

# Perceived Effects of Inflation on Budget Consumption of Public Secondary School Teachers in Ragay, Camarines Sur, Philippines

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**Abstract**– *Inflation rate in the Philippines is consistently increasing for the past few periods and has been the highest among the ASEAN countries. Inflation is the general rise in the prices of goods and services thus leading to a fall in the value or purchasing threshold of a country's currency. This descriptive-correlational research determined the teachers' perceived impact in their budget consumption and decisions caused by inflation for the period of 2017-2018. Survey design that was utilized to collect data is a self-developed questionnaire-checklist. Sample of 218 public secondary school teachers in the local government area of Ragay were selected from the entire population of the study using convenience sampling. The data collected were analyzed using simple descriptive statistics and Pearson r correlation to test the hypothesis. The study reveals that the teachers agreed that there were increases in prices of goods and services for the period. The public secondary school teachers also agreed that there were changes in their budget consumption and decisions, such as escalation of household and personal expenditure, substitution of preferences, reduction of quantity of consumption, engagement in part-time jobs and other income-generating activities, realization of less savings, and incurrence of loans and borrowings. Consequently, based on the findings, there is a moderate positive correlation that exists between the teachers' perception on inflation and changes on budget consumption and decisions. The relationship is found to be significant.*

**Keywords** – *changes on budget consumption, inflation, local government area of Ragay, perception on inflation, public secondary school teachers*

## INTRODUCTION

In this globalization era, inflation is one of the major challenges of most economies in the world and affects the growth of both developing and developed countries in diverse ways. As defined, inflation is the persistent rise of the general level of prices of goods and services for a period of time in a given economy [1]. Inflation reflects the devaluation of a country's currency, reducing the purchasing threshold of each unit of money. Consequently, it is the loss of real value of the unit of exchange within the economy, which means each unit of currency buys fewer goods and services as the price level increases [2]. There are various means to determine the inflation rate in a particular economy, but the conventional gauges being used by many countries are consumer price index (CPI), which measures the price changes of

elementary goods and services, and GDP deflator, which measures price changes on goods and services produced and rendered domestically [3].

Inflation reduces the purchasing power of each income earner and consequently leading to social and economic instability in an economy [4]. This conclusion has been strengthened by studies of [5], who concluded that inflation is detrimental for the growth of an economy in the longrun, [6], who viewed price stability is one of the crucial instrumentalities of economic growth, and [7], who identified the economic costs of inflation as erosion of standard of living, distortion of the economic decision-making with regard to investment, saving and production that then ultimately lead to slower economic growth.

The dynamic rise in prices made the effect of inflation on consumption evident. Findings on the study of Nyamekye & Poku [8] showed stable positive

significant short and long-term relationship between inflation and consumer spending behaviour. Other studies have also attempted to clearly determine the effects of inflation to consumer behavior. Springer [9] found that inflation and nominal interest rates have different effects on different components of aggregate consumption and for different measures of expected inflation. Likewise, in the periods of high inflation, the consumption to personal income ratio may rise as the nominal interest rates increase, inflating the interest-bearing component of such income [10], [11]. This then leads to excess sensitivity to consumption [12], but when inflation stabilizes, the impact of inflation on consumption rapidly declined [13]. However, Lucas [14] points out that, under the rational expectations/permanent income hypothesis (RE-PIH), consumption follows a random walk and its changes cannot be predicted, thus there is no concrete relationship between consumption and personal income. [15] also argues that the RE-PIH implies that only surprises in permanent income should affect permanent consumption. That is why theoretically, according to [16], it is the wealth, not the income, of an individual that determines consumption.

The Philippines, a developing country, after having a relatively stable inflation rate for several periods, is currently struggling with the continuous increase of inflation, including its economic and social consequences. From January 2016 where inflation rate in the Philippines was recorded to be 0.7%, it has risen to 6.7% on October 2018 – the highest since March 2009. It is also the highest among the ASEAN countries [17]. Various factors, internationally and domestically, have led the persistent increase of inflation in Philippines, which include, but not limited to: (1) increase of oil prices in the world market, brought by the supply cuts as coordinated by the Organization of the Petroleum Exporting Countries (OPEC) and its allied producers, where the country imports almost all of its oil requirements; (2) imposition of higher excise taxes on petroleum products, sweetened beverages and other commodities as the new Philippine tax reform was enacted, the Tax Reform for Acceleration and Inclusion (TRAIN) Law; (3) weakening of peso value, which was recorded to be P54.21 against dollar on the last week of September 2018, the lowest in more than 12 years; and (4) the country's decreasing exports being argued to be one of the reasons of inflation, while the imports is experiencing a larger growth rate, caused by importation of raw materials and capital goods to be utilized in the government's Build, Build, Build

infrastructure projects. For such causes, the Central Bank raised its interest rate by 175 basis points to 4.75% on overnight reverse repurchase facility from January to November 2018. Interest rates on overnight lending and deposit facilities were raised accordingly [18].

