



Faculty Economic and Business

**THE FACTORS THAT AFFECTING THE POVERTY IN ITALY,  
MALAYSIA, AND PAKISTAN: A CROSS COUNTRY ANALYSIS**

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**The Degree of Bachelor of Economics with Honours  
(International Economics)**

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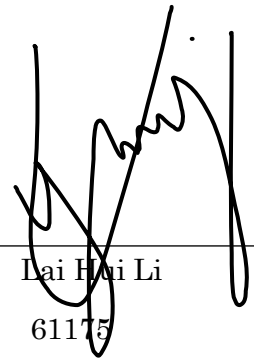
## STATEMENT OF ORIGINALITY

The work described in this Final Year Project, entitled  
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analysis”**  
is best of the author’s knowledge that of the author except where due reference is made

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## **Abstract**

The study aim to explore the relationship between poverty, unemployment rate, education level, and health care in all 3 different regional countries, Italy, Malaysia and Pakistan. Since poverty is a complex structural issue, a comprehensive way is required to generate strategies and policies for poverty reduction. This research focuses on countries in 3 different region; Italy (Europe), Malaysia (South East Asia) and Pakistan (Central Asia). It compares the stages of development potent policies and related to the disparate dimensions of poverty. Given the variation in their culture, socio-political structures, economic sectors, population and income level.

**Title : The factors that affecting the poverty in Italy, Malaysia and Pakistan: A cross region analysis.**

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## **CHAPTER 1 INTRODUCTION**

### **1.0 Introduction**

According to The World Bank, poverty refers to income level of an individual fall below minimum level that required to access basic needs. Poverty can be recognised as combination of various features which argues on lacking of income and it is a multiple dimension phenomenon (Hatta & Ali, 2013). Poverty can be pointed as the impacts form various not peaceful social. For example, violence, crime, inappropriate of social investments, limited assess of services and restricted participation in politic. Therefore, poverty basically can be defined as country specific. People who live in poverty acutely lack of voice, power and independence, which lead them to be exploited.

Globally, the term poverty is generally point to fail to have the income according to World Bank. Despite, using national poverty lines is recommended as a standard practice for country specific purpose. This practice is widely endorsed by most countries as recorded in the 2005 Millennium Development Goal report (United Nations, 2011). The minimum consumption of basic needs for an average sized household can be determined by using poverty line, hence this method is utilized globally by the government.

The progress in all major areas related to the well-being of the people is necessary to achieve the Millennium Development Goals, which including poverty reduction, and improvements in education, health assessable, gender equality and environment, and even the reduction in unemployment rate, with the ending of extreme poverty and hunger at the forefront. The pace on fulfilling the goal in reducing poverty as a main purpose for policies development in international level has been very slow in the past few decades. The progress in most regions



and countries is not on track to achieving the Millennium Development Goals (UNDP, 2003). There have many questions related to the policies and scheme that have been adopted in reducing poverty is being generated due to this ineffective progress.

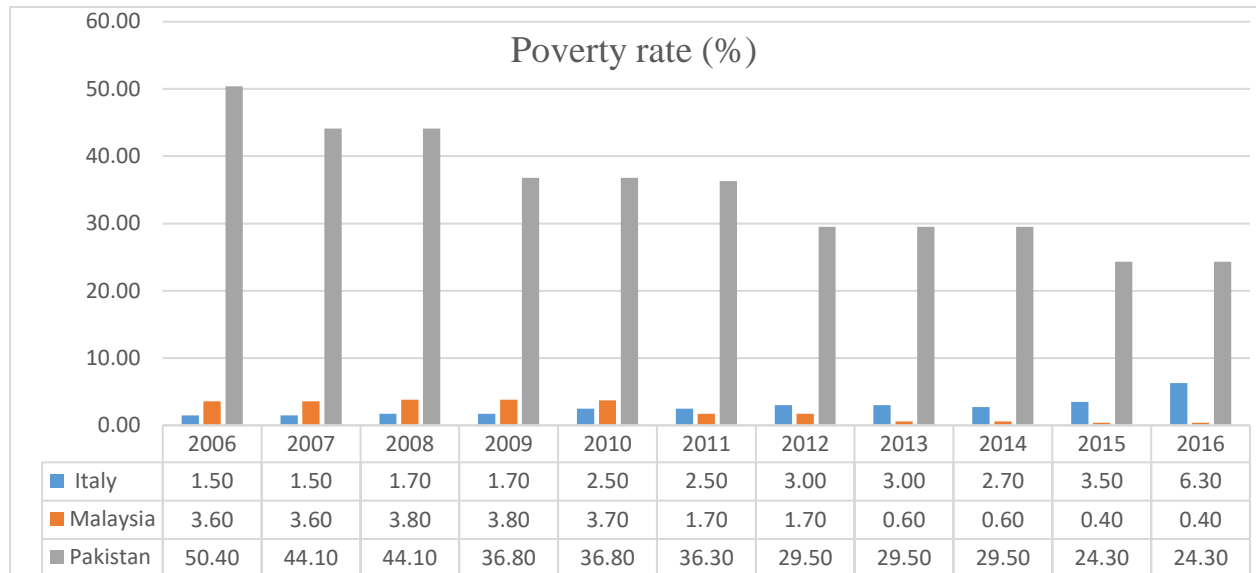
Poverty is a social issue that still exist in developed countries, developing countries and least developed countries like Italy, Malaysia and Pakistan. Any rise in poverty is expected to affect economic growth since that rising in unemployment rate will decrease the income growth of the nation. In Italy, the poverty level increased with respect to 2016 with the poverty rate 6.30% (Nation Institute of Statistics, 2016). In year 2006, the poverty rate of Italy was much lower than in year 2016 which is only 1.50%. During the same period in Malaysia, experienced a reduction in poverty. In Pakistan, there is 50.40% of population living below the poverty line in 2006, and this headcount decrease to 24.30% in 2016.

Since poverty is a complicated structural phenomenon, a comprehensive approach is required to generate poverty reduction scheme and policies. This research focuses on countries in 3 different region; Italy (Europe), Malaysia (South East Asia) and Pakistan (Central Asia). It compares the stages of development effectual policies and related to the various dimensions of poverty. Given the variation in their culture, socio-political structures, economic sectors, population and income level.

The study aim to explore the relationship between poverty, unemployment rate, education level, and health care in all 3 different regional countries, Italy, Malaysia and Pakistan.

## 1.1 Background of Study

**Figure 1: Poverty Headcount Ratio (%) in Italy, Malaysia, and Pakistan, year 2006-2016.**

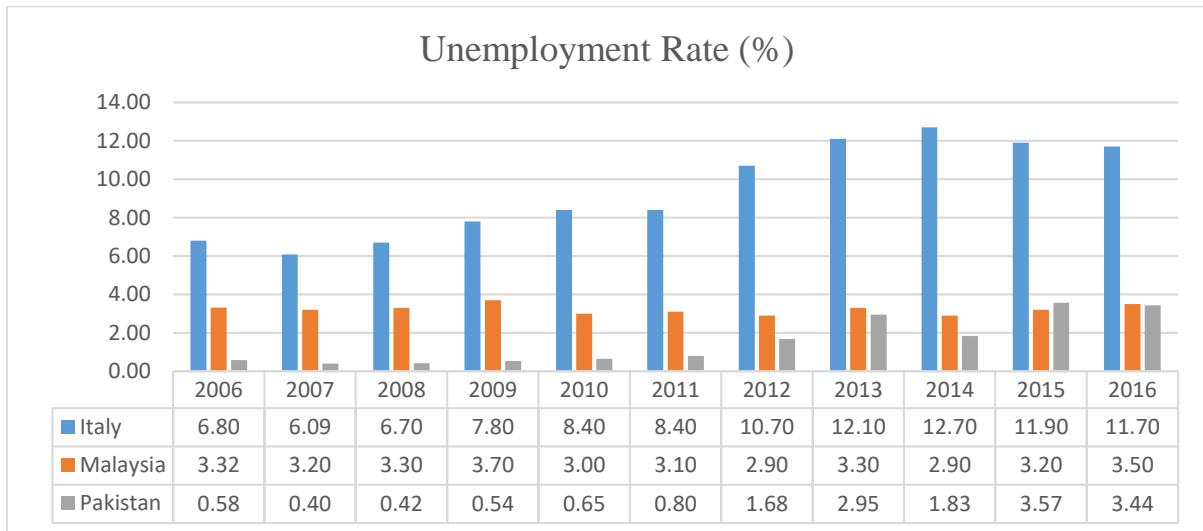


Sources: The World Bank

The physiological deprivation model is generally used by the income poverty measurements to determine insufficient in obtaining the income to access basic needs. An poor individual have insufficient of income to get the unlimited goods and services used to clarify a poverty threshold.

