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Empirical Assessment of Economic Growth and Armed Conflict on Poverty in Yemen(*)

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التقييم التجريبي للنمو الاقتصادي والصراع المسلح على الفقر في اليمن

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الملخص

بحثت هذه الدراسة في العلاقة بين النمو الاقتصادي، والصراع المسلح، والفقر باستخدام البيانات الكمية والإقليمية، بما في ذلك دراسة حالة تفصيلية لليمن، يُعد وضع الفقر في اليمن سيناريو خاصًا يتجاوز المنطق البشري، إذ يتمتع البلد بموارد طبيعية ومادية عديدة، ومع ذلك يعيش أكثر من ثلثي سكانه في فقر مدقع، وبصورة أكثر دقة، قامت هذه الدراسة بتقييم تأثير النمو الاقتصادي على الفقر في اليمن باستخدام بيانات ثانوية تمتد من عام (1994) إلى عام (2020)، كما تم تحليل آثار الصراع المسلح على مستويات الفقر، نظرًا لأن الفقر يُعد قضية ملحة للغاية تؤثر على الغالبية العظمى من السكان.

وأثناء استمرار النزاعات المسلحة في اليمن منذ عام (2015)، تبيّن أن شريحة واسعة من الطبقة الوسطى انزلقت إلى حالة الفقر، تعتمد الدراسة على أدبيات اقتصادية متنامية تقدّم أدلة على التأثير المدمر للصراع على التنمية والفقر، وقد تم تطبيق نهج المربعات الصغرى (OLS) لتحليل أثر النمو الاقتصادي على الفقر، مع تضمين متغير وهمي (Dummy Variable) لقياس أثر الصراع، تُظهر النتائج أن النمو الاقتصادي في اليمن يرتبط سلبيًا بمستويات الفقر أي أن زيادة الناتج المحلي الإجمالي تسهم في خفض معدلات الفقر، في حين أن الصراع المسلح كان له تأثير إيجابي كبير على الفقر، ما يعني أنه يؤدي إلى تفاقمه، وتشير النتائج إلى أن تحقيق الاستقرار السياسي والأمني شرط أساسي لتحفيز النمو الاقتصادي وتخفيف الفقر في اليمن، حيث تُبرز نتائج المقارنة من تعافي رواندا بعد الصراع المسلح أهمية الإصلاحات المؤسسية والحكومية، والاستثمار في رأس المال البشري، وتحسين الأمن، وتنمية النشاط الريادي، ووضع سياسات اقتصادية متينة للحد من الفقر على المدى الطويل، تُقدم الدراسة توصيات قائمة على الأدلة لصانعي السياسات حول كيفية تعزيز النمو الاقتصادي الشامل، وتحسين الحماية الاجتماعية، واستقرار الأوضاع السياسية، والاستثمار في البنية التحتية والتنمية البشرية، مما يُهدد الطريق لليمن للابتعاد عن الفقر الناجم عن الصراع والتوجه نحو التنمية المستدامة.

الكلمات المفتاحية: النمو الاقتصادي، الحرب، الانحدار المتعدد، الفقر، اليمن.

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Abstract

This study examines the relationship between Economic growth, conflict and poverty using quantitative and regional data, including a comprehensive case study of Yemen. Poverty situation in Yemen is a special scenario that is beyond human reasoning because the nation is endowed with numerous material resources, but more than two-third of its population is living in abject poverty. This study examines the impact of economic growth on poverty in Yemen using secondary data spanning from (1994 to 2020). We also examine the impacts of conflict on Poverty. Poverty is an extremely pressing issue today, as it affects the vast majority of people during armed conflicts in Yemen have been ongoing since (2015). paper relies on a large and growing literature that provides evidence on the devastating impact that conflict has on poverty. The Ordinary Least Squares (OLS) approach was applied. The findings demonstrate that Yemen's poor and erratic GDP growth, along with prolonged political instability and civil wars, has resulted in a large increase in poverty rates. According to the statistical findings, economic growth has a significant negative impact on poverty, while years of conflict exacerbate poverty levels considerably. Comparative findings from Rwanda's post-conflict recovery highlight the importance of institutional and governance reforms, human capital investment, improved security, entrepreneurial activity, and solid economic policies for long-term poverty reduction. The study provides evidence-based recommendations for policymakers on how to promote inclusive economic growth, improve social protection, stabilize political conditions, and invest in infrastructure and human development, paving the way for Yemen to move away from conflict-induced poverty and towards sustainable development.

Keywords: Economic growth, War, A multiple regression, Poverty, Yemen.

