

Exploration of Consumption Patterns to Form Financial Management Model for Poor Families in Bandung, Indonesia

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ABSTRACT

Poverty alleviation, particularly in urban areas, is often an indicator of development for developing countries. This issue can be addressed not only by the government but also by empowering poor families. Accordingly, the management of family finances should be considerably focused on spending that meets the elements of a healthy, productive, and well-oriented family, that is, to invest in human capital. This research is a preliminary study to explore the financial management of poor families. In particular, this study aims to describe and explain the spending pattern of urban poor households and explore the factors that may cause such pattern. A survey involving poor families that receive food, health, and education subsidies was conducted in Bandung. Interviews and observations were carried out to obtain an in-depth information on consumption patterns. In addition, valid data were generated from the questionnaires and were processed thereafter using descriptive statistics. Results showed the consumption pattern of poor families and the factors that may explain such pattern. In addition, poor families are less likely to invest in human capital; hence, a financial management model should be developed. Therefore, further data processing and extensive interviews are necessary to generate a financial management model for poor families.

Keywords: Poverty, Consumption pattern, Family Financial Management

1. INTRODUCTION

The first approach in measuring poverty is through revenue as practiced by the World Bank, which defines absolute poverty as having a maximum income limit of 1 USD or 2 USD per capita (Banerjee, 2007). To overcome poverty, subsidies in the form of income can be provided to poor families. The second approach in measuring poverty is through the spending carried out by poor families. Amendah (2014) studied the spending patterns of slum dwellers in Nairobi by dividing the main expenditure item by the food and non-food consumption. Johnson (2004) stated that income and consumption are complementary in measuring welfare and poverty.

The process of determining the consumption pattern of the poor also means recognizing the quality of their lives. Nnamdi (2015) analyzed the relationship between the main types of consumption and the household characteristics that apparently affect the former, including the issue of gender (i.e., when a woman is the head of a household). A few of the major expenditure items of concern to Nnamdi are education, health,

retirement preparation, and food. Several types of expenditures are similar to what was described in the concept of human development, the success of which relies on education, health, and purchasing power. In addition, Tanveer (2014) analyzed the effects of inflation, income, social influence, gender, and mood states on the impulse buying behavior.

From 2006 to 2015, Indonesia's poverty rate fluctuated and experienced a downward trend from 39.30 million in 2006 to 28.59 million in 2015 (BPS, 2015). The Gini index also showed an increase from 0.36 to 0.41 in the same period. Thus, the problems of the poor should still be discussed and resolved to improve their quality of life and cut the chain of poverty that has existed for numerous generations.

The national socio-economic survey conducted in 2015 by BPS (Statistics Indonesia) in Indonesia indicated that the percentage of the average per capita expenditure on food and non-food to the total expenditure is different based on the area of residence. The expenditures of urban and rural residents also have a different pattern. A large percentage of the expenditure of people living in rural areas is for food, whereas that in urban areas is for non-food items. In urban areas, the percentages of the food and non-food expenditures amounted to 44.57% and 55.43%, respectively, whereas those in rural areas reached 55.83% and 44.17%, respectively (BPS, 2016).

Bandung is one of the major cities in Indonesia but is also confronted with the problem of poverty. In 2015, 114,000 people out of this city's 2.48 million population were categorized as poor. In the same year, the Gini ratio of Bandung (i.e., 0.40) was not considerably different from that of the national level. Accordingly, the situation of the poor in Bandung is a reflection of the overall urban poverty in Indonesia.

This study will address three concerns through the survey conducted. The first concern is to determine the income, including subsidies, of poor families included in the survey. The second is to determine the details of the consumption patterns and quality of life of the respondents, who represent the poor families in Bandung. Lastly, the most important concern is to explore the possible factors or characteristics of the family that affect consumption patterns. We are optimistic that the results of the survey will result in the development of a family financial management model for poor families to serve as an intervention effort to improve their quality of life.

2. LITERATURE REVIEW

Poverty from the Perspective of Economics

Millions of people around the world live in hunger, dwell in slum areas, suffer from various diseases, and possibly immersed in hopelessness. This depiction of poverty often occurs even in the midst of high economic growth, which is recognized as a measure of economic development. Many global institutions, including the World Bank, focus on effort to alleviate poverty. In the context of economic development, poverty is often viewed as a problem that should be disconnected from the system.

Ragnar Nurkse's theory of Vicious Circle of Poverty states that poverty is a systemic problem (Drechsler, 2009; Li, 2015). This problem is systemic in the sense that a poor family may have children who will eventually become poor as well. A few systemic channels may simultaneously lead to poverty. First, systemic poverty can be viewed from the level and variation of consumption. Poor families (i.e., those that produce low value added) tend to have inadequate access to health services, thereby resulting in their members' low nutritional status, poor health, and, ultimately, low performance that

leads to low production levels (back to being poor). Second, systemic poverty can be viewed from the science circles. Poor families (i.e., those with low income) tend to have limited access to educational facilities. Thus, their children will also have low education level and will eventually work in sectors that produce low value added. Third, systematic poverty can be viewed from the accessibility of capital. Poor families (i.e., those with low income) tend to have low savings. Thus, the ability to accumulate capital is considerably low and eventually results in a substantially low ability to generate added value.

Consumption Pattern of Poor Families

This study defines consumption pattern as the contribution of the consumption types, which are divided into several classifications, at a certain time. Brewe (2006) studied on the consumption patterns of poor families in the UK. He divided the poor into several levels ranging from the poor to poorest. He observed that the consumption patterns in the community level are different from one another. Furthermore, Brewe stated that consumption patterns are better indicators in explaining poverty compared with revenue.

