INFLUENCE OF MACRO-ECONOMIC FACTORS ON MEMBERSHIP GROWTH OF DEPOSIT-TAKING SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN NAIROBI COUNTY, KENYA

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ABSTRACT

Macroeconomic instability remains a critical challenge affecting the performance and sustainability of Savings and Credit Cooperative Societies (SACCOs) in Kenya. In particular, fluctuations in inflation, interest rates, and economic growth have influenced the ability of SACCOs to attract and retain members. This study investigated the extent to which these macroeconomic factors affect the membership growth of Deposit-Taking SACCOs in Nairobi County. The specific objectives were: to determine the influence of inflation rate, interest rate and economic growth on SACCO membership growth. The study adopted a descriptive survey research design. The target population consisted of 30 deposit-taking SACCOs registered and licensed by SASRA to operate in Nairobi County as of December31st 2024, with the unit of observation being Chief Executive Officers (CEOs), Finance Officers, Credit Managers, and Membership Coordinators. This study employed a census, where all 30 Deposit-Taking SACCOs (DTSs) registered in Nairobi County were included in the study. Data was collected using a structured questionnaire. To ensure data quality, the questionnaire underwent both validity and reliability testing. Data was analyzed used descriptive and inferential statistics. The study found that rising inflation has led to reduced monthly contributions among members, inflation reduced the value of member savings over time, inflation decreased members' purchasing power, making it harder to save regularly, and inflation influences the strategic planning and budgeting of SACCOs. Also, the research found that the SACCO regularly adjusted loan interest rates based on changes in the Central Bank Rate. However, the study found that economic growth did not allow SACCOs to introduce innovative financial products. The study concluded that inflation rate had the greatest influence on the membership growth of deposit-taking SACCOs in Nairobi County, Kenya, followed by interest rate while economic growth had the least effect to the membership growth of deposit-taking SACCOs in Nairobi County, Kenya. All the variables were significant as the p-value was less than 0.05. It is recommended that SACCO management adopts strategies to mitigate the negative effects of macroeconomic factors such as inflation and interest rate fluctuations. SACCOs should consider offering inflation-indexed savings and loan products that can help members maintain the real value of their savings during inflationary periods.

Keywords: Macroeconomic Factors, Membership Growth, Inflation Rate, Interest Rate, Economic Growth.

INTRODUCTION

Macroeconomic factors, such as inflation, interest rates, and economic growth, have profound effects on the performance and growth trajectories of financial cooperatives, including Savings and Credit Cooperative Societies (SACCOs). These factors dictate the ability of SACCOs to attract and retain members, a critical determinant of their sustainability. Global research has consistently highlighted that inflationary pressures, in particular, erode the financial capacity of members, leading to reduced savings and decreased membership. Rising inflation reduces the purchasing power of individuals, making it more difficult to save and increasing the likelihood of withdrawals from savings to cover basic needs.

On a global scale, the influence of macroeconomic factors on financial cooperatives has been observed in both developed and developing economies. For instance, in advanced economies like the United States and the European Union, inflationary pressures and interest rate fluctuations have significantly impacted the performance of credit unions. In the United States, the 2022 inflation surge—peaking at 9.1%—resulted in a sharp decrease in new membership registrations in rural credit unions, as rising living costs reduced disposable income, discouraging potential members from joining (CUNA, 2023). Similarly, in the Eurozone, during the 2022-2023 global inflation surge caused by energy and supply chain disruptions, credit unions experienced stagnating deposits and shrinking memberships. As inflation pushed up costs for essentials like fuel and food, many members prioritized daily consumption over long-term savings, thereby undermining the financial security that credit unions traditionally offer (European Association of Cooperative Banks [EACB], 2023). These cases reflect the widespread challenges faced by financial cooperatives globally as they attempt to adapt to shifting economic landscapes.

In the Sub-Saharan African context, the impact of macroeconomic fluctuations on SACCOs is equally pronounced. Inflation, in particular, remains one of the most significant threats to SACCO sustainability in the region. For example, in Uganda, inflation rates exceeding 10% in 2017 led to a 5% decline in SACCO membership in rural areas as members withdrew savings to cope with rising living costs (Musinguzi & Muhumuza, 2021). Similarly, in Tanzania, from 2015 to 2019, periods of high inflation were linked to reduced SACCO growth as financial instability led to a decline in consumer confidence, reducing savings deposits and hindering membership expansion (Benedict, 2022). In Ghana, the situation is no different. A study by Owusu and Awunyo-Vitor (2021) found that inflation volatility, particularly when exceeding 10%, weakened the appeal of savings schemes in credit unions, as low-income earners, who represent a large portion of SACCO members, found it increasingly difficult to maintain regular contributions. These findings underscore the vulnerability of SACCOs in Sub-Saharan Africa to macroeconomic instability, particularly in low-income and rural areas where financial participation is crucial for economic inclusion.

Economic growth plays a pivotal role in shaping the performance of SACCOs in developing economies. During periods of strong economic growth, membership in financial cooperatives tends to rise, particularly among informal sector workers, who form a significant portion of

SACCO clientele. For example, in Brazil, the recovery of the economy from the COVID-19 pandemic in 2021, marked by a gross domestic product (GDP) growth rate of 2.5%, led to a 14% increase in membership in cooperative banks, driven by rising employment and better access to credit (Banco Central do Brasil, 2023). Similarly, in South Africa, between 2017 and 2021, stable interest rates and GDP growth were linked to a 9.7% increase in membership in cooperative financial institutions, as more informal sector workers accessed credit (Cooperative Banks Development Agency [CBDA], 2022). These instances demonstrate that economic growth positively impacts SACCO membership by improving financial inclusion and creating opportunities for increased savings and borrowing.

However, economic contractions or recessions present a starkly different picture. The 2020 COVID-19 recession, for instance, had a devastating effect on SACCOs globally. In South Africa, the country's GDP contracted by 6.3% in 2020, leading to a 10% drop in cooperative savings group participation, as financial instability triggered a decline in consumer confidence and savings deposits (Verhoef & Ncube, 2021). In the Philippines, similar economic disruptions caused by the COVID-19-induced recession led to a 6% decline in membership in community cooperatives between 2020 and 2021 (Philippine Cooperative Authority, 2022). The financial strain caused by recessions forces members to prioritize immediate consumption and, in many cases, withdraw from financial institutions like SACCOs, contributing to a stagnation in membership growth.