Figure 1 shows the poverty headcount ratio in Italy, Malaysia, and Pakistan. From figure above, poverty headcount ratio in Italy shows that keep increasing since year 2006 which is 1.50% to 6.30% in year 2016 since that there was unequal distribution of wealth in the country. It has been increased by 4.80% in 2016 compared in 2006. While in Malaysia, the poverty headcount ratio slightly increase about 0.20% from 2006 which is 3.60% to 3.80% in 2009. From 2009 to 2016, the poverty headcount ratio decrease to 0.40%. In Pakistan, the poverty headcount ratio is very high in year 2006 which is 50.40%. However, it has been reduce to 24.30% after 10 years which is 2016.

**Figure 2: Unemployment rate (%) in Italy, Malaysia, and Pakistan, year 2006-2016.**



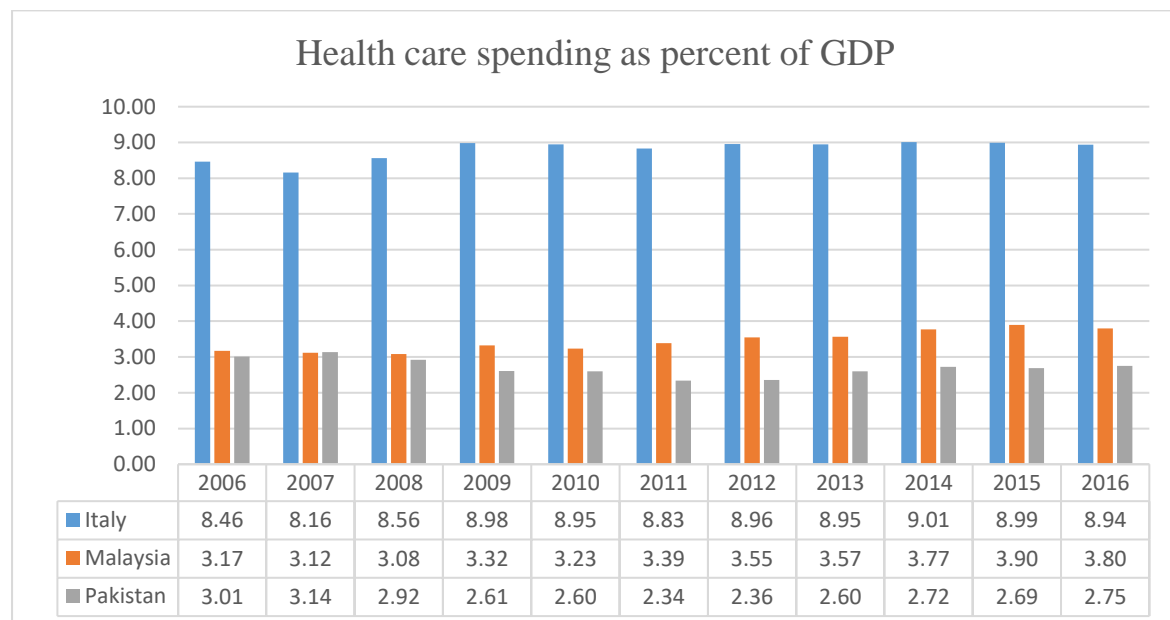
Sources: The World Bank

The unemployment rate is a virtue determinant of poverty headcount ratio particularly. Overall, 1% point increase in the unemployment rate will increase 0.4% to 0.7% point in the poverty rate. From figure 2, overall unemployment rate is the highest compared with Malaysia and Pakistan. This is because youth unemployment rate is keep increasing. According to Eurostat, the youth unemployment (people with less than 25 years of age) steadily rose until 43 percent, reaching a peak in 2014.

In Italy, unemployment rate of 2014 is 12.70%, the highest rate within 2006 to 2016. In 2014, Italy fell into a recession due to tensions with Russia, and have a negative growth rate in GDP. While Malaysia have highest rate of unemployment rate at 2009 which is 3.70%. This is because in the first quarter of 2009, there is a decline in the consequences of international financial crisis that happen in 2008 on the real economy, where most countries' economies experienced substantial real GDP contractions. The figure 2 also shows that Pakistan have non consistent unemployment rate from 2006 to 2016. The highest rate within this 10 years in Pakistan is at 2015 which is 3.57% .

When individuals are unemployed, it will increase the risk of long-term unemployment. Living in poor neighbourhoods create tendency of forming a poverty families that do not have the necessary tools to become employed. Those individual are living in impoverished areas suffer from staying in bad quality house, receiving education in underfunded schools and obtaining limited public transportation and services. These results decrease opportunities for the individual to be employed again.

**Figure 3: Health care spending as percent of GDP in Italy, Malaysia, and Pakistan, year 2006-2016.**



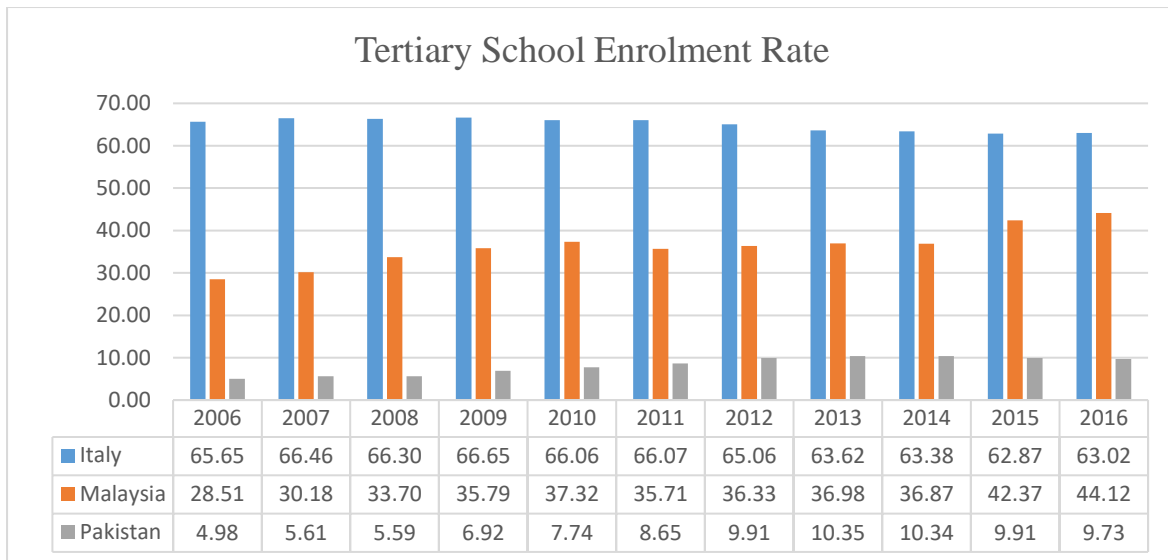
Sources: The World Bank

Health care spending is a determinant of poverty. Economic growth is commonly affect health. Health expenditure is a share of income or resources that can be used in private and public sectors. Higher income indicated that spending on health care service will be higher. Health economics defined as the variation in per capita health care expenditure, usually described by variations in per capita GDP (Gerdtham and Jonsson, 2000). From other perspective, there has a theoretical basis about health expenditure have a reverse causation to income.

Investment on health promote the economic growth since health considered as a capital. According to the report of the WHO's Commission on Macroeconomics and Health (2001), states that "extending the coverage of crucial health services....to the world's poor could save millions of lives each year, reduce poverty, stimulate the development of economic and promote global security." (World Health Organization, 2001). Health as a determinant of human capital, and productivity of an individual, hence higher income increase the health expenditure. Finally, some intermediate variable which may leads to better health and higher income.

From the Figure 3, Italy health care spending as percent of GDP is the highest with compared to Malaysia and Pakistan. This shows that Italy has a higher income among 3 countries since that Italy is a developed country. Health care spending as percent of GDP in Malaysia is constant since that the percent is within the range of 3 to 4 percent. This statistic reflected that the economic growth of Malaysia is about the same. While the health care spending as percent of GDP in Pakistan is decreasing from 3.01% in 2006 to 2.75% in 2016. However, poverty in Pakistan is decreasing from 2006 to 2016.

**Figure 4: Tertiary School Enrolment Rate in Italy, Malaysia, and Pakistan, year 2006-2016.**



Sources: UNESCO

According to UNESCO, tertiary school enrolment is a gross enrolment ratio that officially equate to the education level shown. People who obtain a high school diploma earn less than those who continue on to higher education which is Bachelor’s degree or Master’s degree (Bureau of Labour Statistics, 2019). Besides, more educated people are less likely to live below the poverty line, meaning that reducing the poverty rate of the country by increasing the education level, at the same time boost the economic growth.

