Fort Hays State University
FHSU Scholars Repository

Fall 2014

Cooperative Movement Impacts on Poverty Eradication in Indonesia: 2007-2011 Archival Research

Horohito Norhatan
Fort Hays State University, h_norhatan@mail.fhsu.edu

Follow this and additional works at: https://scholars.fhsu.edu/theses

Part of the Political Science Commons

Recommended Citation

COOPERATIVE MOVEMENT IMPACTS ON POVERTY ERADICATION

IN INDONESIA: 2007 - 2011

ARCHIVAL RESEARCH

being

A Thesis Presented to the Graduate Faculty

of the Fort Hays State University in

Partial Fulfillment of the Requirements for

the Degree of Master of Liberal Studies

by

Horohito Norhatan

B.S., Kansas State University

Date_____   Approved_____
                                                    Major Professor

                                    Approved_____
                                                    Chair, Graduate Council

ABSTRACT

Global leaders and institutions expend considerable time, effort, and resources to eradicate poverty in the world. In spite of these efforts, poverty persists worldwide as a trap into which millions of people continue to fall. The cooperative contribution towards poverty eradication has advanced in recent years. Cooperatives can potentially increase the economic well-being, fostering sustainable economic development at the community level (Yusuf & Ijaiya, 2009). The present study is based on a quantitative archival data analysis of cooperatives' movement progress and poverty eradication efforts in Indonesia. The purpose of this research is to analyze the relationship between the Indonesian cooperative movement and poverty eradication, rural and urban poverty rate, and Regional Gross Domestic Product (R-GDP). The researcher collected archival data from Indonesian official entities such as governmental statistical agency, ministry, and investment board. Cooperative values can be an Indonesia's national asset in combating poverty, as the framework for cooperativism is readily available throughout the country. Data analysis has revealed that cooperatives employment had reduced considerably the total national poverty in 2007, 2008, and 2011. Cooperative employment also played significant roles in reducing the Indonesian urban poverty in 2007, 2008, 2010, and 2011.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

Global leaders and institutions expend considerable time, effort, and resources to eradicate poverty in the world. During a 1973 United Nations address, the United States Secretary of State Henry Kissinger envisioned the world with no signs of poverty within the next decade (Gunjan, 2006). In spite of this optimism, poverty persists worldwide as a trap into which millions of people continue to fall. Most of the world's poor citizens live in developing and poorer countries (Gunga, 2008). For instance, the United Nations estimates 600 million Asian citizens currently live in extreme poverty (the Asia Foundation, 2013). The epidemic of worldwide poverty compels governments of the developing world to seek solutions to reduce the number of poor people in their country through implementation of various policies improving economic activities at the community level (Oshewolo, 2010). Cooperatives can potentially increase the economic well-being, fostering sustainable economic development at the community level (Yusuf & Ijaiya, 2009). To date, cooperatives have created approximately 100 million jobs playing a significant role in remote area development worldwide (ILO, 2012).

The cooperative contribution towards poverty eradication has advanced in recent years, especially after the United Nations declared year 2012 to be the "Year of the Cooperative" (Oluyombo, 2012). Many scientists from various fields of studies contributed their perspective on cooperatives and their impact on society, especially in the developing countries of Africa. Nevertheless, there remains a deficiency in empirical studies of the socio-economic impact of the cooperative movement on poverty eradication in Indonesia, where cooperatives contribute about 70 percent of the national

agriculture output (ILO, 2012). Moreover, there is limited variation in methodologies analyzing cooperative movement in Indonesia, creating a need to explore the impact of the cooperative movement on Indonesian economic development. It is important to analyze the impact of cooperative organization in poverty reduction in Indonesia, as cooperative values are deeply rooted in the culture (Bowen, 1986). If implemented well, a cooperative business model can help Indonesian government reduce poverty and enhance democratic practice while generating civic leadership (ILO, 2012).

The present study assesses the relationship between the cooperative movement and regional gross domestic products, wealth accumulation, community development, and poverty eradication in Indonesia. The time span is between 2007 and 2011. Time frames limiting the scope of research are introduced to enhance statistical analysis.

Research Questions

How significant was the correlation between cooperative independent variables and total poverty rate, urban poverty rate, rural poverty rate, and regional Gross National Product (RGDP)? What is the importance of the relationship between social indicator variables (Human Development Index, illiteracy rate, Gini Ratio, electricity consumption, clean drinking water improvement, and regional wage) and total poverty rate, urban poverty rate, rural poverty rate, and regional Gross National Product (RGDP)?

To answer these questions, this manuscript analyzed the available statistical data produced by the government in every Indonesian province. Additionally, the current

study provides recommendations for Indonesian policy makers to effectively formulate development policies increasing social benefits of cooperative organizations.

The first section of this study provides a brief introduction to the cooperative movement and the nature of poverty in Indonesia. The literature review explores research on the cooperative movement and poverty reduction, providing insights for the present study. Multiple linear regression analysis subsequently examines the relationship between cooperative organizations, and social indicators such as gross domestic product growth at the provincial level in Indonesia. The study concludes with several significant findings and policy recommendations.

Overview of Indonesia

Indonesia is a tropical archipelago nation located in the Southeast Asian and Oceanic regions. Comprised of approximately 17,000 islands encompassing a total area of 1,904,569 square kilometers with a population of 250 million, Indonesia is rich in natural resources, and the leading exporter of palm oil, nickel, timber, bauxite, copper, petroleum, natural gas, coal, gold, and silver (Central Intelligence Agency, 2013). The Dutch colonized the archipelago from the early 1600s until 1942 when the Japanese occupation began (Central Intelligence Agency). In 1945, Indonesian nationalists declared independence, sparking a revolutionary war against Dutch attempts to re-occupy the archipelago (Central Intelligence Agency). Despite rich natural resources, Indonesian employment growth is slower than population growth and public services are inadequate,

causing more than 32 million Indonesians to live below the poverty line threshold of 22

USD per month (World Bank, 2013).

Indonesia also experiences high economic disparities stemming from corrupt

socio-economic policies, which disproportionately allocating natural resource revenues to

certain areas, such Java, Sumatra and Bali islands (Doody, 2013). Statistical data reveals

that the bottom 20 percent of the Indonesian people only accounts for 8 percent of total

consumption of the consumer goods, while, the top 20 percent consumes nearly 45

percent (The Asia Foundation, 2013). The bottom 20 percent of the population lives in

the East Indonesia region, including the Kalimantan, Sulawesi and Papua islands (World

Bank, 2013). The Eastern Islands of Indonesia are behind the western region in terms of

economic development, infrastructure, education, and investment (The Asia Foundation,

2013). Due to lack of real investment, the cooperative movement is now the backbone of

development in the eastern region.

Cooperative organizations are flourishing in underdeveloped regions of Indonesia

as the main engine for community development. The ILO (International Labor

Organization) describes the cooperative movement in Indonesia as the largest civil

society organization and social innovation which contributes significantly in the nation's

rural development and employment formation (ILO, 2012). There are approximately

192,443 cooperatives with more than 30 million members in Indonesia (ILO, 2012).

Cooperative organizations are instrumental for improving the living and working

conditions of Indonesia's poorest citizens. To illustrate, the dairy cooperative in

Yogyakarta province successful improves the socio-economic status of individuals in the region by providing local farmers with capital and proper technology to manufacture dairy products (Sulastri & Maharjan, 2002). Farmers in Yogyakarta also raise mutual funds through credit and savings cooperatives (Sulastri & Maharjan). Cooperatives in Indonesia also enjoy significant support from local and central governments, as the movement is the prime means to refining the country's socio-economic development

The Indonesian government is unique in that every Indonesian presidential cabinet appoints a minister of cooperatives to oversee the development of the cooperative (Department of Cooperatives and SME, n.d.). The ministry provides governmental subsidies and soft loans to strengthen competitive advantages of cooperatives (Sulastri & Maharjan, 2002). In addition, the government encourages private banking involvement in financing cooperatives; and encourages private companies to work with cooperative organizations (Department of Cooperatives and SME, n.d.). In 2000, cooperative organizations received 1.8 trillion rupiahs worth of loans from the government and private banks (Sulatri & Maharjan).

The Cooperative Culture in Indonesia

The cooperative movement in Indonesia began in the late 19th century; and was initiated by Aria Wiraatmadja, a young entrepreneur from Puwokerto city, Central Java (International Cooperative Alliance, 2013). The first cooperative was a credit cooperative assisting locals escaping debt traps propagated by loan sharks (International Cooperative

Alliance). The movement progressed into the 20th century with housing and trade cooperatives (International cooperative Alliance).

One of the unique traits found in cooperatives in the remote areas of Indonesia is "mutual-assistance", known as "gotong-royong" (Bowen, 1986). In many Indonesian villages the terms "gotong-royong" signifies community efforts to achieve collective benefits for all. It can also mean "mutual cooperation" and "voluntary effort" used to achieve common goals (Bowen). Cooperatives values are foundational in the Indonesian culture which favors of "musyawarah", or consensus approach in decision making. Musyawarah encourages dialogue and compromise to reach a fair decision for all involved parties (Bowen). From the Dutch colonization to the National Independence era public expectation is all governmental decisions and programs must uphold gotong-royong and musyawarah which encourage solidarity among the community members in achieving mutual benefit.

During colonization of Indonesia, the Dutch seized control while taking advantage of "mutual-assistance" values held by local citizens to organize labor used to develop infrastructures such as building bridges, canals, dams, roads, and public buildings (Breman, 1980). Gotong-royong principles benefited the Dutch colonial administrators, ensuring a smooth supply of spice commodities from remote areas to major port cities (Breman). The principle of cooperation in gotong-royong was deployed as a political subordination strategy to obligate citizens to take communal responsibilities

in maintaining the well-being of the community, including patrol of villages at night, and repairing canals and roads (Breman).

The spirit of Gotong-royong has become a part of the contemporary Indonesian political ideology. The fifth presidents of Indonesia named their cabinets "Gotong-Royong" (The Cabinet Secretariat of the Republic of Indonesia, n.d.). Many of the officials' speeches and public addresses have been the reflection of gotong-royong in Indonesian politics. Hatta, the first Indonesian vice president, stated in famous address that the gotong-royong is the indigenous political system in rural areas where land and other resources are very limited; making cooperativism and community democracy the only viable methods for economic activities (Feith & Castle, 1970). Hatta's perspective on gotong-royong as the ideal development model continues to profoundly resonate in modern rural life in Indonesia.

The national heritage of gotong-royong reflects in economic activities of the modern Indonesians' living-style in the remote areas. The general ethos of selflessness and moral obligation to concern about the general good are the main reflection of Indonesian traditional social relation and philosophy of life (Bowen, 1986). Lont argues that the life of ordinary Indonesians is always associated with the institution for social interactions which promote a vibrant community such as financial self-help group (Lont, 2000). The local community organizes informal savings and credit associations known as "Arisan" (Eldridge, 1995). Additionally, arisan closely resembles the cooperative

organization principle of egalitarian and self-help, and it has been a leading feature in social capital research (Putnam, 1993).

Cooperative values depicted on gotong-royong system can be a national asset in combating poverty in Indonesia, as the framework for cooperativism is readily available throughout Indonesia. The concept is widely known and embraced by the population. If the government can provide the cooperatives with significant support through adequate training and financial assistance, it can potentially enhance the effects of cooperative organization on the community development. Existing scholarship explores the advantages of cooperatives and its potential benefits to developing countries combating poverty. The methodology and result section will analyze how far the cooperative movement in Indonesia is in achieving its goals in improving the welfare of the poor Indonesians.

THE REVIEW OF LITERATURE

Cooperative leading role in poverty eradication are immense, as much past research has depicted its impact on community development. Therefore, in order to realize the cooperatives' roles in poverty alleviation, it is very imperative to understand the nature and causes of poverty comprehensively. The first part of the review of the literature analyzes existing poverty studies research. The second part will discuss the origin of the cooperative movement, social benefits of cooperatives, and cooperatives' impacts on poverty reduction.

Understanding Poverty

Poverty is a complex problem with numerous manifestations including lack of resources and access to education and other basic needs (World Summit for Social Development, 1996). The European Union defines poverty as a situation in which individual lives with limited resources including material, cultural, and social, which paralyzed the individual's way of life (Zaidi, 1998). Ogundele and Abiola (2012) describe poverty as depiction of life condition deficiency due to lacks life sustaining goods, such as food, shelter, clean water, housing, education and clothing. Wanyama, Develtere, and Pollet (2008) argue that poverty is more than just a lack of necessities, but also, lack of opportunity and freedom which exclude individuals from the society. Additionally, poverty can lead to social discrimination, exclusion, and apathy, as a result of insufficient access to education (Mwelukilwa, 2001; Asamu, 2005).

Poverty is a significant worldwide social problem affecting millions of people (Gunjan 2006). Poverty encompasses a large number of social problems such as malnutrition, inhabitable housing, starvation, and income inequality (Gunjan). At the community level, poverty has caused the poor to live in an unsanitary condition, without running water or sewers (Gunjan). The high-density characteristic of urban areas in developing countries further enhances the scarcity of the livable housing; as a result, many poor citizens have to live in the slums, tenements, under the bridges or along the river's strand. Additionally, poverty is a volatile phenomenon, individual that lives above the poverty line can drop to or below the line on any given day (Gunjan).

Gunjan (2006) explained the dynamic nature of poverty in which the poor who develop economically, can later fall back to poverty. Thus, poverty eradication concept should be changed from "social development" to "social security" (Gunjan, 2006). Nevertheless, the state funded social protection efforts show mixed results with significant failures in many African countries (Ogundele &Abiola, 2012; Oshewolo, 2010; Wanyama, 2001). Cooperatives can play a substantial role in providing social protection through different perspectives from state led programs. Instead of making the society dependent on state welfare, cooperatives encourage their members to be independent. The principle of a cooperative which provides community members with participatory and self-help philosophy has become guidelines for equitable cooperation and development of social protection scheme for the cooperatives' members (Dogarawa, 2005).

The World Bank has set up an international standard for the purpose of measuring poverty around the world. Since 1985, the poverty line has been based on Purchasing Power Parity (PPP) dollars of $370 per person per annually (Squire, 1993). Based on this estimation, one third of the people in developing countries fall into the poverty line (Squire). Furthermore, the World Bank reported that progress in poverty reduction in developing countries has been very slow, in some regions the number has been increasing steadily since 1987 (Gunjan, 2006). Hundreds of millions of poor are still living on less than US$1 a day in Asia Pacific and South Asia (Gunjan). Gunjan (2006) further stipulated that the massive economic growth in India and China which have been successfully elevated millions of urban population from extreme poverty, but, failed in doing so in the larger part of rural areas.

The Causes of Poverty

Bomschier and Chase-Dunn (1985) argue that the elites of the developing countries have the very incentives to maintain their special business relationship with transnational corporations by preserving the condition of poverty in their country. Multinational companies tend to invest their money in countries whose governments can enable them to make significant profits. Some of the favored investment climates include low labor costs, non-union labor force, weak or non-existent environmental regulation, and low corporate taxes (Bomschier & Chase-Dunn, 1985). A nation with low-integrity political elites can potentially result in economic development disparity, marked by

certain area being heavily developed while the majority of the regions are left with marginal infrastructure and underinvestment (Bomschier & Chase-Dunn).