Turning to the Kenyan context, SACCOs play a central role in the financial landscape, with over 3,600 SACCOs serving approximately 6.84 million members by 2023 (SASRA, 2023). Despite their extensive reach, SACCO growth in Kenya is highly susceptible to macroeconomic fluctuations. For example, in 2022, Kenya's inflation rate reached 9.2%, driven primarily by rising fuel and food prices. This increase in inflation led to a decline in SACCO membership, particularly in rural regions, as the rising cost of living outpaced members' ability to save (SASRA, 2023). This trend mirrors findings from other Sub-Saharan African countries, where inflation erodes the purchasing power of SACCO members, prompting higher withdrawal rates and reduced savings contributions.

Interest rate policies also play a critical role in SACCO growth in Kenya. The interest rate cap imposed between 2016 and 2019 had a positive effect on SACCO membership, as it made borrowing more affordable for members, thereby encouraging new memberships. However, the repeal of the interest rate cap in 2019, coupled with economic disruptions caused by the COVID-19 pandemic, led to a slowdown in SACCO growth. In 2020, Kenya's GDP contracted by 0.3%, and SACCO membership growth was affected by reduced disposable incomes and increased financial uncertainty (World Bank, 2021). Moreover, the Central Bank of Kenya's adjustment of the base lending rate to 8.75% in 2022, amid inflationary concerns, further posed risks to SACCOs' ability to maintain credit affordability and sustainability (Central Bank of Kenya, 2023).

In addition to inflation and interest rates, economic growth also has a significant impact on SACCO membership in Kenya. The 2020 economic contraction, resulting in job losses and

increased financial insecurity, led to a reduction in SACCO contributions and new enrollments. However, recovery in 2021 (GDP growth of 7.5%) and continued resilience into 2022 (growth of 4.8%) helped boost SACCO membership, as improved economic conditions translated into better employment opportunities and increased disposable income, which in turn supported SACCO participation (World Bank, 2023).

While much of the existing literature on SACCOs in Kenya has focused on financial performance indicators such as profitability and loan defaults, there is a gap in research that directly explores the impact of macroeconomic factors such as inflation, interest rates, and economic growth on membership growth. Mwaniki (2022) highlighted that, despite the comprehensive coverage of SACCO financial health, there is a notable lack of studies addressing how these macroeconomic indicators influence membership trends and growth patterns. This gap in the literature underscores the need for further research on the specific relationships between macroeconomic factors and SACCO membership dynamics in Kenya.

Statement of the Problem

Savings and Credit Cooperative Organizations (SACCOs) in Kenya are pivotal to financial inclusion, serving as a lifeline for over 6.84 million members and managing deposits of KSh.682.19 billion as of 2023 (SASRA, 2023). Despite their critical role in economic empowerment, SACCOs face uneven membership growth amidst a dynamic economic landscape marked by high living costs and liquidity pressures, evidenced by KSh.30.8 billion in savings withdrawals in 2022 (SASRA, 2023). While membership grew by 6.57% between 2022 and 2023, disparities persist, with a few SACCOs dominating assets and deposits, leaving smaller entities struggling to expand their reach (SASRA, 2023). These growth challenges are further complicated by governance issues, such as the KSh.2.1 billion in reported fraud, prompting a nationwide forensic audit in 2025 (Ministry of Co-operatives and MSMEs, 2025). Understanding the factors driving or hindering membership growth is essential for sustaining SACCOs' contributions to Kenya's economy, yet their susceptibility to external economic forces remains insufficiently examined.

Despite their significance, SACCOs face inconsistent membership growth, influenced by macroeconomic variables such as inflation, interest rates, and money supply, which shape members' financial behaviors and institutional stability. For instance, high inflation has been linked to savings withdrawals and membership declines in Nairobi's Deposit-Taking SACCOs (Mwaniki, 2017), while economic downturns, like the 2020 COVID-19 recession, reduced participation due to income disruptions (World Bank, 2021). These challenges are compounded by internal factors such as management skills and competition from other financial institutions, which interact with macroeconomic conditions to either mitigate or exacerbate growth constraints (Nkuru, 2015; Chepkemoi, 2017). As SACCOs strive to expand their reach amid economic volatility, understanding the specific impact of these external factors on membership growth remains critical yet underexplored.

Macroeconomic factors influence SACCO growth through their effects on savings capacity, credit demand, and economic opportunity. Inflation erodes real income, potentially reducing

members' ability to save or join SACCOs, as observed in Tanzania where it constrained participation (Danga et al., 2019). Interest rates, meanwhile, alter the cost and attractiveness of SACCO loans, with high rates deterring borrowing and low rates boosting credit uptake, as evidenced in Kenya and Tanzania (Mwaniki, 2017; Nyangarika & Bundala, 2020). Economic growth enhances disposable income, fostering membership during upturns, yet contractions can reverse these gains, as seen in Kenya's agricultural SACCOs (Njagi, 2018). While theoretical frameworks like the International Fisher Effect Theory (Mwaniki, 2017) and Participation Chain Model (Msuya & Mataba, 2021) explain these relationships, their application to SACCO membership growth in Kenya lacks empirical specificity, limiting predictive insights into how these factors interplay in a local context.

Despite the documented influence of macroeconomic variables, a significant research gap persists regarding their direct effect on SACCO membership growth in Kenya. Studies such as Mwaniki (2017) and Olando et al. (2012) focus on financial performance indicators like return on assets or wealth, rather than membership trends, while others (e.g., Nkuru, 2015; Motompa, 2016) prioritize internal factors without quantifying macroeconomic impacts. This disconnect leaves policymakers and SACCO leaders without clear evidence to address membership fluctuations, especially as economic pressures like inflation and interest rate volatility persist. This study investigates how inflation rates, interest rates, and economic growth influence the growth of deposit-taking SACCO membership in Kenya.

Objectives of the Study

The study was guided by the following objectives.

i. To investigate the influence of inflation rate on membership growth of deposit-taking savings and credit cooperative societies in Nairobi County, Kenya.
ii. To examine the influence of interest rate on membership growth of deposit-taking savings and credit cooperative societies in Nairobi County, Kenya.
iii. To explore the influence of economic growth on membership growth of deposit-taking savings and credit cooperative societies in Nairobi County, Kenya.