The consistent increase in prices may disrupt the whole economy as the currency loses its real value and the people may suffer from its consequences, which may lead to earners demanding for wage increase to offset the higher cost of living [19]. This is currently being faced by the Philippine economy and most Filipinos are being affected in whatever class individuals belong to, in whatever profession individuals are involved in. This study, therefore, focuses on determining the perceived effects of inflation on the budget consumption of the public secondary school teachers in the municipality of Ragay for year 2017-2018. Unlike other studies conducted, however, that relates real rate of inflation to standard of living of individuals for a year-on-year basis, this study attempts to define the effects of inflation on budget consumption of teachers for a single period, using the teachers' perceived assessment on inflation rather than its real rate as an independent variable.

## **OBJECTIVES OF THE STUDY**

The present study was conducted to determine the perceived impact of inflation on budget consumption of public secondary school teachers in Ragay, Camarines Sur over the period 2017-2018). Specifically, it aimed to determine (1) public secondary school teachers' perceived assessment on inflation; (2) changes on their budget consumption and decisions in terms of (a) spending, (b) preferences, (c) quantity of consumption, (d) income supplements, (e) savings, and (f) loans and borrowings; and (3) test of significant relationship between their perceived assessment of inflation and changes on their budget consumption and decisions.

## **METHODS**

### **Research Design**

The descriptive-correlational research design was used. This design describes the degree to which quantitative variables are related [26]. In the current study, it was used to explore to what extent do the teacher's perceived effects of inflation affect their budget consumption.

## Respondents

The respondents were the 218 teachers that were taken from the entire teacher's population from the identified eight (8) secondary schools in Ragay Camarines Sur.

## Data Gathering

The instrument that was used in gathering data is a structured questionnaire-checklist. Only one set of questionnaire was given to the respondents. It is composed of two parts. Part I is about the teachers' perception on inflation consisting of 10 item questions, while Part II is on changes on budget consumption and decisions of the teachers in terms of spending (7 items), preferences (7 items), quantity of consumption (6 items), income supplements (5 items), savings (1 item), and loans and borrowings (2 items), totaling 28 item questions for the second part. The questionnaire was proofread by an English College Instructor, and has been validated by three experts in the fields covered by the present study, a research adviser and a secondary school teacher, an Economics professor, and an accounting adviser. Reliability of the instrument has also been tested through its pilot testing at Colacling National High School. 10 teachers were subjected to the dry run and suggestions and recommendations on each item of the questionnaire have been acquired for the improvement of the instrument.

## Data Analysis

The weighted mean was computed and interpreted using the following:

Scale	Numerical Rating	Descriptive Rating
4.21 – 5.00	5	Strongly Agree
3.41 – 4.20	4	Agree
2.61 – 3.40	3	Moderately Agree
1.81 – 2.60	2	Disagree
1.00 – 1.81	1	Strongly Disagree

Mean was used to gauge the teachers' perception on inflation and their budget consumption. To interpret the result of the correlation, the guidelines suggested by Fraenkel and Wallen [26] were utilized as shown below:  $r$  Description Interpretation .10 -.29 Small Weak .30 - .49 Medium Moderate .50 – 1.0 Large Strong.

Prior to the administration of the questionnaire, the researcher sought for approval in writing to the school heads of the public secondary schools. The researcher personally distributed the questionnaires by

employing the drop-off method of distribution to clarify some questions that were raised by the respondents. Upon retrieval, the answered questionnaires were checked for vague or incomplete answers, and follow-up was made.

## RESULTS AND DISCUSSION

### Perception on Inflation

Teachers' perception on inflation was measured through their assessment on prices of items being consumed and expensed with, which covers both personal and household-related items and work-related items.

