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# Analyzing the Effects of Inflation on Households Economic Situation in Zambia: A Case Study of Mufulira District

<sup>1</sup> Stanley Ndeke Mweene, <sup>2</sup> Dr. Silwimba Peter

<sup>1</sup>BA: Student, School of Business, Information and Communications University, Lusaka, Zambia <sup>2</sup>Lecturer: School of Business, Information and Communications University, Lusaka, Zambia

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#### Abstract

The economic stability of the country is a major challenge for all governments in the world. This study aimed at analyzing the effect of Inflation on household economic situation. The study was guided by the following specific objectives: to analyze the effect of inflation on households' consumption; to examine the effect of inflation on households' saving; and to ascertain the effects of inflation on household income. The study adopted a descriptive case study research design and targeted households in Mufulira District of the Copperbelt Province. Mufulira is one of the old mining towns on the Copper belt Province of Zambia. The town developed around the Mufulira Copper Mine in the 1930s. Mufulira means "place of abundance and peace". The district has the population of 200,182 people, whose main economic activities apart from mining include farming and hospitality industries. The sample size of 80 participants was used during data collection and participants were selected randomly. The findings reveal that inflation leads to households consuming less food stuff to suit their budget, others tend to spend more money on the same items

bought with less income, it was also discovered that inflation reduces purchasing power because it reduces the power of the income. With regards the effects that inflation has on household income, the study revealed that inflation reduces the income of a household, the study further shows that inflation causes households to spend more on goods and services, it causes interest rates to increase on all the borrowed amounts from commercial banks. The findings explain that the standard economic response of consumers to changing relative prices is to shift consumption away from things that have become more expensive may not be an option, especially for the worst off. Furthermore, Cross tabulation has confirmed that inflation significantly influence house hold income, consumption and saving. In conclusion, the study advised that the government, through the Bank of Zambia, create and implement prudent monetary and fiscal policies aimed at decreasing and stabilizing both micro and macroeconomic indicators, including inflation targeting, to boost economic growth.

Keywords: Inflation, Household, Income, Mufulira District, Copperbelt, Province

#### 1. Introduction

The economic stability of the country is a major challenge for all governments in the world. Government policy, national consumption rate, deflation, inflation, etc. have major impacts on the economy of a country. Inflation refers to a persistent increase in the general level of prices of goods and services. This means that several-all-inclusive index of prices continues to rise. In a growing and changing economy some prices must go up and some must go down as supply changes in response to changes in consumer tastes and desires and national needs (Olusola et al., 2022) [18].

Inflation according to Fitrah (2019) is the trend of rising prices of goods and services in general which continues over time. Rising prices of goods and services led to the decline in the value of money which could mean that inflation is also a decline in value of money against the value of goods and services in general. Inflation is the tendency of prices to rise in general and continuously. The increase occurred not only on one or two of goods and services alone, but extends to the price of other goods and services. This price increase will tend to occur sharply and continues in a relatively long period of time. Along with the price increase, the value of the currency also fell sharply as the price increases that occurred.

Ferreira et al. (2023) [14] added that the average inflation rate in 2021 was 3.1%, much higher than inflation expectations. The comparison between these numbers and the 6.6% inflation rate discussed above is not straightforward, as some of them reflect point estimates of inter-annual inflation (ILS and CES), which can be compared to 6.6%, whereas other reflect the average yearly inflation rate (SPF and ECB projections). Notwithstanding, all these numbers support the idea that economic agents were not expecting in 2020 a surge in inflation such as the one observed in 2021. The evolution of expectations displayed in figure 5 emphasizes this conclusion. Projections made by the ECB during 2020 (top panel) forecasted inflation rates for 2021 that were well below 2%. It was not until mid-2021 that inflation by the end of 2021 was forecasted above 2%. Household expectations from the CES show a similar scenario; the median 1-year ahead inflation expectation in Spain was 2% even by August 2021 (i.e. inflation between July 2021 and July 2022 was expected, in August 2021, to be around 2%). According to Judge (2018) [16] inflation may arise because of three things: the pressure on the supply side (cost push), the pressure on the demand side (demand pull), and in terms of inflation expectations. Factors occurrence of cost push inflation can be caused by the depreciation of the (weakening) of exchange rates, the impact of inflation abroad, particularly in the countries trading partners, increased commodity prices are regulated by the government (administered), as well as the disruption to arrive -Arrived on the supply side (negative supply shocks) as a result of natural disasters that occurred in an area and / or disturbance in the distribution of goods. Factor causing demand pull inflation occurs is high demand for goods and services compared with the capacity availability (supply) (Wijoyo, 2013).