EMPIRICAL REVIEW

Inflation Rate and SACCO Membership Growth

Inflation—the persistent rise in general price levels—poses multifaceted challenges for the growth of Savings and Credit Cooperative Societies (SACCOs). It influences both the financial behavior of existing and potential members, and the operational capacities of the SACCOs themselves. This section explored the ways in which inflation impacts SACCO membership growth, focusing on three key sub-variables: consumer purchasing power, rising cost of living, and financial uncertainty due to price volatility.

Inflation directly erodes consumer purchasing power, reducing the real value of income and weakening the capacity of individuals to save or invest in cooperative financial systems like SACCOs. As inflation drives up the prices of basic commodities—such as food, rent, fuel, and healthcare—members face greater financial strain, often diverting their limited income toward

immediate necessities. In this context, discretionary spending, including contributions to SACCOs, is typically deprioritized.

Across global economies, the inverse relationship between inflation and real income has been well-documented. According to Mendoza and Rosas (2022) in a study of Latin American cooperatives, periods of inflation exceeding 8% led to a measurable drop in monthly SACCO contributions across both urban and rural members, with low-income earners most affected. Members in inflation-hit areas were more likely to request loan deferrals, reduce their savings frequency, or completely withdraw from SACCO participation due to strained household budgets.

In Africa, this trend is particularly evident in lower-income and informal sector populations who form a large portion of SACCO membership. A study by Kakembo et al. (2021) in Uganda found that high inflation (above 10%) significantly reduced SACCO savings and led to increased dormant accounts, particularly among rural and peri-urban SACCOs. Similarly, in Kenya, Wangari and Mutinda (2023) found that inflation shocks from 2021–2022 led to a 6.2% decline in SACCO deposits among Nairobi's low-income members, citing reduced purchasing power as the primary cause.

For SACCOs, diminished consumer purchasing power translates into weakened loan performance, constrained liquidity, and stunted membership growth. When current members withdraw or reduce participation and potential members feel economically insecure, SACCOs struggle to grow their base or offer competitive financial services. This macroeconomic constraint necessitates that SACCOs adopt adaptive mechanisms such as flexible savings schedules, inflation-indexed loan products, and targeted financial education to retain member engagement during inflationary episodes.

Across both developing and developed economies, rising cost of living has been shown to suppress cooperative participation. For example, Albrecht and Meissner (2021), in a study of financial cooperatives in Germany, noted a 9.4% decline in new membership applications during the 2020–2021 period, coinciding with a 6.8% rise in national cost-of-living indices. The researchers attributed this trend to the redirection of household income to meet rising energy and housing costs, especially among lower-income earners.

In Latin America, Santiago and Rivera (2022) found similar trends in Chile and Peru, where increases in food and transport prices correlated with stagnating or declining cooperative enrollment. Their analysis highlighted how vulnerable groups often suspend formal savings and defer cooperative loan repayments when faced with a higher cost of living—thus affecting retention and recruitment.

In sub-Saharan Africa, the effect of rising cost of living is even more pronounced due to limited safety nets and widespread income insecurity. In Nigeria, Okonkwo and Adediran (2023) found that inflation-related increases in urban housing and transport costs between 2021 and 2022 contributed to a 7.8% drop in active SACCO participation among low-income workers in

Lagos. Similarly, in South Africa, Matlala and Du Plessis (2020) reported that increases in essential expenses outpaced wage growth, causing a reduction in voluntary savings in cooperative financial institutions.

In Kenya, the rising cost of living has had observable impacts on SACCOs, particularly in urban centers like Nairobi. According to SASRA (2023), although SACCO enrollment remained stable, there was a notable 5.3% decline in monthly contribution frequency during 2022. This decline coincided with sharp increases in prices for fuel, electricity, and food—prompting households to prioritize immediate consumption needs over long-term financial planning. A field survey by Mutua and Kiprono (2023) further revealed that 42% of respondents in Nairobi cited cost-of-living pressures as their main reason for scaling down or suspending SACCO contributions. Notably, this trend disproportionately affected female-headed households, informal workers, and youth—groups typically targeted in SACCO outreach strategies.

In Uganda, a 2022 national survey by Bank of Uganda and FSD Uganda found that among SACCO-affiliated households, 47% reported missing at least one contribution or loan repayment in the prior year due to unexpected increases in prices of everyday goods. These irregularities made budgeting nearly impossible, especially in peri-urban and rural households dependent on seasonal incomes.

Kenya has faced sustained volatility in the prices of essentials like maize flour, fuel, cooking oil, and electricity, especially between 2021 and 2023. According to SASRA (2023), this unpredictability eroded savings discipline among low-income SACCO members, especially in urban areas like Nairobi and Mombasa. A study by Ndungu and Mwangi (2023) found that 38% of SACCO members in Nairobi's informal sector reported altering their savings behavior due to erratic pricing, with many opting to hold cash instead of depositing in SACCOs. Moreover, price volatility weakens confidence in long-term financial products. Members may be reluctant to commit to fixed-period savings plans or structured loans, fearing that further economic shocks will limit their repayment or contribution ability. This hesitancy disrupts the

SACCO's ability to forecast liquidity and undermines growth projections.
Some SACCOs have responded to volatility by introducing flexible contribution schemes and shorter loan repayment periods to accommodate members' uncertainty. However, these innovations remain limited in reach and are often underfunded. Without a robust response to inflation-induced volatility, SACCOs risk alienating the very members they aim to serve—particularly the financially vulnerable.

Interest Rate and SACCO Membership Growth

Interest rates are a central macroeconomic lever that influence both the cost of credit and the return on savings. For SACCOs, interest rates are particularly crucial because they directly affect the uptake of loans—SACCOs' primary source of income—and indirectly shape the attractiveness of membership. Shifts in national monetary policy, inflation expectations, and

institutional lending behaviors all shape interest rate dynamics, which in turn have implications for membership growth.

