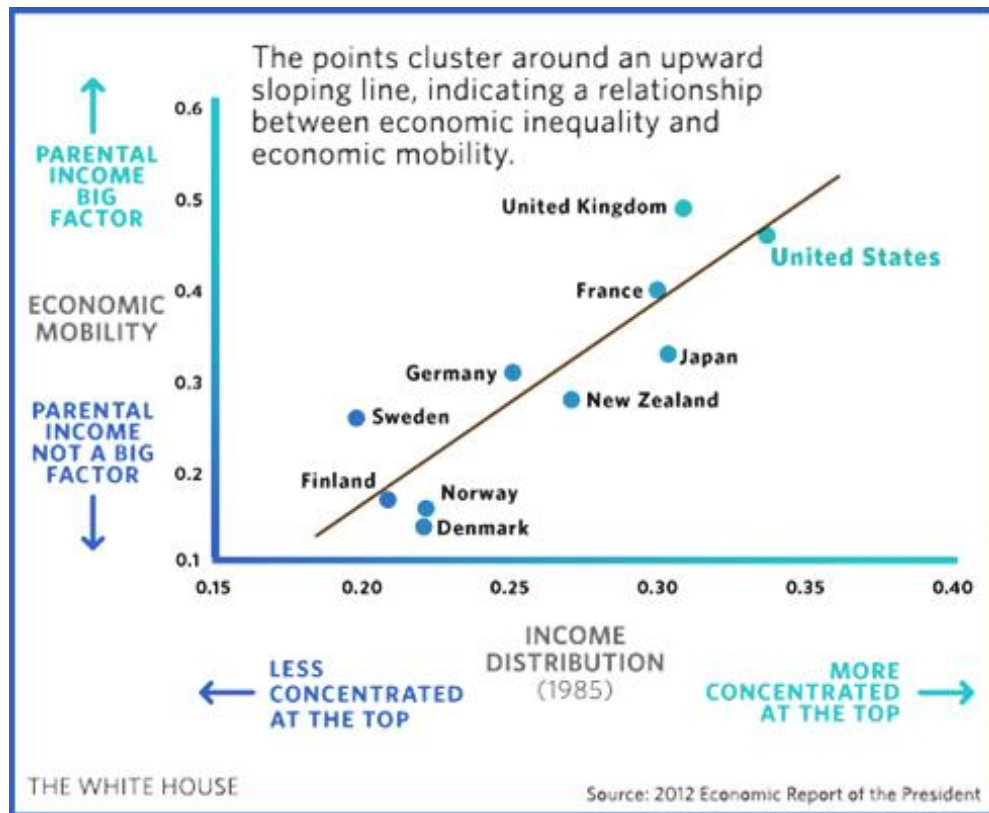


Figure 2.2. The Great Gatsby Curve

Source: obamawhitehouse.archives.gov adapted by author

The Great Gatsby Curve was first introduced by Alan Krueger, Former Chairman of the Council of Economic Advisors of the United States, in his 2012 speech. Briefly, the Great Gatsby Curve shows a trend in the relationship between the inequality of income distribution and the economic mobility of a country. Where there is a negative relationship between the two variables. The higher the inequality index—indicated by the Gini Coefficient, the lower the country's economic mobility—indicated by the increase in IGE value. The Figure 2.2. is the Great Gatsby Curve, which was first released by The White House on its Tumblr. The curve shows the relationship between

the Gini Coefficient and IGE from 9 countries where the United States occupies the worst position among the others.

In 2018, the World Bank Group released a publication written by Narayan et al. which justifies the Great Gatsby curve concept by displaying an updated curve including 75 countries. The trend on the curve shows the same principle with what Krueger explained in his speech. Figure 2.3. below is the curve released by the World Bank.