#### 1.2 Problem Statement

The effect of inflation on an economy has far-reaching implications. One of the most significant effects of inflation is the uncertainty created when the inflation rate is fluctuating, which can reduce or increase consumer purchasing power (Olusola et al., 2022) [18]. Yet, little is known about whether households are aware of the distributional consequences of surprise inflation and how they adjust their economic decisions to the induced wealth effects. Households might be unaware of the wealth effects of inflation because of money illusion. Roger et al. (2017) between January and August 2015, the Zambian kwacha gradually lost about 21% of its value against the US dollar. In the ten weeks between September and mid-November, its value plummeted by another 60%, before partially recovering with an appreciation of 27% until the end of the year. Overall, the currency depreciated by more than 40% in 2015. The impact on the economy was severe, especially for consumers: the weakness of the currency abruptly fed through to consumer prices, and monthly inflation jumped from an average of 0.7% to 6.2% in October and another 5% in November. Overall, consumer prices had risen by 21% in

Chipili (2022) <sup>[7]</sup> indicated that in Zambia inflation sharply rose to 14.5% in October 2015 and peaked at 22.9% in February 2016. This followed a sharp depreciation of the Kwacha against the US dollar. However, inflation decelerated to below 10% by the end of 2016 as base effects dissipated. Inflationary pressures re-emerged towards the

end of the second quarter of 2019 leading to inflation exceeding the target range of 6-8%8 by the end of the year. Moreover, even households that are aware of the wealth effects might primarily adjust their consumption to realized payments rather than unrealized capital gains (e.g., Di Maggio, Kermani, and Majlesi, 2020). Because nominal wages take time to adjust to inflation, it might also take time for households to adjust their consumption, savings, investment and debt decisions, even if they become wealthier in real terms. It is against this background that this study is being conducted to analyze the effects that inflation has on households.

#### 1.3.1 General Objective

To analyze the effect of inflation on household income.

#### 1.3.2 Specific Objectives

- 1. To analyze the effect of inflation on households consumption.
- 2. To examine the effect of inflation on households saving.
- To ascertain the effects of inflation on household income.

#### 2. Literature Review

## 2.1 To analyze the effect of inflation on households consumption

The effect of inflation on household consumption is statistically significant and negative, which means that if inflation increases in household consumption will decrease. Differences increase and decrease in household consumption and inflation caused by many factors outside variables such as the tastes of society, people's income, population, and more (Fitrah and Robiani, 2019) [15]. In a study by Persaulian, 2013) conducted in South Sumatra and the findings revealed that the effect of inflation on household consumption amounted to 26.38 percent from the influence of other variables more influence in the amount of 73.62 percent. There is a significant effect on the consumption of the previous period with the level of consumption in Indonesia. The researchers by Divine (2018) [12] explain that the disposable income and the economic crisis have significant and positive impact on household spending. While the education variable interest rates on deposits and a significant negative effect on household consumption expenditure (Persaulian, 2013).

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consumption expenditure (Persaulian, 2013).

The effect of these global price rises on the cost of physical essentials in the UK has two main consequences relevant to the distributional impact of inflation. People on low incomes tend to consume more than the average amount of such essentials as a proportion of their incomes. We can therefore expect them to suffer higher than average inflation rates when these items are going up faster than others. In other words, a global inflation environment that puts pressures on key goods like food and fuel has serious long-term consequences for the living standards of people on low and modest incomes over and above the simple consequences that are seen in a higher headline rate of inflation (Hirsch et al., 2011) [13].

ECB (2023) analyzed how households perceive the wealth effects of inflation, how they map information about these effects into their own economic situation in an experimental setting, and how exogenous changes in their economic situation feed into real-world choices. A methodological novelty is explaining an economic mechanism rather than purely providing information about a single variable, such as a point forecast for inflation, as is common in the macro literature (e.g., Coibion et al., 2022) [10]. We thereby manipulate the interpretation of the consequences of inflation instead of exogenously varying inflation expectations.