Table 1. Perception on Inflation

Indicators	WM	VI
1. Foods and beverages	4.58	Strongly
2. Water and electricity charges	4.16	Agree
3. LPG and other petroleum products	4.54	Strongly Agree
4. Transportation fare	4.10	Agree
5. Tuition fees and other school requirements	4.02	Agree
6. Rental fees on apartments or boarding houses	3.90	Agree
7. Medicines and other healthcare needs	4.00	Agree
8. Apparel, gadgets including cellphone load, cosmetics and other personal wants	4.00	Agree
9. Registration fees on seminars, workshops and trainings	3.81	Agree
10. Materials being used in teaching and in classroom structuring	3.91	Agree
<b>Weighted Mean</b>	<b>4.10</b>	<b>Agree</b>

Presented in Table 1, respondents strongly increased their prices. This is very evident as the food inflation hit 9.7% and inflation on transport, which includes petroleum products, with 8.0% on September 2018, the highest inflation on both classifications since 2009 and 2008, respectively.

Overall, perception on inflation has a weighted mean of 4.10 in the ten indicators with a descriptive rating of Agree, which indicates therefore that the public secondary school teachers of Ragay observed the price increases on goods and services for 2017-2018.

### Changes on Budget Consumption and Decisions

Table 2 shows the responses of the teachers to which among their expenditure categories have escalated for the period 2017-2018.

Table 2. Perception on Inflation

Indicators	WM	VI
1. Higher food expenses	4.68	Strongly Agree
2. Higher electricity, water and other household utility bills	4.31	Strongly Agree
3. Education expenses escalated	4.21	Strongly Agree
4. Medical expenses increased	4.12	Agree
5. Higher household maintenance and other household expenses were incurred	4.24	Strongly Agree
6. Expenses on post-education and ranking of teachers for promotion increased	4.08	Agree
7. Incurrence of higher expenses during school's extracurricular activities	4.20	Agree
<b>Composite Mean</b>	<b>4.26</b>	<b>Strongly Agree</b>

Based on this, increase on spending has an average total of 4.24, described as Strongly Agree, which implies that the teachers incurred higher expenses on various goods and services indicated. Similar findings were presented on the study of [20], which indicates a positive relationship between inflation and consumer spending. It implied that as the prices of goods and services increases, expenses of consumers also increase. This result has also been supported by the research of [8], [21], on the other hand, focused on effect of inflationary expectations. They concluded that inflationary expectations cause a reallocation of consumer expenditures, which in particular, the higher expected rate of inflation will result in a higher expenditure on non-durables and services.

Table 3 presents the responses on the changes on teachers' choices and preferences that they made for 2017-2018. These are the items that were substituted with other items which are perceived by teachers as less costly.

These are the items that were substituted with another items perceived by the teachers as less costly and more convenient for inflationary expectations. They concluded that inflationary expectations cause a reallocation of consumer expenditures, which in particular, the higher expected rate of inflation will result in higher expenditures on non-durables and durable items.

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which implies that the teachers incurred higher expenses on various goods and services indicated. Similar findings were presented on the study of Hausman and Wieland [20], which indicates a positive relationship between inflation and consumer spending. It implied that as the prices of goods and services increases, expenses of consumers also increase. This result has also been supported by the research of Nyamekye & Poku [8]. Juster and Watchel [21], on the other hand, focused on the effect of inflationary expectations. They concluded that inflationary expectations cause a reallocation of consumer expenditures, which in particular, the higher expected rate of inflation will result in higher expenditures on non-durables and services.

Table 3. Preferences

Indicators	WM	VI
1. Expensive items/products were less prioritized and substituted with cheaper items/brands	4.14	Agree
2. Local products are being acquired nowadays than imported ones	4.02	Agree
3. Purchase of household consumables on bundles rather than on retail	4.16	Agree
4. Frequent consumption of vegetables than meat and poultry products due to their prices	3.97	Agree
5. Enrolment or transfer of children to schools or universities with lower tuition fees and other school expenses	3.82	Agree
6. Taking PUVs rather than using own vehicle, or vice versa, to lessen expenses	3.91	Agree
7. Use of alternative sources of water and electricity to minimize expenses	3.96	Agree
<b>Composite Mean</b>	<b>3.99</b>	<b>Agree</b>

Purchase of household consumables on bundles rather than on retail was ranked highest with 4.16 rating. Meanwhile, though with the same interpretation, least concern of the teachers is the enrolment or transfer of children to schools with lower expenses with a mean of 3.82, presumably because teachers cannot sacrifice the opportunities and knowledge to be acquired by their student dependents in highly-equipped and competent schools. As shown, all the indicators were interpreted as "Agree." Changes in preferences have a weighted mean of 3.99 and labeled as Agree. It demonstrates that the teachers made changes in their choices and preferences over

the period. This result is being supported by the arguments of Consoli [22]. He said fluctuating prices may adjust the consumer choice whenever consumers find available alternatives in order to lessen their everyday expenses. The conception that some goods are clear substitutes, which can meet the same want, an increase in the price of one will lead an individual to acquire the substitute. The presumption is not full rationality, but rather being aware that there are alternatives, and being sensitive to their relative costs.