Introduction:

One of the most enduring issues facing developing nations is poverty, which poses both a structural obstacle to attaining sustainable development and a humanitarian problem. By allocating financial and human resources to raise living standards, governments and international organizations continuously place poverty alleviation at the top of their development objectives (Wade, 2020). However, as economic growth is commonly seen as a necessity for lowering poverty and enhancing social welfare, the success of such initiatives mostly depends on economies' capacity to generate sustainable growth. Fundamental elements including capital accumulation, labor force expansion, and technical advancement have historically been the main drivers of economic growth (Jalloul, 2017).

It is generally measured through increases in gross domestic product (GDP), per capita income, and improvements in production capacity (Cook & Davíðsdóttir, 2021). Beyond aggregate economic output, growth is also evaluated in terms of its inclusiveness, reflected in the accessibility of essential services and the extent to which it enhances the overall well-being of individuals. Nevertheless, poverty remains a major obstacle to achieving higher growth trajectories, as it weakens human capital, constrains productivity, and perpetuates cycles of inequality (Kubiszewski et al., 2013).

The relationship between economic growth and poverty has been widely studied in the context of relatively stable economies. Yet, in fragile and conflict-affected states, the dynamics of this relationship become more complex and less predictable. Yemen provides a striking example of this complexity. Since 1994, the country has experienced prolonged political instability, recurrent conflicts, and weak institutional capacity, all of which have severely constrained economic performance and fueled a dramatic rise in poverty rates. The prolonged conflict has not only undermined growth but also exacerbated socioeconomic disparities, pushing millions of Yemenis below the poverty line.

Interestingly, experiences from other post-conflict countries suggest that recovery and inclusive development remain possible despite severe crises. Rwanda, for example, transitioned from devastating civil war and genocide to achieving remarkable levels of economic growth and significant poverty reduction within two decades. This transformation was facilitated by

visionary leadership, restored political stability, institutional reforms, and targeted investments in infrastructure and human development (Kubiszewski et al., 2013). Drawing lessons from such experiences may provide valuable insights for Yemen in navigating its own pathway toward recovery.

Problem Statement:

One of the challenges to sustainable development that still exists within developing countries is that of poverty. It has been supported that economic growth is one of the key means to reduce poverty and improve the living conditions (Cook & Davíðsdóttir, 2021; Jalloul, 2017; Wade, 2020). Yet the form that this correlation assumes has yet to be determined, especially in fragile and conflict-affected countries. A clear example of such a situation is the case of Yemen. During the period spanning from 1994 to 2020, the economy was deteriorating due to the effect of war and the decline of various sectors that led to a significant increase in the rate of poverty. Although the explanatory relevance of economic growth and poverty has received considerable attention in the past, empirical research within the context of Yemen is scarce.

The past research has mainly concentrated on stable economies; in Yemen's environment, there are prolonged conflict situations that impact economic growth directly. This highlights a research gap: there are few research studies that use economic growth and war (using a dummy variable) as factors to explain poverty in Yemen. Additionally there are no direct comparisons to other countries that are post conflict. For example, there is the case of Rwanda that has been a war-afflicted state that has realized rapid economic growth with significant declines in poverty due to 'visionary' leadership and structural transformation (Kubiszewski et al., 2013). The study attempts to address the following key research questions:

- 1- What are the levels of poverty incidence in Yemen during the period from (1994 to 2020 AD), compared to international and regional trend?
- 2- What are the effects of economic growth on poverty when measuring the war variable as a dummy variable in Yemen during the study period?
- 3- How can Yemen use Rwanda's post-conflict economic recovery?

Research Objectives:

The main aim of this research is to examine the impacts of conflict and economic growth on poverty rates in Yemen from 1994 to 2020, and

compare them with international and regional trends with draw inspiration from post-conflict economic success stories like Rwanda in order to explore potential avenues for Yemen. The objectives of the study can be explained as follows:

- 1- To examine economic growth and the incidence of poverty in Yemen over the period covered in this study and compare them with international and regional trends.
- 2- To measuring the effect of economic growth on poverty in Yemen.
- 3- To measuring the effects of GDP with war conflict as a dummy variable on poverty.
- 4- To draw inspiration from the experiences gained in post-conflict-economy success stories such as Rwanda to infer possible courses that might be pursued in the case of Yemen.