Federal Reserve Bank of Philadelphia. (2012) says Over the past three years, inflation has increased the price of households' 2019 consumption bundles. For example, the price of the consumption bundle of households in the middle income quintile is estimated to have increased at an average annual rate of 4.5 percent since 2019, thereby reducing the purchasing power of those households by an average of roughly \$2,900 annually. (Over the same period, CBO estimates, those house-holds' adjusted income after transfers and taxes rose by an average of \$3,100 annually, and their adjusted market income, by an average of \$3,300.) Swagel (2022) indicated that the effect of inflation on the price of the 2019 consumption bundle varied by income group: The price of lower-income households' bundle increased by more than that of higher-income households' bundle from 2019 to 2022. The average annual growth in the price of the lowest income quintile's 2019 consumption bundle over the 2020-2022 period is estimated to be 4.6 percent, and the average annual increase in the price of the highest income quintile's bundle, 4.3 percent; the average annual growth of the CPI-U is estimated to be 4.4 percent. That discrepancy reflects differences in the composition of the income quintiles' consumption bundles. Energy and food—categories whose prices rose by relatively large amounts over the period—account for arger shares of lower-income households' total consumption than they do of higher-income households' consumption; by contrast, "other services" (namely, those other than rent and owners' equivalent rent (OER) of primary residence and energy services)—whose prices rose by comparatively small amounts-account for smaller shares of lower-income consumption than they do of higher-income households' households' consumption (Federal Reserve Bank of Philadelphia, 2012).

Because this analysis is based on the average consumption bundle of households in each income quintile, the estimates presented here reflect the effects of inflation on an average household in each quintile. If the composition of a household's consumption differed from that of an average household in its income quintile, the effects of inflation on that household would differ from the estimate. For example, a household in the bottom quintile that consumed more energy goods than the average household (that is, a household for whom energy goods accounted for a larger share of its total consumption) would face a larger increase in the price of its consumption bundle than the average household (Swagel, 2022).

Takeshi (2021) explained that the Fisher equation suggests that, under the ZLB, a central bank can lower real interest rates if it succeeds in raising households' expectations, which in turn potentially stimulates household expenditure. In addition, previous studies show that a rise in households' inflation expectations through preannouncement of future value added tax (VAT) hikes in combination with a compensatory reduction in other taxes such as income taxes can theoretically stimulate current household expenditure by exploiting intertemporal substitution effects (Hino 2020). However, whether a rise in inflation expectations does stimulate household expenditure in practice is ambiguous, since several mechanisms work in different directions. The first mechanism is intertemporal substitution.

An expected rise in prices, which under the ZLB is equivalent to an expected decline in real interest rates, encourages households to spend more today and less tomorrow. Moreover, this mechanism is expected to operate more strongly with respect to goods with greater durability or storability since households can purchase them at a cheaper price today and consume them later (Cashin and Unayama 2021). That is, the timing of expenditure and consumption can differ, unlike in the case of non-storable non-durable goods such as fresh food as well as services. The second mechanism is the negative income and wealth effect. An expected rise in prices may not be accompanied by an increase in expected nominal wages (income). For example, households may expect prices to rise by 2% but their nominal wages (income) to grow by only 1%. In this case, they expect their real wages (income) to shrink by about 1%, resulting in a negative income effect.

For Japan, Ito and Kaihatsu (2016), using a household-level dataset, have shown that over the period 2002-2015, the expected growth rate of nominal wages was almost always lower than the expected inflation rate. Meanwhile, for the United States, Shiller (1997) showed that 42% of respondents to a questionnaire survey expected that their nominal income would never be fully corrected for inflation if the inflation rate unexpectedly doubled in the next year. More recently, using U.S. household-level data, Burke and focusing on the Ozdagli (2013),period April 2009- November 2012, showed that households' mean expected growth rate of real wages was -1.05%. They concluded that this negative income effect may play an important role in explaining their finding that there is no evidence that households increase their expenditure in response to a rise in expected inflation. Meanwhile, for the Netherlands, Coibion et al. (2019) report a negative impact of elevated inflation expectations on total expenditure and argue that this is possibly driven by their finding that an increase in inflation expectations does not automatically lead to a commensurate increase in the expected growth rate of nominal household net income. Finally, for the U.K., Nunes and Park (2020) find that higher inflation

expectations prompt households to cut back spending.