In Figure 4, tertiary school enrolment rate in Italy is decreasing from 65.65% in 2006 to 63.02% in 2016. Since that Italy was a developed country, the level of education is considered as the highest among 3 countries. However, it showed a decline rate and the poverty rate is increased. There is an increasing of tertiary school enrolment rate in Malaysia from 2006 to 2016. This shows Malaysia is putting the effort to increase the level of the education of the nation so that can solve the poverty issues. While in Pakistan, the tertiary school enrolment rate also shows an increasing but only have 10.12% of population enrol to tertiary education.

## 1.2 Problem Statement

Over the past decades, progress on poverty reduction has been marked. The first Millennium Development Goal that targeted to alleviate the 1990 poverty rate in half by 2015 is achieved. Despite of the target have been achieved, there are still higher in number for those living in extreme poverty globally. Even though the countries is developed, poverty issues are still existing. Based on forecasting of global growth, target of ending extreme poverty by 2030 cannot be achieved. Given the latest global estimation of Sustainable Development Goals (SDGs), there is a fallen in extreme poverty rate, the world population who are still living below the extreme poverty threshold is around 11%.

Italy as a developed country, the amount of individuals in Italy living below the poverty line rise to 8.4% of Italy's population (5.1 million people) in 2017 and there are still rising until now. There is about \$2.6 trillion of national debt in Italy. Corruption has impeded economic growth of Italy. Italy have 15% of economy take place on the black market and other underground avenues. Good government standing in Italy is decreasing over the years. Decision made by the bad government is eventually ruining a good economic plan.

Malaysia is on its way to become a developed country. However, according to Khazanah Research Institute (KRI), the figures shows the number of poor Malaysians is higher than official figures. The state of Malaysian households is reported there is 1.08 million of relatively poor household in 1995 and rise to 1.54 million in 2016. According to United Nations, this happens because poverty line measurement in the country is unrealistic and outdated which still following the measurement utilised in the 1970s. Inaccurate of the real poverty rate could

results in a damaging effect on making public policy One in five bumiputera household are poor, while one in ten Chinese ad Indians households are living in poverty if relative indicators are used (Muhammed, 2019). Undercounting the poverty rate results insufficient of effective government policies which aiming to solve the problem.

Poverty remains a central problem in developing countries as well as in Pakistan, where a significant number of the population lives below the poverty line. As the poverty rate in Pakistan shown in Figure 1, Pakistan must do more to mitigate poverty. Conclusion, the socio-political issues which affect the poverty rate still remain in these 3 countries.



## **1.3 Objectives**

### **1.3.1 General Objective**

General objective of this research is to investigate the factors affecting poverty by comparing them in three different regional countries, Italy, Malaysia and Pakistan.

### **1.3.2 Specific Objectives**

1. To identify the relationship of unemployment rate and the poverty in three different regional countries, Italy, Malaysia and Pakistan.
2. To determine relationship of health care spending as percent as GDP and the poverty in three different regional countries, Italy, Malaysia and Pakistan.
3. To investigate relationship of tertiary education level and the poverty in three different regional countries, Italy, Malaysia and Pakistan.

#### **1.4 Significance of study**

This research examines factors affecting poverty's incidences in different regional countries, Italy, Malaysia, and Pakistan. It provides more choices and understanding for future researchers. Based on the facts in World Bank, there are 736 million people living in extreme poverty, less than \$1.90 a day can be used for surviving. There are about 1.3 billion people in 104 developing countries living in multidimensional poverty (U.N.Development Program, 2018). Around 660 million children are suffering in multidimensional poverty as reported by U.N. Development Program.

In this study, we will look forward to measures a person's healthcare, education, and living standards in terms of income to identify poverty levels in three different regional countries, Italy, Malaysia and Pakistan. By analysing the poverty levels of these three countries, we can determine the cause of poverty in particular community and figuring out the measurements to change this is because poverty is different in various places and it is caused by different factors.

Conversely, this study is expected to be advantageous for future researchers as it gives the efficient recommendation about how to alleviate the poverty. Government policy makers might pay more attention on these factors to formulate some policies to reduce the poverty of their country. Hence, assisting policymakers to develop better policies and provide guidance in boosting economic development globally and increase living standards of the people all around the world.

## **CHAPTER 2 LITERATURE REVIEW**

### **2.0 Introduction**

This chapter focuses on the reviews theories and concept that are developed earlier in identifying poverty. Besides, empirical studies which drawn from previous researches to discuss the determinants (independent variables) of the poverty (dependent variable) will be in the second section. Next, the proposed theoretical framework, hypothesis statements relating the variables together with gap of study will be stated out in the final section of this chapter.

### **2.1 Review of theories and concepts**

#### **2.1.1 Classical Theory**

Classical economics is developed in the 18th and 19th centuries which discussed the theories on both value and distribution. The value of the product depend on the costs in producing a product. For example in agricultural terms, rent will be received by a landlord, wages will be received by the workers, and the profits received by a capitalist tenant farmer on their investment. Based on the Classical theory, the outcomes of the exchanges is being assumed that efficiently occurring in the marketplace, and therefore wages exactly reveal a person's productivity. The options for poor people may lead to poverty which means like they do not have self-control that give negative impact on productivity. The discussion below stated the individuals made the wrong choices may causes them falling into a "poverty or welfare trap".

Different developed nation currently using "three regime" classification of different welfare models, poverty in term of classical correlate to the principle of laissez-faire which manage to trace accountability for the outcomes of individuals, for instance, the relationship between their

well-being and their own economic decisions (Esping-Andersen, 1990). Therefore, from this point, people are responsible for their experiences of poverty, which are ultimately related to purely individual deficiencies. Rank et al. (2003) stated that poor individual characteristics are in the range "the lack of an industrious work ethic or virtuous morality to low levels of education or 18 competitive market skills. This means that there is virtually no performance for the state to intervene, the individual characteristics that cause poverty are either "givens" or determined by market forces.

The behavioural was suggested "poverty was necessary because otherwise the labourers would not be motivated to work" (Townsend, 1979). Policy that related with the concept of laissez-faire, which linked integrity with work. This statement mostly affected by the general principle of "conditional welfare for the few" as in the Victorian Poor Law. This principal derive the policy regulation mainly focused on keeping public away from reallocated expenditure high, meanwhile relief can be maximized through charity and voluntary effort. Thus, this recognition of the issue of poverty change the perception which stated that market failure is not caused by the poor self-select into deprivation while the consequence of deficiency in an individual effort and capabilities (Townsend, 1979).

Highlighted that, classical literature hypothesis stated that the poor themselves are choosing to be low productivity and non to involve in the market, meaning that behaviour of individuals themselves is main aspect in affecting their outcome, with little or not to participate in social and politic. This basic assumption pointed although the poor have another options, they still making the same decisions which accessing to economic resources is being restricted, with putting themselves in the risk of living in poverty (Blank, 2010). Hence, the advocator disagree

the approach which using subsidies to reduce poverty. The alternative method, small-scale model is suggested by Kasarda and Ting (1996). This measure is used to avoid a "welfare trap" by transferring welfare when people demotivated to work. First, affordable housing should be decentralised and enhances transit preferences. Second, welfare benefits should be reduced and tax incentives can be utilised to raising wages. Third, welfare recipients will received assistance from trained social service staff in order to help them moving out from welfare and to be employed. Even though the issue about the actual size of the incentive misalignment effect generate many arguments, while this policy options have been widely promoted by classical thinkers and UK implemented this policy in their country.

Income relief for a short-term are provided to the poor via anti-poverty program. However, the "negative-decisions" argument is most often applied rather than developing aid in a long term which creates jobs opportunities, education as well as health care services. Poverty can be overcome given that subsidies remain available to the poor.

Moreover, subsidies might evoke people choose to become poor so the benefits can be obtained from transferring welfare transfers if following this logic. Case in point, if particular types of families get the financial support unequally, such as single mothers with children, thereby might encourage the forming of single-mother families (Blank, 2010). This is results from the basic assumptions of the classical approach stated that a great deal allows individuals sensitively in responding to pure market.

However, authorities involved should facilitate development policies rather than alleviate policies. For instances, enhancing education completion rates will be a better way for low-skilled individuals with compared to providing wage (Blank, 2010).

### **2.1.2 Neo Classical Theory**

Alfred Marshall published his "Principles of Economics" in 1890 and this approach be the most important beyond towards the occurrence of neoclassical economics. The intersection of supply and demand curves explain the price in term of economics. Marshall introduces his innovation of different market "period". In this model, supply and demand is stable functions and extended supply and demand explanations of prices will be extended to all time horizons. He disagree that supply was change easily over longer periods, and in order to become a more virtue determinant of price in the very long run.

Neoclassical theory emphasizes the role of the unequal initial endowments of talents, skills and capital in developing of classical tradition within a market-based competitive economic system which identified an individual's productivity in creating poverty. Poverty aggravators refers to market failures including externalities, moral hazard and adverse selection as well as incomplete information (Davis, 2007). Market failures become main aspect leading poverty since their well-being mostly affected by poverty, for example depression, illness, family troubles. Based on the classical tradition, neoclassical thinkers question the role of government even though there are some policies target to solve the problem of market failure is useful in some cases. On the other hand, moral hazard leads social cost to be higher or availability of credit to be restricted. And the end, the classical approach criticised about the poor choices,

small-scale policies targeted at shifting incentives can only partly overcome the information problems (Banerjee and Duflo, 2012).