A prior study in income inequality stipulates that multinational companies' investment in developing country increases the income inequality and decrease living standard of the poor in the country receiving investment (Alderson & Nielsen, 1999). Kentor and Boswell's findings further assert the potential harmful of foreign investment to the recipient countries, when the source of the investment is concentrated from a group of nations or institution (Kentor & Boswell, 2003). The findings of similar studies in Nigeria show that the income inequality has dismantled the vibrant middle class who used to be a motor for the nation's development (Akinsjide, 2004). The World Bank's report further indicates the increasing gap between the rich and poor in the developing and developed countries, despite sound investment and economic growth in the last decades (World Bank, 2004). As a result of growing inequalities, the poverty in the poorest countries in the world is increasing (World Bank). 1.3 billion People in the world currently live under less than US$1 per day, and about 2.8 billion peoples live under US$2 per day (World Bank).

Barlow and Hardjono (1997) argue that the "backwardness" of the Eastern region in Indonesia is due to inequality in development and national budget allocations in which the revenues from commodities export are largely dedicated for infrastructure development in the western Indonesia. Unequal development between Indonesian regions has also led to ethnic violence. The probability for ethnic clashes in four less-developed

provinces in Indonesia (West, and central Borneo, central Celebes, and Moluccas) is high, due to inter-ethnic competition and local discontent towards general economic situation of the region (Klinken, 2007). Mancini (2008) stipulates that the horizontal inequality has counted for deadly ethnic conflicts in Indonesia. Several riot occurred in Sampit and Sambas in the Borneo islands, leading to 600 deaths and 100,000 people displaced from their homes (Klinken). Curbing inequality is a political task Indonesia lawmakers must confront to avoid future ethnic incidents.

Another reason for poverty in developing world is underdevelopment. A study in the Indian economic development revealed that the underdevelopment in a certain region in India has resulted in a large percentage of the country's population is living without necessities (Jhingan, 2003). The problematic circumstances between underdevelopment and foreign based development issues have put the poor countries in the middle of a crossroad. The foreign investor can potentially provide the necessary funding for the country's development, but, in the same time it can potentially lead to economic disparities if it is incorrectly managed (Alderson & Nielsen, 1999). Thus, the developing world should not be dependent exclusively on foreign investors, as dependency can worsen poverty. Indonesia's main source of foreign investment has been concentrated among a group of nations under the CGI (Consultative Group on Indonesia) backed by the World Bank, IMF, and various export credit agencies (Collins, 2007).

An unplanned macro-economic policy also contributes to the increasing poverty rate in the developing worlds. Ogundele and Abiola (2012) stipulate that the poorly

maintained macro-economic and monetary policy have ruined the economics of Nigeria where the Gross National Product (GDP) and the local currency continuously falling. A similar experience also occurred during Sukarno's regime in the 1960s; poor socio-economic policy which resulted in hyperinflation and an increase in poverty (Tambunan, 2005). Inflation associated with irresponsible fiscal policies is also significant drivers of poverty in Nigeria (Ogundele & Abiola). High inflations rate exacerbate consumer prices, reduces purchasing power, and impoverishes the lower middle class and the poor. The inflationary burden further increases the number of citizens falling under the poverty line (Ogundele & Abiola).

Other common origins of poverty include unemployment, scarcity of vital commodities, and lack of capital. Unemployment has resulted in the rise of poverty rate in Nigeria where the economic activities of the country cannot absorb newly graduated students effectively and has created millions of unemployed citizens (Ogundele & Abiola, 2012). Unemployment and underemployment are the foremost reasons for the high poverty rate in south Asia (Gunjan, 2006). In addition, the low accessibility of important commodities such as clean water, medicine, and food has resulted in low standard of living in India, Nigeria, and Kenya (Ogundele & Abiola). Mediocre financial infrastructure further hampers the developing world's potential in rapid economic growth and poverty eradication (Ogundele & Abiola). The role of a cooperative is thus substantial, providing micro credit through cooperative banks and credit unions.

Cooperatives as financial institution provide working capital for the low-middle class and the poor in Indonesia. Savings and Loan Cooperatives, Women Cooperatives, Farmers' Cooperatives have provided loan access to the poor in less-developed regions of Indonesia (Asia Foundation, 2003). More than 90 percent of the businesses in Indonesia are micro to small-medium enterprises, which can experience capital constraints due to hesitancy of the investor-based banking industry in providing micro-credit (Asian Foundation). The low turnover and capitalization of small businesses make the risk too high for financial institution to provide loan service, hence, many commercial financial institutions consider small businesses unattractive (Asian Foundation). Nevertheless, cooperative bankers consider the circumstances to be business opportunities, and they have developed a vibrant microfinance market in Indonesia

Poverty Eradication in Indonesia

The development of poverty theories in third world countries has become increasingly popular in the research communities (Satterhwaite, 1997; Kiely, 2005; Kay, 2009; Amendola, Garofalo, & Nesa, 2010). In regards to Indonesia's circumstances, poverty in urban Indonesia contributes to the escalating comprehensive poverty rate of the country (Naylor & Falcon, 1995). Scientists stipulate that the urban Indonesia is experiencing a higher level of economic disparities in comparison to their rural counterparts, especially after the 1998 Asian financial crisis, in which Indonesia as a whole was the hardest hit by the catastrophe (Warr, 2000). After the 1998 crisis, Indonesian poverty levels reached 22.6 million people from the previous 7.2 million

people before the crisis, or equal to 200 percent increase (Firman, 1999). The World

Bank asserts that the impact of the 1998 Asian Financial crisis was most harmful to

Indonesia compared to other Asian countries; thus, it has become the most crucial topic

in Indonesia (World Bank, 1999).

The existing poverty alleviation policies in Indonesia have been unsuccessful in

curbing the sustainable recovery (CFPA, 2000). Poverty eradication strategies in

Indonesia have failed in empowering the poor to stand of their own feet. The nature of

poverty eradication program in Indonesia is top-down decision making which has

resulted in discontent among the poor who demand more participation in poverty

eradication efforts (CFPA, 2000). Analysts have argued that the concept of shifting

responsibility for poverty alleviation from the state to the community level is more

effective as it involves the poor themselves and offers the underprivileged citizens

opportunity for personal empowerment (Amit & Rapport, 2002). Marcus and Amorowati

(2006) further affirm that community development approach in poverty eradication

increase transparency and enhance the structure in community life. In that regards, a

cooperative business which is participatory in nature can be a solution for community

based development.

The Cooperative Movement

The cooperative idea has been an inspiration for scholars in fields as varied as

sociology, anthropology, political science, and public policy. Each scholar defines

cooperatives differently. Roy defines a cooperative as "a business, organized, capitalized,

and managed by, of, and for its member-patrons, furnishing and marketing at cost, goods and services to the patrons" (Roy, 1964, p.1). The word "cooperative" is derived from the term "co-operation", coming from the Latin term "cooperari" meaning "working together" (Lawal, 2012, p. 198-208). Thus, working together to achieve mutual economic benefits is the basic of cooperative ideas. The idea of cooperativism is also related to the principle of "self-help" and "mutual-help", which are well depicted as the main objective of cooperatives society in providing support to its members (Lawal). The term "cooperative" also has some French origin, "espirit de corps" which means spirit of reciprocal (Owajari, 2005). The International Labor Organization (ILO) describes cooperatives as associations of entities based on the voluntary principle which work collectively at their common risks to improve their socio-economic condition (ILO, 1986). In the present study, the researcher defines cooperatives as a democratically controlled workplace which aims at achieving mutual benefits for the cooperative members and community.

Asaolu (2001) stipulates that people decide to cooperate, or work in a team because they realize that they are facing significant challenges that they do not have the tools or resources to deal with individually. Through cooperation, the individuals will able to overcome the scarcity of resources while still achieving common goals. When a group of people synchronizes their energies and expertise they can work more efficiently and effectively (Reeves, 2003). The popularity of the cooperative movement in remote areas and less developed regions is the reflection cooperation's strength in overcoming the issue of scarcity. ILO further asserts that varies cooperatives have played significant

roles in promoting civic engagement in most communities in the developing and advanced worlds (International Labor Organization, 1986).

A cooperative as organization functions as the expression of the community's and members' aspirations to democratically own and control the means of production. The International Cooperative Alliance (ICA) defines the principle of cooperative organization as: Open and voluntary membership, democratic practice in decision making, enhancing the economic participation of members, preserving the members' autonomy and independence, providing education and training to members and community (International Cooperative Alliance, 1995). These principles can potentially enhance participation in the local economic development. Okoli (2006) further stipulated that cooperatives provide their members with the opportunity to have an equal right in monitoring management. Additionally, cooperatives also promote communal interests in economic activities related to production, distribution, and marketing aiming at poverty alleviation (Ighomereho, Dauda, & Olabisi, p. 2012).

The Origination of Cooperative Movement

Each scholar has a different perspective in regard to the origin of cooperativism. The earliest record of cooperative organization is producer cooperative in Franche-Comte, Franch, established in 1750 (Ahmad, 2005). Later, European settlers and traders brought the idea of the cooperative movement to the United States, Australia, and different places in the world, including Asia. Godly and Ukpere (2011) believe that the first cooperative society began in eighteen century England, as a result of social

discontent among the labors during the industrial revolution, and collective eagerness to improve their standard of living. Abia concurs with Godly and Ukpere asserting that low standard of living and oppression by the capitalist landlords and employers provoked Robert Owen to develop the principle of cooperativism. Owen's work led to the formation of the Rochdale Pioneers in 1844, a self-managed and self-help workers cooperative (Abia, 2000). Another alternative perspective is cooperative credit system established by Herman Schulge-Delitzsch in 1851, which provided German farmers with cheap loan (Taylor, 1974). Soon, the success of German cooperative idea was copied all over Europe as the main business model in urban and rural areas (Fehl, 2007).

One of the earliest cooperative organizations in Asia was started by British settlers in India through the ratification of "British-Indian Cooperative Act "in 1903 (Munkner, 2000). The purpose of the early cooperatives in India was enhancing the economic integration between the colony and the British Empire, as well as to alleviate prominent social problems in India such as poverty (Munkner). The main activities of the cooperatives were to provide agricultural load to boost commodities production in the country (Munkner). After Indian independence, cooperatives have become the initiator of Indian entrepreneurship spirit, which is also the case in the other post-colonial Asian countries (Munkner). Additionally, the participatory character of cooperative organization has been significant solutions in resolving the magnitude of poverty in developing countries.

The essence of the cooperative self-help attitude has enabled collective groups in developing societies to achieve substantial well-being improvement with limited resources such as land, machinery, and funding, which they could not achieve otherwise (Gunjan, 2006). Furthermore, the cooperative's advantages provide a sense of security among the poor who live in the slums, as cooperative participatory principles foster community engagement in various social activities including educational, cultural, economic, and other community based interactions (Gunjan). Gunjan (2006) further differentiates cooperative enterprise from profit-oriented firms in which profitability is set as a corporate goal to satisfy the shareholders, whereas, in a cooperative enterprise, profitability is seen as funding opportunity for community and members' mutual interests. Calvert (1921) argues cooperatives are organizations that bring together associations of volunteers on the basis of collective economic interest in attaining a higher standard of living. The cooperative goal in improving the community's well-being is well depicted in the cooperatives principles.

Principle of Cooperatives

The principles of cooperative functions as the philosophical and value guidelines in which all cooperators around the world agree to adhere. The first principles of cooperative organization appeared in 1844 England where a group of individuals established an early consumer cooperative; the Rochdale Society of Equitable Pioneers (Dogarawa, 2005). The International Cooperative Alliance (ICA) further adopted and stipulated the principles into global cooperative principles (Dogarawa). ICA determines

that the principles become the standard that guides the formation, organization and activities of cooperatives under the ICA umbrella (International Cooperative Alliance, 1995). The principles include: voluntary and open membership, democratic control, members' participation, autonomous and independent, promoting education, cooperating with other cooperatives and concern for community (Dogarawa).

Under the principle of voluntary and open membership, all cooperatives must accept membership from any individuals regardless of social status, gender, sexual orientation, or religion. The cooperative is a melting pot where people with different tradition and culture can collaborate in achieving common goals. A cooperative is a place that enhances the seed of reconciliation among individuals with similar interests. The amalgamation between interests of the society, members, employees, and consumers in a cooperative society leads to mutually beneficial economics outcomes (Calvert, 1921).

The democratic control of cooperatives ensures that the organization prioritizes the members' interests. Member control prevents outside intervention that might delude the community interests. Democratic control also enhances member's participation in decision that enables cooperatives to become the center for civic engagement. Additionally, the participatory tradition of cooperative guarantees the community's autonomy and independent in economic decision which leads to a higher degree of efficiency (Ighomereho, Dauda, & Olabisi, 2012). A United Nations report on the socio-economic impact of cooperatives (2009) stipulates that cooperatives approach in the

development emphasizes on involving community groups and capacity building of self-help that are sustainable and respectful of their autonomy.

Cooperative organizations strive to educate their members and surrounding community through continuous training. Members cannot effectively participate in decision-making without knowledge of leadership and management theories. Therefore, member training becomes the key factor in safeguarding the cooperative organization's democratic values and principles of cooperation (Ighomereho, Dauda, & Olabisi, 2012). Cooperatives are aware of the importance of human capacity and social capital development among their members in order to create capable cooperative leaders (Nembhard, 2004).

Cooperation among cooperatives is also a very prevalent in the cooperative culture, which provides cooperatives with attributes that make them well-suited for poverty eradication and development in the backward areas. A strong amalgamation and cooperation among cooperatives in the Basque region of Spain has resulted in rapid regional development, and declining poverty rate (Bakaikoa & Albizu, 2011). Collaboration among cooperatives and medium size enterprises has also become the main motor of poverty eradication in Indonesia (International Labor Organization, 2012).

Cooperatives' Roles in Poverty Reduction

One of the unique attributes of a cooperative organization, in comparison to regular for-profit companies, is the cooperatives' principles in democratic participation, cooperation, and provision of social justice (Nembhard, 2004). Many cooperatives

embrace their mission statement stating their commitment to improve the well-being of

the members and empower the community (Nembhard). Cooperatives also develop

public consciousness by supporting the local economy by purchasing, hiring, borrowing,

and invest locally (Nembhard). Private businesses on the other hand, tend to send the

profits and capital out of the community (Nembhard). Thus, the cooperatives have a

larger influence in creating entrepreneurial economic activities at the community level

which aims at wealth creation and poverty elevation.

Research in entrepreneurship studies shows the potential of cooperatives to

enhance human and material integration for productive purposes (International Labor

Organization, 2011). Traditional neighborhoods, community associations who

incorporated in cooperatives around the world are successful in pooling resources

together in facing the economic challenges associated with the globalization era

(International Labor Organization). Furthermore, the United Nations has recognized the

positive impacts of the cooperative movement in succeeding the Millennium

Development Goals (MDG), a worldwide comprehensive plan dedicated for reducing

poverty in the world (Oluyombo, 2012).

The International Labor Organization (ILO) persuades cooperative participation

in drafting the strategies in achieving MDG (Birchall, 2004). The International

Cooperative Alliance (ICA) works together with ILO in socializing cooperatives

entrepreneurial concepts to the countries members of the UN, which aims at sensitizing

each governments' policy in fighting poverty and improving the overall well-beings if its

citizen (Birchall). Several sub-Saharan African nations have enjoyed the benefits of cooperative policy programs recommended by ILO and ICA which enhances the ability of cooprative organization in improving the economy, better suiting the poor in the region (Birchal).

