Instituto Nacional de Ciências e Tecnologia de Timor-Leste

Final Scientific Report

INCT 2023

"The Influence of Inflation on Income, Inflation Costs, Consumption Behavior and Preventive Measures and Policies in Dili, Timor-Leste: A Case Study of Permanent Civil Servants."

Principal Investigator:

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The Influence of Inflation on Income, Inflation Costs, Consumption Behavior and Preventive Measures and Policies in Dili, Timor-Leste: A Case Study of Permanent Civil Servants.

Abstract

Inflation is a critical economic phenomenon that can have significant effect on permanent civil servants' income and consumption. The objectives of this study are to: 1) test the effect of inflation on income; 2) test the effect of inflation on inflation cost; 3) test the effect of inflation on consumption behavior and 4) to the effect of inflation on preventive measure and policy in Dili, Timor-Leste that focused on permanent civil servants. We distributed 395 questionnaires to the permanent civil servants all around Dili specially whom worked at the ministries but at the end we only obtained 345 (87.34%) questionnaires from our respondents and 50 (12.66%) questionnaires are not returned, and interview were used to collect data. SMART-PLS 4.0 was used to test hypothesis. The findings revealed that inflation had significant effect on income, inflation cost and consumption behavior while there is no significant effect on preventive measure and policy.

Keywords: inflation; income; consumption behavior; permanent civil servants.

Impaktu Inflasaun ba Rendimentu, Kustu Inflasaun, Komportamentu Konsumu no Medidas Preventivas no Politika iha Dili, Timor-Leste: Estudu Kazu Funsionáriu Públiku Permanente.

Abstratu

Inflasaun hanesan fenomena ekonómiku ida ne'ebé tebes no iha impaktu signifikante ba rendimentu no konsumu funsionariu publiku permanente sira. Objetivu husi peskiza ida ne'e atu:1) teste impaktu husi inflasaun ba rendimentu;2) teste impaktu husi inflasaun ba kustu inflasaun nian;3) teste impaktu husi inflasaun ba komportamentu konsumu no 4) teste impaktu husi inflasaun ba medidas preventive no politika. Iha peskiza ida ne'e ami distribui kestionariu hamutuk 395 ba funsionáriu públiku permanente iha Dili laran liuliu ba sira ne'ebé servisu iha ministeriu maibé ami konsege rekolha fila fali kestionariu hamutuk 345 (87.34%) husi respondenti no kestionariu hamutuk 50 (12.66%) mak la fó fila fali. Ami mós halo intervista hanesan meios ida hodi rekolha dadus. SMART-PLS 4.0 nuudar instrument hodi teste hipoteza. Rezultadu husi peskiza ida ne'e hatudu katak inflasaun iha impaktu positivu no signifikante ba rendimentu, kustu inflasaun no komportamentu konsumu maibé inflasaun la iha impaktu ba medidas preventiva no política.

Liafuan Save: inflasaun; rendimentu; komportamentu konsumu; funsionáriu públiku permanente.

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Lists of Abbreviations

AVE	Average Variance Extracted
CA	Cronbach's Alpha
CB	Consumption Behavior
CPI	Consumer Price Inflation
COVID-19	COronaVIrus Disease of 2019
CR	Composite Reliability
FES	Fundação Educação Salesiana
HTMT	Heterotrait-Monotrait
	Instituto Nacional de Mão de Obra
INDMO	*Institutu Nacional de Desenvolvimento de Mão-de Óbra*
INETL	*Institutu Nasionál Estatística Timor-Leste*
IC	Inflation Cost
IT	Inflation Targeting
GDP	Gross Domestic Product
LCU	Local Currency Unit
MTA	Ministerio do Turismo e Ambiente
MOP	*Ministerio Obras Pública*
PPP	Purchasing Power Parity
PPS	Permanent Public Servants
OEC	The Observatory of Economic Complexity
OL	Outer Loading
PMP	Preventive Measure and Policy
SECOOP	*Secretario de Estado de Cooperativa*
SMART-PLS	Structural Equation Modeling (SEM) Using The Partial Least Squares (PLS)
WFP	World Food Program

1. Introduction

(1.1) Contextualization

The global COVID-19 pandemic has had extensive effects on economies worldwide, including Timor-Leste. In order to mitigate the impact of the virus, the Timorese government took decisive measures to contain its spread. These measures encompassed the implementation of lockdowns, travel restrictions, and social distancing requirements throughout 2020 until mid-2021.These measures have had significant impacts on businesses, households, and individuals, especially Permanent Civil Servants including disruptions to income streams and changes in their consumption behavior.

According to Macrotrends (2023), Timor-Leste experienced an inflation rate of 0.96% in 2019, which was prior to the Covid-19 pandemic. However, in 2021, the inflation rate increased to 3.8% (World Bank, 2021). As of October 2022, the inflation rate in Timor-Leste has risen to 6.7% (Tradingeconomics, 2023).

Inflationary pressures can exert a substantial influence on both income and consumption patterns, especially within certain subsets of the Permanent Civil Servants. Timor-Leste had an estimated population of around 1.3 million people (Census,2022). According to data from IndexMundi, the population growth rate of Timor-Leste in 2020 was reported to be 2.27%.

Timor-Leste's dependency on imported goods has contributed to the rising prices of goods within the country. Based on data from the Observatory of Economic Complexity (OEC), Timor-Leste's major imports consist of Refined Petroleum ($114M), Coal Briquettes ($40.4M), Rice ($38.1M), Iron Structures ($25.4M), and Cars ($21.7M). The country mainly imports these goods from China ($260M), Indonesia ($249M), Singapore ($104M), Australia ($74.7M), and India ($28.8M). As a nation, Timor-Leste relies heavily on imports to meet its domestic consumption demands. This dependency stems from several factors, including limited domestic production capabilities, underdeveloped infrastructure, and a small-scale manufacturing sector.

The need to import a significant portion of its goods introduces various cost factors, including transportation expenses, import duties, and foreign exchange rates. These costs are passed on to consumers especially permanent civil servants, leading to higher prices for imported goods in the local market. Additionally, Timor-Leste's geographical location, as an island nation in Southeast Asia, may contribute to logistical challenges and increased transportation costs. It

consists of the tiny islands of Atauro and Jaco, the exclave of Oecusse on the northwest half of the island, and the eastern half of the island of Timor, of which Indonesia administers the western half. The Timor Sea divides the nation from its southern neighbor, Australia. 14,874 square kilometers (5,743 square miles) make up the nation. Its largest city and capital is Dili, (Wikipedia, 11 December 2023). Limited transportation options and longer supply chains can further escalate the prices of imported goods. Furthermore, fluctuations in global commodity prices, exchange rates, and international trade policies can impact the cost of imported goods in Timor-Leste. Changes in these external factors can influence the final prices of goods once they reach the local market.

Timor-Leste is classified as a food-deficit country, relying on imports to meet 60 percent of its food needs. Agricultural productivity in the nation remains low, posing challenges to achieving self-sufficiency in food production. This dependence on imported food makes Timor-Leste vulnerable to fluctuations in global markets and exposes the country to potential supply chain disruptions (WFP,2023).

Figure 1 Timor-Leste Trade balance of goods from 2011 to 2021(in million U.S. dollars)
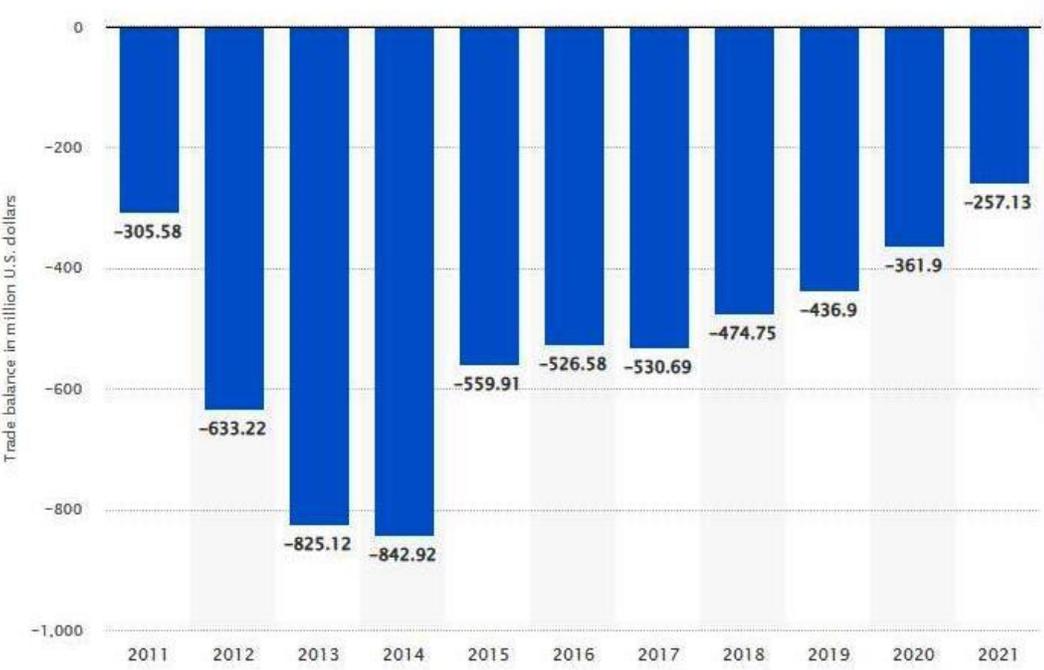
Source: Statista (2023)

In 2021, Timor-Leste faced a trade deficit of approximately 257.13 million U.S. dollars, highlighting the imbalance between the value of goods exported and imported by the country. A trade deficit occurs when the value of imported goods exceeds the value of exported goods. The trade deficit signifies that Timor-Leste's expenditures on imports surpassed its earnings from exports during that period. This imbalance can have various implications for the economy, including increased reliance on foreign goods, potential strain on the balance of payments, and the need for foreign currency to cover the deficit.

Before the Covid-19, purchasing power parity (PPP) for private consumption for Timor-Leste was 0.40 LCU per international dollars (Knoema, 2019). In Timor-Leste, one vulnerable group affected by inflation is the permanent civil servants who rely on their income that range from US$ 115- US$ 742 to support their families and meet their daily needs. Given their dependence on fixed salaries, any increase in prices can erode their purchasing power and negatively affect their ability to sustain their standard of living. As per the Asian Development Bank's report (2023), approximately 22.6% of the employed population in Timor-Leste earned less than $1.90 in PPP per day in 2021.

(1.2) Theoretical Framework
1.2.1. Inflation

Numerous theoretical frameworks have been advanced within the academic literature to elucidate the origins of inflation. Among these, two prominent viewpoints are the monetarist theory and the fiscal theory of price levels.

The monetarist theory, introduced by Nobel laureate Milton Friedman in 1968, offers a comprehensive framework for understanding the causes and dynamics of inflation within an economy. At its core, this theory emphasizes the pivotal role of monetary factors in shaping inflationary trends, and it provides a valuable lens through which to analyze the complex relationship between the money supply and price levels. The central premise of the monetarist theory revolves around the notion that inflation primarily arises from monetary dynamics. Specifically, it posits that inflation is a consequence of an expansion in the money supply relative to the economy's capacity to produce goods and services. In simpler terms, when the growth in the money supply outpaces the growth in the real output of an economy, it creates an excess of

liquidity in the market. Nigora (2002) argues that a rise in consumer demand and a subsequent rise in money supply will result in higher inflation rates.

According to Al-Hamidy (2011), the main reasons for Saudi Arabia's 2008 inflation were housing and food costs. A lot of people cannot afford to buy a new house because the price of private homes has reached unrealistic levels. Hasan & Alogeel. (2008) examined Saudi Arabia and Kuwait's inflation rates using the error correction model (ECM). Ramady (2009) argued that inflation has three effects on the economy: fiscal, political and economic. As a result of inflation, governments can feel pressured to raise taxes, people with low incomes and people in need of fixed income payments, like pensions, can suffer, and economic growth can suffer as well. Monetarist proponents argue that this surplus of money permeates through the economy, intensifying overall demand for goods and services. The heightened demand, in turn, exerts upward pressure on prices. This process ultimately culminates in elevated price levels across various sectors of the economy, resulting in inflation. Empirical investigations into the monetarist theory have consistently yielded results that support its core tenets. Numerous studies and historical analyses have demonstrated a strong and positive correlation between increases in the money supply and the incidence of inflation. These findings underscore the practical significance of the theory and its applicability in real-world economic scenarios. Link between monetary policy measured by broad money supply on the bank lending rate, indicating that the increase in the money supply by the central bank lowers the demand for loans and thereby lowers the cost of loan, (Khan, et al., 2023).

Furthermore, the monetarist theory places a spotlight on the actions of central banks, suggesting that their policies and decisions regarding money creation play a pivotal role in driving or mitigating inflationary pressures. Excessive money creation, often seen as a policy misstep, has been identified as a potential catalyst for inflation. In essence, when central banks generate an excessive amount of money in the economy, it can fuel inflationary tendencies, amplifying the challenges of maintaining stable price levels. The result shows that monetary policy has responded appropriately to the problems of inflation and unemployment. However, inflation generates a bigger response than unemployment, (Amrial et al., 2019).