Significance of the Study:

This study is significant for several reasons:

- 1- The theoretical contribution lies in filling the existing research gap with regard to the nexus between growth and poverty within fragile and conflict-affected countries, with the emphasis placed on the state of Yemen due to the lack of quantitative research that considers conflict as one of the explanatory variables.
- 2- The results offer empirical evidence to inform policymakers' design of policies aimed at encouraging and inclusive sustainable growth even within conflict environments.
- 3- Application implications of this study lead to understanding the economic conditions within Yemen and learning from post-conflict nations such as Rwanda that have successfully regained development after conflict, application implications are made within this study to alleviate poverty.
- 4- The study adds to the development economics literature since it examines the role that war has in modulating the effect that economic growth has on poverty.

Research Hypotheses:

Based on the research questions and the objectives the following hypotheses are formulated:

- H₁- There is a statistically significant negative relationship between economic growth and poverty levels in Yemen.
- H₂- Conflict has a positive effect on poverty levels, mitigating the poverty-reducing effects of economic growth.
- H₃- The economic growth has negatively effect on poverty in Yemen.
- H₄- The combination of economic growth and post-conflict institutional reforms can significantly reduce poverty rates, as evidenced by comparative experiences such as Rwanda.

Literature review: Poverty and Economic Growth:

The nexus between economic growth and poverty reduction has been extensively examined in the development economics literature. Empirical studies consistently indicate that economic growth is a critical driver of poverty alleviation; however, its effectiveness largely depends on policy frameworks, income distribution, and human development interventions (Bhagwati, 2001; Dollar & Kraay, 2004; Ravallion & Datt, 1996; Tendulkar & Jain, 1995; Tendulkar, 1998). Growth alone does not automatically reduce poverty, particularly in contexts of high inequality or where poor populations lack access to basic services (Kakwani, 2000). Evidence from multiple countries illustrates these dynamics. (Agrawal, 2008) analyzed Kazakhstan using cross-sectional data (2000–2002) and found that provinces with higher growth rates experienced increases in employment and real wages, which contributed to poverty reduction. Similarly, (Ijaiya, Ijaiya, Bello, & Ajayi, 2011) demonstrated that sustainable growth in Nigeria (1980–2008) reduced poverty, particularly when coupled with investments in agriculture and sound governance. Niyimbanira, (2017) found that in South Africa, economic growth negatively affected poverty rates but did not significantly reduce inequality, indicating that the benefits of growth may not automatically reach all social segments. Roemer & Gugerty, (1997) confirmed that GDP growth in high-growth countries reduced poverty by approximately 10%, highlighting the potential of pro-poor growth.

However, the relationship between growth and poverty is not always straightforward. Suryahadi et al.,(2012) examined Indonesia before and after the Asian financial crisis and found that, although growth contributed to poverty reduction, effective programs and policies were essential to prevent

poverty from worsening during economic shocks. Adams Jr, (2004) analyzed 146 developing, industrialized, and transitional countries (1950-1998) and confirmed Kuznets' hypothesis: growth may reduce poverty but simultaneously increase inequality, which can limit benefits to the poor. Nindi & Odhiambo, (2015) reported similar findings in Switzerland (1980-2014), demonstrating that growth alone does not necessarily lead to reduced poverty without complementary policy interventions.

Policy-oriented studies further emphasize the importance of human development and government interventions in translating growth into poverty reduction. The World Bank (2020) asserts that improvements in life expectancy, literacy, and healthcare access are critical alongside high economic growth. Government spending on education, health, social security, and inequality reduction programs is essential for ensuring that economic growth benefits reach the poor (Elshahawany & Elazhary, 2024).

Moreover, economic growth must generate employment opportunities in labor-intensive sectors, such as small-scale industries, to effectively improve the incomes of disadvantaged populations (Bhide, 2008). The Yemeni context exemplifies the complexities of this relationship. Yemen's economic growth has historically been influenced by GDP fluctuations and heavy reliance on oil exports, which account for approximately (75-80%) of state revenues. Declines in growth, particularly when GDP increases lag behind population growth, have limited poverty reduction (Tandon & Vishwanath, 2020). Le, Bui, & Uddin, (2022) highlighted that economic benefits often flow disproportionately to the wealthy, limiting gains for the poorest segments (Davis & Sanchez-Martinez, 2014). Conversely, Rosenstein's analysis indicates that growth can reduce poverty directly or indirectly when accompanied by inclusive policies (Levin, J. and Mbamba, 2004).

Nevertheless, Škare & Družeta,(2016) warned that rapid growth in developing countries may not always improve living standards and may even exacerbate poverty if inequality is not addressed. In conclusion, the literature demonstrates that economic growth is a necessary but insufficient condition for poverty reduction. Its effectiveness is enhanced when growth is inclusive, complemented by employment generation, human development investments, and targeted social policies. Particularly in conflict-affected contexts like Yemen, institutional fragility, economic shocks, and inequality

further complicate the pathway from growth to meaningful poverty alleviation, emphasizing the need for integrated strategies that combine growth with social development interventions.