Neoclassical economists typically agree that in most practical situations a goal of full income equality, for example, achievement can be obtained from high cost in efficiency terms. Current welfare economists tolerated by the Kaldor-Hicks criterion truly: "public policy is established if profits in excess of losses so that it is always possible for winners from the policy to compensate losers (by virtue of the second welfare theorem), even if this compensation does not actually occur" (Jung and Smith, 2007). Most of the neoclassical school do not believe poverty alleviation result in a focus on efficiency at the expense of equality. Contradictorily, Marshall (as well as Keynes) as the classical economists who agreed comparing individuals utility and that there was reducing marginal utility beyond income, hence utility can be increased by reallocation.

At a fundamental level, Laderchi et al. (2003) suggest the monetary approach reflects the underlying features of the neoclassical literature more precisely. It is considered as compatible with the maximising of utility behaviour which means consumption used to measure the welfare. Bhalla (2002) disagree the priority in the alleviating of poverty is income since that obtain purchasing power of the poor is available, they have the rights in accessing to resources and enjoying free public goods. In their money-based measures, different methods are adopted to input the value of non-marketed goods and services (Laderchi et al., 2003).

The minimum rights mechanism, pioneered by Rowntree (1901), can be categorised as poverty in term of monetary for it also introduced a certain income level as have the right to the level

of material resources. Based on Rowntree's method, the money required for a nutritionally adequate diet, together with estimated basic needs are estimated for calculating the poverty line. As recorded that those primary poverty refers to those living below the poverty line; those who can get "needs" but cannot get "wants", living above the poverty line, were considered as secondary poverty. In the fact that, external assessment support Rowntree's conceptualization of poverty which exclude the poor themselves and it is an individualistic perspective of the problem.

### **2.1.3 Keynesian Theory**

Liberal theory deliberate about the poverty also caused by broad underdevelopment in multiple aspects of market. Thus, in Keynesians idea, market growth can boost development of economic and thereby diminish poverty, hence government intervention should be further justified by using fiscal and monetary policy at macroeconomic level, especially to address involuntary unemployment issues.

Sachs pointed the major indication of underdevelopment in a country or region including poor levels of human capital such as health, skills and education, business capital which refer to machinery and buildings, infrastructure like transport, power and sanitation, natural capital (viable land), public institutional capital (rule of law and security) and knowledge capital (technical know-how needed to raise productivity).



Sachs' idea is design anti-poverty intervention clinically and needing suitable to situations instead of "one size fits all". Economies is complex systems, if failures like corruption happen in one part may lead to failure elsewhere (Davis, 2007).

Davis disagree with the Sachs approach which duplicates the "big push" to help the poor release from a poverty trap by massive aid in the 1950s. The idea have to be more "bottom up" from the poor instead of "top down" to them. Forming of black market in the capital-good commodities he proposes to distribute. Government should design more precise policies to prevent aid abusing (Lal, 1995).

The most outstanding innovator of liberal economics, J. M. Keynes, believed that economic development can be promoted by market forces, which was in turn considered as the most important device against poverty. Regarding the statement, the concept of the Keynesian model is similar with that of the neoclassical paradigm; economic growth is the most effective aspect to end poverty. The father for neoclassical economics, Alfred Marshall greatly influenced the work of Keynes himself and the subsequent become new-Keynesian scholars.

## **2.2 Reviews of Empirical Studies/ Methodologies**

### **2.2.1 Unemployment related to poverty**

The predominant refers to the poverty main caused by unemployment under the liberal perspective which is following the logic when there is no income for an individual, they are assumed as poor. This circumstances is magnified when poor individuals keep suffer discontinuous, unemployment throughout the lifetime; if poor people who fail to obtain or enrol

to the job, regardless their pay, the person can probably get into poverty since they do not have enough of accumulated savings for maintaining the living standard above the poverty line (Aassve et al, 2005). In some pension and social security systems, entitlements gap may let a person probably encounter poverty during retirement (Pemberton et al 2013).

Therefore, the stability of employment is a main aspect for poverty reduction. This is because it allows individuals to regard better career and expect to have higher future income, with facilitating borrowing which promoting consumption-saving decisions in a longer term and investment in learning new skills and knowledge (human capital) as well as social capital (Ulimwengu, 2008). According to Sen (1983, 1999), employment can affect the capability in transforming assets into entitlements. It is importance to know the difference between transitory (short term) and persistent (lifelong) poverty.

Similarly, Reinstadler and Ray (2010) argued that there have a direct and indirect impact from the regional employment rate to poverty. First, a higher rate of unemployment raises the possibility of individual to be unemployed. Second, the negative impact of unemployment rate will indirectly affect the wage bargaining power of the employed. This refers to individual who have higher risk to get fired or to get lower paid when the aggregate unemployment rate in the region increase. Importantly, regional employment is a significant aggregate factor despite the main individual behaviour influencing the tendency from being poor is being controlled

Nevertheless, employment is generally as an anti-poverty tool, however poverty may occur due to employment under some specific events. For instances, this could happen whenever the procreation of employment is attained by increasing of part time and low-paid jobs which

related to drastic supply-side, reforming labour market is targeted to bring flexibility to the labour market as well as related to changes in technical which are cutting down the demand for labour who do not have skilled and thus lowering wages for the job (Machin 2009). Based on recent crisis that happen in Germany: declining in the unemployment rate is being found has actually increase poverty (Kyzyma, 2013). The jobs with low salary may obstructs work when sufficient policies exist, while jobs are accepted and the workers may have a poor health (Pemberton et al 2013).

In addition, Osinubi (2005) has observed the consequences that caused by increasing of unemployment and the poverty in Nigeria. He claimed that there have a negative relationship between growth and poverty and positive relationship between growth and unemployment. Policy makers should reduce the inequality of income level in order to solve the problem of poverty and low growth.

From all above, unemployment has direct and indirect impact on the poverty. We can conclude that unemployment can be a major determinants to indicate the level of poverty.

### **2.2.2 The relationship between health and poverty**

Health and demographic features are considered as the primary elements of human capital stock for an individual. Reinstadler and Ray (2010) stated that the health status of people behaviour is same to their techniques in resulting poverty in that poor health, such as lacking of skills, this means they have a low tendency to get a job or being physically able to work at all and consequently a higher likelihood of ending up poor. Even though health conditions of the

individuals in unsteady condition, they still manage to take part in the labour market. The behaviour of low intention to build the abilities makes them cannot deserve high-wage opportunities, this showed that they have relatively low in marginal productivity (Buddelmeyer and Cai, 2009).

According to the Sorsha (2018), poverty and poor health worldwide are related completely. Poverty causes poor health and at the same time poor health may lead to poverty. Consequently, communities ambushed by the poor health in poverty. The poorest easily infected by the infectious and neglected diseases since they cannot afford higher medical fees. Marginalised groups and vulnerable individuals are usually have a worst impact because they lack of the information, do not have enough money in accessing health services that provide treatment for them. The poor household may experience living in an overcrowded conditions which allows spreading of diseases to the air. The situation of lacking of basics needs such as clean water, food, shelter as well as sanitation will increase the fatality.

### **2.2.3 The impacts of poverty in education.**

Primary education is an important key in reducing poverty and is positively related with outcomes of enhancing productivity in the labour market (Jamison and Lau 1982). It known as the breaking point for poverty to transmit intergenerationally.

Card (1999) claims that the higher average wage comes from additional years of schooling. Sianesi (2003) found that those who attained higher academic qualifications than vocational qualifications, have higher wage returns while low-level vocational qualifications will not get

any returns. Harmon and Walker (1995) use the increase in the compulsory school-leaving age in 1947 and again in 1973 to estimate wage returns to additional year of schooling for individual aged between 46 and 53 years old. Then, he found that there is 15 percentage points of very high wage returns to additional years of schooling. High school graduation affect an individual negatively on their welfare backgrounds (Coelli et al, 2004). However, the person with low-level skills in numeracy and literacy can decrease the probability of being employed (McIntosh and Vignoles, 2000). Obviously, education improves the probability to being employed and thus reducing poverty.