In contrast to the monetarist theory, which emphasizes monetary factors, the fiscal theory of price levels offers an alternative perspective on the causes of inflation. This theory posits that

inflationary fluctuations primarily arise from fiscal dynamics, specifically focusing on government deficits and levels of public debt as key drivers of inflation. At the core of the fiscal theory of price levels is the idea that significant budget deficits at the governmental level have the potential to exert upward pressure on inflation rates. The rationale behind this proposition is grounded in the understanding that government deficits, when financed by an expansion of the money supply or other inflationary measures, can inject excess demand into the economy. This surplus demand, in turn, stimulates upward price pressures, leading to inflation. The increase in the money supply is found to cause inflation. Inflation has negative effects on both short- and long-term economic growth. Long-term, the increase in money supply has a negative effect on economic growth (Nigora, 2002:587)

The fiscal theory of price levels emerged as a distinct and influential economic theory, thanks to the pioneering work of economists Thomas Sargent and Neil Wallace in 1981. Their seminal contributions laid the foundation for this theory and opened up new avenues for exploring the interplay between fiscal policies and inflation. Over the years, the theory has evolved and deepened through the efforts of subsequent scholars, including Michael Woodford and Christopher A. Sims, whose work further refined and elaborated on its key principles.

In particular, the research of Leeper in 1991 has contributed significantly to the development of the fiscal theory of price levels. Leeper's work expanded the theoretical framework by examining the impact of fiscal policy choices on the macroeconomic environment and inflation outcomes. His insights helped clarify how government deficits and fiscal policies can affect the overall price level in an economy. Woodford's contributions in 2001 also played a pivotal role in advancing this theory. His research explored the linkages between fiscal policy, monetary policy, and inflation expectations, providing a more comprehensive understanding of how fiscal factors interact with other economic variables to influence inflation dynamics.

Empirical research has shed light on a fundamental aspect of inflation dynamics-the influential role of inflation expectations on actual inflation rates. This phenomenon is essential to comprehend, as it underscores the intricate interplay between individuals' beliefs and behaviors and the broader inflationary environment within an economy.

Inflation expectations refer to the anticipations held by individuals, households, businesses, and financial markets regarding future price increases. These expectations play a

critical role in shaping economic decisions, as they influence how people plan, consume, save, invest, and negotiate wages and contracts.

The empirical evidence in this domain is compelling and reveals that when individuals anticipate price increases, they often adapt their economic behaviors in ways that contribute to the overall inflationary dynamics. This phenomenon has been explored in-depth by economists like Mankiw, Reis, and Wolfers in their influential study in 2003.

One key mechanism through which inflation expectations influence actual inflation is through wage negotiations. When workers expect prices to rise, they may demand higher wages to maintain their purchasing power, which, if granted, can lead to increased labor costs for businesses. These higher labor costs can then translate into higher prices for goods and services, contributing to inflation. Additionally, inflation expectations can influence consumer spending habits. If individuals anticipate future price increases, they may rush to make purchases before prices go up, increasing overall demand for goods and services in the short term. This surge in demand can drive up prices, leading to inflationary pressures. In the context of financial markets, inflation expectations can affect interest rates. When investors anticipate rising inflation, they may demand higher nominal interest rates to compensate for the expected loss of purchasing power. Central banks may respond by adjusting policy rates in line with inflation expectations to control inflation.

Furthermore, inflation expectations can impact businesses' investment decisions. Firms may adjust their pricing strategies and investment plans based on their forecasts of future inflation. This, in turn, can influence the trajectory of inflation in the economy. Understanding the influential role of inflation expectations is crucial for policymakers and central banks. It highlights the importance of managing and anchoring these expectations to maintain price stability. Clear and credible communication of monetary policy objectives and inflation targets is one-way central banks aim to influence and anchor inflation expectations.

Furthermore, in the realm of inflation analysis, scholarly research substantiates a fundamental proposition: that inflation can materialize as a consequence of an upswing in aggregate demand relative to aggregate supply. This economic phenomenon, known as demand-pull inflation, plays a significant role in shaping inflationary trends and is grounded in the dynamics of supply and demand within an economy. Demand-pull inflation is characterized by a

scenario where the overall demand for goods and services in the economy outpaces its productive capacity-the ability to supply those goods and services. This imbalance creates upward pressure on prices as businesses face increased demand for their products and services but encounter limitations in their capacity to meet this heightened demand.

Scholars and economists have delved into this concept, and the research findings underscore the relevance of demand-pull inflation in various economic contexts. In particular, the work of economists Olivier Blanchard and Danny Quah in 1989 has contributed to a deeper understanding of this phenomenon. Robust economic growth and heightened consumer spending are two influential factors often associated with the emergence of demand-pull inflation. During periods of strong economic expansion, such as those characterized by increases in gross domestic product (GDP), low unemployment rates, and rising consumer confidence, the overall demand for goods and services tends to surge.

As consumer and business optimism grows, so does their willingness to spend and invest. This increased economic activity can lead to greater demand for products and services across industries. However, if the supply side of the economy is unable to match this surge in demand due to constraints such as limited production capacity or shortages of key inputs, prices begin to rise. This price pressure is a hallmark of demand-pull inflation. The research by Blanchard and Quah in 1989 helps solidify the connection between robust economic growth, heightened consumer spending, and demand-pull inflation. Their work, along with subsequent studies, highlights the importance of assessing the balance between aggregate demand and supply in economic analysis and policy formulation.
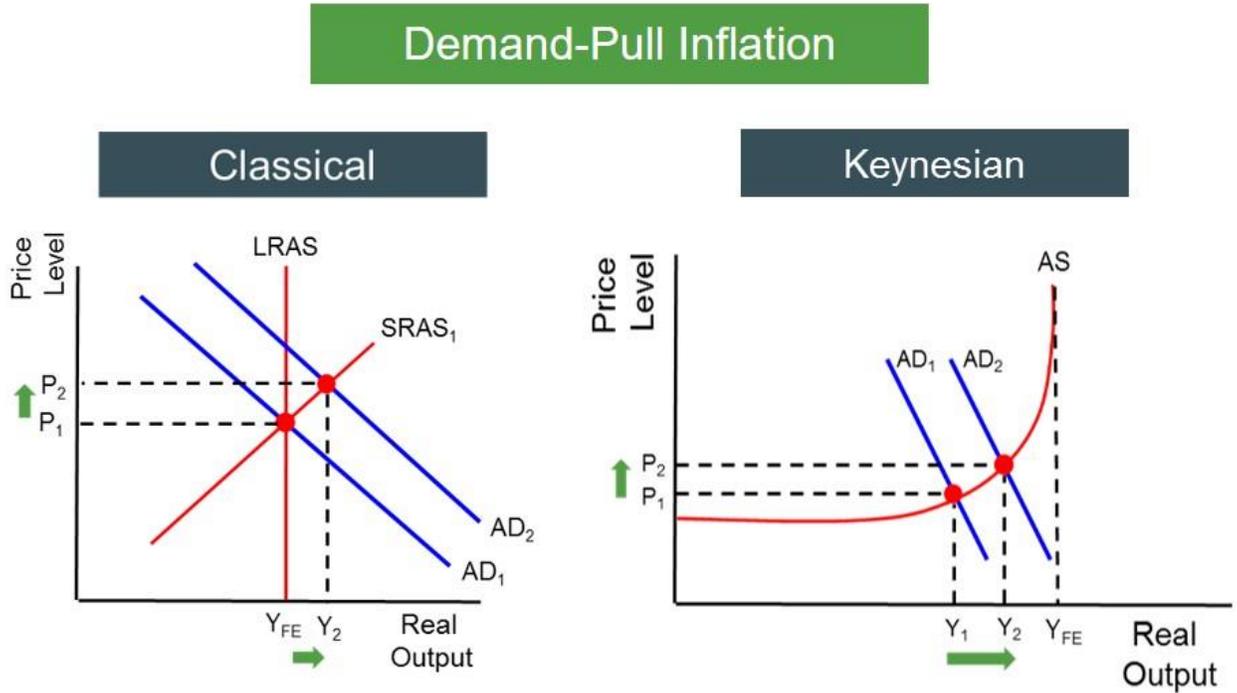
Source: ezyeducation.co.uk

For policymakers, understanding the dynamics of demand-pull inflation is critical. It underscores the importance of measures to ensure that the supply side of the economy can respond to increases in demand, whether through investments in infrastructure, enhancements in productivity, or other means. Balancing economic growth with supply-side considerations is key to maintaining price stability and preventing excessive inflationary pressures. The debt crisis of the 1980s, the Asian financial crisis of the late 1990s and the more recent debt crisis in Latin America in the 1990s and 2000s have all resulted in deep recessions. Many developing countries have repeatedly suffered crises due to poor macroeconomic management and policymaking. For example, Argentina has experienced four banking crises since 1945 (Reinhart and Rogoff 2009).

Cost-push inflation, in contrast, emerges as a distinct inflationary phenomenon driven by various external factors, notably including escalating energy prices and wage hikes. This type of inflation is characterized by an increase in the costs of production, which, in turn, puts upward pressure on prices for goods and services. Escalating energy prices constitute a significant driver of cost-push inflation. When the cost of energy sources, such as oil and gas, experiences a rapid and sustained increase, it can lead to higher production costs for businesses across various

sectors. These elevated production costs are often passed on to consumers in the form of higher prices for energy-dependent products, transportation services, and a wide range of goods. As a result, the general price level rises, contributing to inflationary trends.

Wage hikes represent another influential factor in cost-push inflation. When workers negotiate and secure higher wages, it directly affects a firm's labor costs. To maintain profit margins, businesses may respond by increasing the prices of their products and services. This upward pressure on prices propagates throughout the economy, impacting the overall price level and contributing to inflation. Research findings, such as those highlighted by Danziger in 1978, have consistently demonstrated the validity of the cost-push inflation concept. These studies provide empirical evidence of the connection between rising energy prices, wage increases, and inflationary trends. As such, cost-push inflation is a recognized and well-documented phenomenon in the field of economics, underscoring the significance of external cost-related pressures in shaping inflation dynamics.

Furthermore, in the realm of monetary policy and inflation management, investigations have uncovered a compelling relationship between the adoption of inflation targeting frameworks by countries and the resultant achievement of greater stability and predictability in their inflation rates (Bernanke, Laubach, Mishkin, and Posen, 1999). This finding carries profound implications for economic policymakers and central banks seeking to establish robust strategies for price stability.

Inflation targeting represents a strategic approach wherein a central bank explicitly sets and communicates an inflation target as its primary policy objective. The central bank then employs a variety of tools, such as interest rate adjustments, to steer inflation toward this predetermined target. This policy framework, as articulated by Bernanke and his co-authors, has gained significant attention and traction among central banks around the world. One of the key insights from research conducted by Bernanke et al (1999) is that countries that have embraced inflation targeting tend to exhibit greater stability in their inflation rates over time. By anchoring inflation expectations to a specific target, central banks send a clear signal to financial markets, businesses, and the public about their commitment to price stability. This, in turn, fosters an environment of confidence and predictability.

Moreover, inflation targeting frameworks often necessitate a high degree of transparency and accountability on the part of central banks. They are required to communicate their policy decisions and actions openly, providing regular updates on their progress toward meeting the inflation target. This transparency not only enhances the effectiveness of monetary policy but also bolsters the credibility of the central bank, reinforcing the public's trust in its ability to control inflation. The stability and predictability of inflation rates in countries that adopt inflation targeting frameworks can have far-reaching benefits for their economies. It promotes favorable conditions for investment, supports long-term planning by businesses, and encourages prudent financial decision-making. In turn, these factors contribute to overall economic stability and growth.

Hansen's methodology, as cited in Levin, Natalucci & Piger's 2004 study, represents a significant contribution to the field of inflation analysis, particularly in the context of consumer price inflation (CPI). This approach aimed to provide a more nuanced and comprehensive understanding of the persistence of inflationary trends, both in the broader CPI and in its core components. The concept of "persistence" in inflation refers to the degree to which past inflation rates continue to influence and predict future inflation rates. In essence, it seeks to uncover whether there is a lasting impact of previous inflation experiences on the inflationary dynamics of an economy. Hansen's methodology focuses on deriving "median-unbiased" measures of persistence. Median-unbiased estimators are valuable because they are robust statistical tools that help reduce the influence of extreme or outlier data points, providing a more balanced and reliable assessment of persistence.

By applying this methodology to both the total CPI and the core CPI, Hansen and the researchers cited in Levin, Natalucci and Piger (2004) aimed to gain insights into the persistence of inflation across different dimensions. The total CPI includes a wide range of goods and services, including those with volatile prices (e.g., energy and food), while the core CPI excludes these volatile components, offering a more stable view of underlying inflation trends. The findings from this research likely contribute to our understanding of how past inflation trends affect future inflation expectations and outcomes. These insights can be valuable for policymakers and economists, as they help inform the design and implementation of monetary policy, providing a more nuanced understanding of inflation dynamics.

Global factors, notably including oil price fluctuations and disruptions in supply chains, possess the capacity to exert a pronounced influence on the inflationary dynamics of individual nations (Baumeister and Peersman, 2013). Oil price fluctuations, driven by factors such as geopolitical events, supply constraints, or changes in global demand, can have a cascading effect on inflation. When oil prices surge, the increased costs of energy production and transportation often lead to elevated prices for goods and services, thereby contributing to inflationary pressures. Conversely, a drop in oil prices can exert downward pressure on inflation by reducing production costs and the prices of energy-related goods.

Payne (2008) in his study reveal that both the Bahamas and Jamaica exhibit a high degree of volatility persistence in response to inflationary shocks, while Barbados has a much lower persistence measure. Granger-causality tests indicate that an increase in inflation has been a positive impact on inflation uncertainty for each country. However, an increase in inflation uncertainty yields a decrease in inflation in the case of Jamaica.

1.2.2. Income

Extensive research consistently underscores the pressing concern of income inequality, which persists as a significant issue in numerous countries worldwide. Over the past few decades, this socioeconomic challenge has become increasingly pronounced, with the gap between the highest and lowest income earners steadily widening (Piketty,2014). This alarming trend highlights the need for comprehensive policies and initiatives aimed at addressing income disparities and fostering greater economic equity within societies.