Researchers have formulated simple and detailed classifications of expenditure. Sumaya (2016) simply divided household expenditure into food and non-food expenditures, while other researchers presented substantially detailed classifications. Sugema (2010) conducted a research on the impact of inflation on poverty in rural areas and classified consumption into various groups. These classifications are as follows: food (e.g., processed food, beverages and tobacco), housing (e.g., water, gas, electricity, and fuel), fabrics and clothing, health, education, sports and recreation, transportation, communications, and financial services. Sugema observed the conditions of urban poverty in Indonesia through such classifications of consumption. Hossain (2011) analyzed the consumption of rural communities in Bangladesh in a different manner, that is, he associated consumption with the identity of the poor. Therefore, apart from the expenditures for food, clothing, housing, education, and health facilities, expenses associated with festivals are also identified. These expenditure types include Eid alMubarak for Muslims, New Year for Bengalis, and Durga Puja for Hindus.

Castner (2010) observed the consumption pattern of the poor in the US using secondary data from the US Census Bureau survey within the last 50 years. Castner's findings include the percentage of poor families' spending by type of major expenditure. Nearly 40% of the total expenditure of poor families for housing includes rent or payments of mortgage, utilities, interest mortgage, and property taxes. Moreover, Castner explained that as incomes increase, the percentage of spending on clothing and transportation also increases. Khalil (2014) studied the consumption patterns of housemaids who are mostly women from the rural areas. In particular, he compared their consumption patterns before and after they returned to their respective hometowns. Evidently, the study links gender and culture issues with consumption patterns. Consistent with Khalil, Lanjauer (2015) also conducted a research on family consumption patterns associated with the presence of women who manage the family finances.

Minsoo (2011) analyzed the decision-makers in terms of consumption in Korean families. The results suggested that families with the wives as dominant decision-makers spent more on children's education compared with those with the husbands as dominant decision-makers. Thomas (1990) determined that families in Brazil where the

mother is the decision-maker have higher expenditure on health compared with other families.

Determinants of Consumption Pattern

Previous studies on the determinants of the consumption patterns of poor households indicate a variety of such factors, which range from the family's external factors to the characteristics of the family itself. Thus, we may have difficulty arguing that these factors are independent and affect the consumption patterns of poor societies. By contrast, "factors" are symptoms that occur simultaneously or characteristics that surround poor families. Thus, prior to determining the factors that influence the consumption patterns of the poor in Bandung, this study will first explore the relationship between symptoms and characteristics.

Macroeconomic factors that are frequently associated with poverty include inflation. Families with higher income have an opportunity to change their respective revenue portfolios to minimize the negative impact of inflation. By contrast, poor families lack the opportunity to improve their income portfolios because they do not have significant assets. Consequently, poor families will bear the negative impact of high inflation. Sugema (2010) analyzed the effects of inflation on poverty and showed that poor households in rural areas are considerably vulnerable to economic shocks, particularly inflation. In a detailed analysis, fluctuations in the prices of food and its products have substantial impact on poverty compared with non-food commodities. Apart from economic issues, cultural and social factors at the macro level are also suspected to affect the consumption of poor families (Seda, 2013). Khalil (2014) supported the idea that culture, particularly materialism, influences consumption patterns.

Another macro factor that influences consumption patterns is the location of urban and rural residence areas (Geetha, 2011). It may be linked to the availability of consumer products (Hubacek, 2007) and is easier to determine in urban areas than in rural areas. Brewe (2006) also highlighted the ease of borrowing money as an external factor that likewise affects the consumption patterns of poor families.

Internal family factors are also alleged to affect consumption patterns. The first internal factor is the age of the head of the family, that is, the higher the age of the head of the household is, the higher the family expenditures will be (Brewe, 2006; Castner, 2010; Caglayan, 2012; Sekhampu, 2013). Furthermore, the age of the head of the family has an effect on the variations in family consumption. Gounder (2012) and Sekhampu (2013) reported that the second internal factor is the educational level of the family. The head of the family's educational level is presumably related to productive household spending, particularly spending on education. Sekhampu (2013) and Patrick (2015) identified the third internal factor as the type of work of the head of the family. Patrick determined that certain types of work can bring certain tendencies in consumption patterns and suggested a link among the types of fishing and non-fishing work with the consumption patterns of poor households. The fourth internal factor is related to gender, that is, whether a male or female dominates the decision on consumption. Previous studies determined that spending on education or health will be considerably high when women dominate the consumption decisions (Thomas, 1990; Khalil, 2014; Nnamdi, 2015; Lanjawer, 2015). The fifth internal factor is the income level and ability to save, which are also expected to affect the consumption pattern of households (Brewe 2006; Hubacek, 2007; Caglayan, 2012; Sekhampu, 2013). Several other factors, such as

marital status (Caglayan, 2012) and household size (Sekhampu, 2013), were also reported to affect the pattern of family consumption.

Family Financial Management

After knowing the types and levels of income, consumption patterns, and the factors that influence the consumption patterns of poor families, the next step is to develop a model of family financial management that matches the target households. This study defines family financial management as the effective and efficient money management of a family to achieve its goals through specific strategies. Among the characteristics of a productive life is the fulfillment of nutritional standards in food consumption, residence that meets health standards, and access to health facilities. Given the preceding discussion, the last step needed is to formulate the strategy to develop a model of family financial management. Several previous studies related either directly or indirectly on the management of family finances provided a few lessons. The first is the recording of all income and expenses that have been undertaken. Lanjawer (2015) stated the importance of financial management practices, such as creating a budget, taking note of expenses and savings, and investment performed by of poor families. The next step is to save as a form of a long-term investment to anticipate long-term expenditures, such as the children's education expenses.