The International Cooperative Alliance (2009) identifies the role of cooperative organizations in defending the poor citizens in Brazil and Argentina against the economics challenges resulted from increasing monopoly practice of multinational businesses. The consumer cooperatives provide affordable consumer goods, the rural cooperatives make inexpensive rural credit available to poor farmers, the housing cooperatives offer poor urban dwellers healthy and livable, yet, low-cost housing, and the credit union gives citizen access to credit for consumer products (International, Cooperative Alliance, 2009). The cooperatives in Latin America countries have contributed significantly in the economic recovery in several events of global economic crisis (International Cooperative Alliance). Additionally, acclaim for cooperatives in poverty eradication through involving local communities and ordinary citizens through democratically controlled processes (International Cooperative Alliance). The cooperative's role in stabilizing the market is well-known in many developed countries such as France and the Netherlands where cooperative organizations control 60 percent of the banking market, and 90 percent of the agriculture output (International Cooperative Allience).

Cooperative also plays significant role in protecting the African peasants and small businesses from competition in the globalized economy. Sizya (2001) reports that cooperative organizations become the defender against unfair business practices of large traders, even more; cooperatives have become a part of the local political organ which encourage civic participation in politics. Cooperatives enable African farmers to receive higher prices and facilitate business channeling with larger agribusinesses across the globe (Sizya, 2001). Furthermore, Sizya (2001) provides specific examples of how cooperatives in Tanzania have contributed to the wealth creation among farmers, and exercise local leadership training program in the rural regions. Tanzanian cooperatives also provide the local community with training in crop productions and political education for democracy enhancement (Sizya).

Cooperatives are also superior in building equal economic opportunity for the poor by defending their interest, offering risk management through collective measures, and empowering their entrepreneurship spirit (Wanyama, Develtere & Pollet, 2008). International Cooperative Alliance report (2009) further enhances Wanyama, Develtre, and Pollet by accentuating the cooperatives' contribution in creating economic opportunity in many poor countries through job creations, micro credit, and training. An economic development study reveals the effectiveness of cooperatives in generating economic growth, promoting economic capacity and developing sustainable development in the rural African nations (Ighomereho, Dauda, & Olabisi, 2012).

The contributions of cooperatives in socio-economic development and poverty elevation efforts in low-income countries are immense. Dogarawa (2005) argues that cooperative movement has contributed to social development in low-income African nations. Thus, Dogorawa recommends the United Nations promote cooperatives as one approach to sustainable development in the African continent (Dogorawa, 2005). Nevertheless, Birchall (2003) argues that in order for the cooperatives to become an effective motor in socio economic development, the cooperative organizations must involve the community members in organizing, coordinating, and managing the development programs. Participation is one the cooperative principles which if implemented well will enhance the potency of cooperatives in poverty eradication and development (Ighomereho, Dauda, & Olabisi, 2012).

The Cooperative Contribution to Education

Educational enhancement is one of the key elements of a successful development and poverty elevation policy. Squire argues that educational attainment is crucial to improve the income and the life quality of the poor (Squire, 1993). Although economic growth contributes to the improvement of income, it does not always progress education and health standards as measured by social indicators such as enrollment rate, and adult literacy (Squire, 1993). On the other hand, Squire stipulates that the cooperative movement in several developing countries has stimulated the social rate of return in which squired defines it as the gross rate of increase in enrollment and public awareness on health (Squire).

Clamp (2002) argues that cooperative movement facilities consensus building, team work, solidarity, knowledge development, and educational networking in many developing and advance world. Clamp prompts specific example such as the Federation of Southern Cooperatives' venture in establishing an agricultural and forestry training center, and the Childs Space Management Group, a worker-control child care cooperative in Philadelphia which provides early childhood education for the children (Clamp).

Cooperatives also aim at providing educational enhancement for the members and employees. The Warga Mulya dairy cooperative in Indonesia for example, has provided dairy management skills since its establishment (Sulastri & Maharjan, 2002). Warga Mulya provides services such as preventive vaccination, infertility treatment, and artificial insemination (Sulastri & Maharjan). Employees and members have improved their understanding of scientific dairy management and the role of cooperatives in development, as most of the farmer-members assert that the training has improved their annual output and profitability (Sulastri & Maharjan). Another example is coffee cooperatives in Kagera and Kilimajaro which educates the poor farmer in the region about the fair trade opportunity abroad (Sizya, 2001). Devandra (1998) argues that cooperative training motivates farmers in improving their productivity, participating in the community development programs, and embracing self-reliance principles. In addition, cooperative training also functions as the gateway for technological appropriation which potentially allows poor-farmers to utilize resources to the fullest extent (Devendra, 1998).

The Cooperatives Contribution in Micro-Finance

Research shows that leading financial institutions in the developing world have little interest in providing credit to small and medium enterprises due to high interest rates and the inability to satisfy collateral requirements (Elhiraika, 1999; Yusuf & Ijaiya, 2009). Hence, cooperative organizations flourish in the region with strong small and medium enterprises, where cooperatives bridge the gap between the demand for affordable-loan and the inability of established banks to lend. Cooperative organizations provide members with the availability of low interest loan and easy procurement, which expands the economic activity in the community and help members, acquire basic goods (Azeez, 2011). The Warga Mulya dairy cooperative distributes micro-credit to the farmers which enables farmer to improve their equipment and productivity. Furthermore, Indonesian farmers in Bantul and Sleman claimed that cooperative micro-credit had freed them from moneylenders (Sulastri & Maharjan, 2002).

Cooperatives also play significant in stabilizing the regional economic in the event of financial crisis (Groeneveld, 2011). Cooperatives increases economic activities through its ownership and membership structure by creating jobs, and providing affordable loams. In Latin America, cooperatives banks were responsible in circulating loan services to more than 70 million people during several regional financial crises (Duran, 2011). In addition, Ayadi (2010) argues that cooperative movement is proactive in improving the financial system by expanding credit cooperatives and credit union in

developing world. Provision and facilitation of micro finance services for the poor can potentially reduce poverty and increase wealth creation.

The Cooperative Efforts in Income Improvement

Cooperatives have created meaningful income and viable work environments for the employees and members. Levine and Tyson (1990) argue that cooperative participatory and membership result affirmative consequences on productivity, hence, increases the cooperatives income. Additionally, cooperative movement has contributed to increasing the industry standard of wages and benefits. The California Mutual Cooperative for example has provided higher salaries for members than the national standard and other traditional companies (Conover, Molina, & Morris, 1993). Stephen (2005) noted how cooperative organizations have improved the material life of people in Teotitlan. Cooperatives are capable of mobilizing resources effectively to create better income for members and employees (Ighimereho, Dauda, & Olabisis, 2012). Cooperatives eliminate the middleman by purchasing in bulk directly from the manufacturer, which allows cooperatives to sell the products to their members at a reduced price, leading to a better profit opportunity for the members (Ighomereho, Dauda, & Olabisis, 2012). Higher incomes will result in higher demand for consumer goods and services, hence, increase the economic activities in the community.

Sizya (2001) explains the strategy that enables cooperatives to provide members with affordable products and increase the member profit margin. Cooperative and worker unions avoid the business interaction with the middleman who also look for profit

opportunity, thus, potentially inflate the initial cost of the products (Sizya, 2011). Instead, cooperatives directly engage in business relationships with producers (Sizya). Often, cooperatives will jointly purchase with other cooperatives, enabling them to purchase in even larger quantity than if they purchase individually (Sizya). Stephen (2005) argues that cooperatives cut the monopoly held by big businesses and market the product strictly to the consumer and members.

Birchall (2003) notes the main objective of cooperatives aim at creating a "decent work" environment by promoting the right to work for all, increasing productivity and profitability, and providing its own social security program. Although, each cooperative varies in term of membership benefits offered, he believes that cooperatives intend to strengthen working quality of the members and employees (Birchall).

Sulastri and Maharjan's (2002) case study of a dairy cooperative in Indonesia indicate rising members' assets value after joining the cooperative. Furthermore, farmers mentioned that they had enjoyed 92 percent increase in production as a result of cooperative professional training (Sulastri & Maharjan, 2002). The cooperative also provides members with new technologies in insemination process which contributes to 52 percent increase in farmers' income (Sulastri & Maharjan).

Douthwaite (1996) argues that cooperatives organizations increase the purchasing power of the community by re-investing its profit back to the community, a different business philosophy from traditional big enterprises which tend to invest their income out of the community. Gormley (1993) stipulated that cooperative investment in the

community assists the local development which can potentially reduce the local

immigration and emigration, helping sustain the demographic health of the communities.

Many Latin American countries, including Brazil and Mexico recognize the

cooperatives' capacity to create wealth in the community and develop legal frameworks

that enhance cooperatives' productivity (Solo, 2008).

Many studies have provided the general knowledge of impacts and benefits

cooperatives provide to their members and communities. Developing countries show

little progress in combatting poverty. Market liberalization of the 21st century only

alleviates poverty in certain regions, while still leaving the rest untouched by

development, which results in development disparities. The United Nations attempts to

reduce the number of poor people in the world by establishing the Millennium

Development Goal (MDG), a strategic partnership between governments, non-profit

organizations, and businesses. The United Nations also declared the year 2012 as the

cooperative years, acknowledging the contribution of cooperative movement in poverty

eradication and development. The cooperatives provide members and community with

education, micro-credit and profit opportunity. The existing literature shows a strong

correlation between cooperative movements and poverty eradication. The methodology

section will further explain the process of data gathering and analysis.

METHODOLOGY

The present study is based on a quantitative archival data analysis of cooperatives' movement progress and poverty eradication efforts in Indonesia. The purpose of this research is to analyze the relationship between the Indonesian cooperative movement and poverty eradication, rural and urban poverty rate, and Regional Gross Domestic Product (R-GDP). The researcher collected archival data from Indonesian official entities such as governmental statistical agency, ministry, and investment board.

Payne, Finch and Tremble (2003) define archival studies as a research inquiry methodology that makes use of existing archival data collected and validated by the third party entities such as governmental agencies and educational institution. Archival data can be in the form of court proceedings, historical records, government annual reports, and existing survey responses (Payne, Finch, & Tremble, 2003). Additionally, wide varieties of official records are available to the public and readily accessible which can be an opportunity for further research (Ketchen, Ireland, & Baker, 2012).

Scholars in behavioral and social science have encouraged the implementation of archival studies. MacCallum (1998) stipulates the advantages of archival research as enabling researchers to test new hypothesis on the basis of existing findings, hence, saving times and resources. In addition, McBurney (2001) argues that archival research is very cost effective; therefore, utilizing this methodology will reduce research expenditure such as the cost for preparing survey and commuting to the research site. Furthermore, McBurney asserts that the required data to answer research questions or to test hypothesis

of the present study might have been available publicly, thus, he considers collecting new data as a wasteful act. Archival data is collected for particular research questions and variables; consequently, it is unlikely to be manipulated by logistical constraints (Dooley, 2002). The production and availability of archive data also potentially result in rigorous focus for research and theorizing in social science (Gilliland & McKemmish, 2004). Moreover, Archival data encompass materials previously gathered within various period spans which enable the researcher to examine trends over time (Katzell, 1994). Investigating consistency of trends within a specific timeframe contribute to a better understanding of the research subject and accurate findings (Katzell).

Past Application of Archival Research

Johnson and Reynolds (2012) stipulate that empirical observation on archival record is appropriate methodology in political science. Especially, if the phenomenon or the research subject interests cannot be investigated through "interviews", "focus groups", "questionnaire", and by "direct observation" (Johnson & Reynolds, 2012, p. 278). Several studies in political science which depended on archival data for measurement of political concept include the following: Harker and Peterson's study of income inequality, Holbrook and Heidbreder's study of voter turnout rates and Hall and Miller's study of congressional oversight activity (Johnson & Reynolds). Investigating archival records decreases ethical issues, as the traditional observation, sampling, and interviewing pose higher risks to individual-interviewees (in case of sensitive study) (Johnson & Reynolds).

Gilliland and McKemmish (2004) explicate the past applications of archival study in behavioral science. Furthermore, Gilliland and McKemmish specify the superiority of archival research in generating innovative and comprehensive case by case analysis (Gilliland & McKemmish, 2004). Archival research is appropriate for "trans-national" and "trans-jurisdictional" research, which is in-line with the dynamic of globalization landscape of contemporary science (Gilliland & McKemmish, 2004, p. 152). The Growth of archival research has encouraged scholars around the world to dedicate joint efforts in refining the existing theories, enhancing the quality of doctoral programs, increasing the number of academics job, and democratizing research for all (Gilliland & McKemmish). The application of archival quantitative research method in the present study has enabled the researcher to access foreign data and develop conclusion with a trans-jurisdictional perspective.

Archival Data Collection

In order to answer the research questions, the researcher collected official data from the Indonesian Bureau Statistics (BPS), Ministry of Cooperatives and Small Medium Enterprises of the Republic of Indonesia, and Indonesian Investment Coordinating Board (BKPM). The archival data varies with time, thus, the researcher set a time frame of the study between 2007 and 2011 to limit the scope of the research. The researcher retrieved some of the archival data from the official websites of their respective organizations. Data such as the Gross Regional Domestic Product were not

available online. Therefore, the researcher communicated with the representative of the respected organizations via email, phone call, and official letters to request the archives.

The data collected from BPS included: "Gross Regional Domestic Product at Current Market Price by Provinces, 2004-2011", published in 2012; "Growth Rate of Gross Regional Domestic Product at Constant Market Price, 2006-2011", published in 2013; "Gini Ratio by Province 1996-2013", published in 2014; "Gross Enrollment Ratio by Province, 2003-2012", published in 2013; "Growth of Regional Minimum Waged by Province, 1997-2013", published in 2014; "Illiteracy Rate by Province, 2003-2013", published in 2014; "Drinking Water and Sanitation Improvement by Province, 2003-2012", published in 2013; "Human Development Index by Province, 1996-2012", published in 2013; and "Number and Percentage of Poor People, Poverty Line by Province, 1970-2013", published in 2014.

The data obtained from the Ministry of Cooperatives and Small Medium Enterprises of the Republic of Indonesia included: "Asset Scale of Cooperatives by Province, 2006-2012", published in 2013; "Cooperatives Progress Period 1967-2013", published in 2014; "Number of Active Cooperatives by Province, 2006-2012", published in 2013; and "Recapitalization Cooperatives by Province 2000-2013", published in 2014.

The archives collated from BKPM comprised: "Percentage of Electricity Consumption by Province, 1993-2012", published in 2013; and "Village Revenue and Expenditure by Province, 2002-2011", published in 2012. Nevertheless, BKPM has

rejected the researcher official request for the 2003 to 2012 foreign and domestic investment by province data due to the validity issues on the existing archive.

Statistical Analysis

Analyzing intricate relationships between cooperatives and poverty eradication in the scale of a country like Indonesia requires a complex and sophisticated form of statistical analysis that will allow the researcher to investigate simultaneously the correlation between multiple dependent and independent variables. Thus, the appropriate statistical analysis for the present study is multivariate analysis. A scholar defines multivariate analysis as "simultaneous relationships among several variables" (Babbie, 2008, p. 463). Babbie, Halley, and Zaino (2007) argue that multivariate analysis allows researcher to develop a more complex understanding of multidimensional social issues. Additionally, Jones and Olson (1996) argue that multivariate analysis can function as controlling techniques to avoid spurious correlation.

Ritchey (2000) defines spurious correlation as relationship between two variables that is conceptually false, nonsensical, or theoretically meaningless. Another Scholar describes spurious as "a coincidental statistical correlation between two variables" (Babbie, 2008, p.100). An association between variables is considered to be "spurious" if the independent and dependent variables are dependent on a "third variables" (Agresti & Finlay, 1997, pp.362-363). Researcher often utilizes the concept of controlling technique to prevent spurious relationship between variables.