An individual's position within the ownership and authority structure of an economic organization is a central determinant of personal income (Robinson and Kelley 1979; Proudhon 2011; Wright 1978). No definitive explanation for changes in the distribution of personal income has emerged from this extensive volume of research, and prior models of distributional trends leave considerable room for improvement (McCall and Percheski 2010; Morris and Western 1999). several other recent studies provide evidence of an association between social class and rising personal income inequality. For example, research on executive compensation reveals a pattern of strong earnings growth for upper management (Frydman and Jenter 2010; Goldstein 2012); recent work on inequality of capital ownership suggests that it is rising (Piketty 2014); and research on economic elites indicates that earnings from financial investments have become

an increasingly important source of income for this group over the past several decades (Nau 2013; Volscho and Kelly 2012). Several other studies have directly linked growth in personal income inequality to class typologies defined in terms of large occupational groups with similar skill requirements, job tasks, and career trajectories (Morgan and Cha 2007; Morgan and Tang 2007; Weeden et al. 2007).

Studies have highlighted the phenomenon of wage stagnation, where real wages (adjusted for inflation) for many workers have not increased significantly over time, despite overall economic growth (Wodtke, 2016).

Research consistently finds that education is strongly correlated with higher household income. Individuals with higher levels of education tend to earn more on average (Blank et.al, 1999). The gender wage gap continues to be a subject of research and policy concern. Women tend to earn less than men for similar work, and research explores the factors contributing to this gap (Blau and Kahn, 2017). Studies show that social safety net programs, such as unemployment benefits and food assistance, can have a positive impact on household income and poverty reduction (Bitler and Hoynes, 2015). Research on income mobility examines how individuals and households move up or down the income ladder over time. Findings suggest that there is some degree of income mobility in most economies (Chetty et al., 2014).

The research indicates that the incomes policy based on the 1993 Protocol brought about a significant change in how wages are determined, leading to non-stationary residuals in the long-run estimates. This policy caused a notable reduction in the share of wages relative to GDP in the early 1990s, which has remained at around 57 percent since 1995. Before the policy change, wages were closely linked to productivity, but this link weakened afterward. The policy also increased real wage flexibility as evidenced by a higher feedback mechanism. In recent years, the relationship between real wages and labor productivity growth has further weakened, introducing a new form of upward wage rigidity. Lastly, the policy altered the correlation between wages and the unemployment rate, making it statistically insignificant (Pastore, 2010).

The research findings indicate that both agricultural and industrial growth significantly reduce income inequality, while service sector growth has a positive effect. This aligns with the Kuznets inverted "U" hypothesis for industrial growth and the Kuznets "U" hypothesis for

service sector growth. Additionally, the study highlights the long-term impact of sectoral growth and inflation on income inequality (Siami-Namini and Hudson, 2019).

1.2.3. Cost of Inflation

Inflation leads to "menu costs" for businesses, which are the costs associated with changing prices. Frequent price adjustments in response to inflation can be costly for firms (Blinder, 1998). To determine the magnitude of the price adjustment costs, we used time study methods of industrial engineering. Levy, et al (2001) and Dutta, et al (1999) have also used these methods to measure menu costs. However, unlike these studies, which focus only on the physical costs of changing prices, we are addressing all three types of costs: (i) physical, (ii) managerial, and (iii) customer costs of changing prices. As the literature on engineered work measurement indicates (Karger and Bayha, 1977), while industrial engineering time studies can be applied directly to repeated physical costs, these methods must be adapted to address the "knowledge workers" who are the primary contributors to the managerial and customer costs (Zbaracki et al, 2004).

High and unpredictable inflation can create uncertainty in the economy, which can discourage long-term investments. This can lead to lower economic growth (Fischer, 1981). Inflation can redistribute wealth and income, often unfavorably. Those on fixed incomes or with low financial assets may experience a decline in real income during periods of inflation (Dornbusch and Fischer, 1993).

High inflation rates can lead to "shoe leather costs," referring to the inconvenience and costs associated with individuals frequently converting currency to avoid its erosion in value (Mankiw, 2009). Inflation can distort price signals in the economy, making it difficult for individuals and businesses to make informed decisions about saving, spending, and investment (Taylor, 1999).

Inflation erodes the real return on savings and can lead to lower real interest rates. This can discourage saving and result in reduced capital formation (Feldstein, 1982). The Phillips curve, which is exclusively associated with the capacity of conflicting claims over nominal income to create inflation. Hence suppose there exists an incomes policy or "social bargain" (Cornwall and Cornwall, 2001) that creates a conventional and mutually acceptable functional distribution of income that both capital and labor are content to maintain. This will reduce the

willingness of workers to bid up wages at any given level of economic activity in an effort to translate the market power vested in them by the latter into a larger share of income.

1.2.4. Consumption Behavior

Research consistently highlights a positive relationship between income and consumption. This fundamental economic concept, as proposed by Friedman in 1957, suggests that as individuals or households experience an increase in income, they tend to allocate more of their financial resources toward consumption. This is because higher income levels provide individuals with greater means to satisfy their needs and desires through increased spending on various goods and services.

The life-cycle hypothesis, developed by Modigliani in 1966, offers insights into how individuals manage their consumption over their lifetime. According to this theory, individuals aim to maintain a relatively constant level of consumption throughout their lives. To achieve this, they adjust their consumption patterns by saving during periods of higher income and potentially borrowing during periods of lower income. This approach helps individuals smooth their consumption over time, ensuring that they can maintain their desired lifestyle.

Research indicates that changes in household wealth can significantly impact consumption behavior. For example, when the value of assets like real estate or stocks increases, households often respond by increasing their consumption levels. This is because the heightened value of these assets can serve as collateral for borrowing or provide a sense of financial security, encouraging households to spend more (Carroll, 2001).

Consumer sentiment, as assessed through surveys and indices, plays a crucial role in shaping consumption behavior. Studies have shown that fluctuations in consumer confidence can have a substantial influence on individuals' spending decisions (Seater, 1993). When consumers perceive economic conditions as favorable and express confidence in the future, they are more likely to increase their spending. Conversely, declining consumer confidence can lead to reduced consumption as individuals become more cautious about their financial outlook.

Behavioral economics research has shed light on the importance of psychological factors in shaping consumption decisions. Concepts like loss aversion and framing can significantly impact consumer choices (Kahneman and Tversky, 1984). For example, individuals often exhibit

a stronger aversion to losses than a desire for equivalent gains, which can influence their spending and saving behaviors.

During economic crises or periods of heightened uncertainty, research suggests that consumers tend to adjust their consumption patterns. As a precautionary measure, they often reduce their spending on discretionary goods and services and increase their savings. This conservative approach helps individuals and households' weather financial instability and economic downturns (Stephens, 2004).

1.2.5. Preventive Measure and Policy

Research consistently underscores central banks' role in controlling inflation through monetary policy tools, particularly through strategies like inflation targeting (Bernanke et al., 1999). Inflation targeting has proven effective in maintaining price stability. Studies have explored the influence of fiscal policies, including government spending and taxation, on inflation. Well-designed fiscal policies can help stabilize prices and manage inflationary pressures (Blinder and Solow, 1973). Exchange rate policies also play a role in influencing inflation. Maintaining a stable exchange rate can be an effective tool for controlling imported inflation (Obstfeld and Rogoff, 1995).

Preventing a spiral of rising inflation expectations is crucial, and anchoring inflation expectations through credible central bank communication can help maintain price stability (Benigno and Woodford, 2003). Additionally, research has explored the role of supply-side policies, such as deregulation and structural reforms, in addressing inflation. These policies can increase the economy's productive capacity and reduce inflationary pressures (Alesina and Perotti, 1996). Research highlights the importance of central bank independence in combating inflation, as independent central banks are often better equipped to make tough monetary policy decisions (Cukierman, 1992). Furthermore, studies have examined the role of wage indexation and bargaining structures in influencing inflation dynamics. Flexible wage-setting mechanisms can help mitigate inflationary pressures (Calvo, 1983). Recent studies by Othman, Nordin, and Sadiq (2020) suggest the importance of preventive strategies, both at the macro and micro levels, for sustainable income for the government.

The adoption of inflation targeting (IT) in various countries has yielded mixed results. In Chile, a gradual approach to disinflation produced low inflation without excessive output costs.

Israel's monetary policy framework coexisting with two nominal goals, inflation target, and a crawling exchange rate band, had challenges, including quasifiscal costs. The Czech Republic, Poland, and Hungary also adopted IT, each with unique experiences. Mexico and Brazil introduced IT regimes, with different paths and outcomes. Colombia and Peru adopted IT in the late 1990s, marking the beginning of IT features. South Africa's shift to IT occurred after financial liberalization and structural developments in the 1990s (Siklos, 2001, Kuttner and Posen, 1999 and 2001 and Corbo et al., 2001).

The costs of financial volatility, particularly in terms of economic growth, are high, leading to underutilization of production capacity and reduced capital productivity (Loayza, et al., 2003 and Easterly, 2001). The presence of increasing returns exacerbates these effects, while financial instability can lead to cumulative losses in resources. Real exchange rates play a crucial role in determining investment, growth, and employment in open developing economies (Easterly, et al., 2001, IMF, 1998; Bordo, et al., 2002). Exchange rate fluctuations can impact tradable sectors, and appreciation pressures during periods of foreign exchange abundance may lead to de-industrialization effects. The choice of exchange rate regime in developing countries is a complex decision involving a balance between stability and flexibility (Reinhart and Rogoff, 2004). Authorities may opt for intermediate exchange rate regimes, which include an element of "real exchange rate targeting" to achieve multiple objectives (Frenkel, 2004). The management of output volatility under inflation targeting and capital mobility can lead to pro-cyclical monetary policies (Svensson, 2000).

Central banks have a crucial role in inflation control, and strategies like inflation targeting have proven effective. However, the choice of monetary policy should consider the socio-political and economic context. Central bank independence, credible communication, and flexible wage mechanisms are essential factors. Additionally, the adoption of IT varies among countries, with diverse experiences and outcomes. The macroeconomic impact of financial volatility underscores the importance of effective policy measures. Real exchange rates play a vital role in growth and employment, and exchange rate regimes should balance stability and flexibility. Central banks play a pivotal role in achieving long-term price stability, especially in economies facing multiple objectives and challenges.

(1.3) Problem Statement

Timor-Leste has experienced a substantial surge in inflation, skyrocketing from 0.96% in 2019 to a significant 6.7% by October 2022, with Food and Non-Alcoholic Beverages comprising a substantial 64% of this inflationary index. Notably, critical components within this category, such as Rice (17%), Vegetables (15%), and Meat (8%), have seen substantial price increases (tradingeconomics, 2023). For example, *Bimoli* Cooking oil's price has doubled from $3.75 in 2020 to $7.50 in 2023, severely eroding purchasing power. Concurrently, the minimum wage in Timor-Leste remains stagnant at a meager $115, failing to keep pace with annual inflationary pressures, resulting in de facto wage inflation and increasingly challenging access to basic necessities.

Timorese consumers, particularly permanent public servants (PPS), grapple with constrained choices in the marketplace, forced to purchase essential items regardless of price volatility due to limited alternatives. This limitation restricts their capacity to allocate funds for savings, heightening their economic vulnerability. In Dili, the capital city, the elevated cost of living disproportionately burdens residents, compounded by high prices, constrained consumer choices, and a penchant for a high standard of living, including cultural and social expenditures. Timor-Leste's heavy reliance on imported goods and services exposes it to fluctuations in global commodity prices and international trade dynamics. The absence of effective price control mechanisms amplifies price volatility, complicating expense management. The country's lack of diversification in domestic production, coupled with limited foreign investment and a formidable Consumer Price Index (CPI) at 122.60, exacerbates economic disparities (tradingeconomics, 2023). Given these complex economic challenges, it is imperative to prioritize permanent public servants as a key demographic group due to their stable income, even though they are disproportionately impacted by the erosion of purchasing power. The 4.86% unemployment rate in 2022 underscores the urgency of addressing these issues (macrotrends,2023). Timor-Leste's economic stability and the well-being of its citizens hinge on the need for a comprehensive and sustainable solution to mitigate the adverse effects of this crisis, elevate Permanent Public Servants living standards, and foster economic resilience and diversification nationwide.

(1.4) Formulation of Hypothesis

H1: There is a significant relationship between inflation and Income of Permanent Public Servants in Dili Timor-Leste.

H2: There is a significant relationship between inflation and Inflation Cost in Dili Timor-Leste

H3: There is a significant relationship between inflation and Consumption Behavior of Permanent Public Servants in Dili Timor-Leste.

H4: There is no significant relationship between inflation and Preventive Measure and Policy in Dili Timor-Leste.

(1.5) Objectives

1.5.1 General Objective

The general objective of this research is to comprehensively examine the multifaceted impact of inflation on various dimensions, including inflation costs, income levels, consumption behavior, and the effectiveness of preventive measures and policies, within the context of Dili, Timor-Leste, with a specific focus on Permanent Civil Servants as a case study.

1.5.2 Specific Objectives

1. To analyze the relationship between inflation and Permanent Civil Servants income levels in Dili, Timor-Leste.
2. To analyze the relationship between inflation and Inflation cost in Dili, Timor-Leste.
3. To analyze the relationship between inflation and consumption behavior of Permanent Civil Servants in Dili, Timor-Leste.
4. To analyze the relationship between inflation and preventive measure and policy in Dili, Timor-Leste.

(1.6) Importance of Research

Timor-Leste, a developing nation with a small economy, faces the critical task of maintaining economic stability for long-term growth. Investigating the effectiveness of inflation control measures is vital for this stability, particularly concerning the well-being of permanent civil servants who are essential to public service. The study's significance extends to addressing income disparities and poverty, informing evidence-based policymaking, and bolstering the nation's resilience in the face of inflationary pressures, import dependency, and supply chain

vulnerabilities. Timor-Leste's integration into the global economy necessitates an understanding of how international factors impact domestic inflation and economic decision-making.