Weiss (2005) stated that low-income families have a motivation to save but is hampered by the cost of raising a child and their income level. In terms of the effort to save money, Kumar (2013) highlighted the importance of financial inclusion for poor families.

3. METHODOLOGY

Population and Sample

The study population involved households included in the category of poor families. We referred to the definition from "Badan Kependudukan dan Keluarga Berencana Nasional" (National Agency of Population and Family Planning), which states that a poor family is a family included in the stage of Pre-Prosperous Family (P-PF) and Prosperous Family Stage 1 (PF-I). By 2015, the population of the Kiaracandong Subdistrict is 132,135 people, divided into 34,082 families and is the third largest population among the 30 subdistricts in Andung City. From the total number of families, 1,937 belong to the P-PF category and 13,366 are included in the PF-I family. That is, 44.90% of the total households in the Subdistrict Kiaracandong are P-PF and PS-I households or poor households. Kiaracandong Subdistrict consists of six kelurahan ("villages"), with most households included in two keluharans, namely, Kelurahan Babakan Sari and Kelurahan Sukapura. As the two largest kelurahan in the subdistrict, the number of subsidized rice beneficiary households is also the highest. Kelurahan Babakan Sari has 9,950 families receiving subsidized rice, while Kelurahan Sukapura has 6,881 families receiving rice subsidy.

Therefore, the population of this study is the poor households (total of 16,831 households) that receive rice subsidy located in Kelurahan Babakan Sari and Kelurahan Sukapura in the Subdistrict Kiaracandong in Bandung. A total of 160

households were surveyed, 80 of which were from Kelurahan Babakan Sari and 80 from Kelurahan Sukapura. If calculated using Slovin's formula, then the sample size of the 160 respondents was obtained with a fault tolerance limit of 8%.

Survey and Respondent

The survey was conducted by first visiting the Kiaracondong Subdistrict Office to ensure that the selection of Kelurahan Babakan Sari and Kelurahan Sukapura was in accordance with the criteria of the number of households that receive rice subsidy. Thereafter, the kecamatan survey was continued to the offices of Kelurahan Babakan Sari and the Kelurahan Sukapura to obtain information and data on the beneficiary households in each kelurahan. The officers in Kelurahan Babakan Sari and Kelurahan Sukapura provided the list of household heads and home addresses of the families that receive rice subsidy. From the list of recipients, a few households were randomly selected to be part of the research sample.

Each respondent was visited and interviewed within two visits. The first visit was made to obtain information and general household data and to explain each question and how to complete the questionnaire. After the explanation, questionnaires are given at each respondent's home to be filled directly. This method was used because of the detailed questions, particularly on family consumption expenditure. The questionnaire must be filled together by the husband and wife of the respondent family. The second visit was made one week after the first. On the second visit, the survey team gathered the xcompleted questionnaire and clarified every answer of the respondent.

Questionnaires

The research questionnaire consisted of three main parts, namely (1) identity, demographic, and socioeconomic characteristics of the respondents; (2) family consumption expenditure; and (3) wage income, salary and operating income, other receipts and non-consumption expenditures.

The division of the questionnaire into (2) and (3) was made by adopting the grouping of the expenditures and income on the questionnaire of the National Socio-Economic Survey (Susenas) from the Central Bureau of Statistics. With the simplification of the Susenas questionnaire, family consumption expenditure was divided into (1) expenditure on food, beverage, and tobacco consumption; and (2) expenditure on non-food consumption.

Expenditures on food, beverages, and tobacco were subdivided into further specific components: (1) home cooked food, (2) finished food, and (3) cigarettes and tobacco. Expenditures for non-food consumption goods were further classified into: (1) housing and household facilities, (2) water and energy, (3) health, (4) education, (5) transportation, (6) clothing, and (7) other goods and services.

The last part of the questionnaire inquired on the amount of revenue derived from (1) wages or salaries; (2) income from family businesses outside wages and salaries; (3) other receipts derived from government assistance, family assistance, or other parties; and (4) non-consumption of family expenditures (i.e., savings and other investments).

Data analysis method

Data and information obtained from the interviews and questionnaires were further processed and analyzed using the following methods.

1. Frequencies Analysis.

This analysis is part of a descriptive statistical analysis to provide an overview of the maximum, minimum, and average values from a few important data, which are the main indicators to analyze family consumption patterns. The results of this analysis will complement other analyses performed in this study.

2. Correlation Analysis

Correlation analysis was used to test and analyze the relationship between the variables studied. For example, this study aimed to determine whether a relationship exists between demographic factors, such as the number of family members, and the amount of family consumption expenditure.

Results and Discussion

Consumption Pattern

In this study, the consumption pattern is generally divided into two major groups, namely, consumption expenditure for food and consumption expenditure for non-food. Furthermore, food expenditure is divided into the following specific components: (1) home-cooked food, (2) finished food, and (3) cigarettes and tobacco. Expenditures for non-food consumption items are specified as follows: (1) housing and household facilities, (2) water and energy, (3) health, (4) education, (5) transportation, (6) clothing, and (7) other goods and services.

The results of the survey involving 159 respondents who belong to the P-PF and PF-I represented by households the receive rice subsidy in Babakan Sari and Sukapura Sub-districts showed that the average age of respondents was 49 years and the average number of family members was 4. The average educational level of the family is junior high school. The livelihoods of the respondents are as non-permanent workers, while others are self-employed without any assistance.