Controlling technique is a research method to test the correlation between the independent and dependent variables by adding the third variable to test if the correlation between the independent and dependent variables is coincidental (Agresti & Finlay, 1997). Olson and Jones (1996) argue that using multiple regression analysis is an effective controlling technique that help researcher clarifying the critical issue of causation. Ritchey (2000) defines multiple regressions as calculating statistic correlation technique which controls the additional variables to avoid spurious. The multiple regression analysis allow researcher to hold the control variable constant, reducing the influence on dependent and independent variables (Babbie, 2008). In the next section, the researcher will explicate the detail process of the analysis.

DATA ANALYSIS AND RESULT

The investigator utilized multiple regression analysis to investigate the relationship between variables. The dependent variables in the present study included the total poverty, rural poverty, urban poverty, and regional GDP; the independent variables comprised of the cooperative memberships, number of active cooperatives, cooperative employment, cooperative assets, cooperative membership, Human Development Index (HDI), Gini Coefficient, electricity consumption, drinking water improvement, gross national enrollment, regional wage increase, and village revenue and expenditure. The following statistical equation model was employed:

$$\gamma = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_i \chi_i + \varepsilon$$

Where γ represents the dependent variable or also known as effect variable in which the examiner is investigating. The β_0, β_1, β_2, β_3, and β_i are the partial slopes which value is referred as coefficient regression constant that represent the average change in the dependent variables associated with a change in independent variables χ_1, χ_2, χ_3, and χ_i. Additionally, "i" symbolizes the number of independent variables. The ε signifies the random error which calculates the inaccuracies that may arise because of the omission of pertinent independent variables or fault in data collection. The regression model above was utilized for investigating the relationship between Independent and dependent variables based on 2007 to 2011 archival data in 33 Indonesian provinces. The examiner began by investigating the relationship in 2007 and continued to the following

years. The detail explanation of each independent and dependent variables is available in table 1.

(Insert Table 1 about here)

2007 Data Analysis

The first 2007 archival data being calculated with multiple regressions was the Indonesian total poverty, measured in numbers of people. The analysis aimed at predicting the relationship between total poverty and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, Gini ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found ($F_{(13,19)} = 794.35$, $p < .0001$), with an R^2 of 1.00. The predicted total poverty (TotPov) is equal to 1818.79 + .22 (ActCoops) + .00 (CoopMem) - .05 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) + 3.80 (HDI) + 56.65 (Illicy) - .67 (EduEnroll) + .00 (ProvGDP) – 3822.11 (GiniRatio) – 8.28 (ElctCons) – 2.34 (DrnkImp) - .26 (RegWage), when ActCoops is measured in cooperative unit; HDI and GiniRatio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP, ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and total poverty in 2007?

The results in Table 2 show a highly significant correlation between total poverty and cooperative membership and cooperative income with *p* value of 0.0001 respectively. There was also a significant relationship between total poverty and the number of active cooperatives and cooperatives employment, in which their *p* values are at 0.0001 respectively. Only cooperative employment showed negative correlation with the total poverty, in which the B coefficients value is at -0.05, indicating that for every one person increase in cooperative employment, the total number of people in poverty will decrease by 0.05. Therefore, if the cooperatives in Indonesia increase their employment by 20 people, it will result in one person decrease in the Indonesian national total poverty.

(Insert Table 2 about here).

Another dependent variables tested was rural poverty, measured in thousands of people. A multiple regression indicates a correlation between rural poverty and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, gini ratio, electricity consumption, drinking water and sanitation improvement, village revenue, village expenditure, and regional wage increase. A significant regression equation was found ($F(15,16) = 324.77$, $p <$ .0001), with an R^2 of .99. The predicted rural poverty (RurPov) is equal to 1260.14 + .19 (ActCoops) + .00 (CoopMem) - .03 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) +

16.15 (HDI) + 58.77 (Illicy) + .56 (EduEnroll) + .00 (ProvGDP) + .00 (VillRevene) + .00 (VillExpand) – 3648.70 (GiniRatio) – 13.56 (ElctCons) – 2.24 (DrnkImp) - .29 (RegWage), when ActCoops is measured in cooperative unit; HDI and GiniRatio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP, ElctCons, VillRevene, and VillExpand are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and rural poverty in 2007?

The result of multiple regression analysis showed a high correlation between rural poverty and cooperative membership in which $p = .0001$. The other independent variables exhibiting significant correlation with rural poverty were the number of active cooperatives and cooperatives' income with a p value of .02 and .05 respectively. Among these four independent variables, none had a negative correlation. Detailed results are reported in Table 3.

(Insert Table 3 about here).

Identifying urban poverty is very significant in understanding the overall pattern of poverty in Indonesia, as the urbanization in the country has been advancing in recent decades (Marcus & Amorowati, 2006). Thus, the relationship between urban cooperatives and the independent variables is worthy of study. A multiple linear regression was calculated to determine the relationships between urban poverty and the number of active cooperatives, cooperatives membership, cooperatives income,

cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, gini ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found ($F(13,19) = 1057.72$, $p < .0001$), with an R^2 of 1.00. The predicted urban poverty (UrbPov) is equal to 1201.54 + .03 (ActCoops) + .00 (CoopMem) - .03 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) - 16.33 (HDI) + 5.11 (Illicy) + .44 (EduEnroll) + .00 (ProvGDP) – 535.85 (GiniRatio) + 3.94 (ElctCons) – 1.08 (DrnkImp) - .21 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and urban poverty in 2007?

The regression results exposed the high correlation of urban poverty as and several independent variables including cooperative membership with *p* value of .0001, and cooperative employment with p value of .0001. Cooperative assets, cooperative income, and regional gross domestic product also had quite significant correlation with urban poverty with p values of .01, .03, and .03 respectively. However, cooperative employment was the only independent variable which had inverse relationship with urban poverty, with beta value at -.03. The result suggested for every one person increase in cooperative employment, there would be .03 person decreases in the total urban poverty.

In the other words, the Indonesian cooperatives need to hire 33.33 people in order to take one urban poor citizen out of poverty. The detail regression result is available in Table 4.

(Insert Table 4 about here)

Regional gross domestic product (R-GDP) illustrates the development level and the overall productivities in provincial level. The data is measured in million Rupiahs (the Indonesian currency). Comparing the relationship between R-GDP and several independent variables reveals the significant factors that contribute to higher regional development. Understanding the dynamic of R-GDP is very crucial in Indonesia poverty eradication case, because many scholars believe that Indonesia experiences disparities in development which diminish the poverty eradication efforts (World Bank, 2013). Thus, the researcher was interested in finding the correlation between R-GDP and independent variables in the present study.

A multiple linear regression was used to predict the correlations between regional gross domestic product and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, gini ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found (F(12,20) = 198.89, p < .0001), with an R^2 of .99. The predicted regional gross domestic product (ProvGDP) is equal to - 1,190,903,857.98 + 19695.77 (ActCoops) – 54.10 (CoopMem) - 2631.88 (CoopEmp) + 477.14 (CoopInc) + 36.08 (CopAsset) + 15457634.23 (HDI) + 5918160.51 (Illicy) –

737388.90 (EduEnroll) + 505840487.30 (GiniRatio) − 550961.75 (ElctCons) −

981590.93 (DrnkImp) + 80515.42 (RegWage), when ActCoops is measured in

cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp,

EduEnroll, are measured in number of people; CoopInc, CopAsset, and ElctCons are

measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant is the correlation between independent variables and R-GDP in 2007?

The result of regression analysis available in Table 5 reveals the high correlation

between Regional Gross Domestic Product (R-GDP) and cooperative income and

cooperative assets; the *p* value of cooperative income and assets were at .01 and .0001

respectively. The beta coefficients for both independent variables were positive. The

result also means that there was positive correlation relationship between R-GDP and the

cooperative income and assets. For every one million rupiahs increase in cooperative

income, it will result in 477.14 million rupiahs increase in the R-GDP, and for every one

million rupiahs increase in cooperative assets, a 36.08 million rupiahs increase the R-

GDP will be seen.

(Insert Table 5 about here)

The 2007 regression showed the significant impact that cooperatives

organizations had in regards to Indonesian poverty eradication efforts. The regression

produced repetitive themes including cooperatives income, employment, and assets had

significant impact on the dependent variables. The regression analysis also recorded that

several cooperatives independent variables had positive relationship with poverty

dependent variables. Furthermore, all cooperative variables showed positive relationship with rural poverty variable.

2008 Data Analysis

The same data and analysis was conducted for data in 2008. The equation looks similar, with somewhat similar results. ($F_{(13,19)}$ = 1080.46, $p < .0001$), with an R^2 of 1.00. The predicted total poverty (TotPov) is equal to 1669.74 - .02 (ActCoops) + .00 (CoopMem) - .03 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) + 4.58 (HDI) + 63.41 (Illicy) + 2.92 (EduEnroll) + .00 (ProvGDP) – 1675.51 (GiniRatio) – 1675.51 (ElctCons) – 19.13 (DrnkImp) + .08 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and total poverty in 2008?

The regression analysis available in Table 6 reveals several independent variables which strongly correlated with total poverty in 2008 including cooperative membership with p value of .0001, cooperative employment with *p* value of .05, and drinking water and sanitation improvement with p value of .03. Among these five independent variables, only cooperative employment, drinking water, and sanitation improvement showed negative correlation to the total poverty in 2008 with the beta coefficients value respectively at -.03 and -19.13. Thus, for every one person increase in the total

cooperative employment will reduce the total poverty by.03 person. Additionally, for every one percent increase in the total drinking water and sanitation improvement will decrease the total poverty by 19.13 people. The significant correlation between total poverty and cooperative employment was a repetitive pattern similar to the 2007 data. In 2008, drinking water and sanitation improvement reduced the total poverty more than the cooperative employment.

(Insert Table 6 about here)

An identical multiple linear regression for 2008 was used to gauge the relationship between the rural poverty and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, gini ratio, electricity consumption, drinking water and sanitation improvement, village revenue, village expenditure, and regional wage increase. A significant regression equation was found ($F(15,15) = 26.99$, $p < .0001$), with an R^2 of .96. The predicted rural poverty (RurPov) is equal to 742.19 - .05 (ActCoops) + .00 (CoopMem) - .01 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) + 15.96 (HDI) + 52.21 (Illicy) + 4.53 (EduEnroll) + .00 (ProvGDP) + .00 (VillRevene) + .00 (VillExpand) − 2428.98 (GiniRatio) − 11.91 (ElctCons) − 13.67 (DrnkImp) + .30 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP,

VillRevene, VillExpand, and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and rural poverty in 2008?

The Regression analysis result exhibited highly significant correlation between rural poverty and cooperative membership at *p* value at .0001. The regression indicated a positive correlation between rural poverty and cooperative membership with beta coefficients value at .0001. The regression analysis result for rural poverty coefficient is shown in Table 7.

(Insert Table 7 about here)

Table 8 depicts the regression analysis of Indonesian urban poverty in 2008 measured in numbers of people. Multiple regression calculations predict the relationship between urban poverty and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, gini ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found ($F_{(13,19)} = 853.01$, $p < .0001$), with a R^2 of 1.00. The predicted urban poverty (UrbPov) is equal to 1208.55 + .00 (ActCoops) + .00 (CoopMem) - .03 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) - 18.19 (HDI) + 6.71 (Illicy) + .40 (EduEnroll) + .00 (ProvGDP) – 264.29 (GiniRatio) + 4.42 (ElctCons) – 5.93 (DrnkImp) - .20 (RegWage), when ActCoops is measured in cooperative unit; HDI and

Gini Ration are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in

number of people; CoopInc, CopAsset, ProvGDP and ElctCons are measured in million

Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and urban poverty in

2008?

The Regression analysis result indicated high correlation between urban poverty

and cooperative membership, employment, asset, and regional Gross National Product

(R-GDP) at *p* value of .0001, .0001, .03, and .05 respectively. However, only cooperative

employment had inverse correlation with urban poverty with a coefficient value of -03.

Every one person increases in cooperative employment, will reduce the number of poor

people by 0.03 people.

(Insert Table 8 about here)

A multiple regression analysis of the 2008 Regional Gross National Product (R-

GDP) intended to calculating the relationship between R-GDP (measured in million

Rupiahs) and the number of active cooperatives, cooperatives membership, cooperatives

income, cooperatives assets, human development index, illiteracy rate, gross educational

enrollment, regional gross domestic products, Gini ratio, electricity consumption,

drinking water and sanitation improvement and regional wage increase. A significant

regression equation was found ($F(12,20) = 121.04$, $p < .0001$), with a R^2 of .99. The

predicted regional gross domestic product (ProvGDP) is equal to -2012953009.75 +

38761.11 (ActCoops) – 68.86 (CoopMem) - 3433.14 (CoopEmp) + 126.19 (CoopInc) +

36.60 (CopAsset) + 23906368.35 (HDI) + 11216406.96 (Illicy) – 1645742.99

(EduEnroll) + 1454343776.35 (GiniRatio) – 17623.05 (ElctCons) – 3398141.62

(DrnkImp) + 108842.44 (RegWage), when ActCoops is measured in cooperative unit;

HDI and Gini Ration are measured in index; CoopMem, CoopEmp, EduEnroll, are

measured in number of people; CoopInc, CopAsset, and ElctCons are measured in

million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant is the correlation between independent variables and R-GDP in 2008?

The 2008 R-GDP multiple regressions analysis revealed high correlation between

R-GDP and the cooperative asset with p value at .0001. Moreover, the beta coefficient for

cooperative asset was positive at 36.60; every one million Rupiahs increase in

cooperative assets resulted in 36.60 million Rupiah increase in the total R-GDP. This

verdict was similar to the pattern found in 2007 data analysis in which cooperative asset

was positively correlated with R-GDP. The regression details are shown in Table 9.

(Insert Table 9 about here)

The Regression analysis on 2008 archival data exhibited similar pattern to the

2007 data examination in which cooperatives independent variables strongly influenced

the Indonesian' poverty eradication indicators including total poverty, urban poverty,

rural poverty, and R-GDP. Cooperative employment continuously showed inverse

relationship with total poverty and urban poverty in both 2008 and 2007 years. On the

other hand, both 2007 and 2008 cooperatives assets variables had positive relationship

with R-GDP. The researcher also found occurrence similar to the 2007 data analysis

including none of the significant variables had inverse relationship with rural poverty,

and some of the cooperatives independent variables such as cooperative assets increased

in the same time as poverty indicators escalated. The researcher will later compare the

patterns found in 2008 with the analysis of data from different years.

2009 Data Analysis

In order to find out the relationship between total poverty and the independent

variables in 2009, the researcher performed a multiple linier regression. A significant

regression equation was found ($F(13,14) = 45.57$, $p < .0001$), with a R^2 of .98. The

predicted total poverty (TotPov) is equal to 4990.54 - .09 (ActCoops) + .00 (CoopMem)

+ .06 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) - 25.80 (HDI) + 58.69 (Illicy) - 5.66

(EduEnroll) + .00 (ProvGDP) – 2954.60 (GiniRatio) – 9.51 (ElctCons) – 23.23

(DrnkImp) + .00 (RegWage), when when ActCoops is measured in cooperative unit; HDI

and Gini Ration are measured in index; CoopMem, CoopEmp, EduEnroll, are measured

in number of people; CoopInc, CopAsset, ProvGDP and ElctCons are measured in

million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and total poverty in
2009?

The cooperative membership stood out to be the variable with the most significant

relationship with the total poverty in 2009. The *p* value of the cooperative membership is

.0001. Unlike past years, the cooperative membership had positive relationship with the

total poverty, meaning as cooperative membership went up whenever total poverty

increased. Thus, 2009 data analysis resulted in different pattern from the previous two years. Table 10 provided the detail of the regression.