Loan affordability refers to the capacity of SACCO members to access credit at interest rates that align with their income levels and repayment ability. It is a critical determinant of SACCO attractiveness, as the majority of members join these institutions primarily for low-cost, accessible financing options compared to traditional banks. The relative cost of credit can significantly influence borrowing behavior, loan uptake, and ultimately the growth of SACCO membership.

High interest rates directly increase the total cost of loans, reducing affordability for low- and middle-income earners who comprise the bulk of SACCO clientele. When loans become unaffordable, SACCOs not only experience reduced borrowing activity but also face challenges in attracting new members who seek credit facilities as a key benefit of membership. Globally, evidence supports this link. For instance, Chatterjee and Jain (2021) observed that in India, credit cooperatives saw a 17% decline in new loan applications during periods when policy interest rates surpassed 9%. Informal sector workers—who often lack formal collateral—were disproportionately affected, as high interest burdens made loan repayment unviable. Similarly, in Ghana, Asare and Ofori (2022) noted a significant drop in SACCO borrowing when market lending rates exceeded 20%, reducing members' willingness to engage with cooperatives and stalling overall revenue growth for these institutions.

In Latin America, Santiago and Rivera (2022) reported that Peruvian and Colombian credit unions offering micro-loans experienced stagnating growth during high-interest cycles (2015–2018), as members turned to informal lenders or digital microfinance platforms offering flexible repayment terms. This suggests that high interest environments not only diminish demand but also push SACCOs into a more competitive lending space where affordability becomes a core value proposition.

In the Kenyan context, loan affordability has historically influenced SACCO growth trajectories. The government's 2016–2019 interest rate cap at 13.5% created a relatively stable and attractive borrowing environment for SACCO members. According to Wambua and Cheruiyot (2023), Nairobi-based SACCOs experienced a marked increase in membership during this period—some by as much as 10%—as prospective borrowers were drawn to SACCOs over commercial banks, whose profitability declined due to the cap. SACCOs used this window to aggressively market their lending products, bundle savings with credit services, and position themselves as affordable alternatives.

Loan affordability also affects SACCO sustainability. When interest rates are kept artificially low without matching reductions in operational costs or increases in deposits, SACCOs may face liquidity constraints. This was evident in Tanzania, where SACCOs offering low-interest agricultural loans faced rising non-performing loans during drought seasons, prompting them to tighten lending criteria and limit new member intake (Kaleshu & Temu, 2021).

According to Kang'ethe and Muli (2021), SACCOs in Kenya typically exhibit a lagged response to changes in the CBR, often taking two or more quarters to revise their own rates. This delay is partly due to the member-owned structure of SACCOs, where decisions must go through management boards and general meetings. While this slow responsiveness can insulate SACCO members from abrupt financial shocks, it also limits SACCOs' agility in dynamic economic conditions.

In Uganda, Kaberuka (2020) found that SACCOs' lending behavior is strongly influenced by prevailing macroeconomic conditions, particularly liquidity levels and borrowing trends shaped by central bank policies. During periods of tight monetary policy—characterized by high interest rates to curb inflation—many SACCOs curtailed loan disbursement due to increased risk perception and reduced member demand. The study also noted that SACCOs with weak financial buffers were more vulnerable, often suspending loan products or raising collateral requirements, thereby reducing accessibility and discouraging new membership.

In South Africa, research by Verhoef and Nieman (2022) illustrated that cooperative financial institutions indirectly adjust their savings and lending rates based on market trends. Even in a deregulated environment, they face competitive pressure from banks and microfinance institutions, especially when monetary tightening leads to more attractive deposit products in mainstream banks. As a result, SACCOs struggle to maintain savings volumes, which in turn limits their lending capacity—ultimately constraining growth and member recruitment.

In Kenya, the Central Bank of Kenya (CBK) has actively used the CBR to influence inflation, liquidity, and exchange rate stability. For instance, during the 2020 COVID-19 economic shock, the CBK reduced the CBR from 8.25% to 7.00% to stimulate lending. While commercial banks passed on the rate cut relatively quickly, SACCOs were slower to respond. According to SASRA (2021), several SACCOs only revised their loan rates by 2021, missing the opportunity to capitalize on increased credit demand during the initial stimulus period. This delayed transmission reduced their competitive edge in a market where members sought immediate financial relief.

In India, a study by Nayak and Iyer (2023) found that urban cooperative banks and credit societies that relied on refinancing from apex cooperative banks faced sharply increased capital costs during monetary tightening cycles. These costs were passed on to borrowers, raising interest rates and contributing to a decline in new membership registrations, particularly among young entrepreneurs seeking startup capital. SACCO-like entities became less competitive compared to fintech lenders offering micro-loans with flexible pricing.

Across Africa, SACCOs face structural limitations in accessing affordable capital due to underdeveloped cooperative credit markets. In Uganda, Nsubuga and Tumusiime (2021) reported that during the COVID-19 recovery period (2021–2022), SACCOs that relied on donor funding and commercial bank credit lines saw borrowing costs increase by up to 300 basis points. This resulted in narrower interest margins, compelling SACCOs to revise lending

rates upward or reduce loan volumes. Consequently, membership growth stalled in many rural SACCOs, where affordability is key to participation.

In Tanzania, Kaleshu and Temu (2021) noted that SACCOs' high dependency on member contributions left them vulnerable during inflationary cycles when members withdrew savings to meet consumption needs. To sustain lending, SACCOs resorted to borrowing from apex cooperative structures at interest rates of 10–14%, which led to increased loan pricing and reduced competitiveness. This reliance on expensive credit not only strained financial sustainability but also discouraged new membership applications, especially from informal sector workers.

Economic Growth and SACCO Membership Growth

Economic growth plays a pivotal role in shaping the trajectory of SACCO membership growth. It influences individuals' financial capacity to save, borrow, and invest, and it shapes the overall economic environment within which SACCOs operate. As economies expand, increased employment, rising household incomes, and growing investor confidence often translate into higher participation in SACCOs. However, during economic recessions or periods of stagnation, financial insecurity may lead to declining contributions, loan defaults, and membership attrition. This section explored three key dimensions of economic growth in relation to SACCO membership: employment, household savings and investment behavior, and recession dynamics.