The surveyed households are poor and vulnerable-to-poor households that have different consumption pattern characteristics compared with non-poor households. This pattern of poor household consumption can be analyzed by calculating the household expenditure that will meet food and non-food consumption at a certain time or period. In general, the household consumption expenditure for food in poor households is higher than that for non-poor households.

The results showed that the average consumption expenditure percentage for food was 55.39% and the percentage of non-food consumption expenditure was 44.61% (see Table 1). If the percentage of the expenditures on the food and non-food consumptions is calculated by the household consumption expenditure quintile, then the higher the household consumption expenditure quintile, the lower the percentage of consumption spent on food.

Table 1 shows that in the lowest quintile or first quintile, the highest percentage of food consumption expenditure is 61.55%. Thus, the poorer the household group, the higher the percentage of consumption expenditure for food. By contrast, the more prosperous a household is, the higher the consumption expenditure for non-food. Brewe (2006) also

explained the diversity patterns of the household consumption of different income levels.

The results of the expenditure calculations based on the quintile of the household expenditure surveyed did not differ considerably from the results of the BPS Susenas in March 2016. This result showed that at the national level, the percentage of monthly per capita expenditure on food in the first to the fourth quintile is still above 50% (BPS, 2016). If it is linked to the supporting theory, then this condition is in line with Engel's law, which explains that the percentage of consumption expenditure for food will decrease in line with the increase in income (assuming the level of taste does not change).

Tabel 1. Monthly Average Household Expenditure of Food and Non Food by Quintile Expenditure

Expenditure Quintile	Average % Expenditure of Food to Total Expenditure	Average % Expenditure of Non Food to Total Expenditure
Quintile 1	61.55	38.45
Quintile 2	57.08	42.92
Quintile 3	54.96	45.04
Quintile 4	51.03	48.97
Quintile 5	52.39	47.61
Total	55.39	44.61

The results of other studies show that in the poor household groups targeted by the US subsidy program, the percentage of food consumption expenditure is higher than households that are not subsidized (Castner, Laura & Mabli, James, 2010). The results of the research in Nigeria and India on the poor shows the same conditions that the percentage of consumption expenditure on food is higher than the other consumption expenditure percentages (Nnamdi, A. C., Sebastine, A.I., & Junior, E.O. 2015). Previous research conducted in India also concluded that the percentage of spending on food was higher than that for non-food items (Mor, Kiran & Setia, Savneet. 2014).

Tabel 2. Monthly Average Household Expenditure By Type Expenditure

Component of Household Expenditure	Monthly Average Household Expenditure (Rp)	%
Food	1,096,773	55.39
Home Cooked Food	829,073	41.87
Finished Food	156,225	7.89
Cigarettes	111,475	5.63
Non Food	883,356	44.61
Housing & Household Facilities	78,019	3.94
Water & Energy	226,925	11.46
Health	16,239	0.82
Education	104,751	5.29
Transportation	96,830	4.89

Clothing, Footwear, & Headgear	52,278	2.64
Durable Goods	70,099	3.54
Other Goods	77,820	3.93
Other Services	64,555	3.26
Saving & Investment	95,840	4.84
Total Household Expenditure	1,980,128	100.00

The pattern of consumption of poor households is also different from that of non-poor households in terms of consumption expenditures by type. The results of previous studies show that in poor households, consumption expenditures for self-cooked meals at home are higher than consumption expenditures for food purchased outside the home (Castner, Laura & Mabli, James. 2010). Consumption of food respondents surveyed also showed the same pattern with the results of the study. Figure 1 shows that the average monthly household consumption expenditure for food cooked at home is higher than the average monthly consumption expenditure for food purchased outside the home.

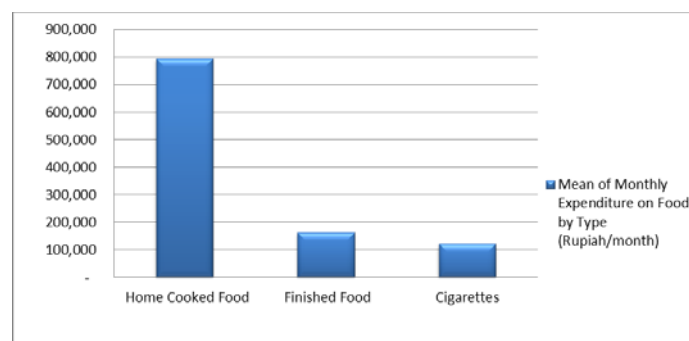


Figure 1. Mean of Monthly Expenditure on Food By Type

From the average monthly household expenditure composition for food, there are still 48.43% of households with family members who smoke. The average monthly household expenditure on cigarettes of the family is Rp 243,831, whereas the average monthly household expenditure to buy eggs, milk, and vegetables is only Rp 134,553. If calculated in the average percentage of monthly household expenditure on cigarettes to total household expenditure on food, then the average percentage of expenditure on cigarettes is 18.94%. This value is higher than the average percentage of household expenditure for eggs, milk, and vegetables which is only 10.92%. From similar consumption patterns, households with family members who are still smoking ignore the fulfillment of nutritional needs for his family. These findings are consistent with the results of Susenas (National socio-economic survey) 2016 in Indonesia. The national average per capita monthly expenditure of Indonesians for cigarettes (13.8%), which is proportional to spending on vegetables (7.49%) and eggs and milk (6.08%).