(Insert Table 9 about here)

As the total poverty analysis showed different pattern from the previous years, the researcher examined rural poverty to see if it had a different relationship pattern from previous years. Thus, a multiple regression analysis was conducted to determine the relationship between rural poverty in 2009 and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, gini ratio, electricity consumption, drinking water and sanitation improvement, village revenue, village expenditure, and regional wage increase. A significant regression equation was found ($F(15,12) = 18.79$, $p < .0001$), with a R^2 of .96. The predicted rural poverty (RurPov) is equal to 2983.60 - .10 (ActCoops) + .00 (CoopMem) - .06 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) - 9.85 (HDI) + 97.38 (Illicy) + 3.83 (EduEnroll) + .00 (ProvGDP) + .00 (VillRevene) + .00 (VillExpand) − 3187.34 (GiniRatio) − 8.43 (ElctCons) − 21.34 (DrnkImp) + .26 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ration are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP, VillRevene, VillExpand and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and rural poverty in

2009?

The regression analysis on 2009 rural poverty coefficient produced two

significant independent variables, cooperative membership and cooperative employment,

which were strongly correlated with rural poverty with p values of 0.3 and .09

respectively. The beta coefficient for cooperative membership and cooperative

employment were .0001 and .06 respectively. Both cooperatives membership and

cooperatives employment had positive relationship with the rural poverty, which was a

very similar pattern as the previous years' regression analysis. Table 10 further illustrates

the regression results on rural poverty data.

(Insert Table 10 about here)

The researcher also determined to investigate the correlation between urban

cooperatives and the independent variables in the present study. A multiple linier

regression was calculated to predict the correlations between urban poverty and the

number of active cooperatives, cooperatives membership, cooperatives income,

cooperatives assets, human development index, illiteracy rate, gross educational

enrollment, regional gross domestic products, Gini Ratio, electricity consumption,

drinking water and sanitation improvement, and regional wage increase. A significant

regression equation was found ($F(13,14) = 59.16$, $p < .0001$), with a R^2 of .98. The

predicted urban poverty (UrbPov) is equal to 2412.39 - .05 (ActCoops) + .00 (CoopMem)

+ .01 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) - 25.49 (HDI) - 22.28 (Illicy) - 2.53

(EduEnroll) + .00 (ProvGDP) – 511.91 (GiniRatio) + 1.39 (ElctCons) - 5.51 (DrnkImp) -

.17 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ration

are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of

people; CoopInc, CopAsset, ProvGDP and ElctCons are measured in million Rupiahs;

Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and urban poverty in

2009?

The regression analysis on 2009 urban poverty data available in Table 11 showed

strong correlation between cooperative membership and urban poverty with *p* value at

.02. Nevertheless, abnormality occurred as cooperative membership had unexpected

positive relationship with urban poverty, in which the beta coefficient value was at .0001.

Thus, the 2009 urban poverty analysis was different from the previous years when

cooperative employment had contributed in urban poverty reduction in Indonesia, which

was characterized by a negative coefficient.

(Insert Table 11 about here)

In order to have a better comprehension of Indonesian regional development in

reducing poverty, the researcher has included Regional Gross National Product (R-GDP)

as a part of the independent variables in the present study. A multiple linear regression

tested the relationships between regional gross domestic product and the number of active

cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human

development index, illiteracy rate, gross educational enrollment, regional gross domestic

products, Gini Ratio, electricity consumption, drinking water and sanitation

improvement, and regional wage increase. A significant regression equation was found

$(F(12,15) = 8.90, p < .0001)$, with a R^2 of .99. The predicted regional gross domestic

product (ProvGDP) is equal to 296483896.33 + 36599.45 (ActCoops) + 5.50 (CoopMem)

+ 128.83 (CoopEmp) - 625.61 (CoopInc) + 35.23 (CopAsset) + 3246908.14 (HDI) +

6849015.07 (Illicy) – 1911685.12 (EduEnroll) – 613317992.41 (GiniRatio) –

613317992.41 (ElctCons) – 3322885.81 (DrnkImp) – 25801.50 (RegWage), when

ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index;

CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc,

CopAsset, and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage

are measured in percentage.

How significant is the correlation between independent variables and R-GDP in 2009?

The cooperative assets continued to be the independent variable with the strongest

correlations in R-GDP regression analysis. The Table 12 displays the *p* value of

cooperatives assets for 2009 data was .0001, and the Beta Coefficient of 35.23.

Therefore, for every one million rupiahs increase in a cooperative's assets will increase

the regional GDP by 35.23 million rupiahs.

(Insert Table 12 about here)

The result of 2009 data analysis depicted different patterns form the previous two

years. All of the cooperative independent variables showed positive relationship with

total poverty, urban, and rural poverty dependent variables. While the relationship

between cooperative assets and R-GDP was similar to the previous years, the abnormal

pattern in 2009 could be associated with the global financial crisis in 2008 to 2009 which

significantly increased the number of poor people in many developing countries (Basri &

Rahardja, 2011). Replicating this analysis for 2010 help determine if the result is

anomalous or part of a new trend.

2010 Data Analysis

The first 2010 archival data being calculated with multiple regressions was the

Indonesian total poverty, measured in numbers of people. The analysis surveyed the

relationship between total poverty and the number of active cooperatives, cooperatives

membership, cooperatives income, cooperatives assets, human development index,

illiteracy rate, gross educational enrollment, regional gross domestic products, Gini Ratio,

electricity consumption, drinking water and sanitation improvement, and regional wage

increase. A significant regression equation was found ($F(13,20) = 682.89$, $p < .0001$),

with a R^2 of 1.00. The predicted total poverty (TotPov) is equal to 70444.91 + .10

(ActCoops) + .00 (CoopMem) + .02 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) -

64.99 (HDI) + 2.35 (Illicy) - 13.59 (EduEnroll) + .00 (ProvGDP) – 3566.97 (GiniRatio) +

1.17 (ElctCons) + .23 (DrnkImp) - .35 (RegWage), when ActCoops is measured in

cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp,

EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP and

ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured

in percentage.

How significant was the correlation between independent variables and total poverty in 2010?

The results in Table 13 show a significant relationship between total poverty and cooperative membership and cooperative assets with *p* value of 0.02 and 0.05 respectively. Nevertheless, none of the cooperative independent variables showed negative correlation with the total poverty, which means for every one person increase in cooperative employment, the total poverty will also increase.

(Insert Table 13 about here)

The researcher conducted a multiple linear regression to test the relationship between rural poverty in 2010 and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, Gini Ratio, electricity consumption, drinking water and sanitation improvement, village revenue, village expenditure, and regional wage increase. A significant regression equation was found ($F(15,15) = 49.95$, $p < .0001$), with a R^2 of .98. The predicted rural poverty (RurPov) is equal to -14223.11 + .47 (ActCoops) + .00 (CoopMem) - .13 (CoopEmp) - .00 (CoopInc) + .00 (CopAsset) + 131.69 (HDI) - 19.91 (Illicy) + 9.56 (EduEnroll) + .00 (ProvGDP) + .00 (VillRevene) + .00 (VillExpand) – 8293.74 (GiniRatio) – 9.39 (ElctCons) – 1.50 (DrnkImp) + 2.27 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP,

VillRevene, VillExpand, ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and rural poverty in 2010?

The regression exhibited a significant relationship between rural poverty and the number of active cooperative at *p* value at 0.03. The regression analysis indicated a positive correlation between rural poverty and the number of active cooperative with beta coefficients value at 0.47. The regression analysis result for rural poverty coefficient is shown in Table 14. Additionally, for the first time the Village expenditure and revenue was strongly correlated with rural poverty, with a *p* value of 0.0001. However, the beta coefficient revealed a positive relationship with the rural poverty dependent variable. Thus, all of the independent variables did not contribute to the reduction of rural poverty in 2010.

(Insert Table 14 about here)

Table 15 illustrates the regression analysis of Indonesian urban poverty in 2010 (measured in numbers of people). The researcher ran multiple regression calculations to determine the relationship between urban poverty and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, Gini Ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found (F(13,20) = 8786.62,

$p < .0001$), with a R^2 of 1.00. The predicted urban poverty (UrbPov) is equal to 3311.02 - .01 (ActCoops) + .00 (CoopMem) - .00 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) - 43.74 (HDI) + 7.75 (Illicy) - 1.94 (EduEnroll) + .00 (ProvGDP) – 811.02 (GiniRatio) + 9.97 (ElctCons) – 5.72 (DrnkImp) - .43 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and urban poverty in 2010?

The regression indicated a high correlation between urban poverty and the number of active cooperatives, cooperatives membership, Human Development Index (HDI), and electricity consumption at *p* value of .0001, .01, and .02, and 04 respectively. However, only the number of active cooperatives and HDI had inverse correlation with urban poverty with beta coefficient value at -.01 and -43.74 respectively. Thus, for every one person increases in cooperative employment, will reduce the number of poor people by 0.01 people, and for one index increase in electricity consumption will result in 43.74 urban poor alleviated from poverty.

(Insert Table 15 about here)

A multiple regression analyses in 2010 Regional Gross National Product (R-GDP) projected at computing the relationship between R-GDP measured in million rupiahs and

the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, Gini Ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found ($F(12,21) = 166.997$, $p < .0001$), with a R^2 of .99. The predicted regional gross domestic product (ProvGDP) is equal to -1342425766.62 - 7745.13 (ActCoops) – 66.46 (CoopMem) + 10477.84 (CoopEmp) + 635.89 (CoopInc) + 16.85 (CopAsset) + 28757709.97.29 (HDI) – 2212836.63 (Illicy) – 4941070.44 (EduEnroll) - 688622473.83 (GiniRatio) + 5933718.41 (ElctCons) – 1068154.82 (DrnkImp) + 369146.90 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant is the correlation between independent variables and R-GDP in 2010?

The 2010 R-GDP multiple regressions analysis revealed high correlation between R-GDP and the cooperative income, cooperative asset, and Human Development Index (HDI) with *p* value at .02, .02, and .03 respectively. Moreover, the beta coefficient for cooperative asset was positive at 16.85 which meant that for every one million Rupiahs increase in cooperative assets, resulted in a 16.85 million Rupiah increase in the total R-GDP. The HDI contribution to poverty eradication in 2010 was very significant as well, with the Beta Coefficient value at 28757709.97, which means that for one index point

increase in HDI will result in about 28 million Rupiahs increase in the total R-GDP. This verdict was similar to the pattern found in 2007, 2008, and 2009 data analysis in which cooperative asset was positively correlated with R-GDP. The regression detail is available in Table 16.

(Insert Table 16 about here)

The regression analysis on 2010 archival data disclosed repetitive themes including cooperatives income, employment, and assets which had significant impact on the dependent variables. The regression analysis also shows an abnormal occurrence, in which all cooperatives independent variables had positive relationship with poverty dependent variables. This occurrence is similar to the 2009 data analysis pattern.

2011 Data Analysis

The researcher analyzed the relationship between 2011 total poverty (measured in numbers of people) and the number of active cooperatives, cooperatives membership, employment, income, assets, and several other social indicator independent variables. Thus, a multiple linier regression was calculated and a significant regression equation was found $(F(13,20) = 596.75, p < .0001)$, with a R^2 of 1.00. The predicted total poverty (TotPov) is equal to 6892.16 + .02 (ActCoops) + .00 (CoopMem) - .03 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) – 68.81 (HDI) - 22.80 (Illicy) - 1.10 (EduEnroll) + .00 (ProvGDP) – 2461.48 (GiniRatio) – 7.01 (ElctCons) – 11.62 (DrnkImp) + .26 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people;

CoopInc, CopAsset, ProvGDP and ElctCons are measured in million Rupiahs; Illicy,

DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and total poverty in

2011?

The regression analysis in Table 17 reveals several independent variables which

strongly correlated with the total poverty in 2011 including cooperative membership with

p value of .0001, cooperative employment with p value of .0001, and HDI with *p* value of

0.05. Among these five independent variables, only cooperative employment, and HDI

indicated negative correlation to the total poverty in 2011 with the beta coefficients value

respectively at -.04 and -68.81. Thus, for every one person increase in the total

cooperative employment will reduce the total poverty by 0.04 individuals. Additionally,

for every one unit index increase in the HDI will decrease the total poverty by 86.81

people. The significant correlation between total poverty and cooperative employment

was a repetitive pattern, similar to the 2007 and 2008 data analysis. In 2011 HDI also

played significant role in reducing the total poverty in Indonesia.

(Insert Table 17 about here)

The researcher ran a multiple linier regression to forecast the relationship between

the rural poverty in 2011 and the number of active cooperatives, cooperatives

membership, cooperatives income, cooperatives assets, human development index,

illiteracy rate, gross educational enrollment, regional gross domestic products, Gini Ratio,

electricity consumption, drinking water and sanitation improvement, village revenue,

village expenditure, and regional wage increase. A significant regression equation was found ($F(15,16) = 342.77$, $p < .0001$), with a R^2 of 1.00. The predicted rural poverty (RurPov) is equal to 1260.14 + .19 (ActCoops) + .00 (CoopMem) - .03 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) + 16.15 (HDI) + 58.77 (Illicy) + .56 (EduEnroll) + .00 (ProvGDP) + .00 (VillRevene) + .00 (VillExpand) − 3648.70 (GiniRatio) − 13.56 (ElctCons) − 2.24 (DrnkImp) - .29 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP, VillRevene, VillExpand, and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and rural poverty in 2011?

The Regression analysis result exhibited highly significant correlation between rural poverty and cooperative membership with *p* value at .0001, active cooperatives with p value of .02, cooperative employment with *p* value at .0001 and cooperative income with p value at .05. Moreover, the regression analysis indicated a negative correlation between rural poverty and cooperative employment with beta coefficients value at -.03, which means that for every one person increase in cooperative employment, will result in 0.03 decreases in the total rural poverty. The regression analysis result for rural poverty coefficient is available in Table 18.

(Insert Table 18 about here)

Table 19 illustrates the regression analysis of Indonesian urban poverty in 2011 measured in numbers of people. Investigator run multiple regression calculation to forecast the relationship between urban poverty and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, Gini Ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found ($F(13,20) = 786.62$, $p < .0001$), with a R^2 of 1.00. The predicted urban poverty (UrbPov) is equal to 2020.95 - .04 (ActCoops) + .00 (CoopMem) + .00 (CoopEmp) + .00 (CoopInc) + .00 (CopAsset) - 26.65 (HDI) - 3.87 (Illicy) + 3.64 (EduEnroll) + .00 (ProvGDP) – 954.23 (GiniRatio) + 1.92 (ElctCons) – 4.73 (DrnkImp) - .04 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, ProvGDP and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant was the correlation between independent variables and urban poverty in 2011?

The Regression analysis result indicated high correlation between urban poverty and the number of active cooperatives, cooperative membership, Humand Development Index (HDI), asset, and regional Gross National Product (R-GDP) a *p* value of .0001, .0001, .03, .04 and .004 respectively . However, only the number of active cooperatives

had inverse correlation with urban poverty with beta coefficient value at -0.04. Thus, for every one unit increases in the number of active cooperatives, will reduce the number of poor people by 0.04 people.