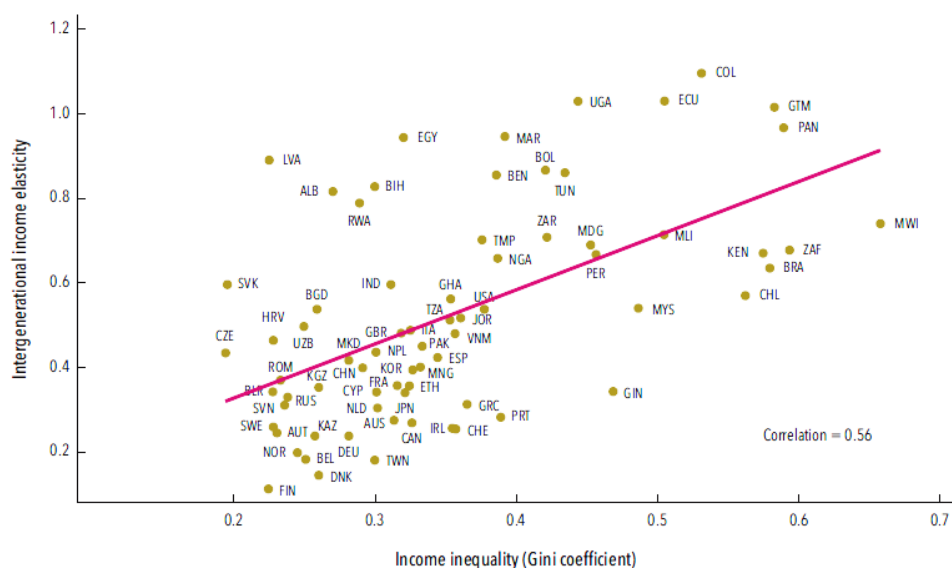


Figure 2.3. The Great Gatsby Curve updated by the World Bank
Source: Narayan et al., (2018)

Thus, the concept of the Great Gatsby Curve about the relationship between inequality and economic mobility is still relevant to use. Where a low economic mobility can cause economic inequality, or on another hand, economic inequality can worsen a country's economic mobility.

5. Education

When talking about the concept of education, more people lead to talk about school. In fact, school is only a small part of education. Philosophically, education can be interpreted as "a process of inviting truth and possibility" (Smith, 2015). The Law on Education National System Number 20 Year 2003 also has a broad understanding of education, "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious-spiritual strength, self-control, personality, intelligence, noble character, and skills needed by him, society, nation and state". All processes that are able to create a learning process to develop one's potential are included in the definition of education according to the Law. Therefore, according to its path, the law divides education into formal, non-formal and informal education.

However, it will certainly be difficult to measure someone's education level using the indicators which are too abstract and unmeasurable. For this reason, the general measurement of education level is represented by the length of study in an institution (mostly formal schools). As in the calculation of the education index, which is one of the measurement variables for the Human Development Index, expected and mean years of schooling are indicators that are used globally (UNDP, 2018). Meanwhile, Figure 2.3. shows the level of education in Indonesia.