This study holds significant importance as it addresses critical economic and social issues in Timor-Leste, offers insights into effective policy measures, and contributes to the broader knowledge base in economics and development studies. The outcomes of this research can guide policymakers, support economic stability, and improve the well-being of permanent civil servants and the wider population.

(1.7) Research organization

This research is composed of the following sections: In the first section, it primarily focuses on the introduction, which looks specifically at the research problem and its objectives to achieve or provide solutions to the referred research problem. In the second section it discusses the geographical location covered in one municipality, namely Dili. In the third section, the research methodology is addressed. This research applied a mix methods approach to investigate the effectiveness of preventive measures and policies in curbing inflation and protecting the income and consumption of permanent civil servants in Dili, Timor-Leste. The mixed methods approach allows for a comprehensive understanding of the topic by combining qualitative and quantitative data collection and analysis techniques. In the fourth section, the discussion revolves around data analysis and the presentation of research results that are based on the research objectives. Finally, in the last section, conclusions and recommendations derived from this research are presented.

(1.8) Geographical Location

The geographical location for the study "Investigating the effectiveness of preventive measures and policies in curbing inflation and protecting household income and consumption in Dili, Timor-Leste (Permanent Civil Servants)" is primarily the city of Dili. Dili is not only the capital and main business center of Timor-Leste but also where a majority of permanent civil servants reside. This research focuses on the impact of preventive measures and policies on inflation, household income, and consumption in Dili, particularly among permanent civil servants who are predominantly located in the city. Map of Dili Municipality is shown below:

Figure 3 Map of Dili Municipality (Source, Wasianga F, 2022)

2. Methodology

(2.1) Research Methodology

This research applied a mixed methods approach to investigate the Influence of Inflation on Income, Inflation Costs, Consumption Behavior and Preventive Measures and Policies in Dili, Timor-Leste: A Case Study of Permanent Civil Servants. According to Creswell (2021) Mixed research methods are an approach to investigate behavioral, social, and health-related problems by collecting and analyzing quantitative and qualitative data strictly as answers to research questions, and integrating or "mixing" the two forms data in a particular research design to yield new and more complete insights or understandings than what might be obtained from quantitative or qualitative data alone.

(2.2) Population and Sample

The study conducted in Dili, Timor-Leste, during May and June 2023, centered its investigation on a specific population: the 33,000 permanent civil servants residing in the area. To conduct the research effectively, a carefully selected sample of 395 individuals from the permanent civil servant pool was studied. This sample was chosen from among those who were present in Dili during the study period, the Slovin formulas that can be used according to Tejada et al (2012) is:

$$n = \frac{N}{1 + Ne^2}$$

$$\frac{33,000}{1 + 33,000 \, (0.05)^2}$$

$$\frac{33,000}{1 + 33,000 \, (0.0025)}$$

$$\frac{33,000}{1 + 82.5}$$

$$\frac{33,000}{83.5}$$

395.20 or 395 Samples

where:

n   = Total Samples

N = Total Population

e^2 = margin of error (expressed in %)

In another alternative that this research employed to select its sample, it used the accidental sampling method, which means that the informants were individuals who have knowledge in the respective area (Etikan and Alkassim, 2016; p. 1). The key informants for this research were general director of Statistic department-INETL, the General Director of SECOOP, the commissioner of Customs (Aduaneira), academics such as, the director of Catholic Business School, the coordinator of accounting department, The Executive director of *Fundação Educasional Salesiana* (FES), Dom-Bosco and the general director of INDIMO with a total of 7 individuals.

These key informants were chosen for their specific roles and expertise that directly pertain to the research areas of inflation, income, inflation cost, consumption behavior and preventive measure of inflation in Timor-Leste:

1. In his capacity as the Executive Director of Fundação Educacional Salesiana (FES) in Dom Bosco-Comoro, Father Acácio Domingos de Castro sheds light on the pivotal role played by the education sector in addressing inflationary challenges in Timor-Leste. Father Castro emphasizes the significance of developing human capital as a means to alleviate inflationary pressures. By investing in education and skills development, the country can enhance its workforce, fostering a more efficient and productive economy.

2. The General Director of INDMO, Isabel Fernandes de Lima, focuses on non-formal education in Timor-Leste. She emphasizes the organization's commitment to enhancing labor market efficiency, reducing unemployment, and preventing demand-pull inflation. Non-formal education programs are seen as a strategic approach to equipping individuals with relevant skills, thereby contributing to a more competitive and resilient workforce.

3. Sr. Cristiano Gusmão, in his role as the General Director of INETL (Statistics), provides crucial information and access to data related to inflation and consumption in Timor-Leste. By offering accurate and up-to-date statistical insights, INETL plays a key role in supporting informed decision-making and policy formulation to manage and prevent inflation effectively.

4. As the General Director of SECOOP (Cooperatives), Natalia Rocha da Costa shares in-depth information on how cooperatives contribute to preventing inflation. SECOOP focuses on enhancing the local economy by supporting and promoting local businesses and producers. Through cooperative efforts, the organization aims to create a more stable economic environment, mitigating factors that could lead to inflationary pressures.

5. The Director of the Catholic Business School and economist, Prof. Dr. Manuel Brito, leverages his expertise to convey valuable information regarding inflation and its effects on personal consumption behavior. Dr. Brito shares insights on preventive measures in Timor-Leste, emphasizing the importance of economic literacy and responsible consumer behavior in mitigating inflationary tendencies.

6. Mr. José António de Fátima, in his role as the Commissioner of *Aduaneiro* (Customs and Duty), furnishes information concerning trade and customs. He outlines the role of customs in preventing inflation through various mechanisms, including trade regulations and import/export controls. Mr. Fátima's insights are crucial for understanding the broader economic landscape and how trade practices contribute to inflation dynamics.

7. In his role as the Coordinator of the Accounting Department, Professor Dr. Afonso Aleixo has imparted valuable expertise regarding financial information and accounting principles, particularly in the comprehension, measurement, and issues related to inflation within an economy.

(2.3) Data Collections Techniques and Instruments

The method used in this study are the questionnaire and interview methods:

a. Data collection was conducted through the distribution of questionnaires to the respondents and conducting interviews (Blom et al., 2020; p. 171).

b. Interview:

A technique for gathering data through oral communication between a researcher and a respondent is an interview. Interviews can be conducted in-person or virtually using tools like phones and video conferencing. Semi-structured interviews offer greater flexibility as the researcher is permitted to ask additional questions outside the set questions (Mwita,2022:533).

The questionnaires in this study employ the Likert Scale measurement model, which uses a series of statements or objects to assess the respondent's opinions or beliefs (Widodo, 2004: 105). Responses are given in a multiple-choice format, with options including Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree, each of which is assigned a score of 5, 4, 3, 2, or 1, respectively. A score of 5 is awarded for Strongly Agree, while a score of 4 is given for Agree, 3 for Neutral, 2 for Disagree, and 1 for Strongly Disagree.

We used accidental sampling to distribute our questionnaires to permanent civil servants who were willing to be respondents. Each respondent was asked to answers the questionnaire about the Influence of Inflation on Income, Inflation Costs, Consumption Behavior and Preventive Measures and Policies in Dili, Timor-Leste: A Case Study of Permanent Civil Servants. We distributed 395 questionnaires to the permanent civil servants all around Dili specially whom worked at the ministries but at the end we only obtained 345 (87.34%) questionnaires from our respondents and 50 (12.66%) questionnaires are not returned.

(2.4) Data Analysis Techniques

The quantitative data collected through questionnaire and secondary sources analyzed using PLS. The sample size of 395 individuals exceeds the minimum requirement recommended by the SMART-PLS 3.0 rule of thumb, which suggests a sample size of ten times the largest number of inner model paths directed at a particular construct in the inner model (Hair et al., 2014; Andrei et al., 2017).

For testing reliability, validity, and hypotheses, we used SMART-PLS 4.0, a statistical computer package widely known for its suitability for small sample sizes (up to 30 participants), multi-variable analysis, collinearity testing, normality assumptions, and formative/reflective indicators (Hair et al., 2014; Saldanha et al., 2018, 2019). Cronbach's Alpha (CA) and composite reliability (CR) were used to test reliability (Hair et al., 2014; Saldanha et al., 2018). The convergent validity was tested using indicator loading or outer loading (OL) and average variance extracted (AVE) (Hair et al., 2017). Discriminant validity testing used Fornell-Larcker criterion (Hair et al., 2014) and *heterotrait-monotrait* (HTMT (Henseler et al., 2015). Hypothesis test was carried out by using path coefficient (T and P values) observing direct and indirect effects from bootstrapping calculation (Hair et al., 2014; Hair et al., 2017; Saldanha et al., 2018).

3. Results Analysis and Discussion of Results

(3.1) Results Analysis

The data analysis involved two distinct components. Firstly, quantitative data was collected by gathering opinions from respondents. Secondly, to complement the quantitative findings, qualitative data was transcribed from the perspectives of the general director and academics.

3.1.1 Respondents Demography

The composition of respondents based on gender obtained from 345 Respondents can be seen in the table below:

Table 1. 1 Gender

No.	Gender	Frequency	Percentage (%)
1	Male	179	51.9
2	Female	166	48.1
	Total	**345**	**100%**

Source: Primary data collected by the authors (2023)

The research findings reveal a notable gender disparity among employees in Dili, particularly within the permanent civil servant's category. It is evident that there is a substantial overrepresentation of males compared to females in this specific workforce segment. Specifically, the data indicates that there are 179 male respondents, with 51.9% of the total, while the female respondents' number 166, with 48.1% of the total. These figures, as depicted in the table presented above, underscore the prevalence of male employees as a dominant demographic in the context of this study.

Table 1. 2 Age

No.	Age	Frequency	**Percentage** (%)
1	21-30	53	15.4
2	31-40	147	42.6
3	41-50	106	30.7
4	51-60	33	9.6
5	>61	6	1.7
	Total	**345**	**100%**

Source: Primary data collected by the authors (2023)

Based on the table above, it shows the age of the respondents varies this study, for ages 21-30 years there were 53 respondents or equal to percentage of 15.4 %, then for ages 31-40 years as many as 147 respondents or by 42.6%, then for ages 41-50 years there were 106 respondents or by 30.7%, then for ages 51-60 years there were 33 respondents or by 9.6% and then for ages >61 years as many as 6 respondents or by 1.7%. From the table the dominant in this study is age levels 31-40 years and 41-50 years.

Table 1. 3 Education Level

No.	Education Level	Frequency	Percentage (%)
1	Primary	1	.3
2	Junior High School	3	.9
3	High School	77	22.3
4	D3	38	11.0
5	Undergraduate	208	60.3
6	Master	18	5.2
	Total	**345**	**100%**

Source: Primary data collected by the authors (2023)

From the table above, it is known that the number of last education Permanent Civil Servants in Dili search and rescue as only 1 respondent or equal to percentage of 0.3% came from Primary School, as many as 3 respondents or equal to percentage of 0.9% came from Junior High School, as many as 77 respondents or equal to percentage of 22.3% came from High School, as many as 38 respondents or equal to percentage of 11.0% came from D3, as many as 208 respondents or equal to percentage of 60.3% came from Undergraduate and the last came from Master Degree as many as 18 respondents or equal to percentage of 5.2%. From the table last education in this study is more dominant in last education Undergraduate.

Table 1. 4 Position

No.	Position	Frequency	Percentage (%)
1	Staff	247	71.6
2	Technic Asistent	9	2.6
3	Technic Administration	17	4.9
4	Head of Department	43	12.5
5	Coodinator	8	2.3
6	comandand PNTL	2	.6
7	Inspector Quarentine	4	1.2
8	Director	1	.3
9	Others	10	2.9
10	Cleaner	1	0.3
11	Advisor	2	0.6
Total		**345**	**100%**

Source: Primary data collected by the authors (2023)

Based on Table above illustrate respondents by position functionally it was found that the respondent served as the Staff service amounted to 247 people (71.6%), Technic Assistant amounted to 9 person (2.6%), Technic Administration as many as 17 person (4.9%), there are serve as Head of Department amount 43 person (12.5%), Coordinator as many as 8 respondents (2.3%), serve as Comandante PNTL amount 2 person (0.6%) and another who serve as Inspector Quarantine as many as 4 respondents (1.2%). In addition, there are 1 people serving as directors, serve as other is 10 persons (2.9) %, position as cleaner is 1 person with a percentage of 0.3%, and the last one served as advisers amounted to 2 people with a percentage of 0.6%. From the table based on position in this study is more dominant is staff. This supported by an individual's position within the ownership and authority structure of an economic organization is a central determinant of personal income (Robinson and Kelley 1979; Proudhon 2011; Wright 1978).