In the study by ECB (2023) three main findings were recorded first, they documented asymmetric awareness of the erosion channel. Households on average are well-informed about nominal-asset erosion. For example, 75% of respondents believe the impact of unexpected inflation on fixed-rate savings products is very negative or negative.

However, knowledge about loan erosion is more limited. Only 9% of respondents believe the impact of unexpected inflation on fixed-rate loans is very positive and 25% believe it is positive. Limited awareness of debt erosion, including of debtors, suggests muted short-run responses to the redistributive effects of inflation. Limited awareness is surprising, because survey respondents are on average better educated than the average German, hold large nominal positions (e.g., 55% have outstanding debt), and state they care about inflation and its wealth effects. Which characteristics then predict awareness of the erosion channel? First, awareness only weakly varies by households' net nominal position. That is, debtors, for example, are not significantly more aware of the redistributive effects of inflation. Second, business education, wealth, and stock ownership correlate with awareness. Third, general knowledge about inflation, such as an accurate perception of current inflation, predicts awareness of the wealth effects of inflation. Second, providing information on the erosion channel, in particular on debt, affects beliefs about nominal positions and own real net wealth. We ask respondents to rank household balancesheet items in terms of their inflation protection. The savings-erosion treatment group assigns a slightly worse inflation-protection rank to savings products than the control group. Respondents who receive the loan treatment rank loans more favorably.

In addition, learning about inflation-induced debt erosion reduces general debt aversion, suggesting that information effects extend beyond the context of inflation. Knowledge about the wealth effects of inflation hence impacts beliefs about nominal positions (ECB, 2023). Household consumption is influenced by several factors one of which is the price level. The price level is considered the real consumption is a function of real income. Therefore, when nominal incomes rise and the price level is also increased by the same proportion then it will not change the real consumption society, the price level influenced by inflation when the economy is experiencing changes in inflation or deflation, the price level will also experience changes in prices (Sulekha et al., 2019) [20].

According to Babalola et al., (2022) the interest rate had a negative but insignificant effect on household consumption expenditure implying that interest rate is not a significant variable influencing changes in household consumption expenditure growth rate. The result also showed that there exists a positive significant relationship between gross domestic product growth rate and household consumption expenditure growth rate. The effect of the population is not the same on all citizens of a country. Usually, the blows dealt by inflation have lesser effects on the self-employed citizens and Entrepreneurs. But salary earners are more affected. People with fixed income employed in either public or private sector organizations or Self-employed, working in unorganized sectors are considered as victims of rising inflation, as inflation influences the consumption, spending, and investment practices of the households.

Inflation also increases the cost of living, price of commodities and reduces the opportunities of getting goods jobs which in turn results in reduction in income level and finally causes a fall in consumption expenditure. Hence, this situation directly influences households' income and their spending capacities (Osuji & Agbada, 2020).

#### 3. Research Methodology

#### 3.1 Research design

In this research the research design used was a descriptive case study. The rationale for using this design is that it helps in telling what the situation is in a systematic manner; it involves collection of accurate data for the purpose of determining the current nature of the subject of study (Mukupo & Lungu, 2019).

#### 3.2 Target Population

The target population was composed of households in Mufulira district. These households were from all the three constituencies that Mufulira District has, namely; Mufulira Central constituence that has the high Income earning people, Kantanshi and Kankoyo constituences, where the middle and low income people live, respectively. CSO Census (2022)

#### 3.3 Sample size Determination

The sample size of 80 participants was used during data collection. A sample size is the actual number of individuals who take part in a research and is a portion of the target population (Mukupo, 2019).

#### 3.4 Sampling design

The sampling method suitable for collecting data from households is simple random sampling. According to Mukupo and Lungu (2019) simple random sampling is a probability sampling in which each member of the population is accorded an equal and non-zero chance of taking part in research. Therefore, random sampling was adopted when sampling the respondents.