Once basic food needs are met, other non-food needs strive to be met. Household expenditure to meet non-food needs is divided into nine non-food expenditure categories, namely, expenditure for (1) housing and household facilities; (2) water, gas, electricity, and fuel; (3) health; (4) education; (5); transportation; (6) clothing, footwear, and headgear; (7) durable goods; (8) other goods; and (9) other services. The division of household expenditures for non-food is consistent with the grouping of household

expenditures in a few previous studies (e.g., Nnamdi, A. C., Sebastine, A.I., & Junior, E.O, 2015; Castner, Laura & Mabli, James, 2010).

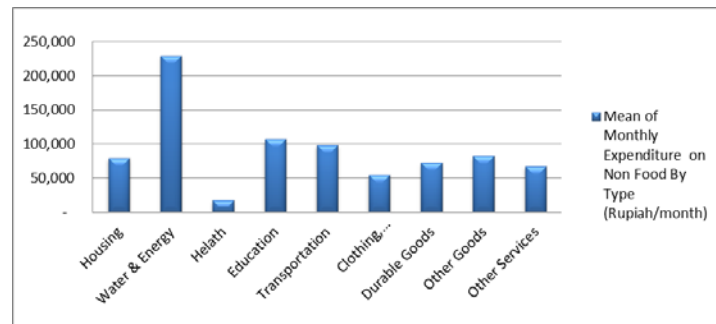


Figure 2. Mean of Monthly Expenditure on Non Food by Type

Figure 2 illustrates the pattern of poor and vulnerable-to-poor households to meet their non-food needs. In the non-food expenditure group, the three highest expenditure groups on average monthly household expenditure are water and energy, education, and transportation. The amount of spending for this electricity, water, gas and fuel group was triggered by the high inflation of goods. BSP data from BPS (from January to April 2017) indicate that inflation for electricity, water, gas and fuel is the highest followed by transportation expenditure. Inflation is one factor that increases household expenditures (Sugema, 2010). The highest monthly average expenditure among water, gas, electricity, and fuel oil group is electricity.

The average monthly household expenditures for water, gas, electricity, and fuel were contributed by electricity expenditure (33.93%), gas (29.06%), water (20.35%), and fuel (19.66%). Electricity expenditure dominates the expenditure of water and energy group with an average monthly household expenditure of Rp 82,000. The cost of electricity is large due to many respondents who rent a house and use electricity with a token or pre-paid system. Electricity with this token system uses non-subsidized electricity tariffs; thus, the monthly spending of households using token electricity is considerably large compared with households using electricity with postpaid systems that can still utilize subsidized electricity.

Household spending on education is still the second largest after expenditure on water and energy. The amount of expenditure for education is generated by households that have school children in the senior high school and college levels. Unlike primary and junior high school education, where students are exempted from tuition fees, students in high school have to pay for it, except those who avail of free tuition fee facility. However, government assistance for the education of children from poor families with Indonesia Smart Card (KIP) enables the poor and vulnerable-to-poor family to still finance the cost of education by using KIP. The amount of the KIP funds for elementary students is Rp 225,000 per semester, junior high school students receive Rp 375,000 per semester, and high school students are given Rp 500,000 per semester. Transportation cost is also a large component of household expenditure, particularly for those who do not have motor vehicles and have children who are in junior high school, high school and college, because of the distance of the school from their house. In contrast to households with children who are still in elementary school, they generally go to school that is near their house, thereby enabling them to reach school on foot. At the level of

higher secondary and higher education, households have to spend considerably on transport and private coaching (Rao, 2014).

Another major component of household expenditure on non-food items is expenditure on other goods, which are dominated by spending on body cleaning, clothing, cosmetics, and communication. In addition, spending on housing and housing facilities is quite high and is dominated by expenditures to rent houses. From the total of 159 respondents, 27 respondents are still renting with an average monthly cost of Rp 360,000. Expenditures on housing for those who own homes are mostly used for annual home maintenance.

The expenditure component for durable goods is dominated by the payment of two-wheeled motor vehicles. Payments range from Rp 400,000 to Rp 800,000 per month. However, health expenditure is the lowest because most of the respondents are participants of the National Health Insurance (NHI) having a Healthy Indonesia Card or as a participant of Social Security Administering Body. As an NHI participant, the respondents can have treatment and maximize other health facilities in public or private hospitals for free.

Apart from the total consumption expenditure on food and non-food items, the characteristics of poor and vulnerable-to-poor households can also be perceived from the amount of non-consumption expenditures (i.e., savings and investment expenditures that postpone consumption or for consumption in the future). In general, poor and vulnerable-to-poor households can only meet their basic needs for food and non-food consumptions. Nearly all income was spent on basic food and non-food items. Even if a residual income is present, they generally use it for investments in the form of arisan and savings and to repay debt, with average monthly non-household expenditure value of Rp 97,000 (see Figure 3).

For poor households, saving or investing is generally a difficult task. Sugiyanto et al. (2012) explained that with low and uncertain income, poor households have two reasons for their difficulty in saving or investing. The first is the numerous necessities in life that makes poor households struggle just to survive. They lack the ability to set aside a percentage of their income for precautionary purposes. The second reason is that they lack knowledge on how to save or invest effectively to increase their wealth.

Poor households in rural Tamil Nadu rarely access formal financial institutions compared with those living in the city. Most of them manage small savings and credit access for livelihood purposes from microfinance institutions only. Evidently, the poor have complex financial lives and use various financial instruments, whether formal or informal, that are either related to the bank or not (Kumar, L., & Mukhopadhyay, J.P., 2013).