Table 1. 5 Institutions

No.	Institution	Frequency	Percentage (%)
1	Secoop	10	2.9
2	Diresaun Geral Servisu Migrasaun	21	6.1
3	Ministerio Interior	6	1.7
4	INDMO	18	5.2
5	Gabinente Primeiro Ministro	12	3.5
6	Ministerio Edukasaun	29	8.4
7	Ministeriu Saude	13	3.8
8	Ministeriu Finansas	7	2.0
9	PNTL	16	4.6
10	F-FDTL	10	2.9
11	MSSI	21	6.1
12	MAP	35	10.1
13	Autoridade Aduaneira	8	2.3
14	Alfandega Porto Tibar	20	5.8
15	INETL	18	5.2
16	MOP	26	7.5
17	FDCH	1	.3
18	MTA	22	6.4
19	Ministerio Administrasaun Estatal	21	6.1
20	Ministeriu Justisa	14	4.1
21	Seluk	13	3.8
22	BNCTL	4	1.2
Total		**345**	**100%**

Source: Primary data collected by the authors (2023)

The table shows that the number of respondents from the SECOOP amounted to 10 person with percentage of 2.9%, Immigration Service of Timor-Leste (*Diresaun Imigrasaun Timor-Leste*) as many as 21 person (6.1%), Ministry of Interior (*Ministeriu Interior*) amounted 6 person with percentage 1.7%, INDMO amount 18 person (5.2%), Primer Minister Cabinet (*Gabinete Primeiro Ministro*) with total 12 respondents (3.5%), Ministry of Education 29 person (8.4%), Ministry of Health 13 person (3.8%), Ministry of Finance 7 person (2.0%), The National Police of Timor-Leste/PNTL 16 person (4.6%), and from F-FDTL as many as 10 respondents (2.9%). Besides that, the respondents from the ministry of Ministry of Social Solidarity and Inclusion/MSSI totaled 21 people (6.1%), Ministry of Agriculture and Fisheries/MAF 35 person (10.1%), Custom Authority/*Autoridade Aduaneira* 8 person (2.3%), Tibar Port (*Alfandega Porto* Tibar) 20 person (5.8%), National Institute of Statistics Timor-Leste (INETL) 18 person (5.2%) and from FDCH only one person (0.3%). Furthermore, from the Ministry of Tourism and Environmental/MTA there are 22 people with percentage of 6.4%, Ministry of State Administration (*Ministerio Administrasaun Estatal*) as many as 21 respondents or equal to percentage of 6.1%, from Ministry of Justice (*Ministeriu Justisa*) totaled 14 person (4.1%), other

are 13 person (3.8%) and the last institution to be a respondent is BNCTL with a total of 4 respondents with a percentage of 1.2%.

Table 1. 6 Salary

No.	Salary (Grau)	Frequency	Percentage (%)
1	$115-$175	12	3.5
2	$176-$237	56	16.2
3	$237-$297	120	34.8
4	$298-$358	70	20.3
5	$359-$419	24	7.0
6	$420-$570	26	7.5
7	$571-$742	26	7.5
8	>$743	11	3.2
Total		**345**	**100%**

Source: Primary data collected by the authors (2023)

From the table above, it can be seen that this research consisted of 345 respondents of employees with earnings divided into eight categories. This matter shows if the most or dominating research respondents come from employees with income $237-$297 than employees with other income categories with a percentage of 34.8%. This supported by the research on executive compensation reveals a pattern of strong earnings growth for upper management (Frydman and Jenter 2010; Goldstein 2012).

3.1.2 Variable Description

a. Inflation

It can be recapitulated and tabulated based on ten inflation indicators. The findings are as follows:

Table 1. 7 Distribution of Respondents' Answers to Inflation

NO.	STATEMENT	Answer					Mean
		1	2	3	4	5	
		SD	D	N	A	SA	
1	The cost of essential goods and services has increased significantly in the past year.	27	58	43	138	79	3.53
2	I have noticed a rise in the prices of groceries and household items.	24	46	23	163	89	3.72
3	I believe that inflation is negatively impacting my purchasing power.	13	31	34	125	142	4.02
4	I am concerned about the rising cost of housing and accommodation.	23	32	25	159	106	3.85
5	I have experienced an increase in my monthly expenses due to inflation.	10	39	35	152	109	3.90
6	The prices of fuel and transportation have substantially risen over the past year.	23	37	35	150	100	3.77
7	Inflation has affected my ability to save money for the future.	13	24	39	140	129	4.01
8	I believe that inflation is a significant economic challenge for the country.	7	21	34	158	125	4.08
9	The government should take measures to control and stabilize inflation.	6	10	18	136	175	4.34
10	I am worried about the long-term effects of inflation on the economy.	3	25	30	168	119	4.09

Source: Primary data collected by the authors (2023)

In general, most men and women agree and have the same answer that the prices of essential goods have increased and also the impact of the prices of goods has reduced their purchasing power. With varying incomes and positions, inflation is more influential for those with salaries ranging from $ 115 - $ 570. As the price of goods increases, they prefer to consume rather than save their income. Those with an income between $ 571 and $ 742 and more than $ 743, on the other hand, do not believe that rising commodity prices have an effect on their income. As a result, when inflation happens, they not only consume but also preserve a portion of their income. This statement is based on statement number 7. Inflation increased the monthly expenses of regular civil personnel between the ages of 31- 40 years old. When the price of products and services rises, their consume rises as well, because they are still in their productive

age. Meanwhile, individuals over 50 years old do not agree with the increase in monthly expenditure induced by inflation because their consumption level is lower. They are concerned about the long-term impact of inflation on the economy based on demography such as education, age, and position. Because when the price of goods increases in the future, it does not increase their income as well. Aside from that, they all believe that inflation is a major economic concern for the country. Permanent civil servants in Dili believe that gasoline and transportation costs have risen significantly in the last year. According to ANPM data for Daily Fuel Prices on December 31, 2022, the price of gasoline climbed by $1.32 per liter and the price of diesel grew by $1.46 per liter. Those looking to buy a home believe that housing expenses are rising, as do those who travel for business and stay in hotels or other accommodations.

b. Income

It can be summarized and calculated based on ten income indices. The conclusions are as follows:

Table 1. 8 Distribution of Respondents' Answers to Income

NO.	STATEMENT	Answer					Mean
		1	2	3	4	5	
		SD	D	N	A	SA	
1	My income has increased over the past year.	42	64	98	97	44	3.11
2	I feel financially secure with my current income level.	42	106	98	76	23	2.80
3	I believe that my income is sufficient to meet my basic needs.	50	106	93	74	22	2.74
4	I have experienced a salary raise or promotion recently.	27	99	101	94	24	2.97
5	I am satisfied with the overall compensation package provided by my employer.	34	81	102	103	25	3.01
6	I feel that my income is keeping up with the cost of living.	36	98	79	90	42	3.01
7	I am able to save a significant portion of my income for future goals.	22	44	89	144	46	3.43
8	I believe that there are enough job opportunities with competitive salaries in my field.	11	29	98	149	58	3.62
9	I am confident that my income will continue to grow in the future.	7	18	69	183	68	3.83
10	I feel that my income is fair compared to the work and effort I put in.	33	66	81	126	39	3.21

Source: Primary data collected by the authors (2023)

The table above shows that the both males and females have similar mean scores for most statements, indicating that they generally share similar perceptions about their income, financial security, and job opportunities. Different age groups exhibit some variations in their mean scores. For example, older respondents (51-60 and >61) tend to be less confident about their income growth in the future (Statement 9), while younger respondents (21-30) are less satisfied with their compensation package (Statement 5). However, the overall trend is that income perceptions are fairly consistent across age groups. Respondents with different education levels generally have similar mean scores for these statements, suggesting that education level does not strongly influence their perceptions of income, financial security, or job opportunities. Individuals in different job positions exhibit some variations in their mean scores. For instance, Head of Department respondents are more likely to feel financially secure (Statement 2) and satisfied with their compensation package (Statement 5). However, the overall trend is that income perceptions are relatively consistent across job positions. Respondents in various salary ranges tend to have similar mean scores for most statements, indicating that salary range does not strongly influence their perceptions of income, financial security, or job opportunities.

The data suggests that respondents generally have mixed perceptions and feelings about their income and financial situations. While there is a perceived increase in income over the past year, respondents have varying levels of financial security and satisfaction with their current income levels. There is also some uncertainty about whether their income meets basic needs and whether they've experienced recent salary raises or promotions. However, respondents generally feel that they can save for future goals and have confidence in future income growth. They also believe there are sufficient job opportunities with competitive salaries in their field.

c. Consumption Behavior

It can be recapitulated and tabulated using ten consumption behavior indicators. The conclusions are as follows:

Table 1. 9 Distribution of Respondents' Answers to Consumption Behavior

NO.	STATEMENT	Answer					Mean
		1	2	3	4	5	
		SD	D	N	A	SA	
1	I frequently make impulsive purchases without much consideration.	77	153	57	41	17	2.33
2	I tend to buy items I don't really need.	80	138	56	56	15	2.39
3	I often engage in excessive or unnecessary shopping.	103	140	41	47	14	2.21
4	I am conscious of my spending habits and try to stick to a budget.	22	45	71	169	38	3.45
5		77	22	71	189	56	3.77
6	I enjoy saving money and finding good deals on products and services.	33	70	99	110	33	3.12
7		9	17	57	187	75	3.88
8	I am influenced by advertisements and promotions when making purchasing decisions.	16	16	66	166	81	3.81
9		20	33	33	164	95	3.81
10	I prioritize saving and investing over immediate consumption.	10	10	47	188	90	3.98

Source: Primary data collected by the authors (2023)

According to the table above, the both males and females have similar mean scores for most statements, indicating that they generally share similar perceptions about their spending habits, budgeting, and financial decision-making. However, there are some minor variations in mean scores for a few statements. Different age groups exhibit variations in their mean scores for these statements. For example, older respondents (51-60 and >61) tend to prioritize saving and investing over immediate consumption (Statement 10) more than younger respondents (21-30 and 31-40). Older respondents also show more consciousness about spending habits and budgeting (Statement 4). Younger respondents, on the other hand, tend to be influenced by advertisements and promotions (Statement 8) to a greater extent. Respondents with different education levels generally have similar mean scores for most statements, suggesting that education level does not strongly influence their perceptions of spending habits, budgeting, and financial decision-making. Individuals in different job positions exhibit some variations in their mean scores. For instance, individuals in Technic Assistant and Cleaner positions are more likely to make impulsive purchases (Statements 1 and 3) compared to Staff members. Staff members

tend to be more conscious about their spending habits and budgeting (Statement 4). Respondents in various salary ranges tend to have similar mean scores for most statements, indicating that salary range does not strongly influence their perceptions of spending habits, budgeting, and financial decision-making.

Interestingly, respondents also acknowledge being influenced by advertisements and promotions when making purchasing decisions, suggesting that marketing strategies play a role in their consumption choices. Furthermore, there is a strong emphasis on saving and investing for the future, demonstrating a focus on financial planning and long-term financial security.

d. Cost Inflation

Based on 10 cost inflation indicators, it can be recapitulated and tabulated. The results are as follows:

Table 1. 10 Distribution Table of Respondents' Answers to Cost Inflation

NO.	STATEMENT	Answer					Mean
		1	2	3	4	5	
		SD	D	N	A	SA	
1	The cost of living has increased significantly due to inflation.	16	31	45	162	91	3.81
2	Inflation has negatively affected my purchasing power.	10	31	62	177	65	3.74
3	Inflation has made it difficult to maintain my desired standard of living.	5	33	70	179	58	3.73
4	I have had to cut back on discretionary spending due to the impact of inflation.	1	15	47	207	75	3.99
5	Inflation has led to higher prices for essential goods and services.	5	33	44	165	98	3.92
6	Inflation has eroded the value of my savings and investments.	3	24	76	176	66	3.81
7	I am concerned about the long-term effects of inflation on my financial stability.	4	22	63	182	74	3.87
8	Inflation has caused an increase in my monthly expenses.	2	30	63	168	77	3.81
9	Inflation has affected my ability to save for the future.	5	19	44	179	98	4.00
10	I am experiencing financial strain as a result of inflation.	8	20	50	166	101	3.96

Source: Primary data collected by the authors (2023)

Both males and females have similar mean scores for most statements, indicating that they generally share similar perceptions about the impact of inflation on their financial situations. However, there are some minor variations in mean scores for a few statements. Different age

groups exhibit variations in their mean scores for these statements. For example, older respondents (51-60 and >61) tend to express more concern about the long-term effects of inflation on their financial stability (Statement 7) compared to younger respondents (21-30 and 31-40). Older respondents also report a higher impact on their ability to save for the future (Statement 9). Respondents with different education levels generally have similar mean scores for most statements, suggesting that education level does not strongly influence their perceptions of the impact of inflation on their financial situations. Individuals in different job positions exhibit some variations in their mean scores. For instance, individuals in Technic Assistant and Cleaner positions tend to experience more financial strain due to inflation (Statement 10) compared to Staff members. Staff members, on the other hand, express more concern about the long-term effects of inflation (Statement 7). Respondents in various salary ranges tend to have similar mean scores for most statements, indicating that salary range does not strongly influence their perceptions of the impact of inflation on their financial situations.

Furthermore, respondent's express concerns about the long-term effects of inflation on their financial stability, including the erosion of savings and investments. They also believe that inflation has increased their monthly expenses, affected their ability to save for the future, and caused financial strain. These findings underscore the financial challenges and anxieties associated with inflation, which can have broad implications for individuals' financial planning and overall economic well-being.

e. Preventive Measure Policy

It can be summarized and calculated based on ten preventative measure policy indicators. The findings are as follows:

Table 1. 11 Distribution Table of Respondents' Answers to Preventive Measure Policy

NO.	STATEMENT	Answer					Mean
		1	2	3	4	5	
		SD	D	N	A	SA	
1	The government's implementation of monetary policies, such as raising interest rates, is effective in curbing inflation.	15	32	96	151	51	3.55
2	Fiscal policies, such as controlling government spending and increasing taxes, play a crucial role in reducing inflationary pressures.	4	40	79	172	50	3.65
3	The central bank's proactive measures, such as managing money supply and liquidity, contribute to controlling inflation effectively.	2	17	104	161	61	3.76
4	The government's efforts to promote price stability through regulation and monitoring of prices are effective in combating inflation.	3	11	63	196	72	3.94
5	Implementing measures to enhance productivity and efficiency in the economy can help reduce inflationary pressures.	4	8	75	197	61	3.88
6	The government's investment in infrastructure and technology stimulates economic growth and helps maintain stable inflation rates.	2	9	76	189	69	3.91
7	The public's trust and confidence in the government's anti-inflation policies positively influence the effectiveness of those policies.	8	18	84	177	58	3.75
8	The government's collaboration with businesses and stakeholders in designing and implementing anti-inflation measures improves their success.	3	8	63	179	92	4.01
9	The government's communication and transparency about its inflation-fighting strategies help build public awareness and support.	5	14	74	180	72	3.87
10	Continuous monitoring and evaluation of the effectiveness of anti-inflation policies contribute to their improvement and success.	4	7	43	182	109	4.12

Source: Primary data collected by the authors (2023)

According to the table above, the majority of respondents supported a preventive measure policy. Meanwhile, the average of each questionnaire item in the table is greater than three, with several reaching the number of four. The data indicates that respondents generally believe in the effectiveness of various preventive measures and policies to combat inflation. They support the use of monetary and fiscal policies, proactive measures by the central bank, price stability efforts, and measures to enhance productivity and efficiency in the economy.