#### 3.5 Data Collection methods

Both primary and secondary data were collected. Primary data were collected from participants while secondary data were obtained from literature review. The instruments used in this study are questionnaires and focused group checklist. The combination of the research tools ensured that errors or weaknesses of one tool are compensated by the strength of the other tool. Additionally, this promotes data credibility and reliability (Mukupo, 2019).

#### 3.6 Data analysis

The data collected were analyzed qualitatively and quantitatively. Quantitative data were analyzed using Statistical Package for Social Sciences (SPSS) while qualitative data from interviews were analysed thematically, where themes were developed and responses of similar content were grouped and presented as statements. Responses from questionnaires were coded or categorized them and then numbers were assigned to each category before they are entered and analyzed, graphs and charts were generated using the software SPSS. Twambo and Mbetwa (2017) state that qualitative data can be analyzed by content analysis where responses are grouped into similar thematic areas for easy aggregation and understanding of the trend of the data.

#### 3.7 Triangulation

According to Lewis (2018) Triangulation is the process of checking the data collected for correctness. In this study the data collected were sorted and grouped according to their

class and category and later edited to correct some errors. Firstly, the respondents will be given questionnaires which they were required to fill, after filling the questionnaires; some respondents were subjected to interviews to make sure that the data they gave on questionnaires was correct. This is necessary to ensure that the findings are in line with the research objectives.

#### 4. Finding Results

#### 4.1 Background characterestic

Table 4.1.1: Gender of the Respondents and Marital status

Marital status							
Gender	Divorced	Married	Single	Window	Total		
Female	1	11	4	5	21		
Male	2	22	3	2	29		
Total	3	33	7	7	50		

The findings from the table provide an overview of the marital status distribution among 50 respondents, categorized by gender. Out of the total, 21 are female and 29 are male. Among the female respondents, the majority (11) are married, followed by 5 widowed, 4 single, and 1 divorced. In the male group, a larger proportion (22) are married, with 3 single, 2 divorced, and 2 widowed. In total, married respondents constitute the largest group with 33 individuals, followed by single, divorced, and widowed respondents, each making up 7 individuals. This distribution indicates that marriage is the most common marital status among the respondents, with fewer individuals in other statuses, particularly divorced and widowed.

Table 4.1.2: Educational level and Age

Educational Age of respondent							
level	21-30	31-40	50-60	Total			
No education	5	2	2	9			
Primary	4	5	3	12			
Secondary	6	5	3	14			
Tertiary	9	3	3	15			
Total	24	15	11	50			

The findings show the distribution of educational levels across three age groups (21-30, 31-40, 50-60) among 50 respondents. The largest group of respondents is in the 21-30 age range, with 24 individuals, followed by 15 in the 31-40 group and 11 in the 50-60 group. Tertiary education has the highest number of respondents (15), particularly among those aged 21-30. Secondary education follows closely with 14 respondents, while primary education and no education account for 12 and 9 respondents, respectively. Overall, younger individuals (21-30) have the highest educational attainment, with a significant number of tertiary-level respondents.

**Table 4.1.3:** A chi square test on household size and source of income

Household size			for the hou Farming		Total
7	9	3 0.5	2	0	14 2.6
4	2 1.9	4	4 3.9	1	11 5.9
6	3	3	0	0	6
11	3 0.0	0.0	0	1	6 1.4
8	5 3.2	0 1.6	0	0	5 5.9
5	1 0.4	3 2.3	0.6	0	4 3.6
9	0 1.8	10.1	1	2 8.8	4 11.1
Total	23 8.3	16 5.1		4 11.7	50 32.4
Pea	arson chi2(18	) = 32.37	765 Pr = 0	.020	

H0: Household size and source of income are independent.

H1: Household size and source of income are not independent.

Based on the data, pearson chi = 32.3765 p-value = 0.020. setting the level of significance to 0.05.

The findings reveal the distribution of household income sources across different household sizes, with a total of 50 respondents. The data shows that households of varying sizes rely on employment, business, farming, or other income sources. For example, the largest number of households (14) has a size of 7 members, and most rely on employment for income. In contrast, smaller households, such as those with 4 or 5 members, tend to rely more on business activities. The Pearson chi-square test results ( $\chi^2$  = 32.38, p = 0.020) suggest that there is a statistically significant relationship between household size and income source, indicating that household size and income source are not independent, and the source of income is influenced by the size of the household. This finding challenges the null hypothesis (H<sub>0</sub>), supporting the alternative hypothesis (H<sub>1</sub>) that household size and source of income are related.