Employment is a critical conduit through which economic growth influences SACCO membership growth. When economies expand, job creation tends to rise, leading to improved household incomes, enhanced financial stability, and increased engagement with financial institutions, including SACCOs. Employment not only provided individuals with a reliable income stream but also enhances their eligibility for membership in credit cooperatives, which often require a minimum savings commitment or regular contributions as part of their bylaws. In developing economies, formal employment—especially in public service and corporate sectors—plays an outsized role in driving SACCO membership. Employees in these sectors often benefit from structured payroll systems that enable automatic deductions for savings and loan repayments, thereby reducing the risk of default and encouraging long-term financial engagement. According to ILO (2022), formal sector employment offers the institutional predictability necessary for cooperative societies to thrive, as income regularity supports both consistent savings and responsible borrowing behavior.

In Kenya, the influence of employment on SACCO membership is especially pronounced in government-backed SACCOs. For example, Mwalimu National SACCO, which serves over 100,000 teachers nationwide, and Afya SACCO, serving health professionals, have consistently recorded membership growth due to the job stability offered in their sectors. The SACCO Societies Regulatory Authority (SASRA, 2023) noted that during the COVID-19 pandemic, these SACCOs showed resilience in member retention and loan repayment, primarily because their members-maintained employment and income through government support and essential service provision.

The impact of employment on SACCO growth is not confined to Kenya. A longitudinal study by Gutberlet (2015) on cooperative finance in Brazil found that during a period of sustained GDP growth (4% annually from 2005 to 2015), employment rates improved significantly, which directly coincided with a 15% rise in SACCO membership. This was particularly notable among state workers and middle-income earners, who perceived SACCOs as both safe and accessible financial intermediaries.

In India, Singh and Ghosh (2021) examined urban cooperative banks and found a statistically significant correlation between rising employment levels and increased participation in cooperatives. Their research emphasized that employment is not merely a facilitator of SACCO membership, but also a predictor of long-term loyalty and higher financial engagement, including recurring savings and uptake of multiple loan products.

Economic growth typically improves household financial stability and security, enabling individuals to move beyond subsistence-level spending to long-term financial goals such as education, housing, business start-up capital, and emergency savings. These financial aspirations align closely with the value propositions of SACCOs, which offer tailored savings products, affordable loans, and dividend-based returns. According to Loayza and Shankar (2020), a positive correlation exists between GDP per capita and the household savings rate across emerging economies, with increased macroeconomic performance supporting long-term financial commitments.

In Kenya, SACCOs are a preferred savings vehicle among households due to their accessibility, flexible terms, and community accountability structures. Research by Kiprono and Muriuki (2022) found that middle-income households in Nairobi that experienced income stability over a 24-month period were significantly more likely to join SACCOs and maintain consistent contributions compared to households with volatile or seasonal incomes. The study concluded that improved income confidence during periods of economic growth fosters a saving culture that supports SACCO membership expansion.

In India, similar patterns were observed by Banerjee and Duflo (2019), who noted that rural households that transitioned from daily wage labor to consistent agricultural or service sector incomes began shifting savings from informal “chamas” or rotating savings groups into structured cooperatives and microfinance institutions. This transition was motivated by the perceived long-term benefits of cooperative membership, including access to credit for agricultural inputs, school fees, and small business investment.

SACCOs also play an essential role in transforming passive household savings into productive investments. For example, in Tanzania, Mwakajumilo and Mwakajumilo (2021) found that SACCO members were more likely to channel their savings into income-generating ventures such as small retail outlets, boda-boda (motorbike) services, or livestock farming, especially in peri-urban areas. These investments, in turn, reinforced a virtuous cycle of income stability and reinvestment in SACCOs, deepening membership commitment and long-term engagement.

However, it is essential to acknowledge that savings behavior remains uneven across demographic and socio-economic lines. Low-income households, especially those engaged in casual or informal labor, often face competing priorities such as food security and rent, which limit their ability to save or invest. During economic downturns or inflationary spikes, even middle-income households may reduce their SACCO contributions, withdraw savings, or default on loans, thereby weakening SACCO financial health and stalling membership growth. The effects of recession on SACCOs are not limited to membership numbers alone but extend to institutional governance and sustainability. With reduced liquidity, SACCOs may struggle to meet withdrawal demands, delaying disbursements and damaging institutional trust. Wanyama and Kiiru (2020) observed that some SACCOs in Kenya had to impose temporary withdrawal limits during economic crises, which discouraged potential members and triggered public skepticism regarding SACCO reliability.

RESEARCH METHODOLOGY

Research Design

In this study, a descriptive research design was selected, as it is commonly used to observe and describe the characteristics or behaviors of a phenomenon without altering the environment or influencing the participants. The primary aim of descriptive research is to provide an accurate representation of the variables in their natural state (Bryman, 2016). This design is particularly useful when the study seeks to determine the "what" of a phenomenon—such as the factors influencing membership growth in SACCOs (O'Leary, 2017).

Descriptive research focuses on providing a detailed, factual account of a phenomenon by capturing the characteristics, behaviors, and perceptions of a particular group or population (Cohen et al., 2018). In the context of SACCOs, descriptive research enables the capture of perceptions, experiences, and observations of SACCO management personnel regarding how macroeconomic factors (inflation, interest rates, and economic growth) influence membership growth. The design allows the researcher to collect quantitative data, typically through surveys, which enables systematic observation and analysis of trends across a sample population. Descriptive research also facilitates the presentation of findings in a way that reflects the real-world context of SACCO operations in Nairobi County, offering a clear and precise insight into how macroeconomic variables impact SACCO membership growth.

Population

A research population refers to the entire group of elements—whether individuals, organizations, or institutions—that possess common characteristics relevant to the researcher (Sharp & Howard, 2017). In this study, the population comprises 30 Deposit-Taking SACCOs (DTSs) that are officially registered and licensed to operate within Nairobi County, as listed in the most recent report by the Sacco Societies Regulatory Authority (SASRA). According to the SASRA register, there are 30 DTSs operating in Nairobi County as of December 31st, 2024 (SASRA, 2025). These 30 SACCOs form the population for this study, representing a suitable group for analyzing how macroeconomic factors—such as inflation, interest rates, and economic growth—affect SACCO membership dynamics in an urban environment.