Respondents also emphasize the importance of collaboration with businesses and stakeholders, public trust, transparency in communication, and continuous monitoring and evaluation of anti-inflation policies for their success. These findings suggest that respondents recognize the multifaceted nature of inflation control and the significance of a holistic approach involving multiple policy instruments and stakeholder engagement.

3.1.3. Validity and Reliability Test
3.1.3.1. Validity Test
The validity test is used to test the level of ability of the manifest variables in measuring its latent variables. The validity test is divided into 2 (two), namely:

a) **Convergent Validity**

Convergent validity is a validity test that measures the extent where one indicator is positively correlated with the alternative indicator others from the same construct or latent variable. Therefore, items that are indicators of a particular construct must be unified or share a high proportion of variants (Hair et al., 2017). In the convergent validity test, researchers review the outer indicator loadings and Average Variance Extracted (AVE). As for the criteria good convergent validity, namely when outer loadings > 0.7 and AVE > 0.5 (Hair et al., 2017). In empirical research, the loading factor value > 0.5 is still acceptable. Thus, the loading factor value < 0.5 must be removed from this model (dropped).

The research validity test was obtained through several stages, namely Convergent Validity in the form of Outer Loadings (Loading Factor) and Average Variance Extracted (AVE) and Discriminant Validity in the form Fornell-Larker Criterion and Cross Loading. In the Convergent test results Validity, there are several Outer Loading and AVE values that do not meet standard above 0.5. The initial AVE value is as follows:

Table 1. 12 Convergent Validity Factor Analysis

Indicator	Loading Factor	Observation
Infla1	0.738	Valid
Infla2	0.762	Valid
Infla3	0.758	Valid
Infla4	0.838	Valid
Infla5	0.819	Valid
Infa6	0.825	Valid
Infla7	0.822	Valid
Infla8	0.788	Valid
Infla9	0.683	Valid
Infla10	0.764	Valid

Source: Primary data collected by the authors (2023)

The validity test results show that the indicators have met convergent validity with a loading factor value of more than 0.70 where higher values indicate a stronger relationship. This suggests that all the indicators are relevant and contribute positively to measuring the inflation construct. The high loading factors for all indicators (ranging from 0.683 to 0.838) indicate a strong relationship between each indicator and the construct of inflation. Higher loading factors suggest that the indicators are more closely related to the underlying construct. Since all indicators have relatively high loading factors, it indicates good convergent validity. This suggests that these indicators are suitable for measuring the inflation construct and that they are measuring the same underlying concept consistently.

Table 1. 13 Convergent Validity Factor Analysis

Indicator	Loading Factor	Observation
IC1	0.793	Valid
IC2	0.783	Valid
IC3	0.752	Valid
IC4	0.609	Valid
IC5	0.784	Valid
IC6	0.736	Valid
IC7	0.770	Valid
IC8	0.710	Valid
IC9	0.707	Valid
IC10	0.721	Valid

Source: Primary data collected by the authors (2023)

The table above shows that the majority of indicators (IC1,IC2, IC3, IC4, IC5, IC6, IC7, IC8, IC9, IC10) have relatively high loading factors, ranging from 0.609 to 0.793. These high loading factors indicate a strong relationship between these indicators and the underlying construct (IC), suggesting good convergent validity for these measures.

Table 1. 14 Convergent Validity Factor Analysis

Indicator	Loading Factor	Observation
PMP1	0.700	Valid
PMP2	0.744	Valid
PMP3	0.701	Valid
PMP4	0.783	Valid
PMP5	0.829	Valid
PMP6	0.758	Valid
PMP7	0.755	Valid
PMP8	0.694	Valid
PMP9	0.707	Valid
PMP10	0.654	Valid

Source: Primary data collected by the authors (2023)

From the table above it is known that all of indicators have a value more 0.70.These high loading factors indicate a strong relationship between these indicators and the underlying construct, suggesting good convergent validity for these measures. These indicators are valid and

contribute positively to the convergent validity of the measurement model.

Table 1. 15 Convergent Validity Factor Analysis

Indicator	Loading Factor	Observation
I1	0.773	Valid
I2	0.703	Valid
I3	0.711	Valid
I4	0.657	Valid
I5	0.723	Valid
I6	0.738	Valid
I9	0.658	Valid
I10	0.750	Valid

Source: Primary data collected by the authors (2023)

The results of the validity analysis for the income variable show that every indicator meet the standards because their loading factor values are greater than 0.70. These high loading factors indicate a strong relationship between these indicators and the underlying construct, suggesting good convergent validity for these measures. These indicators are valid and contribute positively to the convergent validity of the measurement model.

Table 1. 16 Convergent Validity Factor Analysis

Indicator	Loading Factor	Observation
CB7	0.691	Valid
CB8	0.781	Valid
CB9	0.738	Valid
CB10	0.733	Valid

Source: Primary data collected by the authors (2023)

The results of the above analysis for the consumption behavior variable show that there are only a few indicators such as CB7, CB8, CB9 and CB10 that meet the validity test requirements because the loading factor value is above 0.70 and the other indicators are valid. CB7, CB8, CB9, and CB10 have relatively high loading factors (0.691 to 0.781) in absolute terms, indicating a strong relationship between these indicators and the underlying construct.

These indicators demonstrate good convergent validity and are suitable measures for the construct under investigation.

b) **Discriminant Validity**

Discriminant validity is a validity test that measures the extent where a construct is truly different from another construct based on empirical standards (Hair et al., 2017). This validity test was carried out by comparing the square root of the AVE value with the correlation latent variables, as well as comparing the correlation values of the construct indicators related to the correlation value with other constructs. As for the criteria good discriminant validity, namely:

a. When the square root of the AVE of each variable is greater than correlation of other latent variables.
b. When the correlation value of a construct indicator with the related construct higher than the correlation value with other constructs.

The Fornell-Larcker Criterion (FLC) and cross loadings are approach that is commonly used in discriminant validity tests. Mark FLC and cross loadings an indicator on its own latent construct expected to be greater than the value of cross loadings in the construct other latent. The results of discriminant validity testing are presented in the table following:

Table 1. 17 Discriminant validity Test based on Fornell Larcker Criterion

	CONSUMPTION BEHAVIOR	INCOME	INFLATION	INFLATION COST	PREVENTIVE MEASURE AND POLICY
CONSUMPTION BEHAVIOR	0.736				
INCOME	0.225	0.715			
INFLATION	0.365	0.186	0.781		
INFLATION COST	0.363	0.061	0.537	0.738	
PREVENTIVE MEASURE AND POLICY	0.255	0.194	0.111	0.208	0.734

Source: Primary data collected by the authors (2023)

Table 17 demonstrates that the correlation value for the association construct is larger than for the other constructs, indicating that the model has good discriminant validity.

Discriminant validity was also measured by using *heterotrait-monotrait* (HTMT) with the threshold values of all items below the threshold point of 0.85 (Henseler et al., 2015).

Table 1. 18 Values of Heterotrait-Monotrait (HTMT)

	CONSUMPTION BEHAVIOR	INCOME	INFLATION	INFLATION COST	PREVENTIVE MEASURE AND POLICY
CONSUMPTION BEHAVIOR					
INCOME	0.283				
INFLATION	0.421	0.162			
INFLATION COST	0.439	0.099	0.563		
PREVENTIVE MEASURE AND POLICY	0.322	0.206	0.127	0.245	

Source: Primary data collected by the authors (2023)

The *Heterotrait Monotrait* Ratio value in table 18 above shows that nothing is above 0.85 So it can be said that the research model is formed from the five variables above is valid.

3.1.3.2. Reliability Test

To check for internal consistency in the items, the study applies the Cronbach Alpha and composite reliability tests. Except for exploratory research, items are deemed dependable if their CA and CR values are more than 0.7. Every item has CA and CR values greater than 0.6 (Hair et al., 2014 and Hair et al., 2017).

Table 1. 19 Reliability Test Using SMART-PLS 4.0

Item	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average variance extracted (AVE)
INFLATION	0.929	0.932	0.610
INCOME	0.877	0.929	0.512
INFLATION COST	0.907	0.919	0.545
CONSUMPTION BEHAVIOR	0.724	0,745	0.542
PREVENTIVE MEASURE AND POLICY	0.908	0912	0.539

Source: Primary data collected by the authors (2023)

The table above demonstrates that each variable's Cronbach's Alpha and Composite Reliability values above the required threshold of 0.70. This demonstrates the acceptability of research reliability. Additionally, the Cronbach's Alpha value is lower than the Composite Reliability score. This shows that all research variables have satisfied the criteria for sufficient dependability as a foundation for SEM research that can be used and analyzed with Smart-PLS 4.0.
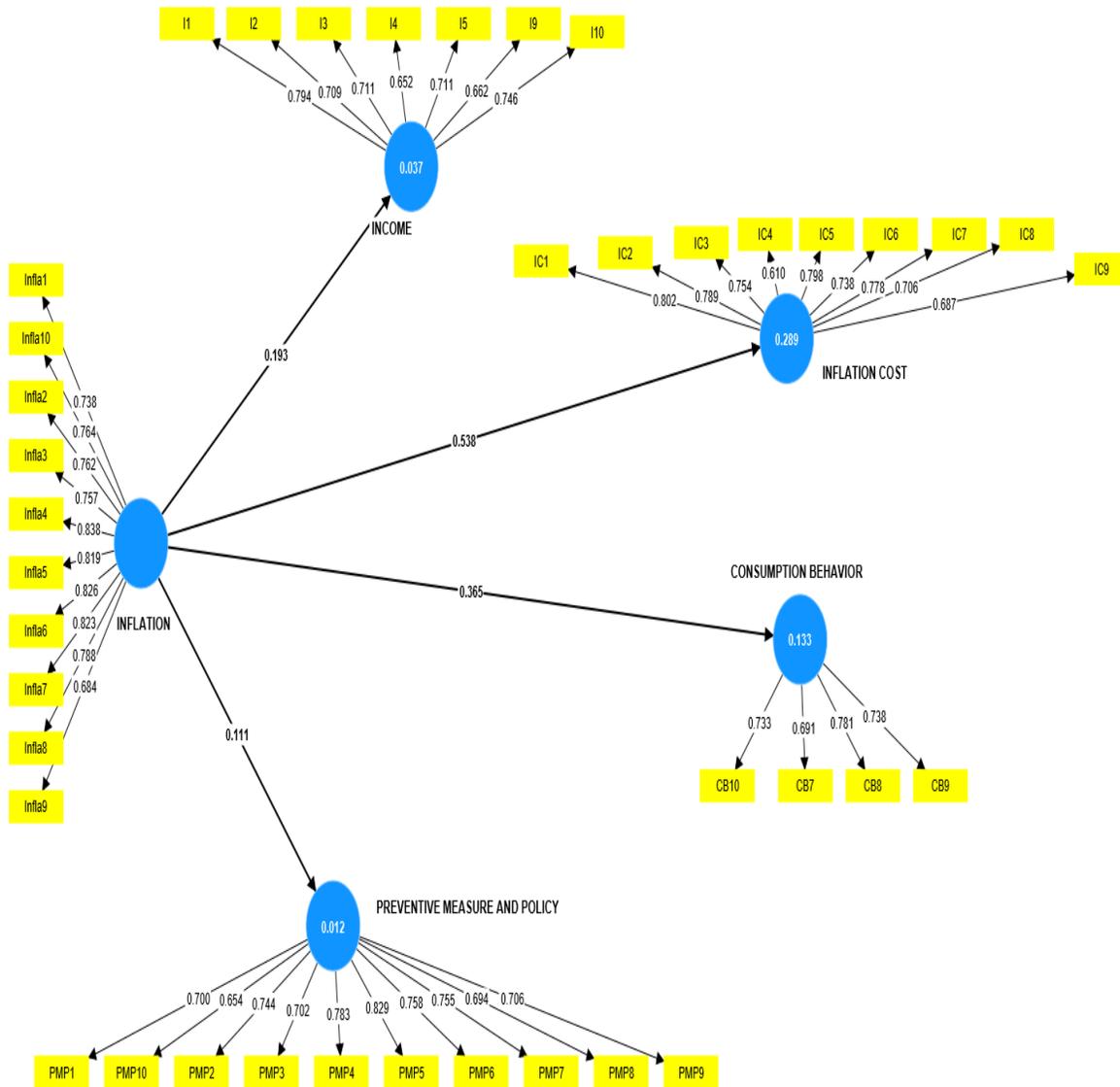
Figure 4. Outer loading for convergent validity derived from Algorithm SMART-PLS 4.0

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a) Inner Model Test R-Values

Evaluation of the inner model can be done by view from R2. The R2 value displays the degree of external and endogenous variable determination. The level of determination is better the higher the R2 value.