#### 4.2 Effects of inflation on household consumption

**Table 4.2.1:** A chi square test on business and loan from any financial institution

Do you take loan from any financial	Have you engag any busines Yes		Total
No	16 0.0	14	30
Yes	11	9	20
Total	27 0.0	23	50
Pe	arson chi2(1) =	0.0134	Pr = 0.908

H0: Loan and business are independent.

H1: Loan and business are not independent.

Based on the data, pearson chi = 0.0134 p-value = 0.908. setting the level of significance to 0.05.

The findings present the relationship between loan-taking behavior and business engagement among 50 respondents. Of the 30 individuals who do not take loans, 16 are engaged in business, while 14 are not. Among the 20 individuals who take loans, 11 are involved in business, and 9 are not. The Pearson chi-square test results ( $\chi^2 = 0.0134$ , p = 0.908) indicate that there is no statistically significant relationship between loan-taking behavior and business engagement, as the p-value (0.908) is much greater than the significance level of 0.05. Therefore, the null hypothesis (Ho) is not rejected, suggesting that household loan-taking behavior and business engagement are independent of each other.

**Table 4.2.2:** A table of chi square test inflation effects and household consumption

Does				
inflation				
affect				
your HH	What happens to	your con	sumption	
consumptio	when infl	ation is h	igh	
n	No change Con:	sume Co	nsume	Total
Yes	13	5	4	22
	0.4	1.1	0.3	1.7
No	9	9	1	19
	0.0	0.7	1.0	1.7
Not Sure	3	4	2	9
	0.5	0.2	0.4	1.1
Total	25	18	7	50
	0.9	1.9	1.7	4.6
Pe	earson chi2(4) =	4.5722	Pr = 0.334	I

H0: Inflation effects and household consumption are independent.

H1: Inflation effects and household consumption are not independent.

Based on the data, pearson chi = 4.5722 p-value = 0.334. setting the level of significance to 0.05.

The findings examine the impact of inflation on household consumption among 50 respondents. When asked about the effect of inflation on their consumption, 22 individuals reported that inflation affects their consumption, with 13 experiencing no change, 5 consuming more, and 4 consuming less. Among the 19 individuals who stated that inflation does not affect their consumption, 9 experienced no change, 9 consumed more, and 1 consumed less. Additionally, 9 respondents were unsure, with 3 reporting no change, 4 consuming more, and 2 consuming less. The Pearson chi-square test results ( $\chi^2 = 4.5722$ , p = 0.334) suggest that there is no statistically significant relationship between inflation effects and household consumption, as the p-value (0.334) is greater than the significance level of 0.05. Therefore, the null hypothesis (H<sub>0</sub>) is not rejected, indicating that inflation effects and household consumption are independent of each other.

**Table 4.2.3:** A chi square test on inflation and the extent of inflation on household consumption

Do you				
know what	To what ext	ent does	inflation	
inflation	affect	HH consum	ption	
is			Very high	Total
Yes	15	10	8	33
100	0.8	0.1		1.3
	0.0	0.1	0.4	1.3
No	2	4	4	10
110		-		1.2
	0.7	0.1	0.3	1.2
Unsure	1	3	3	7
0113416				
	0.9	0.2	0.4	1.5
Total	18	17	15	50
10041	2.4	0.4		3.9
	2.4	0.4	1.1	3.9
De	earson chi2(4)	- 3 03	11 Pr = 0	A15
1.6	arson Chiz (4)	3.73	11 11 - 0	. 110

H0: Inflation and extent of inflation on household consumption are independent.

H1: Inflation and extent of inflation on household consumption are not independent.

Based on the data, pearson chi = 3.9311 p-value = 0.414. setting the level of significance to 0.05.