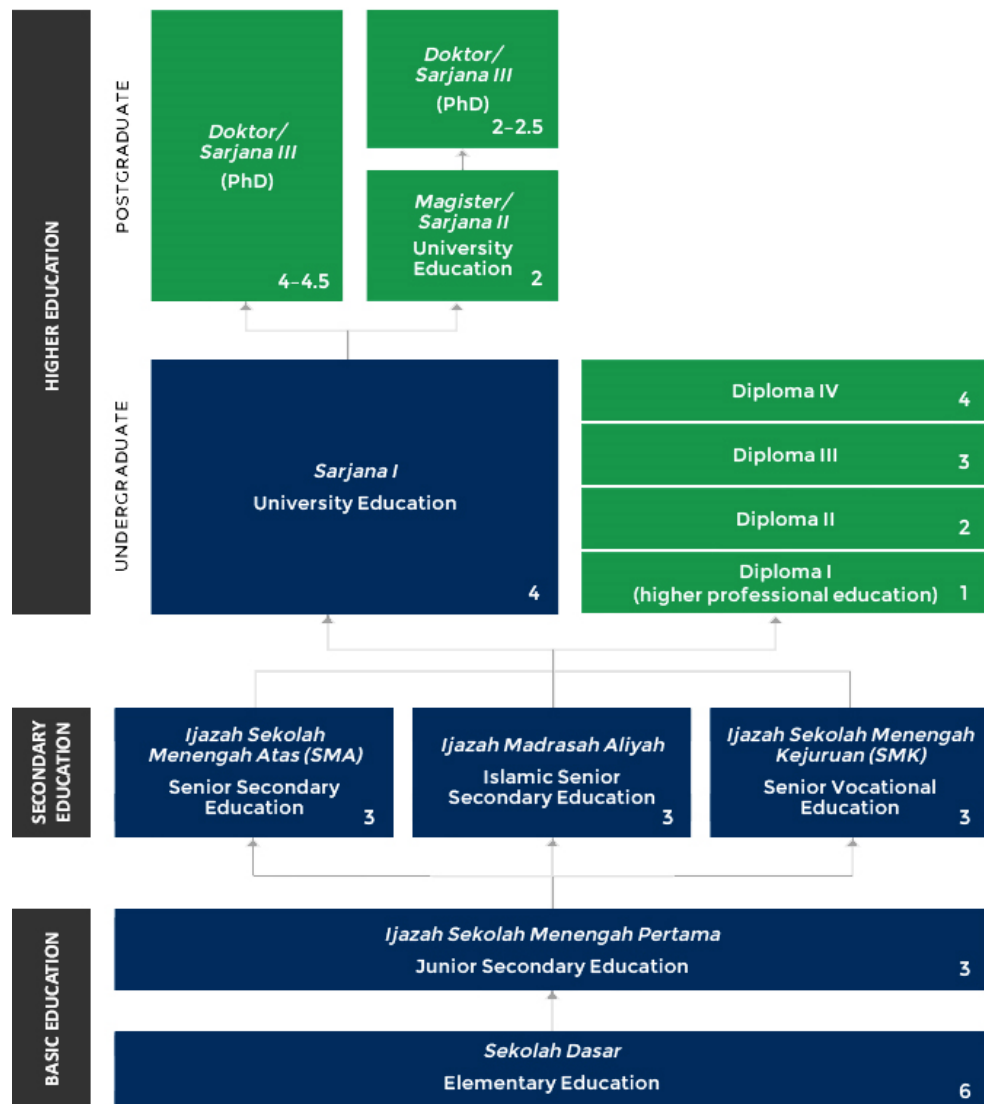


Figure 2.4. Education Level System in Indonesia

Source: Dilas, Mackie, Huang, & Trines (2019) adapted by author

Note: The number in the corner of every box is the school duration in year

By the inclusion of education as an indicator of the human development index, it shows that education is considered to have a function as a social escalator, which not only provides theoretical knowledge but also escalate one's ability to achieve a higher social position in society. Improving the quality of education has been recognized to be able to improve one's well-being, and even be able to bring the person out of poverty (Himaz &

Aturupane, 2011). Indonesia's constitution has supported this idea by allocating a minimum of 20% of the national and regional budget for the education sector. It refers to The 1945 State Constitution article 31 paragraph 4 and The Law number 20 Year 2003. The Indonesian government has also implemented a 9-year compulsory education program since 1984.

6. Overlapping Generation Model

According to (Silva, 1989), the Overlapping Generation (OLG) model was first formulated by Maurice Allais in 1947. The OLG model discussed by Allais relates to the pure-exchange economy. Then, in 1958, Paul Samuelson anew dissected the OLG model so that the model became quite influential in his time. Furthermore, Peter Diamond began linking the concept of aggregate neoclassical production into the OLG model in 1965. From the results of the three economists' thinking, the OLG model has the same basic assumption, in which each individual lives in two periods.

The first period is the period of work, where the Young will receive income and allocate it to obtain satisfaction or individual utility by consuming a portion of his income. However, not only consuming but in the Young period, he also does the saving, where his saving will be used as consumption in the second period when they have become the Old (John & Pecchenino, 1994). Mathematically, the basis of the OLG model is as follows (Silva, 1989).

- a. Income of the Young is used for consumption and saving

$$c_{1t} + s_t = w_t \dots\dots\dots (2.1)$$

Note:

c_{1t} : Consumption of the Young

s_t : Saving of the Young

w_t : Income of the Young

- b. Consumption of the Old is from the saving when he was Young and influenced by the interest rate

$$c_{2t+1} = (1 + r_{t+1}) s_t \dots\dots\dots (2.3)$$

Note:

c_{2t+1} : Consumption of the Old

r_{t+1} : Interest rate

- c. Therefore, utility of the generation born in t becomes:

$$U(t) = u(c_{1t}) + \frac{1}{(1+\theta)} u(c_{2t+1}) \dots\dots\dots (2.2)$$

From the basic concept of OLG model explained, the approach is able to analyse issues such as financing of social security (pensions), educational systems design, public debt, and many more (Ramsey, Prize, & Diamond, 1965).

Then, in the context of intergenerational mobility, the Young is assumed to not only do saving and consumption but also to invest in his Old period and next-generation. It makes the income level of the Young in the working period becomes influential to the value or amount of human capital given to their children later. Practically speaking, the income of the father can

determine what and how much human capital will be invested to his children which can be in the form of education, training, courses, and many more.

Qin, Wang, & Zhuang (2016) added that, before the Young period, individuals went through the childhood period. At this time an individual accumulates human capital provided by older people in his family. Therefore, after entering the first period called the Young, he will use the accumulated results of human capital invested to get jobs and earn income. Where, if you look a little at the theory of Human Capital, the capital which is owned by each individual will affect the ability of the individual to adapt to and survive in generating income (McCracken, McIvor, Treacy, & Wall, 2017).