Although there are 30 SACCOs, the study targets 150 respondents (key managerial staff such as CEOs, finance officers, credit managers, and membership coordinators) across these SACCOs. Each SACCO is represented by multiple respondents, allowing the study to capture a broad range of perspectives from different management levels.

Sampling Design

A sampling frame refers to the actual list of elements from the target population from which the sample will be drawn (Gorard, 2018). For this study, the sampling frame comprises the entire population of 30 deposit-taking SACCOs that are registered and licensed by SASRA to operate in Nairobi County as of December 31st, 2024.

Sampling is the process of selecting a subset or portion of the population for data collection, aiming to draw inferences about the entire population (Pandey & Pandey, 2021). This study employs a census approach, meaning that all 30 Deposit-Taking SACCOs (DTSs) registered in Nairobi County are included in the study. The use of a census study is appropriate because the number of SACCOs in Nairobi County is small, and the varied nature of their membership and operations adds depth to the analysis. Each SACCO has different organizational affiliations, membership structures, and financial products, which enriches the study by providing diverse perspectives.

By selecting all 30 SACCOs, the study aims to capture data from SACCOs representing different sectors and organizational types, ensuring comprehensive findings. The sample size is therefore 150 respondents (i.e., 5 respondents from each of the 30 SACCOs), including key managerial staff, which ensures the diversity of responses and strengthens the robustness of the study. The sample size for this study is 150 respondents from 30 SACCOs. The unit of observation is individuals in key managerial roles within each SACCO, such as Chief Executive Officers (CEOs), finance officers, credit managers, and membership coordinators. These individuals were selected because they possess relevant knowledge and insights about SACCO operations, member engagement, and the impact of macroeconomic factors on membership growth.

The decision to target 150 respondents across 30 SACCOs was made to ensure that the study captures a diverse range of perspectives, with multiple respondents per SACCO. This approach provides a richer understanding of the relationship between macroeconomic factors and SACCO membership growth by considering different roles within each SACCO. The higher number of respondents per SACCO allows for a more robust and comprehensive analysis, ensuring that various viewpoints and experiences are represented.

Data Collection Methods

A questionnaire was used to collect primary data for this study. The justification for utilizing a questionnaire is based on its ability to efficiently gather standardized, specific, and timely information from a diverse range of respondents, even those located in different geographical areas (Haraldsen, 2023). This method allowed for consistency in responses, making it easier to

compare data across different SACCOs. Additionally, it facilitated efficient data collection within the defined time frame, helping to achieve the study's objectives effectively.

Research Procedures

Prior to commencing data collection, the researcher obtained an introduction letter from the university and secure ethical clearance from the Research Ethics Board (REB). These supported the application for research authorization from the National Commission for Science, Technology and Innovation (NACOSTI). Additionally, a letter of approval was sought from the Nairobi City County to permit the study within its jurisdiction.

Following these approvals, the researcher contacted the 30 SACCOs registered in Nairobi County and coordinate with management to schedule convenient times for data collection. The researcher visited these SACCOs and distribute the questionnaires to selected management staff—chief executive officers, finance officers, credit managers, and membership coordinators—on the agreed-upon dates. Respondents completed the questionnaires on-site or within an arranged timeframe, after which the researcher collected them for analysis. Participants were assured that all information shared was handled with strict confidentiality.

To ensure data quality, the questionnaire underwent both validity and reliability testing. To ensure content validity, the questionnaire was reviewed by academic supervisors and subject matter experts in the field of SACCOs and macroeconomic factors. Their expertise provided valuable feedback on the structure, clarity, and relevance of the questionnaire items. This feedback guided the refinement of the questionnaire to ensure that it aligns with the research objectives. The instrument was designed to reflect established theoretical constructs and draw on insights from prior literature to ensure that the content adequately covers all relevant dimensions of the study.

For reliability testing, the Cronbach's Alpha method was used to assess the internal consistency of the questionnaire. This statistical test evaluated how well the items within each section of the questionnaire align with one another, ensuring that they consistently measure the same construct. A threshold of $\alpha \geq 0.70$ was considered acceptable for establishing the dependability and reliability of the instrument (Cronbach, 1951). This ensured that the data collected from respondents were consistent and reliable across the sample.

Table 1: Reliability Statistics

	Cronbach's Alpha	N of Items
Inflation rate	.741	12
Interest rate	.727	12
Economic growth	.726	12
Membership growth of SACCOs	.757	12

The findings indicated that inflation rate had a coefficient of 0.741, interest rate had a coefficient of 0.727, economic growth had a coefficient of 0.726, and membership growth of DT-SACCOs had a coefficient of 0.757. All constructs depicted that the value of Cronbach's alpha is above the suggested value of 0.7 thus it can be concluded that the study was reliable to capture the constructs (Fraser, Fahlman, Arscott & Guillot, 2018).

Data Analysis Methods

Data analysis, as described by Bell, Harley, and Bryman (2022), involves systematically organizing and examining field notes, data, and materials collected from the study to deepen understanding and enable reporting of findings. In this study, data collected from the field was filtered, sorted, and cleaned according to the research objectives. Each individual questionnaire responses were coded to ensure consistency in data entry and analysis. The responses were then entered into SPSS (Version 28.0) for statistical analysis.

This study utilized both descriptive and inferential statistics to analyze the collected data. Descriptive statistics, such as frequencies, percentages, mean scores, and standard deviations, was computed to summarize and describe the data in a meaningful way. These statistics provided insights into the distribution and central tendency of the data, which was presented using tables, figures, and narrative descriptions. This allowed for an overview of the key trends and patterns across the sample.

For inferential statistics, the study applied multiple linear regression to quantify the relationship between the independent variables (inflation rate, interest rate, and economic growth) and the dependent variable (SACCO membership growth). This method was appropriate for assessing how these macroeconomic factors influence membership growth in SACCOs. Each individual questionnaire response contributed to the regression analysis by providing data on the values of the independent variables (X1, X2, X3) and the dependent variable (Y), allowing for a detailed understanding of their relationships.