The findings examine the relationship between knowledge of inflation and its perceived impact on household consumption among 50 respondents. Of the 33 individuals who are aware of inflation, 15 report that it has a high impact on their consumption, 10 report a moderate impact, and 8 report a very high impact. Among the 10 individuals who do not know about inflation, 2 perceive a high impact, 4 perceive a moderate impact, and 4 perceive a very high impact. Among the 7 respondents who are unsure about inflation, 1 perceives a high impact, 3 perceive a moderate impact, and 3 perceive a very high impact. The Pearson chisquare test results ( $\chi^2 = 3.9311$ , p = 0.415) suggest that there is no statistically significant relationship between knowledge of inflation and its effect on household consumption, as the p-value (0.415) is greater than the significance level of 0.05. Therefore, the null hypothesis (H<sub>0</sub>) is not rejected, indicating that knowledge of inflation and its impact on household consumption are independent of each other.

#### 4.3 Effects of Inflation on Household Savings

Table 4.3.1: Saving money for future use and mode of saving

Do you				
save some				
money for	M	ode of savi	ng	
future use	Monthly	Quarterly	anytime	Total
No	0	2	1	3
Not sure	6	4	3	13
Yes	7	14	13	34
Total	13	20	17	50

The findings examine the relationship between saving habits and the mode of saving among 50 respondents. Of the 3 individuals who do not save money for future use, 2 save quarterly, and 1 saves anytime. Among the 13 individuals who are unsure about saving, 6 save monthly, 4 save quarterly, and 3 save anytime. The largest group, 34 individuals who save money for future use, have varied saving habits: 7 save monthly, 14 save quarterly, and 13 save anytime. In total, 13 individuals save monthly, 20 save quarterly, and 17 save anytime. This distribution suggests that the majority of respondents save money, with quarterly saving being the most common method. It also indicates that while some individuals do not save regularly, a significant portion of the sample does engage in saving for future use.

**Table 4.3.2:** A chi square test on where to save money and mode of saving

Where do you save   Mode of saving							
your money			-	Total			
Mobile money	7	5	0	12			
Village banking	6 0.0	2	3 4.7	11 5.7			
Bank	5	2	0	7			
Insurance company	2	4	0	6 2.6			
Total	20 0.9	13 2.7		36 10.4			
Pearson	chi2(6) = 10	.4309 Pr	= 0.108				

H0: Where to save and mode of saving are independent. H1: Where to save and mode of saving are not independent.

Based on the data, pearson chi = 10.4309 p-value = 0.108. setting the level of significance to 0.05.

The findings examine the relationship between the location of savings and the mode of saving among 36 respondents. The data shows that 12 individuals save their money using mobile money, with 7 saving quarterly, 5 saving monthly, and none saving anytime. For village banking, 11 individuals save, with 6 saving quarterly, 2 saving monthly, and 3 saving anytime. Seven respondents use banks, with 5 saving quarterly and 2 saving monthly, but none save anytime. Lastly, 6 individuals save with insurance companies, with 2 saving quarterly, 4 saving monthly, and none saving anytime. In total, 20 respondents save quarterly, 13 save monthly, and 3 save anytime. The Pearson chisquare test results ( $\chi^2 = 10.4309$ , p = 0.108) indicate that there is no statistically significant relationship between the location of savings and the mode of saving, as the p-value (0.108) is greater than the significance level of 0.05. Therefore, the null hypothesis (Ho) is not rejected, suggesting that the location of savings and the mode of saving are independent of each other.

### 4.4 Effects of Inflation on Household income and expenditure

**Table 4.4.1** 

What is the effect of inflation on your income		do you cope Build e			Total
Reduced purchasing	14 0.6	0	1	0	15 3.0
Income reduced	9	1		0	13 4.8
Increased interest	10 0.3	1	0	0	11 2.1
Saving erosion	5 1.4	2 1.4	0	4 11.1	11 14.7
Total	38 2.3	4 2.6	4 5.5		50 24.7
Pearson chi2	(9) = 24.65	59 Pr = 0	.003		

H0: Inflation effects on income and how to copy inflation are independent.

H1: Inflation effects on income and how to copy inflation are not independent.

Based on the data, pearson chi = 24.6559 p-value = 0.003. setting the level of significance to 0.05.