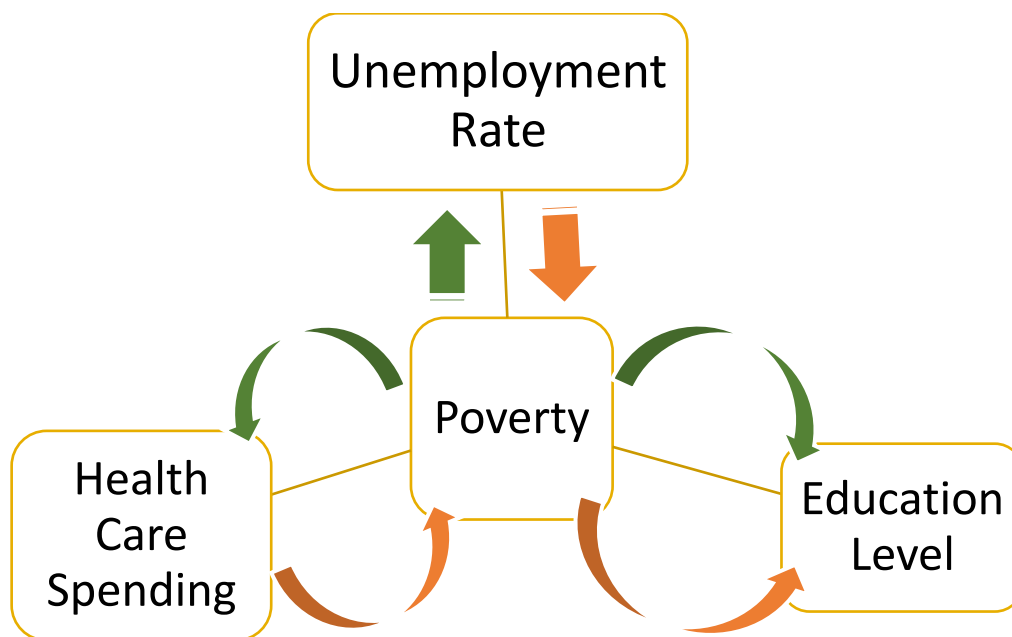
On the other hand, educational opportunities may affected by poverty negatively, it may also be 'the critical path out of poverty'. The children from poor families is given high expectation to be in school since there is no work opportunities deal their time (Bhalotra and Heady, 2003). Children are being force to draw out from school if the family encounter "shocks" which cause them suffering and releasing from poverty in the short period. There are many reasons when children drop out of school related to poverty such as progression by a generally single-entry, inelasticity of lock-step system to cope with interrupted learning. Colclough et al (2003) stated that this make it likely that the children will remain out of school. This impact affect the children and their family in longer term which leading them move from transient state of poverty to chronic state of poverty.

In addition, children form the poor households is usually required to work for generating income for their family, for example they work domestically in their family farms. Dyer (2005) claimed that many children were working when schooling, thereby working brought them income. So that they can use the income to pay for their tuition fees or any related expenses

while this may also cause the children drop out from school. For instance, a children are tiring from working, they may not concentrate at school and hence fails to achieve satisfactorily (Heady, 2000). The 2004 Chronic Poverty Report (CPRC, 2004) shows that decreasing feasibility of poverty is correlated strongly with the formal education, this research implies that the schooling level at which poverty might happen can change between countries. Education as a variable is mainly included in this literature in terms of years/levels of schooling. Harper et al. (2003) emphasise the significant of education is definition of escaping poverty.

We can concluded that education generally aim to lower poverty and enhances market outcome of an individual and significantly consequences on their life opportunities.

### 2.3 Proposed Theoretical Framework



▣ and ▣ there are causality relationship.

The above theoretical framework is developed based on the research objectives, background of study and the discussion of literature reviews between the dependent variable, Poverty and each of the independent variables which are Unemployment Rate, Health Care Spending and Education Level.

Majorities of the researches agreed that unemployment rate has a positive effect on poverty rate since they have examined the poverty sensitivity to unemployment. The household is not in the labour market, if the unemployment rate is higher, poverty rate will be higher as well. Higher unemployment reflects lower wage level or no wage at all and thereby the poverty rate will be increased. Since there is a bilateral relationship between the unemployment rate and poverty rate, this can be reflected from the situation: if the individual is unemployed due to poverty because the individual is poor in financial to access the education and new skills.

Next, health care spending by the household is negatively related to poverty, which is, a lower the health care spending for a household or individual, higher the poverty is. There is a tottering gaps between health outcomes and the low and middle income countries as well as the high-income countries, hence this research will be carry out for this three different income level countries which are Italy, Malaysia and Pakistan. The health services is vulnerable for the poorest when the price charged is higher, they may not able to access the medical services. As stated by Gilson (1997), a household's income is a main consideration for a poor individual in receiving any services, because of the fees, they rather to delay seeking treatment (Gilson, 1997).

The relationship between the health care spending and poverty rate is bilateral. Health may generates poverty as good health prosper us as human beings (Gillon, 1986). We required good healthy body when we are learning and working. For the individual whose do not have a health, they do not fulfilled the requirement for a higher wage job. This may lead them into poor.

Lastly, based on the theories discussed, neoclassical theory indicate that market failure is related to the skills divergence in the labour market (Pemberton, 2013). The dysfunction of market can be related unaffordable of education and training expenses. In addition, Machin (2009) recorded the disadvantages background made the children worst in achievement and education levels which intensify lacking of skills. From the consequences on poverty, life is exaggerated when demand for unskilled workers decreased. Adult education play an important role for someone's skills that cannot obtained from normal schooling (Scott et al, 2000). Besley and Burges (2003) noted education not only improve the elasticity between economic growth and the reduction of poverty, thereby behaving as a redistribution form which means reducing the inequality. Education level have a negative relationship with poverty since lower the levels of education, low income household and higher the poverty rate.

## **2.4 Hypotheses Formulation**

- 1) There is positive relationship between unemployment and poverty.
- 2) There is negative relationship between health care spending and poverty.
- 3) There is negative relationship between education levels and poverty.



## **2.5 Finding the Gaps**

There are several studies that investigated how the unemployment affects the poverty rate. Those studies focus on the relationship between poverty and unemployment, health expenditure and education level in a specific low income level country; yet, there are insufficient studies that investigate the relationship between poverty and unemployment, health expenditure and education level in three countries which are low-, medium-, and high-income level countries. Therefore, the panel data which combine the cross-sectional and time series data will be used in this study to fill the gap to study the dynamic change. Besides, this research will include government policies to enable researchers to figure out the effect of the practicing of government policies in short run and long run on the poverty in Italy, Malaysia and Pakistan which are high, medium, and low income level countries respectively and the poverty still was a major issue for the country.

## **2.6 Conclusion**

Among the three theories discussed above, neoclassical and Keynesian theories are the most suitable study framework for this research. The reason being with the connection of these theories, all the independent variables are correlated with the dependent variable, poverty rate. Moreover, the neoclassical and Keynesian theories are better in providing theoretical guidance to investigate the changes of poverty rate by given the factors of changes on macroeconomic variables. Also, the neoclassical and Keynesian theories suggest that government intervention should be further justified at the macroeconomic level. Keynesian model emphasizes that economic growth is basically a most powerful factor in alleviating poverty.

On the contrary, classical theories is not recommended because the focuses on analysing poverty on micro-level since that poverty is resulted from natural personal weaknesses or inappropriate behaviour that can get duplicated (Blank, 2010). Initiative policy in classical theories is always targeting to shift an individuals' behaviour constructively.

## **CHAPTER 3 METHODOLOGY**

### **3.0 Introduction**

Panel estimation is a method that pooling the data into a “panel” of time series from different cross sectional units. Data pooling can also be recognised as panel data model. Panel data analysis as a studying solution for an exacting subject within multiple sites, observed over a defined time frame periodically. This analysis method also used by economists to study the behaviour of firms and wages of people over a period. Gujarati (2003) state that panel data analysis is the combination of time series and cross-section, this model enhance the quality and quantity of data which means these two dimensions should be used in carrying out the analysis. Panel data are well suitable to study the dynamic of adjustment. Thus, panel data are suited to study the economic states duration such as unemployment and poverty. The longer the panel data can speed up the adjustments to economic policy changes. For instance, panel data is the only method that can estimate what proportion of unemployment in one period and those remain unemployed in another period in the same time.

### **3.1 Data Description**

The poverty dataset is collected from the The World Bank while the data for other manipulated variables are collected from various databases like The World Bank and UNESCO. The dataset used in this research are from 3 different country from year 2006 to year 2016 which comprises of 33 observations.

Table 3.1 Summary of Variables and Data Sources

Variables	Proxy	Unit Measurement	Data sources
Poverty rate	P	% of population that is poor in Italy, Malaysia, and Pakistan	The World Bank
Unemployment Rate	UNEMP	% of total amount of unemployed person in Italy, Malaysia, and Pakistan	The World Bank
Health care spending	HCS	% of GDP in health care spending	The World Bank
Education Level	EDU	% of tertiary school enrolment	UNESCO

### 3.1.1 Dependent Variable and Measurement

#### 3.1.1.1 Poverty in Italy, Malaysia and Pakistan

According to United Nation, increase in poverty known as a global phenomenon. The poverty line is used to indicate the income or expenditure threshold, differentiate poor and non-poor people. After determining of the poverty line, the poverty headcount ratio will be used to determine the percentage of the population or household that live below the cut-off point. The headcount ratio is popular to use in measure poverty since it is easy to understand and measure. Data of poverty rate in Italy, Malaysia, and Pakistan were collected from the World Bank, it is measured in percentage of population that is poor in Italy, Malaysia, and Pakistan.