B. Previous Study

No	Title (Year), Author	Data and Methodology	Variables	Conclusion
1	Intergenerational Income Mobility in the United States (1992) Author: Gary Solon	Data: Panel Study of Income Dynamics Method: - Ordinary Least Squares - Instrumental Variables	- Sons' earnings - Fathers' earnings - Sons' age - Fathers' age - Fathers' education	- Intergenerational income elasticity in the United States is at least 0.4 (possibly higher) - Father's education does not influence son's status - Father's education and income are positively but imperfectly correlated

2	<p>Are we born equal: A Study of Intergenerational Income Mobility in China (2018)</p> <p>Author: Mengjie Jin, Xuemei Bai, Kevin X Li and Wenming Shi</p>	<p>Data: China Health and Nutrition Survey</p> <p>Method:</p> <ul style="list-style-type: none"> - Regression - Two-stages least square 	<ul style="list-style-type: none"> - Sons' earnings - Fathers' earnings - Sons' age - Fathers' age - Sons' education - Sons' occupation type 	<ul style="list-style-type: none"> - China experiences low level of intergenerational income mobility - Education has a higher rate of investment than occupation - Occupation type has a higher rate of return than education
3	<p>Inter-generational Mobility in Slums: Evidence from Field Surveys in Jakarta (2018)</p> <p>Author: Maisy Wong</p>	<p>Data: Field survey of Four Slums in Jakarta</p> <p>Method:</p> <ul style="list-style-type: none"> - Transition probabilities - Multiple linear regression 	<ul style="list-style-type: none"> - Educational attainment - Occupation status - Income - Place of work 	<ul style="list-style-type: none"> - High educational mobility can exhibit high occupational mobility (even though it is not readily for everyone) - Potential barriers to labour market are exist for certain groups of slum residents
4	<p>Climbing the Ladder: Socio-economic Mobility in Malaysia (2016)</p> <p>Author: Muhammed Abdul Khalid</p>	<p>Data: Structured and semi-structured interviews</p> <p>Method:</p> <ul style="list-style-type: none"> - Multiple Linear Regression - Transition Matrix - Logistic Regression 	<ul style="list-style-type: none"> - Income - Education - Occupational skills 	<ul style="list-style-type: none"> - Nineteen percent of a child's income is associated with parent's income - Upward education mobility is high with 62% of children better educated than their parents. - Upward occupational skill mobility is less than education mobility, as only 37% of children have better skills than their parents.

5	<p>How Education Breaks the Cycle of Poverty: An Interregional Study of Indonesian Households (2013)</p> <p>Author: Masniaritta Pohan</p>	<p>Data: Indonesia Family Life Survey 1997, 2000, and 2007</p> <p>Method: Multiple Linear Regression</p>	<ul style="list-style-type: none"> - Income - Education - Health status - Region - Age 	<ul style="list-style-type: none"> - Education and health can explain parents and children' income - Geographical characteristics cannot explain individual income, educational attainment, and household economy
6	<p>Pengaruh Transfer Modal Manusia Antargenerasi Terhadap Mobilitas Pendapatan Anatargenerasi di Indonesia (2018)</p> <p>Author: Ari Purbowati</p>	<p>Data: Indonesia Family Life Survey in 2000, 2007, and 2014</p> <p>Method:</p> <ul style="list-style-type: none"> - Ordinary Least Squares - Two-stages Least Squares 	<ul style="list-style-type: none"> - Permanent income of fathers and children - Educational attainment of fathers and children - Gender - Age - Dwelling characteristics - Marital status - Work duration - Industry sector - Service sector 	<ul style="list-style-type: none"> - Intergenerational income elasticity increased from 0.118 to 0.151 when the direct transfer of human capital is directly transmitted from parent to child
7	<p>Intergenerational Top Income Mobility in Sweden – Capitalist Dynasties in the Land of Equal Opportunity? (2010)</p> <p>Author: A. Björklund, J. Roine and D. Waldenström</p>	<p>Data: Statistics Sweden</p> <p>Method: Regression</p>	<ul style="list-style-type: none"> - Fathers' income - Sons' income - Intelligence quotient - Non-cognitive skills - Education - Net worth - Financial assets - Taxable wealth 	<ul style="list-style-type: none"> - Intergenerational transmission is very strong in the top 0.1 percent income in Sweden (IGE: above 0.9) - Sons' IQ, non-cognitive skills, and education are not potential channels for top income mobility, while wealth is the most likely channel.