Table 4 reveals the extent to which public secondary school teachers made reductions on their consumed items over the period (2017-2018). As presented, it is apparent that the top rank items are personal wants and which includes leisure activities. It can, therefore, be interpreted as teachers having no time to do such activities because they allocate a majority of their time in engaging in extra income-generating ones or having an insufficient budget to purchase the items or attend leisure activities. In general, the quantity of consumption was rated at 4.00 with a verbal interpretation of Agree, signifying that teachers reduced their total unit of goods and services consumed for the period under study.

Table 4. Quantity of Consumption

Indicators	WM	VI
1. Reduction of quantity of food items consumed	3.68	Agree
2. Scheduling or limiting the usage of electric appliances, gadgets, water and/or other utilities	3.98	Agree
3. Acquisition of gadgets and other leisure items only once the need arises or when the bonuses/incentives arrive	4.05	Agree
4. Purchase of apparels, accessories, and the like only when they are on sale	4.09	Agree
5. Fewer travels on vacations, holidays or leaves or look for promos	4.15	Agree
6. Less income allocation on recreation, promenading, watching movies or eating out	4.06	Agree
<b>Composite Mean</b>	<b>4.00</b>	<b>Agree</b>

Nelson and Consoli (2010) strongly suggest that the quantity of an item bought by an individual or household is dependent on the prices of that item. Theoretically, individuals are operating in consumption equilibrium where individuals are attending a particular set of wants, engaging a set of

activities and purchases to meet such wants, and were compatible with their budget and other constraints, including the prevailing prices. Thus, if a change in price occurs, then the order will be disrupted, altering some factors to comply with the constraints.

Table 5 shows the supplementary revenue-producing alternatives teachers get engaged in for the two-year period in offsetting their additional expenditure.

Table 5. Income Supplements

Indicators	WM	VI
1. Insufficient teaching salary to cover the increasing commodity prices	4.61	Strongly Agree
2. Engaged or planning to engage in businesses outside teaching work	4.11	Agree
3. Providing tutoring services or other practices of profession	3.82	Agree
4. Raising livestock and/or doing backyard gardening to augment income	4.21	Strongly Agree
5. Currently working or planning to work as part-time employee in other institution	3.78	Agree
<b>Composite Mean</b>	<b>4.10</b>	<b>Agree</b>

Generally, income supplements parameter has a composite mean of 4.10, which suggests that, with their fixed income, teachers in their effort to regulate themselves during the inflationary period ultimately led them to take on extra income-generating works. This finding is in line with the results of the study of Cardoso [23], which stated that when the increase in income of an individual is lower than the increase on prices of commodities, then the individual has to reduce his expenses or engage in other jobs to augment his income.

Table 6 presents how teachers' savings responded to changed economic conditions. As a result of the change in prices, with the rate of 3.96, teachers agreed for the realization of less or no savings at all for the past few months.

Table 6. Savings

Indicators	WM	VI
1. Realization of less or no savings at all for the past few months	<b>3.96</b>	<b>Agree</b>

Same results have been found in the study of Anafo, Kweku and Naatu [24], where savings pattern is inversely proportional to inflation. According to the

Alliance of Concerned Teachers (ACT), the salaries of teachers is insufficient to support their families because of their capacity to buy is further declining due to rapid rise of commodity prices, thus there is no room for savings.

Table 7 reveals the responses whether the public secondary school teachers took debt obligations as alternative source of money to finance the additional expenses for the period 2017-2018.

Table 7. Loans and Borrowings

Indicators	WM	VI
1. Recent incurrence of loans on GSIS, SSS, financial and/or private lending institutions	3.98	Agree
2. Recently borrowed money from private persons to cover other personal or household expenses	3.63	Agree
<b>Composite Mean</b>	<b>3.80</b>	<b>Agree</b>

It shows that most of the public secondary school teachers of Ragay agreed that they recently incurred debts with the mean of 3.80. As perceived by the teachers, due to some issues of delays on salary distribution of teachers, especially on newly employed teachers, they were forced to commit debt obligations to cover the expenses for the meantime. It is supported by the study of Anafo, Kweku and Naatu [24] which revealed that households incur loans as inflation increases to supplement their income. Additionally, Teachers' Dignity Coalition (TDC) and the Alliance of Concerned Teachers (ACT) claimed that the primary reasons why most teachers particularly in the public sector avail so many loans is that their salary is not enough for a decent living.