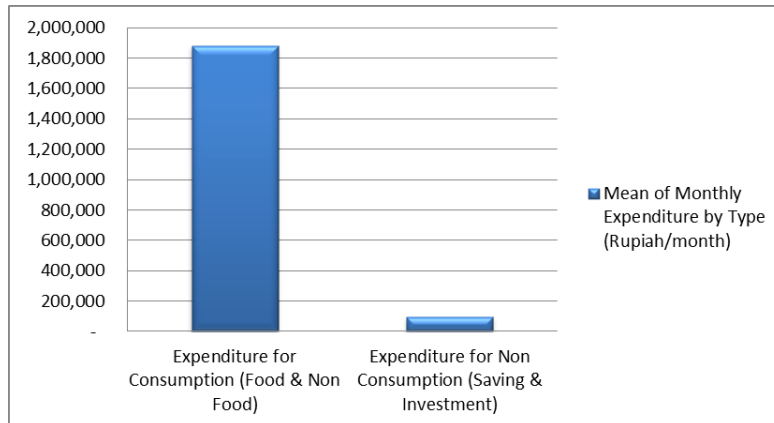


Figure 3. Mean of Monthly Expenditure for Consumption (Food & Non Food) and Expenditure for Non Consumption (Saving & Investment)

Types and Flow of Income

In consumption pattern and financial management analysis, family income is the sum of all household members' income from several sources, namely, (1) salaries, wages, and business profits received by all working members of the family; (2) government aid; and (3) arisan (regular social gathering) and debt. Tables 3 and 4 and Figure 4 show the total household income and composition of household income (by sources of income). Household monthly income varies with a minimum value of Rp 800,000, maximum value of Rp 4,275,000, and average value of Rp 2,139,434. The total monthly average income is Rp 1.258,607 in the lowest quintile and Rp 2,801,726 in the highest quintile.

Table 3. Monthly Average Total Household Income

Income Quintile	Average Total Household Income (Rupiah/Month)
Quintile 1	1,258,607
Quintile 2	1,732,487
Quintile 3	2,123,323
Quintile 4	2,494,271
Quintile 5	2,801,726

Table 4. Average Percentage of Monthly Household Income by Sources

No.	Source of Household Income	%
1	Salary, Wages & Business Profit to Total Income	88.55
2	Family and government subsidies	9.60
3	Other Sources	1.85

Table 3 shows that the main sources of household income are the salary, wages, and income of family businesses that form 88.55% of the total income. Household income from this primary source is obtained from the head of the family and other family members who work (i.e., wife and working children). Most of the respondents earn income in the form of salary received periodically every month. The salary is received from the job as a janitor in the neighborhood, school cleaners, and factory workers or

workers in private companies and other private businesses. In addition to being permanent or honorary workers in government institutions and in various individual business activities, the respondents' household income was also derived from wages as daily laborers (i.e., laundry, babysitting, and construction workers). Other sources of household income come from businesses ventured by the respondents' family members, such as the benefits of the shop business, receiving sewing services, rented motorcycle business, massage services, rickshaw pullers, and other family businesses. Household income from this business is generally a daily or weekly income with a fluctuating daily value.

The second source of household income comes from family assistance and government assistance that reach 9.60% of the total family income. The assistance coming from the family often originates from working children. Assistance from the government consists of (1) subsidized rice for the poor, (2) assistance to schoolchildren, and (3) other cash assistance.

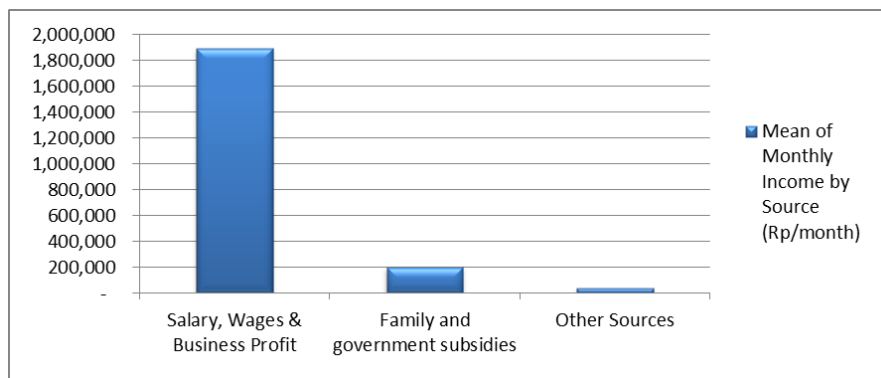


Figure 4. Mean of Monthly Household Income by Source

Assistance received from the family is often obtained periodically each month with a fixed value. Government assistance in raskin (subsidized rice for the poor) is obtained every month, although the distribution is occasionally stagnant. Other assistance from the government includes education grants, which are given twice a year or per semester and can be disbursed directly to the beneficiaries. Other government assistance in Cash Temporary Direct Assistance (BLSM) is given three times a year.

The period of receipt indicates that household income flow consists of (1) daily income, (2) weekly income, (3) monthly income, (4) quarterly income, (5) semi-annual income, and (6) annual income.

Factors Affecting Consumption Patterns

In general, consumption patterns illustrated by poor and vulnerable-to-poor household expenditure show a uniform pattern. For example, when viewed from the composition of household expenditure for food and non-food consumptions, most of the households' income is used to meet food needs. This pattern of poor and vulnerable-to-poor household consumptions is common in nearly all countries. This pattern of consumption is certainly formed from the factors that influence it. Factors that affect and have a close relationship with consumption patterns consist of social, demographic, and economic factors. The influence of each of these factors on the pattern of poor and vulnerable-to-poor household consumptions can be analyzed using the following correlation analysis.