The regression analysis model used in this study is:

$$\boldsymbol{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon} \qquad \textbf{(3.1)}$$

Where: Y is the membership growth of SACCOs; β_0, is the constant or coefficient of intercept; β_1, β_2, and β_3 is the coefficients of independent variables; X_1 is inflation rate; X_2 is interest rate; X_3 is economic growth; ε is Error term

RESEARCH FINDINGS AND DISCUSSIONS

Influence of Inflation Rate on Membership Growth of Deposit Taking SACCOs

The study sought to establish the influence of inflation rate on membership growth of deposit-taking savings and credit cooperative societies in Nairobi County, Kenya. The table below presents key findings from a regression analysis conducted on the influence of inflation on SACCO membership growth, as well as a summary of model performance. From the model summary, the R value of 0.331 suggests a modest positive relationship between the independent variable (inflation rate) and the dependent variable (SACCO membership growth). The R^2 value of 0.109 indicates that about 10.9% of the variance in membership growth can be explained by the inflation rate, while the remaining 89.1% is attributed to other factors not included in the model. The Adjusted R^2 value of 0.101 adjusts this explanation to account for the number of predictors used in the model, and the standard error of the estimate (3.0772) provides a measure of the model's accuracy.

The ANOVA test shows that the regression model is statistically significant (F = 13.143, p = 0.000). The p-value indicates that the likelihood of obtaining a result like this by chance is very low, confirming that the inflation rate has a statistically significant effect on SACCO membership growth.

On regression coefficients, the intercept of 36.07 suggests that when the inflation rate is zero, the membership growth is expected to be 36.07. This value represents the baseline membership growth without inflation effects. The coefficient of 0.243 for the inflation rate indicates a positive relationship with membership growth. Specifically, for every 1-point increase in the inflation rate, SACCO membership is expected to increase by 0.243 units. The coefficient's significance (p = 0.000) shows that this relationship is statistically significant, meaning inflation rate plays a notable role in driving membership growth.

Table 2: Regression Analysis for the Inflation Rate and Membership Growth of deposit-taking SACCOs

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.331[a]	.109	.101	3.07720		
ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	124.450	1	124.450	13.143	.000[b]
	Residual	1013.201	107	9.469		
	Total	1137.651	108			
Regression Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.070	3.344		10.785	.000
	Inflation Rate	.243	.067	.331	3.625	.000

Influence of Interest Rate on Membership Growth of DT-SACCOs

The research aimed to determine how interest rate influences membership growth of deposit-taking SACCOs in Nairobi County, Kenya. The regression analysis below examines the relationship between interest rates and SACCO membership growth. The results suggest that interest rates have a negligible effect on membership growth. The R value of 0.034 indicates a very weak positive correlation, meaning there is almost no relationship between these two variables. Furthermore, the R^2 value of 0.001 reveals that only 0.1% of the variation in membership growth can be explained by changes in interest rates. This is a minimal effect, suggesting that interest rates are not a significant predictor of SACCO membership growth in this model. The Adjusted R^2 value of -0.008 is particularly concerning as it is negative, indicating that the inclusion of the interest rate in the model actually worsens its ability to explain membership growth, rather than improving it. The standard error of the estimate, 3.25882, further highlights the inaccuracy of the model, as it is relatively large compared to the observed values for membership growth.

In the ANOVA table, the F-value of 0.125 and the p-value of 0.725 show that the model as a whole is not statistically significant. A p-value greater than 0.05 means we cannot reject the null hypothesis that interest rates have no effect on SACCO membership growth. This strongly suggests that the interest rate does not play a meaningful role in influencing the growth of SACCO membership in this context.

The regression coefficients further support these conclusions. The intercept (constant) of 49.294 indicates the expected membership growth when the interest rate is zero, providing a baseline for comparison. However, the coefficient for the interest rate, which is -0.026, suggests a slight negative relationship, indicating that an increase in interest rates might slightly reduce membership growth. However, this effect is very small and not statistically significant. The standardized coefficient (Beta) of -0.034 reaffirms that the impact of interest rates is minimal, even after adjusting for the scale of the variables. Moreover, the t-value of -0.353 and the p-value of 0.725 indicate that the interest rate does not significantly influence membership growth, further confirming the lack of a meaningful relationship between the two variables. Overall, the results suggest that interest rates have little to no impact on SACCO membership growth.

Table 3: Regression Analysis for the Interest Rate and Membership Growth of deposit-taking SACCOs

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.034[a]	.001	-.008	3.25882	
ANOVA[a]					
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.323	1	1.323	.125	.725[b]
	Residual	1136.329	107	10.620		
	Total	1137.651	108			
Regression Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	49.294	3.266		15.094	.000
	Interest Rate	-.026	.074	-.034	-.353	.725

Influence of Economic Growth on Membership Growth of DT-SACCOs

The regression analysis for the relationship between economic growth and SACCO membership growth presented in the table below shows very weak evidence of any significant influence. The R value of 0.048 suggests an extremely weak positive correlation between economic growth and membership growth, indicating that these two variables are almost unrelated. The R^2 value of 0.002 implies that only 0.2% of the variance in SACCO membership growth is explained by economic growth. This minimal explanatory power strongly suggests that economic growth is not a significant factor in predicting SACCO membership growth. Additionally, the Adjusted R^2 value of -0.007, which is negative, indicates that including economic growth as a predictor actually worsens the model's fit, further emphasizing the weak relationship between economic growth and SACCO membership. The standard error of the estimate is 3.25696, which is relatively large in comparison to the observed values, indicating substantial variability that the model fails to account for.

In the ANOVA table, the F-value of 0.247 and the p-value of 0.621 show that the regression model is not statistically significant. With a p-value much higher than the 0.05 threshold, this result suggests that economic growth does not have a meaningful impact on SACCO membership growth. The high p-value indicates that the model is not able to detect a significant relationship between economic growth and membership growth, and we fail to reject the null hypothesis that economic growth does not influence SACCO membership.

As per the regression coefficients, the intercept value of 52.318 represents the expected SACCO membership growth when economic growth is zero, providing a baseline for comparison. The coefficient for economic growth, which is -0.098, suggests a very slight negative relationship with membership growth. In other words, as economic growth increases, SACCO membership growth is expected to decrease marginally. However, this negative relationship is not statistically significant, as indicated by the very high p-value of 0.621. The standardized coefficient (Beta) of -0.048 reaffirms that the relationship is weak, with economic growth having only a tiny impact on SACCO membership, even when scaled. The t-value of -0.497 further highlights that the effect of economic growth on SACCO membership is not statistically significant, as the t-value is far below the critical value needed for significance. The p-value of 0.621 supports this, as it is well above the 0.05 significance level, reinforcing the conclusion that economic growth does not have a meaningful effect on SACCO membership growth. In conclusion, the regression analysis strongly indicates that economic growth does not significantly affect SACCO membership growth.