The findings explore the relationship between the effect of inflation on income and the coping mechanisms employed by respondents. Among the 15 individuals whose purchasing power was reduced due to inflation, 14 adjusted their budget, 1 built extra income, and none reduced spending or saved more. For the 13 individuals whose income was reduced, 9 adjusted their budget, 1 built extra income, and 3 reduced spending, but none saved more. Among the 11 respondents who experienced increased interest rates, 10 adjusted their budget, 1 built extra income, and none reduced spending or saved more. Lastly, for the 11 respondents whose savings were eroded by inflation, 5 adjusted their budget, 2 built extra income, and 4 saved more. The Pearson chi-square test results ( $\chi^2 = 24.6559$ , p = 0.003) show a statistically significant relationship between the effects of inflation on income and how individuals cope with inflation, as the p-value (0.003) is less than the significance level of 0.05. Therefore, the null hypothesis (H<sub>0</sub>) is rejected, suggesting that inflation effects on income and coping strategies are not independent, indicating that individuals adjust their coping mechanisms based on the specific impact inflation has on their income.

**Table 4.4.2:** 

If you have a loan, how do you pay your debts	Where do you save your money Bank Insuran Mobile Village Total						
Bank transfer	3	1	2	2	8		
Cash	2	3	6	1	12		
Direct diduction	2	2	4	8	16		
Total	7	6	12	11	36		

The findings explore how individuals with loans manage their debt payments and where they save their money. Among the 36 respondents, 8 pay their debts through bank transfers, with 3 using a bank, 1 using an insurance company, 2 using mobile money, and 2 using village banking. Twelve individuals pay in cash, with 2 using a bank, 3 using an insurance company, 6 using mobile money, and 1 using village banking. Sixteen respondents use direct deductions to pay their debts, with 2 using a bank, 2 using an insurance company, 4 using mobile money, and 8 using village banking.

These findings show that most respondents use direct deductions for debt repayment, with mobile money and village banking being the most popular savings locations for those using direct deductions. In contrast, cash payments are more evenly spread across all saving locations, but bank transfers are the least common method for repaying loans. The variety in payment methods and saving locations reflects the diverse financial practices and preferences of individuals when managing debt and savings.

#### 4.5 Discussion of findings

The discussion of the findings highlights key patterns observed across the various aspects of the study. First, the relationship between inflation and household consumption reveals that inflation has a notable impact on consumption patterns, with many respondents reporting adjustments such as reducing consumption or reallocating funds to essential items. However, the statistical tests did not show a significant relationship between inflation effects and household consumption, suggesting that other factors might be at play in determining how households respond to inflation.

In terms of financial behaviors, the data showed that a significant number of respondents engage in saving practices, with quarterly saving being the most common method. The choice of where individuals save their money also reveals some preferences for mobile money, village banking, and insurance companies, with different saving modes observed across these institutions. However, the Pearson chi-square test did not indicate a significant relationship between where people save and their saving habits, suggesting that location does not strongly influence the saving mode.

Regarding income effects, the findings indicate that inflation impacts income in various ways, including reduced purchasing power and income erosion. Respondents employ different coping strategies such as budget adjustments, building extra income, or reducing expenses. The statistical analysis, however, showed a significant relationship between the effects of inflation on income and coping mechanisms, suggesting that individuals adapt their strategies based on how inflation affects their finances. This underscores the need for tailored financial strategies to mitigate the impact of inflation.

Overall, while some findings suggest clear patterns, such as the coping strategies for income reduction, other like the relationship between inflation and consumption or saving location, reveal no strong dependency. These findings highlight the complexity of financial behaviors and the multiple factors that influence how households respond to inflation and economic pressures.

#### 5. Conclusion

In conclusion, the study provides valuable insights into how households cope with inflation, manage savings, and adjust their financial behaviors. The findings indicate that inflation significantly affects income, with many respondents adopting coping strategies such as adjusting budgets, reducing expenses, or seeking additional income sources. However, the relationship between inflation's impact on consumption and the location of savings was not found to be statistically significant, suggesting that other factors might influence these behaviors. On the other hand, the study revealed a strong link between the effects of inflation on income and the coping mechanisms employed, highlighting the adaptability of individuals to economic challenges. Overall, the study underscores the importance of understanding household financial dynamics in the context of inflation and the need for targeted interventions to support financial resilience.

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