Table 5. Correlation of Demographic Factors and Household Expenditure for Food

	Monthly expenditure for homed cooked food	Monthly expenditure for finished food	Total Monthly Expenditure for Food	Total Monthly Expenditure for Non Food	Total Monthly Expenditure
Total Household members	.361***	.192*	.349***	.231**	.348***

*** significant at the level 0.01 level; **Correlation is significant at the 0.05; *significant at the 0.1 level

Tables 5 and 6 show that the number of household members is positively and significantly correlated with the household expenditure for food and the total expenditure is at the 99% level. A positive and significant correlation between the number of family members and household expenditure is also determined in previous research results (Ahmed, Redwan, et al., 2015; Nnamdi, AC, Sebastine, AI, & Junior, EO 2015; Gbolahan, 2013; Sekhampu, 2013, Caglayan, 2012).

The number of household members is also positively and significantly correlated with the total household expenditure on non-food items at the 95% level. In the non-food household expenditure group, the number of family members correlated positively and significantly with spending on clothing, footwear, and headgear at the 99% level. Castner, Laura and Mabli, James (2010) explained that more children means higher household expenditure for clothing and footwear. Transportation and energy expenditure is also positively and significantly correlated at the 95% level with the number of household members. The number of family members working correlated positively and significantly with the expenditure of durable goods at the 99% level. Patrick (2015) stated that increasing the number of working family members will make a significant change in the cost of non-food consumption. The expenditure on durable goods is dominated by installment payment on two-wheel motorcycles. The number of family members of the productive age (i.e., 15–64 years) has a positive and significant relationship level with educational expenditure at the 95% Level. The significance of this relationship is due to the considerable age of education in junior high school, senior high school, and college or in the age range of 12–20 years.

Table 6. Correlation of Demographic Factors and Household Expenditure for Non Food

Number of Household Members	Total Monthly Expenditure for Housing and Household Facilities	Total Monthly Expenditure for Water and Energy	Total Monthly Expenditure for Education	Total Monthly Expenditure for Transport	Total Monthly Expenditure for Clothing, Footwear & Headgear	Total Monthly Expenditure for Durable Goods
Men	-.145*	-.028	.030	.121	.041	-.014
Women	.054	-.014	.093	.230**	.031	-.059
Total household members	.061	.200**	.095	.229**	.290***	.093
Working	.047	.065	-.074	.009	.042	.138*
Productive age	-.033	-.071	.165**	-.018	-.084	-.077

*** significant at the level 0.01 level; **Correlation is significant at the 0.05; *significant at the 0.1 level

Table 7. Correlation between Number of Household Family Members Who Still at School and Household Expenditure

Number of Household Members	Monthly expenditure for finished food	Total monthly expenditure for education	Total monthly expenditure for transportation	Total monthly expenditure for clothing, footwear & headgear	Total monthly expenditure for non food	Total monthly expenditure
In elementary school	.138*	.074	-.061	.111	.055	.056
in junior high school	.032	.105	.096	.181**	-.045	-.031
in senior high school	.051	.463***	.420***	.219*	.212**	.180**
in college	-.066	.533***	.059	.063	.149*	.123
Total number of children who still at school	.118	.458***	.236**	.294***	.153*	.139*

*** significant at the level 0.01 level; **Correlation is significant at the 0.05; *significant at the 0.1 level

The number of children who are still in school will certainly lead to spending substantially on education. The relationship between the number of school-aged children and household expenditure can be analyzed by correlation analysis (see Table 7). Table 7 shows that the number of family members (children) who are still in school (including college) has a positive and significant relationship with several components of household expenditures, namely, education expenditure, transportation, clothing expenses, footwear and headgear. The positive and significant relationship between the number of school children and education spending is consistent with Oluwakemi (2015). Meanwhile, a positive and significant relationship between the number of school children and transport expenditure was also determined in Rao (2014). The number of school children is also positively and significantly correlated with the total household expenditures for the non-food and with the total household expenditures. The number of children who are at the primary school level is positively and significantly correlated with the amount of expenditure on finished food purchased outdoors at the 90% level. By contrast, the number of children enrolled at the junior high school level has a positive and significant relationship with household expenditure on clothing, footwear, and headgear at the 95% level. In contrast to the number of family members who are still in primary and junior high school levels who are not significantly related to education spending, the number of family members still studying in junior and high school is positively and significantly correlated at the 99% level with educational expenditure. This result is reasonable because at the high school and college level, the family still have to pay tuition fee with a high price.

Table 8. Correlation between Number of Household Family Members and Household Income

Household Members	Total Monthly Income from Wages & Salary	Total Monthly Subsidy from family and government	Total Monthly Family Income
Total household members	.251***	.053	.276***
Number of household member in elementary school	.067	-.135*	.006
Number of household member in junior high school	-.012	-.147*	-.077
Number of household member in college	.031	.167**	.092

*** significant at the level 0.01 level; **Correlation is significant at the 0.05; *significant at the 0.1 level

Apart from correlating significantly with household expenditure, the number of family members is also correlated with the amount of income derived from salaries and wages (see Table 8.). Households with more working family members certainly have extensive opportunities to earn additional income. Aside from revenues derived from salaries, wages, and businesses, the results show that household income also received additional revenues from the assistance of relatives and the government. The types of government assistance commonly received by poor and vulnerable-to-poor households are subsidized rice for the poor and education funding. Educational funding is provided to households that have children in school. This result is expected because the results of the correlation analysis in Table 8 show the number of primary and junior high school children is correlated to the 90% level with the amount of assistance or subsidy received by the respondents.