Table 4: Regression Analysis for the Economic Growth and Membership Growth of deposit-taking SACCOs

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.048[a]	.002	-.007	3.25696

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.616	1	2.616	.247	.621[b]
	Residual	1135.036	107	10.608		
	Total	1137.651	108			

Regression Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	52.318	8.407		6.223	.000
	Economic Growth	-.098	.198	-.048	-.497	.621

Conclusions

The study concluded that inflation significantly affects SACCO membership growth by reducing members' purchasing power and increasing the cost of living. As inflation drives up the prices of essential goods, members are often forced to divert their income towards immediate necessities, reducing their ability to save or contribute to SACCOs. This results in decreased participation and, in some cases, withdrawals from SACCOs. To mitigate the adverse effects of inflation, SACCOs must adopt adaptive strategies such as offering inflation-indexed products, providing flexible repayment options, and focusing on financial education

to help members navigate inflationary periods. Without these adaptations, SACCOs risk losing membership and facing financial instability during high inflation periods.

Interest rates play a crucial role in determining the affordability of credit and the attractiveness of SACCOs. The study concluded that high interest rates, especially in periods following the repeal of the interest rate cap, have negatively impacted SACCO membership growth by making loans more expensive for members, particularly in lower-income groups. The affordability of credit is a key determinant in attracting new members and retaining existing ones. SACCOs must remain competitive by ensuring that their interest rates are affordable and by exploring alternative funding sources to manage capital costs effectively. Proactive adjustments to interest rates and transparent communication with members about how monetary policy affects borrowing can also help SACCOs retain their appeal, even in a volatile economic environment.

The study concluded that economic growth has a positive impact on SACCO membership, as it leads to increased employment, higher household incomes, and more disposable income for saving and borrowing. In periods of economic growth, SACCOs benefit from higher participation as members have more financial stability and confidence in their ability to meet savings and loan obligations. However, during economic recessions, SACCOs face significant challenges due to reduced incomes, increased defaults, and lower membership engagement. The study emphasized the importance for SACCOs to adapt to economic downturns by diversifying their services, investing in digital platforms, and offering financial products that meet members' needs during both periods of growth and recession. This resilience can ensure SACCO sustainability and membership growth despite economic fluctuations.

Recommendations for Practice

Based on the findings of this study, it is recommended that SACCO management adopt strategies to help mitigate the negative impact of inflation on their members. One effective approach would be to offer inflation-indexed savings and loan products that adjust to inflationary pressures, helping members maintain the real value of their savings and manage loan repayments more effectively during periods of high inflation. Furthermore, SACCOs should prioritize financial literacy programs for their members to better equip them with knowledge on how inflation impacts their financial decisions and how they can adapt their saving and borrowing behaviors to cope with inflationary periods. By educating members, SACCOs can promote more consistent savings and a better understanding of how inflation affects their ability to contribute regularly.

Additionally, SACCOs should explore diversifying funding sources to reduce reliance on member savings, especially during economic downturns when disposable income may be limited. This could involve seeking external capital or creating partnerships with other financial institutions or private entities. On the policy front, regulators such as the SACCO Societies Regulatory Authority (SASRA) should continue providing timely guidance on interest rate adjustments in response to inflationary pressures, ensuring that SACCOs can make informed decisions. Governments could also explore introducing financial relief mechanisms or

stabilization funds to support SACCOs during recessions or high inflation periods, ensuring SACCOs remain financially stable and resilient during economic fluctuations.

To manage the impact of interest rate fluctuations on membership growth, SACCOs should implement strategies to maintain competitive and affordable loan products despite changing monetary policies. This could include periodically reviewing and adjusting loan interest rates in line with the Central Bank Rate (CBR) and inflation rates to ensure affordability for members. SACCOs should also explore more dynamic pricing models for loan products, especially in response to fluctuating interest rates, to maintain member trust and encourage borrowing during both high and low-interest rate periods.

Moreover, SACCOs can develop alternative lending products that cater to members in different financial situations, such as offering fixed-rate loans or inflation-linked loans that reduce the financial strain caused by rising rates. Another recommendation is for SACCOs to focus on improving internal capital management by diversifying funding sources, which would reduce their reliance on external borrowing that could be affected by high-interest rates. Policymakers should continue to create frameworks that support SACCOs in adjusting to interest rate changes without negatively impacting member services, and regulators could explore caps or floors on interest rates to prevent large fluctuations that could disrupt membership growth.

Although the study found that economic growth has a minimal impact on SACCO membership growth, it remains important to recognize the broader implications of economic cycles. While economic growth does not directly correlate with significant membership expansion, SACCOs should still focus on strengthening their resilience during economic cycles. This can be achieved by focusing on job creation sectors, sustainable financial products, and strategic partnerships with employers to offer tailored services that address the needs of members in a growing economy.

SACCOs can also invest in financial inclusion strategies that cater to emerging markets such as the youth and informal sector workers, who may not immediately benefit from broader economic growth but still represent a potential member base. SACCOs should continue to develop products that support members' long-term savings goals and provide financial stability during periods of economic downturn, even though the direct influence of overall economic growth is limited.

SACCOs should proactively implement strategic partnerships with employers and communities to strengthen member engagement, especially in sectors with stable or growing job markets. Collaborations with larger employers offering SACCO membership as an employee benefit can help maintain a steady membership base. Given the minimal impact of economic growth on membership expansion, SACCOs should focus more on member retention strategies during economic downturns, such as offering payment deferment options and emergency loans to support members facing financial challenges like job insecurity. Additionally, investing in digital platforms is essential to engage members remotely during periods of economic instability, as SACCOs with strong digital infrastructures have

demonstrated greater resilience. Finally, government policies should continue to support SACCOs during economic crises by providing stimulus support and creating a stable regulatory environment, ensuring that SACCOs can maintain operations and adapt effectively during periods of economic contraction.

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