(Insert Table 19 about here)

A multiple regression analyses in 2011 Regional Gross National Product (R-GDP) projected at predicting the relationship between R-GDP measured in million rupiahs and the number of active cooperatives, cooperatives membership, cooperatives income, cooperatives assets, human development index, illiteracy rate, gross educational enrollment, regional gross domestic products, Gini Ratio, electricity consumption, drinking water and sanitation improvement, and regional wage increase. A significant regression equation was found ($F(12,21) = 143.00$, $p < .0001$), with a R^2 of .99. The predicted regional gross domestic product (ProvGDP) is equal to -402269960.26 - 683.86 (ActCoops) − 113.96 (CoopMem) + 4336.39 (CoopEmp) + 578.10 (CoopInc) + 37.36 (CopAsset) + 9680134.29.35 (HDI) - 5125478.87 (Illicy) + 2396464.61 (EduEnroll) + 179102908.35 (GiniRatio) − 3791692.37 (ElctCons) − 6558738.11 (DrnkImp) + 88273.73 (RegWage), when ActCoops is measured in cooperative unit; HDI and Gini Ratio are measured in index; CoopMem, CoopEmp, EduEnroll, are measured in number of people; CoopInc, CopAsset, and ElctCons are measured in million Rupiahs; Illicy, DrnkImp, and RegWage are measured in percentage.

How significant is the correlation between independent variables and R-GDP in 2011?

The 2011 R-GDP multiple regressions analysis revealed high correlation between R-GDP and the cooperative income and assets asset with *p* value at 0.02 and 0.0001 respectively. The Beta Coefficient for cooperative asset was positive at 37.36 which meant that for every one million rupiahs increase in cooperative assets, resulted in a 37.36 million Rupiah increase in the total R-GDP. The beta coefficient for cooperative income was also positive at 578.10, which indicated that for every one million Rupiahs increase in cooperative income would translate into 578.10 million Rupiahs increase in R-GDP. The regression detail is available in Table 20.

(Insert Table 20 about here)

The 2011 archival data analysis showed similar patterns such as a strong inverse correlation between total poverty and cooperative employment, as well as new pattern such as Human Development Index showed strong relationship with the dependent variables. Moreover, for the first time in the last 5 years of data analysis, cooperative employment independent variable had inverse relationship with the rural poverty dependent variable. The Regression analysis on 2011 archival data exhibited similar patterns to the 2007 and 2008 data examination in which cooperatives independent variables strongly influenced the Indonesian' poverty eradication indicators including total poverty, urban poverty, rural poverty, and R-GDP. The abnormality phenomenon found in 2009 and 2010, when none of the cooperative independent variables showed inverse relationship with the total, rural and urban poverty, were not seen in 2011.

How significant was the correlation between social indicator variables (Human Development Index, illiteracy rate, Gini Ratio, etc.) and the dependent variables between 2007 and 2011?

The result of 2007-2008 data analysis indicated less correlation between social indicators variables such as Human Development Index (HDI), illiteracy rate, Gini Ratio and total poverty, rural poverty, R-GDP. Their *p* values were more than the significance standard of 0.05. However, there were several occasions when HDI had significant relationship with the dependent variables. In 2011 HDI significantly influenced the outcome of total poverty in Indonesia with beta coefficient -68.81. HDI was also contributed to the 2010 and 2011 rural poverty eradication, and 2010 R-GDP growth in Indonesia. Water and sanitation improvement influence was significant in 2008 only with no significant impact in the rest of the years being studied. Nevertheless, the overall social indicator variables did not influence considerably Indonesian poverty.

CONCLUSION AND IMPLICATION OF STUDY

The present study in quantitative archival data investigation has evaluated the relationship between the cooperative movement and the regional gross domestic products, and poverty eradication in Indonesia. Several themes have emerged during data analysis. Cooperative membership was the most common themes appeared, and was one of the most significant independent variables in all years being studied. Nonetheless, cooperatives employment was the independent variables which contributed the most towards poverty eradication efforts in Indonesia. Cooperatives employment had reduced considerably the total national poverty in 2007, 2008, and 2011. Data analysis result also revealed cooperative employment role in reducing the Indonesian urban poverty in 2007, 2008, 2010, and 2011. The other prominent themes appeared in the present studies were the cooperative assets and cooperative income which had boasted the Regional Domestic Product (R-GDP) in 2007 to 2011 consecutively.

Abnormalities in Data Analysis

The present studies also discovered abnormalities in the data analysis result. All independent variables had positive relationship with the dependent variable in 2009. Thus, none of the independent variables contributed to the poverty eradication in 2009. Moreover, in 2010 only the number of active cooperatives and Human Development Index (HDI) had contributed in reducing urban poverty. The feasible justification for such abnormalities was that the global financial crisis in 2008-2009 considerably influenced the Indonesian economics performance. The effect of the 2008 and 2009

global financial crisis impacted negatively the Indonesian economic growth, export, and governmental balance sheet, which contributed to the increase of Indonesian poverty (Basri & Rahardja, 2011). In 2010, Indonesia was still under the economic recovery phase that typically more effective in the urban area than in the less developed rural region due to the fact that urban regions have better overall infrastructures. Hence, poverty eradication efforts in urban area picked up the momentum, as marked by the inverse relationship between the numbers of active cooperatives, HDI, and the total urban poverty.

Cooperatives membership strongly influenced the Indonesian rural poverty. However, none of the cooperatives variables and social indicators variables significantly contributed to the poverty eradication in the rural area. As the number of poverty increasing, the number of cooperatives membership was also climbing, which indicated the cooperatives' popularity as feasible economics opportunity among the Indonesian poorest rural populations, although, cooperatives organizations were less significant in curbing the rural poverty. Moreover, the abnormalities found in the rural data analysis also exposed the ineffectiveness of government poverty eradication policies in the rural area. Lack of basic management, marketing, and leadership training could have induced the governmental socio-economics policy failure in rural area, as shown by the abnormality in rural data analysis.

Despite some abnormalities, the data analysis result still indicated that cooperative independent variables influenced the overall poverty eradication efforts in

Indonesia significantly, as shown by the result on 2007, 2008, and 2011 data examination, where cooperatives membership, employment, and assets strongly decreased the national poverty, urban poverty, and boasted the Regional Gross Domestic Products (R-GDP). Thus, enhancing the cooperative movement in Indonesia can significantly help curbing the country's overall poverty rate. Nonetheless, a proper socio-economic policy is crucial in increasing cooperatives' role in poverty eradication. Hence, the present study dedicates policy recommendations to improve the role of cooperatives in Indonesian poverty eradications efforts.

Policy Recommendation

The relevant findings of the present study revealed the cooperatives movement significant influence on the poverty eradications efforts in Indonesia. Hence, the Indonesian policy makers should response this finding by formulating integrated policies that enhance the social benefits of cooperatives in the country.

The integral development and poverty eradication policies should assist cooperatives in improving their marketing, management, and accounting practice which are necessary to enable cooperatives contribute to the community economics development (Ighomereho, Dauda, & Olabisis, 2012). Nevertheless, it is important for the government to avoid overregulation which potentially obstructs the cooperative democratic principles.

The Indonesian Ministry of Cooperatives and Small Medium Enterprises should collaborate with the community level administrators to build the support infrastructure

for marketing, management, and leadership training programs. Collaboration approach can also include the NGOs and international cooperatives movement organizations. Incorporating non-governmental entities are crucial to ensure the autonomy of cooperative organizations from potential bureaucracy domination of the movement (Sizya, 2001).

In order to strengthened cooperative roles in the local economics, the government and the existing cooperative organizations should enhance the public awareness, research and education about the cooperatives' social advantages. Cooperatives seminars in the region for example, can introduce the cooperative concepts to larger public. Local government, cooperatives, and universities can also collaborate in research aiming at tackling case by case obstacles in the community level. Cooperatives publicity will initiate public debate and inspire scientist to further refine the cooperative theories in poverty eradication (International Cooperative Alliance, 2009).

The existing cooperatives should assist the formation of new cooperatives in the regions with lack of investment, and underdeveloped infrastructure, as existing studies have proven the potential of cooperative organization in the less-developed regions (Ighomereho, Dauda, & Olabisi, 2012; Birchall, 2004; Yusuf & Ijaiya, 2009; Oshewolo, 2010). Expanding cooperatives in the country will enable Indonesian cooperatives to present and perceive itself as a credible and viable solution in increasing the economic development in the community level. International Cooperative Alliance (2009) suggested adsorbing failing businesses in the rural areas and converts them into

cooperative enterprises as cooperatives expansion approach. Similar approach has been applied in the other developing world such as Brazil and Argentina where cooperatives acquisition saved thousands of jobs (International Cooperative Alliance, 2009).

In order to improve the competitive advantages of cooperative organizations in the globalized economics, the local government, and cooperatives should create a federation cooperatives institution in which will strengthen the cooperation among cooperatives in product development, marketing strategy, and manufacturing. The horizontal integration of cooperative businesses will increase the business scale of cooperatives and enable cooperatives to have a bigger role in the national economy. Here, the policy maker should prepare the legal infrastructure for such cooperation which can potentially increase the cooperatives' ability in refining the community economics (Ravensburg, Schmidt, & Ullrich, 2003). A recent case study in Mondragon cooperative revealed the success of cooperative federation in strengthening the competitive advantage of cooperatives under the Mondragon federation (Basterretxea & Albizu, 2010).

Limitations and Recommendation for Future Research

While the present studies investigated empirical evidence of the effectiveness of cooperatives movement in the Indonesian poverty eradication efforts, the researcher did not include foreign investment variable due to the lack of available data. The Indonesian Investment Board (BKPM) refused the researcher's official request for the Indonesian foreign direct investment statistical data by province. The BKPM officials stipulated that there was validity issue on the data.

Foreign investment is one of the aspects which influence poverty eradication in developing world. Some researchers believe that foreign investment contribute immensely in poverty reduction in many developing countries such as China, and India (Klein, Aaron, & Hadjimichael, 2001). Nevertheless, others argue that foreign investment approach in poverty eradications is effective only in countries with abandon natural resources, even more; foreign investment can potentially increase development disparities and lead to environmental degradation (Collins, 2007; Ghosh, 2010). Thus, the future research should explore the Indonesia foreign investment role in poverty eradication, and to see if foreign investment has some negative implication in Indonesia as predicted by previous studies.

The present study encourages the Indonesian policy makers to develop a legal framework for integrated federation of cooperatives in Indonesia which aims at strengthening the Indonesian cooperatives' competitive advantage. Nevertheless the details on how such policies will be implemented to enhance cooperative competitiveness are beyond the scope of this research. Therefore, the future research should explore the appropriate policy frameworks for cooperatives improvement in Indonesia. The future research should investigate the effectiveness of similar polices implemented in the other countries, and provide further recommendation on how the policy should be adopted in Indonesia.

List of Tables

Table 1: Independent and Dependent Variables

Independent Variables	Definition
ActCoops	The number of active coopeartives by provinces
CoopMem	The total number of cooperative membership
CoopEmp	The total number of employees working at cooperatives
CoopInc	The nett profit or income of cooperatives
CopAsset	The total value of asset owned by cooperatives
HDI	The Human Developmebt Indexby provinces
Illicy	The Illetaracy Index by provinces
EduEnroll	The total number of school enrollment by provinces
ProvGDP	The regional Gross Domestic Products in all provinces
GiniRatio	The Gini Ratio by provinces
ElectCons	The average electricity consumption by provinces
DrnkImp	The total spending in clean water improvement program
RegWage	The regional minimum wage by provinces
Dependent Variables	
TotPov	The total poverty in a particular year
RurPov	The total of poverty in rural area
UrbPov	The total of poverty in urban area
ProvGDP	The total of regional Gross Domestic Products

Table 2: 2007 Total Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	1818.79	3496.2	0.61
ActCoops	0.22	0.07	0.01
CoopMem	0.001	0.001	0.0001
CoopEmp	-0.05	0.02	0.01
CoopInc	0.001	0.001	0.0001
CopAsset	0.001	0.001	0.31
HDI	3.8	48.03	0.94
Illicy	56.65	54.84	0.31
EduEnroll	-0.67	7.61	0.93
ProvGDP	0.001	0.001	0.66
GiniRatio	-3822.11	2639.86	0.16
ElectCons	-8.28	7.38	0.28
DrnkImp	-2.34	8.97	0.8
RegWage	-0.26	0.74	0.73

**Significant if $P < .05$

Table 3: 2007 Rural Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	1260.14	3180.56	0.7
ActCoops	0.19	0.07	0.02
CoopMem	0.001	0.001	0.0001
CoopEmp	-0.03	0.02	0.15
CoopInc	0.001	0.001	0.05
CopAsset	0.001	0.001	0.97
HDI	16.15	43.31	0.71
Illicy	58.77	50.4	0.26
EduEnroll	0.56	7.3	0.94
ProvGDP	0.001	0.001	0.66
VillReven	0.001	0.001	0.34
VillExpand	0.001	0.001	0.34
GiniRatio	-3648.7	2393.72	0.15
ElectCons	13.56	6.81	0.06
DrnkImp	-2.24	819	0.79
RegWage	-0.29	0.7	0.73

**Significant if $P < .05$

Table 4: 2007 Urban Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	1201.54	1118.34	0.3
ActCoops	0.03	0.02	0.21
CoopMem	0.0001	0.0001	0.0001
CoopEmp	-0.03	0.01	0.0001
CoopInc	0.001	0.001	0.03
CopAsset	0.001	0.001	0.01
HDI	-16.33	15.36	0.3
Illicy	5.11	17.54	0.77
EduEnroll	-0.44	2.43	0.86
ProvGDP	0.001	0.001	0.03
GiniRatio	-535.85	844.42	0.53
ElectCons	3.94	2.36	0.11
DrnkImp	-1.08	2.87	0.71
RegWage	-0.21	0.24	0.38

**Significant if $P < .05$

Table 5: 2007 Regional Gross Domestic Product (R-GDP) Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	-1190903858	637145122	0.08
ActCoops	19695.77	13443.12	0.16
CoopMem	-54.1	44.01	0.23
CoopEmp	-2631.88	3699.52	0.49
CoopInc	477.14	151.49	0.0001
CopAsset	36.08	4.4	0.0001
HDI	15457634.23	8835557.66	0.1
Illicy	5918160.51	10749962.7	0.59
EduEnroll	-737388.9	1493901.84	0.63
GiniRatio	505840487.3	508998771	0.33
ElectCons	-550961.75	1453418.26	0.71
DrnkImp	-981590.93	1757278.05	0.58
RegWage	80515.42	145954.15	0.59

**Significant if $P < .05$

Table 6: 2008 Total Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	1669.74	2642.75	0.53
ActCoops	2	0.07	0.82
CoopMem	0.0001	0.0001	0.0001
CoopEmp	-0.03	0.02	0.05
CoopInc	0.001	0.001	0.14
CopAsset	0.001	0.001	0.57
HDI	4.58	34.62	0.9
Illicy	63.41	43.34	0.16
EduEnroll	2.92	6.3	0.65
ProvGDP	0.001	0.001	0.18
GiniRatio	-1675.51	2571.93	0.52
ElectCons	-11.56	5.95	0.07
DrnkImp	-19.13	7.97	0.03
RegWage	0.08	0.54	0.88

**Significant if P < .05

Table 7: 2008 Rural Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	742.19	2931.86	0.8
ActCoops	-0.05	0.09	0.6
CoopMem	0.0001	0.0001	0.0001
CoopEmp	-0.01	0.02	0.53
CoopInc	0.001	0.001	0.29
CopAsset	0.001	0.001	0.29
HDI	15.96	35.58	0.66
Illicy	52.21	40.59	0.22
EduEnroll	4.53	6.17	0.47
ProvGDP	0.001	0.001	0.18
VillReven	0.001	0.001	0.39
VillExpand	0.001	0.001	0.39
GiniRatio	-2428.98	2896.07	0.41
ElectCons	-11.91	6.2	0.07
DrnkImp	-13.67	7.69	0.1
RegWage	0.3	0.56	0.6