### **3.1.2 Variables and Measurements**

#### **3.1.2.1 Unemployment Rate**

According to Bureau of Labour Statistics, unemployment is refer to the people who do not have a job while still looked for job actively in the past four weeks, and available for work currently. The unemployment statistics function as tracking the cyclical performance of the economy, the unemployment rate is the key indicator of economic hardship (Corcoran and Hill, 1980). The level of economic well-being of individuals definitely lowered by unemployment as well as higher unemployment rate weaker economic performance in a country. Hall (1991) states that rising in the demand of labour when there is a fall in unemployment rate. The data of unemployment rate is measure percentage of the total amount of unemployed person in Italy, Malaysia, and Pakistan, which are extracted from The World Bank.

#### **3.1.2.2 Health care spending**

According to The World Bank, poor people encounter greater challenges in assessing medical care. They may not able to purchase health insurance, access new drugs and technologies as well as primary and specialty care (Khullar and Chokshi, 2018). Health is influenced by the income via various clinical, behavioural, social, and environmental mechanisms. Health care spending maesures the final consumption of health care goods and services for example personal health care, whereas spending on investments is excluded. Spending on health care shows a response to a basic need. The data of health care spending is retrieved from The World Bank online database.

### **3.1.2.3 Education Level**

Okojie (1995) states that human capital refers to the abilities and skills of human resources of a country. Development of human capital is a growing process in the number of skilled persons, they receive education and have the experience that are significant in promoting economic growth and development economy in a nation. The study of Ararat (2007) shown higher population assess to higher education, positive the results to the per capita GDP growth in the long term, if the economic growth means the poverty will be decreased. In my research, tertiary school enrolment will be the standard education level and is being investigated to relationship between the education level and poverty. The data of tertiary school enrolment rate is extracted from UNESCO.

## **3.2 Econometric Model**

### **3.2.1 Panel Data Models**

The panel data models is used to study group (individual-specific) effects, time effects, or both, so that unobserved heterogeneity or individual effect can be managed easily. These effects can either be fixed or random effect. In this research, the data is considered as long and two-way panel data model since that N is smaller than T and it has two sets of dummy variables.

This study proposes panel data regression techniques to estimate the changes poverty rate in Italy, Malaysia and Pakistan with the changes in unemployment rate, health care spending and tertiary school enrolment rate. The following equation shows the regression model:

$$P_{it} = \beta_0 + \beta_1 UNEMP_{it} + \beta_2 HCS_{it} + \beta_3 EDU_{it} + \varepsilon_{it}$$

Where  $P_{it}$  represents poverty rate,  $UNEMP_{it}$  refers to unemployment rate,  $HCS_{it}$  is health care spending, and  $EDU_{it}$  denotes as education level.  $i = (1, 2, \dots, N)$  represents the number of cross-section which are cross-section of the 3 countries in this study and  $t = (1, 2, \dots, T)$ , represents the period of time which is the period examined in this study are 11 years for 3 countries. This panel data set is considered as long panel data set.

### 3.3 Econometric Techniques

#### 3.3.1 Pooled Ordinary Least Square (OLS) Regression

Ordinary least squares (OLS) generates parameter estimates efficiently and consistently if there has no effect on individual  $u_i$ , meaning that  $u_i = 0$ .

$$y_{it} = \alpha + X'_{it}\beta + \varepsilon_{it} (u_{it} = 0)$$

According to Greene (2008) and Kennedy (2008), there are 5 core assumptions in OLS.

1. Linearity defines the dependent variable as a linear function for an independent variable set and also the error term
2. Exogeneity means there are no any correlation between disturbances and any regressors.
3. Error term have the same variance (homoskedasticity) and they have no relationship between each another (nonautocorrelation).
4. Not stochastic for the observations on the independent variable.
5. No multicollinearity defines that there is not an exact linear relationship among independent variables.

If  $u_i \neq 0$  in longitudinal data, assumption 2 and 3 may be affected by heterogeneity. In exact, there are no same variance of the disturbances but vary across individual or may related to each

other (autocorrelation). Nonspherical variance-covariance matrix of disturbances may happen at this time. This situation conflict with the assumption 2 which explains the random effect estimators biased. Therefore, the best unbiased linear estimator will not be OLS estimator anymore. To deal with these problem, suitable method is provided in panel data model.

### **3.3.2 Fixed Effects Model versus Random Effects Model**

Schurer and Yong (2012) states that fixed effects (FE) modelling often used in economics and political science, its status as “gold standard” default. In other hand, random effects (RE) models is recognised as multilevel models, hierarchiral linear models and mixed models which own great reputation in political science (Beck and Katz, 2007) and are frequently used in education (O’Connell and McCoach, 2008), biomedical sciences (Verbeke and Molenberghs, 2000, 2005), epidemiology (Duncan, Jones and Moon, 1998) and geography (Jones, 1991).

In fixed effects model (FE), the homogeneity between outcome variables and predictor among an entity will be examined. This should be under controlled in order to avoid bias the outcome variables while using FE models. The assumption of the relationship between entity’s error term and predictor variables is justified. In FE models, we can assess the net impact since that time-invariant characteristics impact is extracted from the predictor.

Based on the assumptions of FE model, time-invariant characteristics are unique to the individual. It will not correlated with other individual characteristic. Every entity have a difference between each other hence the entity’s error term and the constant has no correlation with the others. If there is a correlation, FE model is not a preferred model. This is because



inferences may be wrong and random effects model is more preferred. Therefore, Hausman test should be carried out to test which model is suitable to use in analysing the data set.

The equation for the fixed effects model becomes:

$$Y_{it} = \beta_1 X_{it} + \alpha_i + \varepsilon_{it}$$

The equation for the fixed effects model by using binary variables becomes:

$$Y_{it} = \sum_{i=1}^N a_{0i} D_{it} + a_1 x_{it} + \varepsilon_{it}$$

This estimation forms also recognised as Least Squares Dummy Variables (LSDV)

Time effects is added to the entity effects model to have a time and entity fixed effects regression model:

$$Y_{it} = \sum_{i=1}^N a_{0i} D_{it} + \sum_{t=1}^T a_{2t} T_{it} + a_1 x_{it} + \varepsilon_{it}$$

The regression function is allowed by the time dummy coefficients to shift over the time to determine varies of technology, government regulation, tax policy or external influences like wars.

## CHAPTER 4 EMPIRICAL FINDING

### 4.0 Introduction

In this chapter, the empirical findings will be included to in interpreting data and explaining the relationship between the variables. This study investigates unemployment rate (UNEMP), health care spending (HCS) and education level (EDU) that effecting the poverty (P) across 3 countries: Italy, Malaysia and Pakistan for the period from 2006 to 2016. This section contain 5 parts. Section 4.1 is the Pooled Ordinary Least Square (OLS) Regression. Next will be Fixed Effect Model in Section 4.2, and lastly followed by the discussion in section 4.3.

### 4.1 Pooled Ordinary Least Square (OLS) Regression

The model estimation of the model is uses panel data to analyse the data from 2006 to 2016 for 3 countries. The initial pooled effect result is presented as follow:

<b>Variable</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>t-Statistic</b>	<b>Probabilit y</b>
<b>C</b>	23.93618	1.296106	18.46776	0.0000
<b>UNEMP</b>	-1.596904	0.379960	-4.202825	0.0002
<b>HCS</b>	8.983942	0.646304	13.90050	0.0000
<b>EDU</b>	-1.313068	0.059521	-22.06056	0.0000
<b>R-squared</b>	0.964271		<b>Probability (F- statistics)</b>	0.0000
<b>Adjusted R-squared</b>	0.960575			

Table 4.1: Pooled OLS Regression

According to the result above, the regression is form as below:

P =	23.936	- 1.597UNEMP	+ 8.984HCS	- 1.313EDU
SE	(1.296)	(0.380)	(0.646)	(0.060)
T	(18.468)	(-4.203)	(13.901)	(-22.061)
P-value	(0.000)	(0.000)	(0.000)	(0.000)

Based on the result shown above, if the unemployment rate (UNEMP) increased by one percent, the poverty rate (P) will decrease by 1.597 percent. When the health care spending (HCS) increase by one percent, it will lead poverty increased by 8.984 percent. If one percent increasing in education level (EDU), the poverty rate (P) will decrease by 1.313 percent.