Table 9. Correlation between Household Expenditure and Household Income

	Total Monthly Income from Wages & Salary	Total Monthly Non Earned Income from family and government	Total Monthly Other Receive from and other sources
Monthly expenditure for homed cooked food	.542***	.125	.004
Monthly expenditure for finished food	.448***	.127	.185**
Total Monthly Expenditure for Food	.583***	.143*	.071
Total Monthly Expenditure for Cigarettes	.276***	.091	-.001
Total Monthly Expenditure for Housing and Household Facilities	.182**	.000	-.013
Total Monthly Expenditure for Water and Energy	.352***	.167**	-.004
Total Monthly Expenditure for Family Health	.150*	.210***	.024
Total Monthly Expenditure for Education	.110	.163**	-.053
Total Monthly Expenditure for transportation	.165**	.091	-.009

Total Monthly Expenditure for Clothing, Footwear & Headgear	.426***	-.066	-.021
Total Monthly Expenditure for Other Goods	.247***	.051	-.033
Total Monthly Expenditure for Other Services	.419***	.059	.194**
Total Monthly Expenditure for Non Consumption	.792***	.225***	.182**
Total Monthly Expenditure for Non Food	.672***	.207***	.199**
Total Monthly Expenditure	.99***	-.263***	.085***

*** significant at the level 0.01 level; **Correlation is significant at the 0.05; *significant at the 0.1 level

The last correlation analysis explains the relationship between the income component and household expenditure (see Table 9). In general, all components of household expenditure are positively and significantly related to income from salaries, wages, and businesses excluding education expenditures. A positive and significant relationship between household income and expenditure is determined in many other studies (e.g., Brewe 2006; Hubacek, 2007; Geetha, 2011; Caglayan, 2012; Sekhampu, 2013; Patrick, 2015). However, educational expenditure is significantly correlated with the acceptance of family and government assistance. Other household income is positively and significantly related to finished food expenditure, expenditures on other services, non-food and non-consumption expenditures, and total monthly household expenditures.

Financial Management

Financial management of poor and vulnerable-to-poor households is the method of how these households can meet their current and future basic needs, both under normal circumstances and reduced income or increased family expenditure. Therefore, the financial management of poor and vulnerable-to-poor households must be directed to the achievement of a self-sufficient and sustainability condition. The adequacy and sustainability of the finances of poor households is important because in addition to maintaining adequate basic needs (both in quantity and quality), poor households must also have savings or other forms of investment that can be used when the family's financial condition worsens.

A strategy that can synchronize expenditure and income is necessary for the finances of a family to be adequate and sustainable. On the household expenditure side, the basic principle is that households can ensure that there is no waste of household expenses. Accordingly, understanding the following types of needs in household expenditure is crucial: (1) needs and wants; (2) basic, essential, future, and lifestyle needs; (3) needs that cannot be delayed; (4) short-, medium-, and long-term expenditures; and (5) types of savings and investments.

On the revenue side, the basic principle is to understand the method to optimize their sources of income, including (1) wealth and welfare, (2) types of family assets, (3) sources of income, (4) active and passive income, (5) fixed and non-fixed income, and (6) business opportunities to supplement income.

In general, poor and vulnerable-to-poor household heads have limited education; thus, their understanding of the aforementioned aspects is limited. Accordingly, a training activity is needed to increase the literacy of family finance management. To support

literacy improvement activities, an understandable and easy-to-practice family finance management model for target households is necessary. The financial management models of poor and vulnerable-to-poor household can be established based on the analysis of research data and in-depth discussion and in-depth interviews involving targeted household representatives as appropriate sources of information and other sources of reference.

4. CONCLUSION

Different consumption patterns were noted in the 159 poor and vulnerable-to-poor households surveyed in Kelurahan Babakan Sari and Sukapura in the Kiaraconcong subdistrict in Bandung. The result of the analysis shows that the higher the household income, the lower the consumption expenditure composition for food, whereas the consumption expenditure for non-food continues to increase. In the food expenditure component, most are spent on home-cooked food and only a small proportion is buying finished food outdoors. From the households surveyed, many are still consuming cigarettes with a larger expenditure allocation than the allocation of expenditures for consumption of eggs, milk, and vegetables. Given this condition, a few components of expenditure can still be reduced to enable the allocation that will meet other important consumption needs.

The expenditure of poor and vulnerable-to-poor households is dominated by spending on electricity, gas, water, fuel, education, and transportation expenditures. Electrical, gas, water and fuel expenditures and transportation expenditures are significantly influenced by the number of household members. The number of school-aged children becomes the determinant of educational expenditure and is also a triggering factor that leads to a substantially high transport expenditure. Given the government's health assistance program through the KIS facility, poor and vulnerable-to-poor households are highly assisted and they no longer spend money to pay for their health expenditures. Therefore, the health expenditure of the surveyed households is the lowest component compared with other non-food expenditure components.

Household consumption expenditure is a function of income. Household income is positively and significantly correlated with household expenditure. Most household incomes come from salaries, wages, and household profits, which are often non-permanent. Poor and vulnerable-to-poor families also receive additional income from family assistance and government assistance in the form of Cash Temporary Direct Assistance (BLSM) program and Indonesia Smart Card (KIP).

In general, poor household conditions are similar with their limited ability to set aside a percentage of their income to save or invest. A substantial portion of household income is spent on food and non-food items; hence, only a fraction is spent on non-consumption (savings and investment) purposes. For poor and vulnerable-to-poor households, future saving and investment are components of non-consumption expenditure that is essential to maintain their financial adequacy and sustainability. Therefore, a household financial management model that is understandable and easy to implement in their daily lives should be created.

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