Table 1. 20 R Square Values

Item	R-Square	R-square adjusted
INCOME	0.035	0.032
INFLATION COST	0.288	0.286
CONSUMPTION BEHAVIOR	0.133	0.130
PREVENTIVE MEASURE AND POLICY	0.012	0.009

Source: Primary data collected by the authors (2023)

It can also be used to comprehend how well the model predicts the future. R-Square values range from 0.75 (strong), 0.50 (moderate), to 0.25 (weak) Hair et al. (2014). The dependent variable's (income and consumption behavior's) R-Square value, which ranges between 0.035 and 0.133, is shown in the table above. As a result, the research model's variables have a moderate association between them, which suggests that the range of predictions that they may make is between 3.5% and 13%. Other variables not taken into account in this model can be used to forecast the remainder.

3.1.4. Hypothesis Testing

Four hypotheses in this study use SMART-PLS 4.0 to investigate the direct relationship between variables. Path coefficients (T and P values) are the parameters utilized to evaluate them. According to Hair et al. (2014) and Hair et al. (2017), the significant influence of two variables can be acknowledged if the T value is larger than 1.96 and the P value is less than 0.05.

Table 1. 21 T and P Values for Hypothesis Test (Direct Effect)

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Notes
INFLATION -> INCOME	0.186	0.212	0.068	2.738	0.006	Significant
INFLATION -> INFLATION COST	0.537	0.541	0.053	10.112	0.000	Significant
INFLATION -> CONSUMPTION BEHAVIOR	0.365	0.374	0.058	6.270	0.000	Significant
INFLATION -> PREVENTIVE MEASURE AND POLICY	0.111	0.130	0.099	1.116	0.264	Not Significant

Source: Primary data collected by the authors (2023)

Examining how inflation affect inflation cost is the first hypothesis. According to Table results of the hypothesis test, T value (2.738), which is greater than the 1.96 minimum threshold value, and P value (0.006), which is less than 0.05, are the results. This demonstrates how the inflation affects income significant way. Therefore, the first hypothesis is confirmed. This result is supported with the key informants' points of view that highlight the public's limited control over inflation, which aligns with the statistical finding of a significant relationship between inflation and various factors such as dependency on imports goods and services. The direct effect of inflation on income is statistically significant. This suggests that inflation is indeed a concern for the public specially for the permanent civil servants, and it affects their income, consumption behavior, and the cost of living. The interview results indicate difficulties in effectively managing the prices of essential goods and services, and government interventions may not always be consistent or effective. This supports the statistical finding of a significant relationship between inflation and income of permanent civil servants, suggesting that price fluctuations can decrease the income of the permanent civil servants. The interview results also highlight that a

significant portion of the goods consumed in Timor-Leste is imported, which aligns with the statistical finding that shows a significant relationship between inflation and income. It implies that Timor-Leste's economy is vulnerable to external factors, affecting the overall cost of living.

The effect of inflation-on-Inflation cost is statistically significant. T value is 10.112 which is more than the 1.96 minimum threshold value, and P value (0. 000), which is less than 0.05, suggesting that there is adequate enough evidence to conclude a significant relationship between inflation and income. Therefore, the second hypothesis is confirmed. The interview results suggest that communities in Timor-Leste are taking proactive steps to engage in agricultural activities, aligning with the recommendation to boost domestic production as a means to enhance the economy. This corresponds with the statistical finding that shows a significant relationship between inflation and income, suggesting that income may be affected by changes in agricultural production.

The T value is 6.270 which is greater than the 1.96 minimum threshold value, and P value (0. 000), which is less than 0.05, this demonstrates how the inflation affects consumption behavior significant way. Therefore, the third hypothesis is confirmed. This result is supported with the key informants' points of view that suggest disparities in how products are priced in the market, leading to variations in costs for consumers specially for the permanent civil servants. This supports the statistical result showing a significant relationship between inflation and consumption behavior, indicating that permanent civil servants 's spending habits and behaviors may change as a result. The interview recommendations regarding improving financial literacy and aligning educational curricula with market demands align with the statistical finding that shows a significant relationship between inflation and consumption behavior. It implies that financial education and relevant skills are essential for managing spending habits.

The effect of inflation on preventive measure and policy is not statistically significant. T value is (1.116) which is less than the 1.96 minimum threshold value, and P value (0.264), which is greater than 0.05, suggesting that there is not enough evidence to conclude a significant relationship between inflation and preventive measure and policy. Therefore, the fourth hypothesis is confirmed. This result is supported with the key informants' points of view that suggest a deficiency in active involvement and endorsement from the public when it comes to

policies designed to curb inflation. This complements the statistical result showing that there is no significant relationship between inflation and preventive measures and policies. It implies that the public may not be fully aware of or engaged in efforts to mitigate the effects of rising prices. The interview insights suggest that the success of preventive measures and policies aimed at managing inflation may be linked to the extent of public engagement and support. This aligns with the statistical finding that shows the significance of the relationship between inflation and various economic factors, indicating that inflation does impact the economy. The interview findings emphasize the importance of government intervention in setting price standards for goods and services. This supports the statistical result showing a significant relationship between inflation and preventive measures and policies, indicating that government policies play a role in managing inflation.

(3.2) Discussion of Results

Parkin and Bade as cited in Islam (2013) defined inflation is the decline of purchasing power of a given currency over time. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time. As of October 2022, the inflation rate in Timor-Leste has risen to 6.7% (Tradingeconomics, 2023).

The result shows that the inflation has a significant effect on the income of permanent civil servants. It's mean that when the inflation rise the permanent civil servants has suffered the consequences of the price of goods and services become more expensive. In this study we used 10 indicators to measure the impact of inflation on income showed that permanent civil servants in Dili, Timor-Leste become more vulnerable. The first one is the permanent civil servants feels that cost of essential goods and services has increased significantly in the past year and their income is remain the same. This condition can affect their income and permanent civil servants do not have more choice to buy essential goods and services because as we know that Timor-Leste is more dependent on importation. The second is the permanent civil servants noticed a rise in the prices of groceries and household items and they feel financially insecure with their current income level. The third is the permanent civil servants believe that inflation is negatively impacting their purchasing power and they believe that their income is insufficient to meet their basic needs. The fourth is the permanent civil servants concerned about the rising cost of housing

and accommodation and they have not experienced a salary raise or promotion recently. The fifth is the permanent civil servants have experienced an increase in their monthly expenses due to inflation but they are satisfied with the overall compensation package provided by their institutions. The sixth is the permanent civil servants have experienced the prices of fuel and transportation have substantially risen over the past year and they feel that their income is not keeping up with the cost of living. The seventh is the permanent civil servants have experienced that inflation has affected their ability to save money for the future and they are able to save a significant portion of their income for future goals. The Eighth is the permanent civil servants believe that inflation is a significant economic challenge for the country and they do believe that there are enough job opportunities with competitive salaries in their field. The ninth is the permanent civil servants agree that our government should take measures to control and stabilize inflation in Timor-Leste so they are confident that their income will continue to grow in the future. The last one is the permanent civil servants are worried about the long-term effects of inflation on the economy and they feel that their income is fair compared to the work and effort they put in. This result supported by Card (1999), Bitler and Hoynes (2015), Morgan and Cha (2007), Morgan and Tang (2007), Weeden et al. (2007), Pastore (2010), Volscho and Kelly (2012), Nau (2013), Chetty et al. (2014), Piketty (2014), Wodtke (2016), Siami-Namini and Hudson (2019).

The indicator of relationship of inflation and consumption behavior it shows significant association between inflation and consumption behavior, it shows that when the cost of goods and services increasing, this situation may affect on the permanent civil servant on their consumption. Even the prices increasing the respondents are still engage in excessive or unnecessary shopping. Since Timor-Leste lack of domestic product this may affect on managing their purchasing the permanent civil servant also been experiencing prices increasing on goods, household item, groceries, transportation fuel, and services being increasing in the last 5 years. The permanent civil servant concerns about raising cost, This situation effect on their ability to for the future and significant economic challenge for the country. This result support by the life-cycle hypothesis, developed by Modigliani in 1966, offers insights into how individuals manage their consumption over their lifetime. According to this theory, individuals aim to maintain a

relatively constant level of consumption throughout their lives. Lunt and Livingstone (19910) also stated that economists and social scientists generally define savings as the residual income after subtracting consumption.

The term "inflation" describes a long-term, widespread increase in the cost of products and services throughout the economy, which reduces both consumers' and businesses' purchasing power. The demand-pull Inflation is a condition that occurs in the economy when consumer aggregate demand diverges from a variety of consumer products and services, causing the overall cost of living to rise. This phenomenon is often caused by an imbalance between total aggregate supply and aggregate demand, where the extensive pressure imposed by consumer demand on the output capacity of the supply drives the price to grow irrationally, resulting in an inflationary situation. This form of inflation is extremely typical in a monetarist economy because, in order to maximize profit margins, suppliers would cut the total output rate, leading prices to rise because consumers are willing to spend any amount of money to satisfy their demands. This is known as inelastic. The results also show that there is a positive and significant relationship between inflation and cost inflation in Timor-Leste. Permanent civil servants in Dili agree that inflation has dramatically increased the prices of necessary products and services, reducing purchasing power, housing, lodging, fuel, and transportation. This raises the monthly expenses of civil servants in Dili, decreases discretionary spending, and diminishes the value of their savings and investments. Civil officials in Dili concur that the long-term impact of inflation on financial stability is quite alarming, because inflation produces increased monthly spending, decreased savings, and financial stress. Civil servants also agree that the government has to regulate and stabilize inflation. The results of this study are supported by previous research such as (Blinder, 2000; Karger and Bayha, 1977; Zbaracki et al, 2004; Fischer, 1989; Dornbusch and Fischer, 1993; Mankiw, 2009; Taylor, 1999; Feldstein, 1982; Cornwall and Cornwall, 2001).

The result shows that the inflation has a negative effect on the preventive measure policy in Dili, Timor-Leste. It's mean that when the inflation rise the permanent civil servants has suffered the consequences of the price of goods and services become more expensive because there is less preventive measure policy by the government. In this study we used 10 indicators to measure the impact of inflation on preventive measure policy showed that permanent civil

servants in Dili, Timor-Leste become more vulnerable. The first one is the permanent civil servants feels that cost of essential goods and services has increased significantly in the past year because the government's specially the Central Bank of Timor-Leste do not have the monetary policies because our nation adopted US dollar. This condition can affect the income and consumption behavior of permanent civil servants to buy essential goods and services because as we know that Timor-Leste is more dependent on importation. The second is the permanent civil servants noticed a rise in the prices of groceries and household items and there are no fiscal policies, such as controlling government spending and increasing taxes, play a crucial role in reducing inflationary pressures. The third is the permanent civil servants believe that inflation is negatively impacting their purchasing power and the central bank's do not have power to managing money supply and liquidity, contribute to controlling inflation effectively because of the dollarization. The fourth is the permanent civil servants concerned about the rising cost of housing and accommodation and the government's efforts to promote price stability through regulation and monitoring of prices are effective in combating inflation should be done by ministry of industry and commerce. The fifth is the permanent civil servants have experienced an increase in their monthly expenses due to inflation but we do not implement measures to enhance productivity and efficiency in the Timor-Leste economy that can help reduce inflationary pressures. The sixth is the permanent civil servants have experienced the prices of fuel and transportation have substantially risen over the past year and the government's must investment in infrastructure and technology stimulates economic growth and helps maintain stable inflation rates in the future. The seventh is the permanent civil servants have experienced that inflation has affected their ability to save money for the future and the public's trust and confidence in the government's anti-inflation policies positively influence the effectiveness of those policies. The Eighth is the permanent civil servants believe that inflation is a significant economic challenge for the country and the government's collaboration with businesses and stakeholders in designing and implementing anti-inflation measures improves their success. The ninth is the permanent civil servants agree that our government should take measures to control and stabilize inflation in Timor-Leste and the government's communication and transparency about its inflation-fighting strategies help build public awareness and support. The last one is the permanent civil servants

are worried about the long-term effects of inflation on the economy and the government continuous monitoring and evaluation of the effectiveness of anti-inflation policies contribute to their improvement and success in the future. This result supported by Blinder and Solow (1973), Calvo (1983), Cukierman (1992), Obstfeld and Rogoff (1995), Alesina and Perotti (1996), Bernanke et al. (1999), Siklos (2001) Kuttner and Posen (1999 and 2001), Svensson (2000), Corbo et al. (2001), Woodford (2003), Othman, Nordin, and Sadiq (2020).

4. Conclusion and Recommendations

(4.1) Conclusion

In conclusion, this study sheds light on the effectiveness of preventive measures and policies in curbing inflation and safeguarding household income and consumption in Dili, Timor-Leste, with a specific focus on permanent civil servants. The findings underscore the multifaceted nature of inflationary pressures in the region, which result from a complex interplay of domestic and global factors.

The study reveals that while preventive measures and policies have had some impact in mitigating inflation and protecting the purchasing power of permanent civil servants, their effectiveness varies across different interventions. Monetary policy adjustments, such as interest rate changes, have shown promise in controlling inflation to some extent, but their success depends on a range of factors, including global economic conditions. Fiscal interventions, including targeted subsidies, have been more effective in providing direct relief to civil servants and other vulnerable groups.