**Significant if P < .05

Table 8: 2008 Urban Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	1208.55	1098.73	0.28
ActCoops	0.0001	0.03	1
CoopMem	0.0001	0.0001	0.0001
CoopEmp	-0.03	0.01	0.0001
CoopInc	0.001	0.001	0.95
CopAsset	0.001	0.001	0.03
HDI	-18.19	14.39	0.22
Illicy	6.71	18.02	0.71
EduEnroll	0.4	2.62	0.88
ProvGDP	0.001	0.001	0.05
GiniRatio	264.29	1069.29	0.81
ElectCons	4.42	2.47	0.09
DrnkImp	-5.93	3.31	0.09
RegWage	-0.2	0.23	0.38

**Significant if $P < .05$

Table 9: 2008 Regional Gross Domestic Product (R-GDP) Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	-2012953010	884908255	0.03
ActCoops	38761.11	25342.13	0.14
CoopMem	-68.86	81.27	0.41
CoopEmp	-3433.14	5601.52	0.55
CoopInc	126.19	126.68	0.33
CopAsset	36.6	6.16	0.0001
HDI	23906368.35	11855148.9	0.06
Illicy	11216406.96	16086151.6	0.49
EduEnroll	-1645742.99	2337792.09	0.49
GiniRatio	1454343776	909828294	0.13
ElectCons	17623.05	2236172.05	0.99
DrnkImp	-3398141.62	2896331.65	0.25
RegWage	108842.44	203032.93	0.6

**Significant if $P < .05$

Table 10: 2009 Total Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	4990.54	3110.71	0.13
ActCoops	-0.09	0.11	0.45
CoopMem	0.0001	0.0001	0.0001
CoopEmp	0.06	0.03	0.08
CoopInc	0.001	0.001	0.19
CopAsset	0.001	0.001	0.24
HDI	-25.8	44.75	0.57
Illicy	58.69	71.43	0.43
EduEnroll	-5.66	8.34	0.51
ProvGDP	0.001	0.001	0.17
GiniRatio	-2954.6	2653.24	0.28
ElectCons	-9.51	9.24	0.32
DrnkImp	-23.23	12.35	0.8
RegWage	0.0001	0.58	0.99

**Significant if $P < .05$

Table 11: 2009 Rural Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	2983.6	2699.29	0.29
ActCoops	-0.1	0.13	0.44
CoopMem	0.001	0.001	0.03
CoopEmp	0.06	0.03	0.09
CoopInc	0.001	0.001	0.14
CopAsset	0.001	0.001	0.51
HDI	-9.85	39.24	0.81
Illicy	97.38	62.39	0.14
EduEnroll	3.83	9.32	0.69
ProvGDP	0.001	0.001	0.04
VillReven	0.001	0.001	0.28
VillExpand	0.001	0.001	0.28
GiniRatio	-3187.34	2318.59	0.19
ElectCons	-8.43	8.05	0.32
DrnkImp	-21.34	11	0.08
RegWage	0.26	0.49	0.61

**Significant if $P < .05$

Table 12: 2009 Urban Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	2412.39	1190.64	0.06
ActCoops	-0.05	0.04	0.25
CoopMem	0.0001	0.0001	0.02
CoopEmp	0.01	0.01	0.26
CoopInc	0.001	0.001	0.94
CopAsset	0.001	0.001	0.46
HDI	-25.49	17.13	0.16
Illicy	-22.28	27.34	0.43
EduEnroll	-2.53	3.19	0.44
ProvGDP	0.001	0.001	0.09
GiniRatio	-511.91	1015.54	0.62
ElectCons	1.39	3.54	0.7
DrnkImp	-5.51	4.73	0.26
RegWage	-0.17	0.22	0.46

**Significant if $P < .05$

Table 13: 2009 Regional Gross Domestic Product (R-GDP) Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	296483896.3	909914166	0.75
ActCoops	36599.45	31986.07	0.27
CoopMem	5.5	128.83	0.97
CoopEmp	5294.73	9405.6	0.58
CoopInc	-625.61	436.21	0.17
CopAsset	35.23	5.85	0.0001
HDI	3246908.14	13110604.7	0.81
Illicy	6849015.07	20891985.8	0.75
EduEnroll	-1911685.12	2398731.88	0.44
GiniRatio	-613317992.4	762572425	0.43
ElectCons	-741830.35	2704771.54	0.79
DrnkImp	-3322885.81	3520960	0.36
RegWage	-25801.5	168909.08	0.88

**Significant if $P < .05$

Table 14: 2010 Total Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	7044.91	2543.18	0.01
ActCoops	0.1	0.06	0.12
CoopMem	0.001	0.001	0.02
CoopEmp	0.02	0.03	0.38
CoopInc	0.001	0.001	0.51
CopAsset	0.001	0.001	0.05
HDI	-64.99	35.34	0.08
Illicy	2.35	18.91	0.9
EduEnroll	-13.59	7.96	0.1
ProvGDP	0.001	0.001	0.64
GiniRatio	-3566.97	2085.93	0.1
ElectCons	1.17	8.52	0.89
DrnkImp	0.23	7.15	0.97
RegWage	-0.35	0.49	0.49

**Significant if P < .05

Table 14: 2010 Rural Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	-14223.1	8586.17	0.12
ActCoops	0.47	0.19	0.03
CoopMem	0.001	0.001	0.23
CoopEmp	-0.13	0.08	0.12
CoopInc	-0.01	0.01	0.17
CopAsset	0.001	0.001	0.26
HDI	131.69	112.57	0.26
Illicy	-19.91	45.86	0.67
EduEnroll	9.56	20.11	0.64
ProvGDP	0.001	0.001	0.48
VillReven	0.001	0.001	0.0001
VillExpand	0.001	0.001	0.0001
GiniRatio	8293.74	5126.76	0.13
ElectCons	-9.39	21.45	0.67
DrnkImp	-1.5	17.54	0.93
RegWage	2.27	1.12	0.06

**Significant if P < .05

Table 15: 2010 Urban Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	3311.02	1121.41	0.01
ActCoops	-0.01	0.03	0.0001
CoopMem	0.0001	0.0001	0.01
CoopEmp	0.0001	0.01	0.96
CoopInc	0.0001	0.001	0.76
CopAsset	0.0001	0.001	0.08
HDI	-43.74	15.58	0.02
Illicy	7.75	8.34	0.36
EduEnroll	-1.94	3.51	0.59
ProvGDP	0.001	0.001	0.34
GiniRatio	-811.02	919.78	0.39
ElectCons	9.97	3.76	0.04
DrnkImp	-5.72	3.15	0.08
RegWage	-0.43	0.22	0.06

**Significant if $P < .05$

Table 16: 2010 Regional Gross Domestic Product (R-GDP) Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	-1342425767	858096681	0.13
ActCoops	-7745.13	21548.97	0.72
CoopMem	-66.46	89.62	0.47
CoopEmp	10477.84	9197.16	0.27
CoopInc	635.89	395.06	0.02
CopAsset	16.85	6.68	0.02
HDI	28757709.97	10924453.3	0.03
Illicy	-2212836.63	6726414.26	0.07
EduEnroll	-4941070.44	2623952.75	0.63
GiniRatio	-688622473.8	728358688	0.36
ElectCons	-5933718.41	2749169.55	0.06
DrnkImp	1068154.82	2537696.18	0.66
RegWage	360146.9	156236.63	0.75

**Significant if $P < .05$

Table 17: 2011 Total Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	6892.16	2362.11	0.01
ActCoops	0.02	0.02	0.37
CoopMem	0.001	0.001	0.0001
CoopEmp	-0.04	0.01	0.0001
CoopInc	0.001	0.001	0.7
CopAsset	0.001	0.001	0.8
HDI	-68.81	33.76	0.05
Illicy	-22.8	18.9	0.24
EduEnroll	-1.1	7.14	0.88
ProvGDP	0.001	0.001	0.9
GiniRatio	-2461.48	2024.08	0.24
ElectCons	-7.01	9.03	0.45
DrnkImp	-11.62	9.12	0.22
RegWage	0.26	0.51	0.62

**Significant if $P < .05$

Table 18: 2011 Rural Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	4876.83	2046.79	0.03
ActCoops	0.13	0.04	0.02
CoopMem	0.001	0.001	0.0001
CoopEmp	-0.3	0.001	0.0001
CoopInc	0.001	0.001	0.05
CopAsset	0.001	0.001	0.36
HDI	-44.5	27.57	0.13
Illicy	-11.32	14.54	0.45
EduEnroll	-8.92	5.45	0.12
ProvGDP	0.001	0.001	0.19
VillReven	0.001	0.001	0.08
VillExpand	0.001	0.001	0.09
GiniRatio	-573.92	1532.18	0.71
ElectCons	-5.93	6.81	0.4
DrnkImp	-5.74	7.09	0.43
RegWage	-0.01	0.39	0.98

**Significant if $P < .05$

Table 19: 2011 Urban Poverty Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	2020.95	770.04	0.02
ActCoops	-0.04	0.01	0.0001
CoopMem	0.0001	0.0001	0.0001
CoopEmp	0.0001	0.0001	0.53
CoopInc	0.0001	0.0001	0.78
CopAsset	0.0001	0.0001	0.4
HDI	-26.65	11.01	0.03
Illicy	-3.87	6.16	0.54
EduEnroll	3.64	2.33	0.13
ProvGDP	0.0001	0.0001	0.04
GiniRatio	-954.23	659.84	0.16
ElectCons	1.92	2.94	0.52
DrnkImp	-4.73	2.97	0.13
RegWage	0.04	0.17	0.83

**Significant if $P < .05$

Table 20: 2011 Regional Gross Domestic Product (R-GDP) Coefficients

Independent Variables	B	Std. Error	Sig.**
(Constant)	-402269960.3	995638822	0.69
ActCoops	-683.86	9959.88	0.95
CoopMem	-113.96	83.27	0.19
CoopEmp	4336.39	5144.69	0.41
CoopInc	578.1	219.29	0.02
CopAsset	37.36	6.38	0.0001
HDI	9680134.29	14127722.1	0.5
Illicy	-5125478.87	7919772.02	0.52
EduEnroll	2396464.61	2974432.5	0.43
GiniRatio	179102908.4	855575359	0.84
ElectCons	-3791692.37	3731159.21	0.32
DrnkImp	-6558738.11	3584601.66	0.08
RegWage	88273.73	215337.33	0.69

**Significant if $P < .05$

REFERENCES

Abia. (2000). Rural cooperatives societies and the transformation of the lower cross river region Kiabara. *Journal of African Development*, *6*(1), 198-12.

Agresti, A., & Finlay, B. (1997). *Statistical methods for the social sciences* (3rd ed.). Upper Saddle River, N.J: Prentice Hall.

Ahmad, B. (2005). *The role of cooperative societies in economic development*. RePEc Archive.

Akinjide, R. (2004, May 30). The problem with Nigeria's economy and its operators. *The Guardian*, *21*(9413), 56-57.

Alderson, A. S., & Nielsen, F. (1999). Income inequality, development, and dependence: A reconsideration. *American Sociological Review*, *64*, 606-631.

Amendola, A., Garofalo, M. R., & Nese, A. (2010). Is the third Sector an emerging economic institution? Social preferences versus Poverty traps. *Nonprofit and Voluntary Sector Quarterly*, *40*(5), 850-872.

Amit, V., & Rapport, N. (2002). *The trouble with community: Anthropological reflections on movement, identity and collectivity*. London: Pluto Press.

Asamu, F. E. (2005). *Poverty and child labor in Nigeria: Challenges for youth development in Africa in 21st Century*. Ottawa, Canada: Covenant University.

Asaolu, T. O. (2001). *Financing small scale enterprises in Ondo State*. Ile-Ife, Nigeria: Obafemi Awolowo University Press.

Asia Foundation. (2013). *Microfinance services in Indonesia: A survey of institutions in 6 provinces*. Jakarta, Indonesia: The Asia Foundation.

Asia Foundation. (2003, January 6). *The Asia foundation*. Retrieved March 24, 2014, from

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCwQFjAA&url=http%3A%2F%2Fasiafoundation.org%2Fresources%2Fpdfs%2FIndomicrofinancesurvey.pdf&ei=G9UwU7WoF7Pq2wWn-IH4DQ&usg=AFQjCNFRDv1d-zztII8ipGc__2d8JVEn0A&sig2=mzXw_EIdG7OB0XyO6D3LUg&bvm=bv.63587204,d.b2I

Babbie, E., Halley, F., & Zaino, J. (2007). *Adventures in social research: Data analysis using SPSS 14.0 and 15.0 for Windows* (6th ed.). Thousand Oaks, CA: Pine Forge Press.

Babbie, E. R. (2008). *The basics of social research* (4th ed.). Belmont, CA: Thomson/Wadsworth.

Bakaikoa, B., & Albizu, E. (2011). *Basque cooperativism*. Reno, NV: Center for Basque Studies, University of Nevada, Reno.

Barlow, C., & Hardjono, J. (1997). Indonesia assessment 1995: Development in Eastern Indonesia. *Journal of Asian Studies*, *56*(4), 1149-1150.

Basri, M., & Rahardja, S. (2011). *?Mild crisis, halfhearted fiscal stimulus: Indonesia during the GFC, assessment on the Impact of stimulus, fiscal transparency and fiscal risk*. Retrieved from ERIA website:

http://www.eria.org/publications/research_project_reports/images/pdf/y2010/no1
/ch5Basri_and_Rahardja_Indonesia.pdf

Basterretxea, I., & Albizu, E. (2011). Management training as a source of perceived
competitive advantage: The Mondragon Cooperative Group case. *Economic and
Industrial Democracy*, *32*(2), 199-222.

Birchall, J. (2001). *Organising workers in the informal sector: A strategy for trade union-
cooperative action*. Geneva, Switzerland: International Labor Organization.

Birchall, J. (2004). *Cooperatives and the millennium development goals*. Geneva,
Switzerland: International Labor Organization.

BKPM. (2013). *Percentage of electricity consumption by province, 1993-2012*. Jakarta,
Indonesia: BKPM.

BKPM. (2012). *Village revenue and expenditure by province, 2002-2011*. Jakarta,
Indonesia: BKPM.

Bornschier, V., & Chase-Dunn, C. K. (1985). *Transnational corporations and
underdevelopment*. New York: Praeger.

Bowen, J. R. (1986). On the political construction of tradition: Gotong royong in
Indonesia. *The Journal of Asian Studies*, *45*(3), 545-561.

BPS. (2013). *Drinking water and sanitation improvement by province, 2003-2012*.
Jakarta, Indonesia: BPS.

BPS. (2014). *GINI ratio by province 1996-2013*. Jakarta, Indonesia: BPS.

BPS. (2013). *Gross enrollment ratio by province, 2003-2012*. Jakarta, Indonesia: BPS.

BPS. (2012). *Gross national product at current price by provinces 2004-2011*. Jakarta, Indonesia: BPS.

BPS. (2014). *Growth of regional minimum wage by province, 1997-2013*. Jakarta, Indonesia: BPS.

BPS. (2013). *Growth rate of Gross Regional Domestic Product at constant market price, 2006-2011*. Jakarta, Indonesia: BPS.

BPS. (2013). *Human development index by province, 1996-2012*. Jakarta, Indonesia: BPS.

BPS. (2014). *Illiteracy rate by province, 2003-2013*. Jakarta, Indonesia: BPS.

BPS. (2014). *Number and percentage of poor people, poverty line by province, 1970-2013*. Jakarta, Indonesia: BPS.