**Correlation Between Perception on Inflation and Changes on Budget Consumption**

This study is aimed to determine if perception on inflation of public secondary school teachers will significantly affect their changes on budget consumption. Using the Pearson r correlation, perception on inflation is tested its relationship with the changes on budget consumption.

Table 8. Correlation Between Perception on Inflation and Changes on Budget Consumption

Area	r	p
Perception on inflation and budget consumption	<b>0.588</b>	<b>0.174</b>

The Table 8 shows computed r value = 0.588 and the tabled r value = 0.174 at 0.05 level of significance. The computed r value of 0.588 is greater than the tabulated r value of 0.174, which implies that there is a significant relationship between the teachers' perception on inflation and their budget consumption and decisions. Additionally, the computed r (0.588) indicates that there is moderate positive correlation. It can therefore be concluded that as the perception on inflation of public secondary school teachers increases, its effect on budget consumption and decisions will also increase.

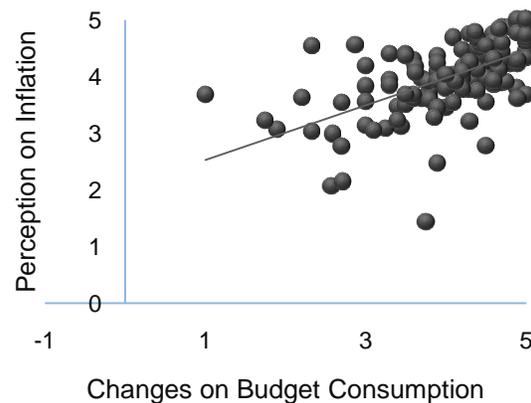


Fig. 1. Perception on Inflation vs. Changes on Budget Consumption

For presentation purposes, a scatterplot is presented below that corresponds to two variables tested with Pearson r correlation to visualize the effect of perception on inflation to changes on budget consumption. As illustrated in the figure, the trend line shows an uphill pattern. This indicates the positive relationship between perception on inflation and changes on budget consumption, as discussed in the computation with Pearson r correlation.

Same results have been found by studies of Anafo, Kweku and Naatu [24], where they concluded that as the inflation rises, the standard of living of the people deteriorates. It was further supported by the research of Gagarawa and Mehrotra [25]. They explained that inflation lowers the value of teachers' income, escalates their consumption expenditures forcing them to incur loans, with high-interest rates due to inflation, and thereby subjecting them to take part-time jobs. These circumstances, therefore, undermine the living standard of the teachers.

## CONCLUSION AND RECOMMENDATION

Derived from the results of the study, the following conclusions were drawn: (1) the public secondary school teachers in Ragay observed that there are price increases on goods and services for the year 2017-2018; (2) public secondary schools teachers adapted changes on their budget consumption and decisions along increased spending, altered preferences, reduction of quantity of consumption, involvement in other income-generating activities, realization of less savings and incurrence of loans and borrowings for the two-year period; and (3) there exists a positive significant relationship between the perception on inflation of public secondary school teachers and their changes on budget consumption and decisions.

The following were recommended based on the conclusions and findings of the present study: (1) though there is a recent remuneration increase for teachers under Salary Standardization Law and most of them have benefitted from lower personal income taxes under TRAIN Law, it is still recommended to increase the take-home salary of the teachers to cover all the increases on household and personal expenditures brought by the inflation, which will also avoid them to incur loans with high interest rates and to take other part-time jobs and just focus on improving their teaching competency and advancement of their knowledge relative to their fields; (2) improvement of current system being utilized for teachers' remuneration for its efficiency and in order to avoid delayed salary distribution to public secondary school teachers specifically to those new in practicing their teaching profession; and (3) the government must interfere from the persistent increase of prices of goods and services, and subsequently lower the inflation rate, through intervention especially on those inflation factors that are controllable and depends primarily on the administrative decisions, like temporary postponement of imposition of higher excise taxes on selected commodities under TRAIN Law and improving the economic growth of the country to offset the increase of quantity of money in circulation which will then result to strengthening of peso value. Future studies in line with the present one are also encouraged.

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