(4.2) Recommendations

a. Improve the collection and analysis of economic data, including inflation indices, to gain a more comprehensive understanding of inflation dynamics in Dili. Accurate and timely data is essential for informed policy decisions especially relevant institutions such as INETL and *Aduaneira*.

b. Timor-Leste should continue efforts to diversify its economy beyond oil and gas, fostering sectors like agriculture, tourism, and manufacturing.

c. We recommend that the *Comissão da Função Pública* propose to the government of Timor-Leste to consider raising salaries in response to inflation. This proactive

approach would help ensure that the income of the Permanent civil servants keeps pace with the rising cost of living. By periodically adjusting salaries in line with inflation, the government can provide essential financial relief to its citizens and maintain their purchasing power, contributing to economic stability and improved living standards.

d. Recommend to the Ministry of Industry and Commerce to create policy such as price control so all entities who are involved in importation of goods cannot increase the price as they want. Develop long-term economic plans that focus on sustainable growth and stability, taking into consideration the unique challenges and opportunities of Timor-Leste. Such plans should include strategies for reducing dependence on imports and building local industries

e. Recommend to the Ministry of Agriculture and Fishery to strengthening the domestic production such as agriculture, industries, tourism and local enterprises.

f. AFAESA to go strengthening their operations in the field to control the quality and price of the goods that sells in the market.

g. Recommend to the Ministry of Finance and Central Bank of Timor-Leste to improve coordination between monetary and fiscal policies to ensure a coherent approach to addressing inflation and protecting the permanent civil servant's income.

h. Encourage further research and analysis into inflation dynamics and policy effectiveness. Regular assessments and adjustments to policies are essential to respond to changing economic conditions.

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Appendix

A. <u>Questionnaire</u>

Caro respondents!

Saudasoens akademiku!

      Agora daudauk ami halo peskiza ho titulu "**Investiga medidas eficacia sira ho politika prevensaun nian hodi hamenus inflasaun no proteje rendimentu no konsumu familia nian iha Dili, Timor-Leste (Estudi kazu ba Funsionairus Publikus Permanentes)".** Peskiza nee nia objetivu mos atu investiga medidas eficacia sira ho politika prevensaun nian hodi hamenus inflasaun no proteje rendimentu no konsumu familia nian iha Timor-Leste.

      Ho nunee, ami konvida ita boot atu partisipa iha survey nee hodi foo resposta ba perguntas sira iha kuesionariu tuir mai nee. Ita boot nia partisipasaun nee ho voluntariu. Ami asegura mos katak dadus nebee ami hetan husi ita boot sei sai hanesan konfidensial ho respeitu no so uza deit hodi objetivu akademiku nian.

      Obrigadu barak bai ta boot nia partisipasaun no kolaborasaun. Favor bele haree kuesionariu iha anexu tuir mai. Karik iha perguntas no duvidas ruma bele kontaktu ba +670 77990010.

Hau nia respeitu,

Teresa Freitas Belo,B.Bus, MM.,PhD
Autor prinsipal

Parte A: Infomasaun demografiku

1. Jeneru: □ Mane   □ Feto
2. Idade: _____
3. Nivel Edukasaun: □ Eskola primaria □ Pre-sekundaria □ Sekundaria □ D3 □ Lisensiatura
□ Mesteradu   □ Doutoramentu
4. Pozisaun Servisu: _____
5. Institusaun nia naran: _____

Parte B: **Kuesionariu kona ba Inflasaun:**

A. Inflasaun

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
	1	2	3	4	5
Presu sasaan no *service* esencial nia presu sae makaas iha tinan hirak liu ba.					
Hau nota katak sasan nesesidade bazika no uma laran nian presu sae.					
Hau fiar katak inflasaun (sasaan folin sae) sei foo impaktu negativu ba hau nia kapasidade kompra nian.					
Hau senti preokupa tebes ho presu uma no alojamentu nebe sae bebeik.					
Hau mos senti katak hau nia despezas mensal aumenta tamba inflasaun.					
Presu mina (solar no gazoel) ho transportasaun folin sae komesa iha tinan hirak nia laran.					
Inflasaun afeta teb-tebes ba hau nia abilidade atu rai osan ba futuru.					
Hau fiar katak inflasaun nee sai hanesan obstaklu ba ekonomia nasaun ida nian.					
Governu tenki halo medida diak hodi kontrola no estabiliza inflasaun ida nee.					
Hau preokupa tebes ho efeitu inflasaun ba ekonomia iha longu prazu nian.					

B. Rendimentu

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
	1	2	3	4	5
Hau nia rendimentu sae desde iha tinan hirak liu ba.					
Hau sente finasialmente seguru ho hau nia nivel salariu agora nee.					
Hau fiar katak hau nia salariu nee sufisiente ba hau nia nesesidade baziku nian.					
Hau esperensia ona salariu sae no promosaun ba kareira foin dadauk nee.					
Hau senti satisfas ho pakote kompensasaun nebee oferese husi hau nia servisu fatin.					
Hau senti katak hau nia salariu aumenta hanesan mos ho kustu vida nian.					
Hau bele maneja ou rai osan salariu balu ba hau presija					

	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
ou objetivu balun iha futuru.					
Hau fiar katak iha oportunidade ba vaga servisu ho salariu diak iha hau nia area.					
Hau senti konfiante katak hau nia salariu sei aumenta iha futuru.					
Hau senti katak hau nia salariu nee justu kompara ho hau nia servisu no esforsu tomak hau halao iha servisu.					

C. Inflasaun ba salariu ou rendimentu

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
	1	2	3	4	5
Inflasaun hamenus ona hau nia kapasidade atu sosa sasaan tanba hau nia salariu la too.					
Hau senti katak hau nia salariu la akompanha ho presu sasaan ou service nebee sae tanba inflasaun.					
Inflasaun difikulta hau atu mantein hau nia standar moris nian ho hau nia salariu atual.					
Hau tenki reduz hau nia gastus balun ka halo sakrifisiu balun tamba impaktu husi inflasaun.					
Inflasaun iha impaktu negativu ba hau nia kapasidade atu rai osan ba futuru.					
Hau buka rendimentu adisional husi fatin seluk hodi taka hau nia presiza durante inflasaun nee.					
Hau senti hau nia salariu aumenta no mos promosaun la too atu ajusta impaktu husi inflasaun nee.					
Inflasaun nee foo impaktu finanseiru nebe todan ou aumenta stress ba hau nia uma laran.					
Hau tenki ajusta hau nia abitu gasta no sosa sasaan tamba impaktu husi inflasaun nee.					
Hau preokupa tebes ho impaktu longu prazu husi inflasaun nee bele afeta hau nia salariu ou estabilidade finaseiru nian.					

D. Komportamentu konsumu nian

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
	1	2	3	4	5
Hau sempre sosa sasaan impulsivu ou nar-naran deit sem konsiderasaun.					
Hau iha tendensia sosa sasaan nebee hau la presiza.					
Hau sempre sosa sasaan barak loos nebee mak hau la presiza.					
Hau konsiente ba hau nia abitu gasta osan no tenta atu tuir hau nia planu orsamentu.					
Hau gosta rai osan no buka sasaan no service ho presu nebe razoavel.					

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
Hau hetan influensia publicidade (iklan) no promosi wainhira deside atu sosa sasaan.					
Hau fo prioridade ba rai osan no halo investimentu duke gastu osan arbiru.					
Hau fiar katak rikusoin nee importante tebes ba hau nia moris diak agora no ba futuru.					
Hau senti sala bainhira sosa sasaan sira nebee la importante.					
Hau sempre halo komparasaun no investiga presu sira antes atu sosa sasaan.					

E. Inflasaun ba iha komportamentu konsumu nian

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
	1	**2**	**3**	**4**	**5**
Inflasaun nee halo hau kuidadu liu tan ho hau nia abitu sosa sasaan.					
Hau hamenus ona hau nia gastus nebe ladun importante tanba inflasaun.					
Hau komesa halo ona prioridade sosa sasaan nebee importante tanba inflasaun nee.					
Inflasaun nee halo hau konsiente tebes ho sasaan nia presu no hau iha tendensia atu kompara presu sasaan sira molok atu sosa.					
Hau iha tendensia poupa osan duke sosa sasaan tanba preokupa ho inflasaun.					
Inflasaun afeta hau nia kapasidade atu sosa sasaan ka service balun.					
Hau iha tendensia atu sosa bilhete tarde tanba impaktu husi inflasaun nee.					
Hau tenki reduz hau nia despezas atu jere efeitu husi inflasaun nian.					
Inflasaun nee infleunsia ona hau nia desizaun hodi buka alternativu seluk ou produtu seluk.					
Hau preokupa tebes ho hau nia kondisaun finanseiru tanba impaktu husi inflasaun.					

F. Kustu husi inflasaun nian.

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
	1	**2**	**3**	**4**	**5**
Kustu de vida nian sae makaas tanba inflasaun nee.					
Inflasaun afeitaa hau nia poder atu sosa saaan ruma.					
Inflasaun difikulta hau hodi mantein hau nia standar moris nian tuir hau nia hakarak.					
Hau tenki hamenus gastus seluk tanba inflasaun nee.					
Inflasaun halo sasan no service balun presu sae aas tebes.					
Inflasaun hamenus ona valor ekonomiku husi hau poupansa no investimentu balun.					

Argumentu					
Hau preokupa ho impaktu longu prazu husi inflasaun ba iha hau nia estabilidade finanseiru nian.					
Inflasaun hasae ona hau nia gastus mensal nian.					
Inflasaun afeta ona hau nia abilidade atu rai osan ba futuru nian.					
Rezultadu husi inflasaun nee, halo hau hasoru difikuldade finaseiru nian.					

G. Dezenhu i implementasaun ba medidas no pilitika preventivas

Argumentu	La konkorda liu	La konkorda	Netral	Konkorda	Konkorda loos
	1	2	3	4	5
Implementasaun politika monetarias husi governu hanesan aumenta taxa de jurus ba rai osan iha banku, nee efetivu hodi kontrola inflasaun.					
Politika fiskais hanesan kontrola gastus husi governu no aumenta impostu sai hanesan papel importante hodi hamenus inflasaun.					
Medidas proativu husi Banku Sentral (BCTL) hanesan jere osan tama ho likidez nee kontribui tebes hodi kontrola inflasaun.					
Esforsu sira husi governu hodi promove estabilidade presu liu husi regulamentu no monitoriza presu ho efetiva hodi kontrola inflasaun.					
Implementasaun medidas sira nee hodi aumenta produtividade no efetividade iha ekonomia hodi bele hamenus inflasaun.					
Governu nia investimentu iha infrastrutura no teknolojia bele stimula ekonomia nebee diak no tulun mantein taxa inflasaun nebee stabil.					
Konfiansa husi publika ba politika governu kontra ou anti inflasaun sei influensia postitivu ba desizaun governu nebee efetivu.					
Kolaborasaun governu ho emprezas seitor privadu sira importante tebes hodi dezenhu no implementa medidas sira anti inflasaun nian hodi bele sai diak liu tan.					
Komunikasaun no transperensia husi governu kona ba stratejias hodi kombate inflasaun ajuda haforsa konsiente husi publiku.					
Kontinuasaun husi monitorizasaun no avaliasaun husi efetividade politika anti-inflasaun kontribui hodi hadia diak liu tan no bele susesu.					

Titulu Peskija	: "The impact of Inflation on Income and Consumption Behavior After Covid-19 pandemic in Timor-Leste (Case Study: Permanent Civil Servants)"
Objetivo Peskija	**:** Peskiza nee nia objetivu atu investiga medidas eficacia sira ho politika prevensaun nian hodi hamenus inflasaun no proteje rendimentu no konsumu familia nian iha Timor-Leste.

INSTITUISAUN : INDIMO

Intervista ho : Sua Excelensia Diretora Isabel Fernandes De Lima

KUESTIONARIO INTERVISTA

1. Ita boot hare ona mudanca presu signifikante ba sasan no serbisu essential iha fulan hirak lalais nee?
2. Oinsa mak presu sira nee sae afeita ita nia desijaun sosa?
3. Oinsa ita bele descreve impaktu husi mudansa presu ba ita nia kbiit atu sosa?
4. Oinsa ita boot avalia estabilidade presu sasan nebee fo impaktu boot liu ba ita boot sira nia orsamentu uma kain nian?
5. Ita hare ona ezemplo ruma nebee presu patrimonio sae tanba presu konsumidor sae?
6. Ita boot fiar katak medida no politika prevensaun sira nee efetivamente responde ba volatilidade presu?
7. Oinsa ita bele avalia kresimentu industria lokal iha seitor sira hanesan medida ida ba substituisaun Importasaun?
8. Ita hare ona esforsu ruma atu hametin supply chain domestika no hamenus dependensia ba importasaun?
9. Ita boot fiar katak fornesedor domestiku sira forte no iha kapasidade atu responde ba nesesidade lokal sira?
10. Oinsa mak ita bele avalia rezilensia no diversidade husi supply chain domestika bazeia ba informasaun nebee disponivel?
11. Programa Edukasaun no Dezenvolvimenntu Edukasaun assesivel no relevante ba mercado trabalho?
12. Oinsa mak ita bele hare impaktu husi programa hirak nee ba potensia rendimentu uma kain nian?

13. Ita boot fiar katak medida no politika preventiva sira suporta diak edukasaun no dezenvolvimentu abilidade?
14. Ita boot sira iha opportunidade atu fo komentario ka envolve iha politika sira kona ba medida no politika preventiva sira?
15. Tuir ita boot nia hanoin envolvimenntu husi parte enteresada/stakeholder sira nian bele fo influensia politika desijaun no resultado sira ?

B. Research Timeline

Activities	Months											
	June			July		August		September		October		November
	Week 1	Week 2	Week 3	Week 1 & 2	Week 3 & 4	Week 1 & 2	Week 3 & 4	Week 1,2 &3	Week 4	Week 1 & 2	Week 3 & 4	Week 1 & 2
Develop the Proposal (Introduction, Literature Review and Methodology)	■	■	■									
Develop the Questionnaire & Questions for the Interview	■	■	■									
Data Collection (Questionnaire and Interview)				■	■							
Data entry and data cleaning						■						
Data Analysis							■					
Analysis and Interpretation of Findings and writing report							■	■				
Presenting Preliminary result									■			
Revision the report										■	■	
Submission of Report												■