For the individual test, the t-test for the unemployment rate (UNEMP) is -4.203, which is smaller than -1.96. The p-values for UNEMP is 0.000, which is smaller than the alpha at 5% significance level. Therefore, the null hypothesis is rejected based on the statistical evidence and concluded that the UNEMP is significant. Thus, unemployment rate have a negative and significant impact on poverty rate.

For t-test for the health care spending (HCS) is 13.901, which is bigger than 1.96 and the p-value for HCS is 0.000, which is smaller than the alpha at 5% significant level. Therefore, there is enough statistical evidence to reject the null hypothesis and the HCS can be concluded that is significant and there is a relationship between health care spending and poverty rate.

For the education level (EDU), the t-test for EDU is -22.061, which is smaller than -1.96 while the p-value for EDU is 0.000, which is smaller than the alpha at 5% significant level. Thus, the statistical evidence prove that the null hypothesis is rejected and can be concluded that the EDU is significant and there is a negative relationship between education level and poverty.

The p-value for the overall test (F test) is 0.000, which is considered smaller than the alpha at 5% significant level. Therefore, we can reject the null hypothesis based on the statistical evidence. We can concluded that the coefficient is significant at 5% level of significance. The adjusted  $R^2$  show that 96.058% variations in poverty in Italy, Malaysia and Pakistan can be explained by the unemployment rate, health care spending and education level in these 3 countries.

#### 4.2 Fixed Effect Model

Variable	Coefficient	Standard Error	t-Statistic	Probability
<b>C</b>	9.324685	12.19385	0.764704	0.4511
<b>UNEMP</b>	-1.556988	0.392337	-3.968493	0.0005
<b>HCS</b>	10.47828	2.385404	4.392667	0.0002
<b>EDU</b>	-1.121628	0.205326	-5.462672	0.0000
<b>R-squared</b>	0.966405		<b>Probability (F-statistic)</b>	0.0000
<b>Adjusted R-square</b>	0.960183			

Table 4.2 Fixed Effect result

According to the result above, the regression is form as below:

$$\begin{array}{l}
 P = \quad 9.325 - 1.557UNEMP + 10.478HCS - 1.122EDU \\
 SE \quad (12.194) \quad (0.392) \quad (2.385) \quad (0.205) \\
 T \quad (0.765) \quad (-3.968) \quad (4.393) \quad (-5.463) \\
 P\text{-value} \quad (0.4511) \quad (0.0005) \quad (0.0002) \quad (0.0000)
 \end{array}$$

Based on the result shown above, one percent increase in unemployment rate (UNEMP) will lead the poverty rate (P) decrease by 1.557 percent. When the health care spending (HCS) increase by one percent, the poverty rate (P) will be increased by 10.478 percent. If one percent increasing in the education level (EDU), it will lead the poverty rate (P) to decline by 1.122 percent.

For t-test of the unemployment rate (UNEMP) is -3.968, which is smaller than -1.96 while the p-values for UNEMP is 0.001, which is smaller than the alpha at 5% significance level. Therefore, there have enough statistical evidence to reject the null hypothesis and it can be concluded that the UNEMP is significant and there is a relationship between unemployment rate and poverty rate.

For the health care spending (HCS), the t-test for HCS is 4.393, which is greater than 1.96 while the p-value for HCS is 0.000, which is smaller than the alpha at 5% significant level. Therefore, the statistical evidence proven that the null hypothesis is rejected and concluded that the HCS is significant and there have a positive relationship between health care spending and poverty rate.

For the education level (EDU), t-test for the EDU is -5.463, which is smaller than -1.96 while the p-value for EDU is 0.000, which is smaller than the alpha at 5% significant level. Therefore, the null hypothesis is rejected based on enough statistical evidence. Conclusion, the EDU is significant and there is a negative relationship between education level and poverty rate.

The p-value of the overall test (F-test) is 0.0000. The p-value is smaller than the alpha at 5% significant which means that there is enough statistical evidence to prove that the null hypothesis should be rejected. Thus, it can be concluded that the coefficient is significant at 5% of significant level. The adjusted  $R^2$  is about 96.02% variations in poverty rate (P) in Italy, Malaysia and Pakistan can be explained by unemployment rate, health care spending and education level in these 3 countries.

### **4.3 Discussion**

Since that the estimation random effect requires number of cross sections greater than the coefficient number for between estimator for estimate of random effect variance, thus the random effect model is not preferred in this study. Besides, the R-squared value in fixed effect model is greater than the R-squared value in Pooled Ordinary Least Square (OLS) Regression. Therefore, fixed effect model is preferred model for this study.

The result in the fixed effect model shows that unemployment rate is significant and there is a relationship between unemployment rate and poverty in Italy (developed country), Malaysia (developing country) and Pakistan (least developed country). According to Mardiyana and Ani (2019), the finding of their study shows there is a positive and significant effect of the unemployment variables on the poverty. Poverty not only caused by lacking of money or low-income level, while there are some other factors that affect such as literacy (low education level) and poor level of health. In Mardiyana and Ani's study, the findings concluded that unemployment and poverty have a positive relationship due to unemployment causes not optimal in the income level and the prosperity level of the community.

However, the results shows that the unemployment rate and poverty have an opposite relationship which mean that decrease in poverty will increase in unemployment rate. From the data obtained, unemployment rate and poverty have a positive relationship between each other in Italy but in Malaysia and Pakistan, unemployment rate and poverty have a negative relationship. Therefore, overall findings will be affected and result in unemployment rate have a negative relationship with poverty rate.

According to Prof Philip Alston, the UN special rapporteur on poverty and human rights, Malaysia vastly undercounting poverty. The key problem is the official poverty counts are following a poverty line that was set over 40 years ago. This statistic has been roughly kept at the same value over time which means only adjusting for inflation while not rising in real terms. This lead the real poverty headcount could not be more transparent.

Unemployment scenario in Pakistan has been worsen due to the rapid growth of the population, development of lacklustre economic, fiscal indiscipline, escalating debt-servicing and non-development expenditures (Hassan, Khalid & Kayani, 2016). This issues have negatively affected the economic development and policy making to reduce poverty in Pakistan. According to the statistics in Pakistan unemployment rate has increased to 2.95 percent in year 2013 when compared to 0.65 percent in year 2010. However, official poverty line Pakistan is reported that poverty has declined from 44.10 percent in year 2007 to 24.30 percent in year 2015. The statistic may prove that unemployment rate is indirectly affected by poverty.

There is two-fold in researchers' approach about the relationship between unemployment and poverty. Some researcher claimed that unemployment is directly affected by poverty (Saunders,

2002; Ukpere & Slabert, 2009; Apergis et al., 2011). There are some arguments state that countries have the higher poverty rate do not always have higher unemployment rates. According to Saunders (2002), the funding base of welfare programs is destroyed by unemployment meanwhile rising poverty and social inequality. High poverty and unemployment happens in same time, the direct relationship between these two issues become obviously. The discussion about the relationship between unemployment and poverty depends on argument. Individual as an analysis unit that used to detect labour force status and income units is targeted in poverty research. Therefore, a low income person and still not be bankrupt and may have shared revenue with other family members, the family can be considered living above poverty line. Being unemployed does not mean that the person is living below or above poverty line.

Next, fixed effect model results shows that health care spending by the household have a positive relationship with poverty rate. The higher of health care spending will increase the poverty. The economists claim that the illness may leads to poverty. Poor health will give a negative impact on households' income and economic growth rate (Barro, 1996; Mayer et al., 2000; & Bhargava et al., 2001). Poor health worsen income earning capacity of an individual by limiting performance at work, rising medical cost and reducing their savings. Meanwhile, the household will fall into the illness-poverty trap. This situation will become a cycle from they spend large portion of their income on health services, then they could not get the savings and at the same time they cannot improve their living quality. Lastly, the household become poorer and still have to spend their money on medical.



Financial burden of households will be increased by rely on out-of-pocket payments for health care (Wagstaff & Doorslaer, 2003; Xu et al. 2003; O'Donnell et al. 2005; Lara & Gomez, 2011). We could see that in most low-income and middle-income countries out-of-pocket spending is the major payment strategy for health services (Khan, Ahmed & Evans, 2017). Chuma and Maina (2012) also found that there is 1.48 million Kenyans living below the national poverty line because of this out-of-pocket payment and the burden is highest among the poor. Doorslaer et al. (2006) carry out multi-country analysis in 11 Asian countries, they found the number of people who is living below poverty line is around 78 million people because of they spend large share of their income for healthcare.

The high out-of-pocket expenses in least developed countries and developing countries causes a reduction in the consumption of non-food goods (Arsenijevic, Pavlova & Groot, 2013). In few studies observed that there have higher medical poverty among households with chronic non-communicable diseases, and also caused by the higher share of medicines on total of hospitalization (Bhojani et al, 2012; Karan et al, 2014; Alam & Mahal, 2014; & Pallegedra, 2018). Obviously, health care spending positively related to poverty rate in a country.