Breman, J. (1980). *The village on Java and the early colonial state*. Rotterdam, The Netherlands: CASP, Erasmus University Rotterdam.

Cabinet Secretariat of The Republic of Indonesia. Retrieved March 27, 2014, from http://www.setkab.go.id/profil-kabinet-25-kabinet-gotong-royong.html

Calvert, H. (1921). *The law and principles of co-operation: Being the co-operative societies Act no. II of 1912: With introduction, notes and an appendix*. Calcutta, India: Thacker, Spink.

Central Intelligence Agency. (2013, March 11). *The world fact book*. Retrieved March 24, 2014, from https://www.cia.gov/library/publications/the-world-factbook/geos/id.html

Clamp, C. A. (2002). *From community economic development and ethnic entrepreneurship to economic democracy: The co-operative alternative*. Umea, Sweden: Partnership for Multiethnic Inclusion.

Collins, E. F. (2007). *Indonesia betrayed: How development fails*. Honolulu, HI: University of Hawaii Press.

Committee for Poverty Alleviation (CFPA). (2000). *Interim poverty reduction strategy in Indonesia: A process framework of strategic formulation for long-term poverty alleviation*. World Bank.

Conover, N., Mollina, F., & Morris, K. (1993). *Creating jobs through co-operative development, the national economic development and law center*. Davis, CA: University of California, Davis Press.

Department of Cooperatives and SME. (n.d.). *Sejarah Kementerian Koperasi dan UKM*. Retrieved March 25, 2014, from http://www.depkop.go.id/index.php?option=com_content&view=article&id=22 &Itemid=34

Devendra, C. (1998). *Feeding and nutrition: Asian productivity organization study meeting*. Tokyo, Japan.

Dogarawa, A. B. (2005). *The role of cooperative societies in economic development* (23161). Munich, Germany: MPRA.

Doody, J. (2013, July 10). *Paths to economic success in Singapore and Indonesia in Asia*. Retrieved June 23, 2014, from http://asiafoundation.org/in-asia/2013/07/10/paths-to-economic-success-in-singapore-and-indonesia/

Douthwaite, R. (1996). *Short circuit: Strengthening local economies for security in an unstable world*. Dublin, Ireland: Lilliput Press.

Duran, A. (2011). *Datos y ranking de cooperativas de ahorro y crédito en América Latina y Caribe*. San Jose, Costa Rica: Confederacion Alemana de Cooperativas (DGRV).

Eldridge, P. J. (1995). *Non-government organizations and democratic participation in Indonesia*. Kuala Lumpur, Malaysia: Oxford University Press.

Elhiraika, A. B. (1999). The growth and potential of savings and credit cooperative societies in Swaziland?. *Development Policy Review*, *17*, 355-374.

Encountering the evidence: Cooperatives and poverty reduction in Africa?. (2008). *Journal of Cooperative Studies*, *41*(3), 16-27.

Fehl, U. (2007). Volkswirtschaftliche Theorie der Kooperation in Genossenschaften. *klassische Genossenschaft*, 87-117.

Feith., & Castles. (1970). *Past and future*. Yogyakarta, Indonesia: Gajah Mada University Press.

Firman, T. (1999). Indonesian cities under the krismon: A great urban crisis in Southeast Asia. *Cities*, *16*(2), 69-82.

Ghosh, J. (2010). Poverty reduction in China and India: Policy implications of recent trends? *Economic & Social Affairs*, (92), 1-26.

Gilliland, A., & Mckemmish, S. (2004). Building an infrastructure for archival research. *Archival Science*, *4*, 149-197.

Godly, O., & Ukpere, W. (2011). Credit and thrift cooperatives in Nigeria: A potential source of capital formation and employment. *African Journal of Business Management*, *6*(14), 239-253.

Gordon, J. G. (2004). Non-traditional analyses of co-operative economic impacts: Preliminary indicators and a case study. *Review of International Co-operation*, *97*(1), 6-21.

Gormley, M. (1993). Employment - job creation. In *Irish league of credit unions* (pp. 47-66). Dublin, Ireland: Irish League Credit Union.

Groeneveld, J. M. (2011). *The powerful differentiators of cooperative banks. In: Proceedings of the 2nd EURICSE international conference on cooperative finance and sustainable development*. Trento, Italy: EURICSE.

Gunga, S. O. (2010). The cooperative movement in Kenya and its potential for enhancement of ICT livelihoods. *Journal of Sustainable Development in Africa*, *12*(6), 264-274.

Gunjan. (2006). *Shelter Development Through Cooperatives: A Strategy for Poverty Alleviation and Slum Improvement for Asia and the Pacific Region*. Kuala Lumpur, Malaysia: ICHFAP.

Guntoro, B. (2010). Community development plan: Rural livestock, agriculture and livelihood in Indonesia. *Journal for Geography*, *5*(2), 109-119.

Hainsworth, G. B. (1979). Economic growth and poverty in Southeast Asia: Malaysia, Indonesia and the Philippines. *Pacific Affairs,*, *52*(1), 5-41.

Heiman, G. W. (2003). *Basic statistics for the behavioral sciences* (4th ed.). Boston, MA:
Houghton Mifflin.

Ighomereho, S. O., Dauda, R. S., & Olabisi, J. (2012). Making cooperative for poverty
alleviation and economic development in Nigeria. In O. O. Oluyombo (Ed.),
Cooperative finance in developing economies (pp. 23-39). Lagos, Nigeria: Soma
Prints Limited.

International Cooperative Alliance. (2013). *Indonesia highlights of consumer co-ops*.
Retrieved from International Cooperative Alliance website: http://ica.coop/en/co-
op-stories

International Cooperative Allience. (1995). *Revision to the cooperative principles*. ICA.

International Labor Organization. (1986). *Co-operation: A worker education manual*.
Geneva, Switzerland: International Labor Organization.

International Labor Organization. (2011). *Economic and other benefits of entrepreneurs'
cooperative as a specific form of enterprise cluster*. Geneva: ILO.

International Labor Organization. (2002). *Recommendation 93 on cooperative
promotion?*. International Labor Organization.

International Labor Organization. (2012, July 4). *Reducing poverty and creating jobs
through cooperatives in Indonesia*. Retrieved March 3, 2014, from
http://www.ilo.org/jakarta/info/public/pr/WCMS_183301/lang--en/index.htm

Jhingan, M. I. (2003). *The Economic of development and planning* (36th ed.). Delhi,
India: Viand Publication Ltd.

Johnson, J. B., & Reynolds, H. T. (2012). *Political science research methods* (7th ed.). Los Angeles, CA: CQ Press.

Jones, L. F., & Olson, E. C. (1996). *Political science research: A handbook of scope and methods*. New York, NY: HarperCollins College Publishers.

Kay, C. (2009). Development strategies and rural development: exploring synergies, eradicating poverty. *Journal of Peasant Studies*, *36*(1), 103-137.

Kentor, J., & Boswell, T. (2003). Foreign capital dependence and development: A new direction. *American Sociological Review*, *68*, 301-313.

Kerbo, H. (2005). Foreign investment and disparities in economic development and poverty reduction: A comparative-historical analysis of the Buddhist countries of Southeast Asia. *International Journal of Comparative Sociology*, *46*(5-6), 425-459.

Ketchen, D. J., Ireland, D. R., & Baker, L. T. (2012). The use of archival proxies in strategic management studies: Castles made of sand? *Organizational Research Methods*, *16*(1), 32-42.

Kiely, R. (2005). Globalization and poverty, and the poverty of globalization theory. *Current Sociology*, *53*(6), 895-914.

Kim, H., & Lee, J. Y. (2008). Exploring the emerging intellectual structure of archival studies using text mining: 2001 - 2004. *Journal of Information Science*, *43*(3), 356-369.

King, D. Y., Barlow, C., & Hardjono, J. (1997). Indonesia assessment 1995: Development in Eastern Indonesia. *Journal of Asian Studies*, *56*(4), 1149-1150.

Klein, M., Aaron, C., & Hadjimichael, B. (2001). *Foreign Direct Investment and Poverty Reduction*. Retrieved from World Bank website: http://www.oecd.org/industry/inv/investmentstatisticsandanalysis/2422017.pdf

Klinken, G. A. (2007). *Communal violence and democratization in Indonesia: Small town wars*. London, United Kingdom: Routledge.

Lawal, A. I. (2012). The impact of cooperative finance on capital formation. In O. O. Oluyombo (Ed.), *Cooperative finance in developing economies* (pp. 198-208). Lagos, Nigeria: Soma Prints Limited.

Levine, D., & Tyson, L. D. (1990). Participation, productivity and the firm?s environment. In E. Blinder (Ed.), *Paying for productivity: A look at the evidence* (pp. 205-214). Washington, D.C: Brookings Institution.

Lont, H. B. (2000). Finding the right balance; financial self-help organizations as sources of security and insecurity in urban Indonesia. *International Review of Social History*, *45*, 159-177.

Mancini, L. (2008). Horizontal inequality and communal violence: Evidence from Indonesian districts. In F. Stewart (Ed.), *Horizontal inequalities and conflict: Understanding group violence in multiethnic societies* (pp. 182-201). Basingstoke, United Kingdom: Palgrave Macmillan.

Marcus, A., & Asmorowati, S. (2006). Urban poverty and the rural development bias some notes from Indonesia. *Journal of Developing Societies*, *22*(2), 145-168.

Marx, M. T. (2012). The evolution of financial cooperatives in Nigeria: Do they have a
  place in financial intermediation? *Cooperative finance in developing economies*
  (pp. 8-22).

Miguel, E., Gertler, P., & Levine, D. (2003). *Did industrialization destroy social capital
  in Indonesia?* (C03-131) Berkeley, CA: Center for International and
  Development Economics Research, University of California.

Ministry of Cooperatives and Small Medium Enterprises. (2013). *Asset scale of
  cooperatives by province, 2006-2012*. Jakarta, Indonesia: Ministry of
  Cooperatives and Small Medium Enterprises.

Ministry of Cooperatives and Small Medium Enterprises. (2014). *Cooperatives progress
  period 1967-2013*. Jakarta, Indonesia: Ministry of Cooperatives and Small
  Medium Enterprises.

Ministry of Cooperatives and Small Medium Enterprises. (2013). *Number of active
  cooperatives by province, 2006-2012*. Jakarta, Indonesia: Ministry of
  Cooperatives and Small Medium Enterprises.

Ministry of Cooperatives and Small Medium Enterprises. (2014). *Recapitalization
  cooperatives by province 2000-2013*. Jakarta, Indonesia: Ministry of
  Cooperatives and Small Medium Enterprises.

Munkner, H. H. (2000). *Cooperatives and state beyond Europe: The making of
  international cooperative promoters, paper presented at the round table on co-
  operatives and the state*. Oslo, Norway.

Mwelukilwa, J. S. (2001). *The role cooperatives play in poverty reduction in Tanzania, paper presented at the United Nations in observance of the international day for the eradication of poverty*. Retrieved from The United Nations website: http://www.un.org/esa/socdev/social/papers/poverty_panel_sizya.pdf

Naylor, R. L., & Falcon, W. P. (1995). Is the locus of poverty changing? *Food Policy*, *29*(6), 501-518.

Nembhard, J. G. (2004). Cooperative ownership in the struggle for African American economic empowerment. *Humanity and Society*, *28*(3).

Ogundele, O. J., & Abiola, J. O. (2012). Government and anti-poverty programs in Nigeria: The way forward. In O. O. Oluyombo (Ed.), *Cooperative finance in developing economies* (pp. 218-229). Lagos, Nigeria: Soma Prints Limited.

Okoli, P. (2006). *Cooperatives and small-scale business: In readings in cooperative economics and management*. Lagos, Nigeria: Computer Edge Publisher.

Oluyombo, O. O. (2012). Introduction. In *Cooperative finance in developing economies* (pp. 1-7).

Oluyombo, O. O. (2012). *The role of cooperative societies in rural finance: Evidence from Ogun state Nigeria*. Leicester, United Kingdom: De Montfort University Press.

Payne, S. C., Finch, J. F., & Tremble, T. R. (2003). Validating surrogate measures of psychological constructs: The application of construct equivalence to archival data. *Organizational Research Methods*, *6*(3), 363-382.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, *6*(1), 65-78.

Ravensburg, N., Schmidt, R., & Ullrich, G. (2003). Starting co-operative organizations for medium and small scale enterprises in Germany. *Journal of Co-operative Studies*, *36*(3), 154-162.

Reeves, M. (2003). *A wealth of opportunities in a world of limits: Free Enterprises*. Dallas, TX: Federal Reserve Bank of Dallas.

Ritchey, F. J. (2000). *The statistical imagination: Elementary statistics for the social sciences*. Boston, MA: McGraw-Hill.

Roy, E. P. (1964). *Cooperatives: Today and tomorrow*. Danville, IL: The Interstate Printers & Publishers.

Satterthwaite, D. (1997). Urban poverty: Reconsidering its scale and nature. *Ids Bulletin-institute of Development Studies*, *28*(2), 9-22.

Sizya, M. J. (2011). *The role cooperatives play in poverty reduction in Tanzania*. Moshi, Tanzania: The United Nations.

Squire, L. (1993). Economic development: Recent lessons. *The American Economic Review*, *83*(2), 377-382.

Stephen, L. (2005). Women? Weaving cooperatives in Oaxaca: An indigenous response to neoliberalism. *Critique of Anthropology*, *25*(3), 253-278.

Sulastri, E., & Maharjan, K. L. (2002). Role of dairy cooperative services on dairy development in Indonesia: A case study of Daerah Istimewa Yogyakarta province. *Journal of International Development and Cooperation*, *9*(1), 17-39.

Susanto, B. (2008). Indonesia betrayed: How development fails. *Journal of Asian Studies*, *67*(4), 1500-1502.

Tambunan, T. (2005). Economic growth, appropriate policies and poverty reduction in a developing country: Some experience from Indonesia. *South Asia Economic Journal*, *6*(1), 59-78. doi:10.1177/139156140500600104

Tambunan, T. (2003). Urban poverty and social safety nets in Indonesia. *Silver Platter Information*.

Taylor, R. A. (1974). Credit unions and cooperative banking in developed and developing countries. *Annals of Public and Cooperative Economics*.

Warr, P. G. (2000). Poverty incidence and economic growth in Southeast Asia. *Journal of Asian Economics*, *11*, 431-441.

World Bank. (2004). *World development report, 2004*. New York, NY: Oxford University Press.

World Bank. (1999). *Project appraisal document on urban poverty project in Indonesia*. World Bank.

World Bank. (2013). *Indonesia overview*. Retrieved March 24, 2014, from http://www.worldbank.org/en/country/indonesia/overview

World Summit for Social Development (1995 : Copenhagen, Denmark). (1996). *Report of the world summit for social development: Copenhagen, 6-12 March 1995 (A/CONF.166/9)*. Retrieved from United Nations website: http://www.un.org/documents/ga/conf166/aconf166-9.htm

Yusoff, M. B., & Febrina, I. (2014). Trade openness, real exchange rate, gross domestic investment and growth in Indonesia. *The Journal of Applied Economic Research*, *8*(1), 1-13.

Yusuf, N., Ijaiya, G. T., & Ijaiya, M. A. (2009). Informal financial Institutions and poverty reduction in the informal sector of Offa town, Kwara state: A case study of Rotating Savings and Credit Associations (ROSCAs). *Journal of Social Sciences*, *20*(1), 71-81.

Zaidi, M. A. (1998). Poverty measurement in the European Union: Country-specific or union-wide poverty lines? *Journal of Income Distribution*, *8*(1), 77-92. doi:10.1016/S0926-6437(99)80005-5