8	<p>Measuring Intergenerational Income Mobility (2011)</p> <p>Author: Linda Moonen and Marlon van den Brakel</p>	<p>Data: Statistics Netherlands</p> <p>Method: Linear regression Transition matrices Logistic regression</p>	<ul style="list-style-type: none"> - Children's income - Parents' income - Children's age - Parents' age 	<ul style="list-style-type: none"> - Income mobility is slightly higher if the parental household income is used - Earnings mobility is much greater at the lower end of the income distribution
9	<p>Destined for Destitution: Intergenerational Poverty Persistence in Indonesia (2008)</p> <p>Author: Yus Medina Pakpahan, Daniel Suryadarma, and Asep Suryahadi</p>	<p>Data: Indonesia Family Life Survey 1993, 1997, and 2000</p> <p>Method: Probit</p>	<ul style="list-style-type: none"> - Poverty indicator of person before and after married - Split status - Education attainment - Employment status - Sector of occupation - Age - Marriage tenure - Area of living - Migration status - Household size before marriage 	<ul style="list-style-type: none"> - Low intergenerational persistence of poverty (62% chance for a chronically poor child to escape from poverty after he grew up) - Children from chronically poor family have 31-33% higher probability to remain poor as adults.
10	<p>Intergenerational Income Mobility in Canada (1998)</p> <p>Author: Nicole M. Fortin and Sophie Lefebvre</p>	<p>Data: Canadian Censuses and General Social Survey</p> <p>Method: - Regression - Transition matrix</p>	<ul style="list-style-type: none"> - Fathers' income - Children's income 	<ul style="list-style-type: none"> - Intergenerational mobility of Canada is higher than the United States and the United Kingdom

C. Research Framework

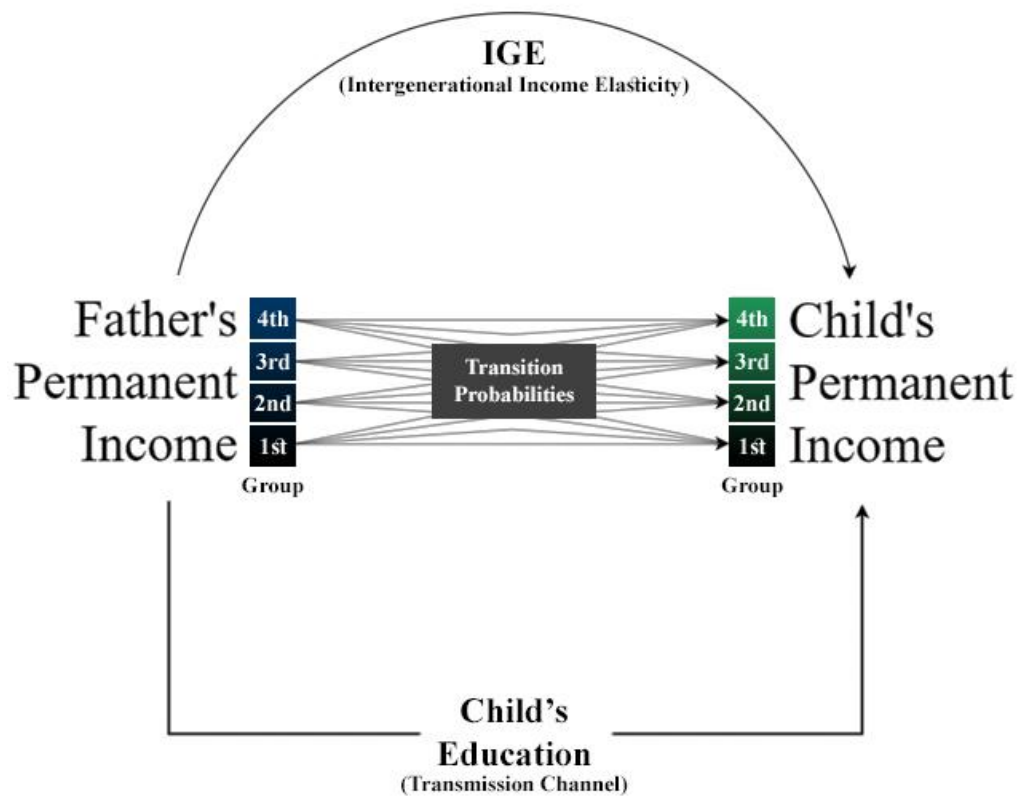


Figure 2.5. Research Framework

D. Hypothesis

1. Permanent income of fathers is transmitted to the children
2. Children have probability to have different income position from their father
3. Education has a power to explain intergenerational income elasticity in Indonesia