Based on the fixed effect model in 4.2, education level have a negative relationship with poverty. Ahmad and Batul (2013) stated that countries having a low education level, majority of total population hard to increase their GDP at the macro level. At micro level, low education household mostly living below the poverty line due to getting low-paying jobs and lacking of efficiency. Meanwhile, economic poverty causes sufficient investment in education being restricted thereby leading the poverty to further increase. Isham (2002) suggests that investment in human capital are essential measure in order to cut off this vicious cycle.

According to Millenium Development Goals (MDGs) and Education for All (EFA), they had investigated different level of education, experience and gender of employed worker affecting poverty in Pakistan. This investigation concludes that education levels and experience are negatively related to poverty. Education level will give the impact on earnings and so on poverty works largely through the labour market, high-wages jobs for more educated people may come from higher productivity, while education enabling the better educated person to obtain more lucrative jobs (Orazem, Glewwe & Patrinos, 2007).

Londoño (1996) claims that poor level of education become the most important factor that restrain the economic growth in Latin American and thereby maintaining the inequality and poverty in a higher levels situation. He argues that improvement in education can largely reduce the poverty in a country. Some research also find that primary education and secondary education play a key role for low income and middle income developing countries to accelerate their economic growth while tertiary education more important for developed rich countries (Gemmelt, 1996). Apparently, education level could affect the poverty in Italy, Malaysia and Pakistan.

## **CHAPTER 5 CONCLUSION**

### **5.0 Introduction**

This study aim to determine the factors that affecting the poverty in 3 regional countries: Italy, Malaysia and Pakistan. This chapter consists of four parts. Summary will be discuss firstly in Section 5.1 then followed by policy implication in Section 5.2. Next, recommendation will be discussed in Section 5.3. Lastly, Section 5.4 will be the limitation in this study.

### **5.1 Summary**

This research emphasize on the factors affecting the poverty in 3 regional countries: Italy (developed country), Malaysia (developing country) and Pakistan (least developed country). The conceptual framework suggests that high unemployment rate result in high poverty in the country but it is not support by the result in empirical findings where it shows that there have a negative relationship among them. The conceptual framework suggests that high health care spending result in high poverty rate, and it is confirmed by the empirical findings. Beside, the empirical findings also support the conceptual framework suggests that high education level will reduce the poverty rate.

The conclusions made is according the empirical finding from fixed effect model. First, the human capital can affect poverty in the short run and long run in these 3 regional countries. Human capital including education, skills and other knowledge have become significant determinants for a person's productivity and even nation's productivity. Success of a country is depends on how well a nation utilizes its people to grow the economy. It is clear shows that strong human capital base is a key point to achieve succeed in this modern world. Second,

unemployment rate does have the relationship with poverty but it is not a direct relationship. Poverty happen even the household is being employed. Unemployment could lead a household live under the poverty line. Meanwhile, poverty might lead a household being unemployed due to some health or physical issues. Every culture has the capacity to evolve a developing nation successfully. Therefore, the governments' policies is the main key to enhance economic growth. There are several polices that can be implemented to enhance the economic growth in this study.

## **5.2 Policy Implication**

First, the means-tested for the welfare benefits should be implemented to the poorest in society. Universal tax credit, food stamps, income support or child benefits should be given by government to the poorest society. This method allow money to be aimed for someone who mostly need it. Hence, welfare benefits to those in low income will increase. Second, the statutory minimum wages should be set by the government in low-income country. This method prevent the employer exploit their employee inappropriately. Violator will be subjected to a fine. For the medium or high income country, the government can increase the minimum wage. This is a way to increase the incomes of low paid and thereby to reduce wage inequality issues happens.

Third, government can implement free market economic reforms to improve the economic growth in the country. The reforms attracted huge amounts of foreign investment into the country, thereby to create the jobs for local people. In a meanwhile, living standard of society can be raised to alleviate to the poorest in society. Lastly, the policy can be implemented to reduce poverty is direct provision of goods or services such as there is no any charges for education and healthcare service. Free education and healthcare service provided for those have

inadequate income to afford the necessities of life. Greater effort and spending on education can enable country to produce higher-skilled, high productivity and high efficiency workforce. Thus, unemployment rate can be reduced as well.

### **5.3 Recommendation**

The current work recommends that the authority should provide more accurate and transparent of dependent variable data by using another indicator in order to enable the researcher to analyse the determinants of the poverty of each country in more details and its effects on the economic growth accurately.

### **5.4 Limitation of the study**

The limitation of this study is the one of the dependent variable data that provided in the country is not accurate and transparent due to the wrong using of indicator.

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## APPENDIX

### 1) Data for dependent and independent variable (Poverty rate, Unemployment rate, Health care spending and Education)

C_id	Country	Year	P	UNEMP	HCS	EDU
1	Italy	2006	1.50	6.80	8.64	65.65
1	Italy	2007	1.50	6.09	8.16	66.46
1	Italy	2008	1.70	6.70	8.56	66.30
1	Italy	2009	1.70	7.80	8.98	66.65
1	Italy	2010	2.50	8.40	8.95	66.06
1	Italy	2011	2.50	8.40	8.83	66.07
1	Italy	2012	3.00	10.70	8.96	65.06
1	Italy	2013	3.00	12.10	8.95	63.62
1	Italy	2014	2.70	12.70	9.01	63.38
1	Italy	2015	3.50	11.90	8.99	62.87
1	Italy	2016	6.30	11.70	8.94	63.02
2	Malaysia	2006	3.60	3.32	3.17	28.51
2	Malaysia	2007	3.60	3.20	3.12	30.18
2	Malaysia	2008	3.80	3.30	3.08	33.70
2	Malaysia	2009	3.80	3.70	3.32	35.79
2	Malaysia	2010	3.70	3.00	3.23	37.32
2	Malaysia	2011	1.70	3.10	3.39	35.71
2	Malaysia	2012	1.70	2.90	3.55	36.33
2	Malaysia	2013	0.60	3.30	3.57	36.98
2	Malaysia	2014	0.60	2.90	3.77	36.87
2	Malaysia	2015	0.40	3.20	3.90	42.37
2	Malaysia	2016	0.40	3.50	3.80	44.12
3	Pakistan	2006	50.40	0.58	3.01	4.98
3	Pakistan	2007	44.10	0.40	3.14	5.61
3	Pakistan	2008	44.10	0.42	2.92	5.59
3	Pakistan	2009	36.80	0.54	2.61	6.92
3	Pakistan	2010	36.80	0.65	2.60	7.74
3	Pakistan	2011	36.30	0.80	2.34	8.65
3	Pakistan	2012	29.50	1.68	2.36	9.91
3	Pakistan	2013	29.50	2.95	2.60	10.35
3	Pakistan	2014	29.50	1.83	2.72	10.34
3	Pakistan	2015	24.30	3.57	2.69	9.91
3	Pakistan	2016	24.30	3.44	2.57	9.73

## 2) Eviews Result

### Pooled Ordinary Least Square (OLS) Regression

Dependent Variable: P  
 Method: Panel Least Squares  
 Date: 06/02/20 Time: 10:27  
 Sample: 2006 2016  
 Periods included: 11  
 Cross-sections included: 3  
 Total panel (balanced) observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.93618	1.296106	18.46776	0.0000
UNEMP	-1.596904	0.379960	-4.202825	0.0002
HCS	8.983942	0.646304	13.90050	0.0000
EDU	-1.313068	0.059521	-22.06056	0.0000
R-squared	0.964271	Mean dependent var		13.31515
Adjusted R-squared	0.960575	S.D. dependent var		16.36720
S.E. of regression	3.249832	Akaike info criterion		5.308296
Sum squared resid	306.2809	Schwarz criterion		5.489691
Log likelihood	-83.58689	Hannan-Quinn criter.		5.369330
F-statistic	260.8882	Durbin-Watson stat		0.957301
Prob(F-statistic)	0.000000			

### Fixed Effect Panel Regression

Dependent Variable: P  
 Method: Panel Least Squares  
 Date: 06/02/20 Time: 10:38  
 Sample: 2006 2016  
 Periods included: 11  
 Cross-sections included: 3  
 Total panel (balanced) observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.324685	12.19385	0.764704	0.4511
UNEMP	-1.556988	0.392337	-3.968493	0.0005
HCS	10.47828	2.385404	4.392667	0.0002
EDU	-1.121628	0.205326	-5.462672	0.0000

#### Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.966405	Mean dependent var	13.31515
Adjusted R-squared	0.960183	S.D. dependent var	16.36720
S.E. of regression	3.265934	Akaike info criterion	5.367935
Sum squared resid	287.9909	Schwarz criterion	5.640027
Log likelihood	-82.57092	Hannan-Quinn criter.	5.459485
F-statistic	155.3362	Durbin-Watson stat	1.010797
Prob(F-statistic)	0.000000		