Rwanda's Experience in Achieving Sustainable Economic Growth:

In the mid-1990s, Rwanda experienced one of the most devastating civil conflicts in modern history, culminating in the (1994) genocide between the Hutu-led government and the largely Tutsi Rwandan Patriotic Front, which claimed between 800,000 and 1 million lives within approximately (100) days (Oluwagbade, 2025). Following the end of the conflict in July (1994), Rwanda faced immense challenges, including post-war reconstruction, national reconciliation, and the restoration of social and economic stability.

Despite these severe setbacks, Rwanda has achieved a remarkable transformation towards sustainable economic growth (Serneels & Verpoorten, 2015). Several key factors contributed to this success. First, good governance and institutional reform played a central role. Under the leadership of President Paul Kagame, the Rwandan government implemented policies emphasizing transparency, accountability, and effective public sector management (Sangwa & Mutabazi, 2025). Government institutions were restructured to enhance efficiency in delivering public services, while the rule of law and human rights were strengthened, creating a stable and attractive environment for domestic and foreign investment. Second, investment in human capital was prioritized, particularly in education and healthcare. The government focused on empowering women and promoting gender equality, which led to improvements in human development indicators and increased economic productivity. Vocational training and higher education programs were expanded to align with market needs, fostering innovation and equipping the workforce with relevant skills. Third, economic reforms and investment promotion were critical drivers of growth. The Rwandan government adopted policies to privatize state-owned enterprises, simplify bureaucratic procedures for investors, and establish special economic zones offering tax incentives and logistical support to attract foreign direct investment (Serneels & Verpoorten, 2015). These measures successfully attracted global companies and stimulated economic growth. Fourth, infrastructure development and technological innovation have been integral to Rwanda's

development strategy. Significant investments were made in transport, communications, and energy sectors, while initiatives such as “Smart Rwanda” aimed to position the country as a regional technology hub, fostering innovation and economic diversification (Warda & Kamila, 2024).

Finally, national reconciliation and social cohesion programs significantly contributed to creating a stable socio-political environment. Initiatives such as the Gacaca traditional courts facilitated justice, promoted reconciliation among different ethnic groups, and helped rebuild trust within communities (Nyseth Brehm, 2017). These programs strengthened the social fabric, enabling a peaceful and conducive environment for sustainable economic development.

Overall, Rwanda’s experience demonstrates that post-conflict recovery and sustainable economic growth are achievable through integrated strategies combining good governance, human capital investment, economic reforms, infrastructure development, technological innovation, and social reconciliation. The Rwandan model provides valuable lessons for other conflict-affected countries, including Yemen, in designing policies to promote growth and reduce poverty.

Results and Discussions:

This section presents descriptive statistics, empirical results, and key discussions regarding economic growth and poverty in Yemen, including both domestic trends and international comparisons.

Descriptive Data Analysis:

Table (1) summarizes Yemen’s GDP at market prices, economic growth rates, and poverty rates over the period 1994–2020.

Table (1)

Poverty rates, GDP growth rates, and GDP at market prices (1994–2020)

Year	GDP at Market Prices (Million YER)	Economic Growth (%)	Poverty Rates (%)
1994	151,286	3.73	23.22
1996	182,767	7.36	30.88
1998	801,505	5.90	41.80
2000	1,756,999	5.12	41.98
2002	1,955,144	5.04	42.79

Year	GDP at Market Prices (Million YER)	Economic Growth (%)	Poverty Rates (%)
2004	2,163,551	4.64	43.00
2006	2,380,299	4.64	41.50
2008	2,561,890	4.01	47.60
2010	2,819,774	3.32	49.00
2012	2,509,477	2.02	47.20
2014	2,214,680	-10.61	48.60
2016	1,315,199	-17.61	62.00
2018	1,168,249	-1.34	62.95
2020	1,186,893	1.59	63.22

Source: Yemen Statistics Yearbook

GDP at market prices increased from 151,286 million YER in (1994 to 2,819,774) million YER in (2010). Following the (2011) political crisis and subsequent internal conflicts, GDP declined continuously, reaching (1,186,893) million YER in (2020). Economic growth rates fluctuated, peaking at (7.36% in 1996), then declining to (2.02% in 2012), turning negative between (2014 and 2018), and partially recovering to (1.59% in 2020), representing an overall decline of approximately (57.4%) over the study period (Figure 1).

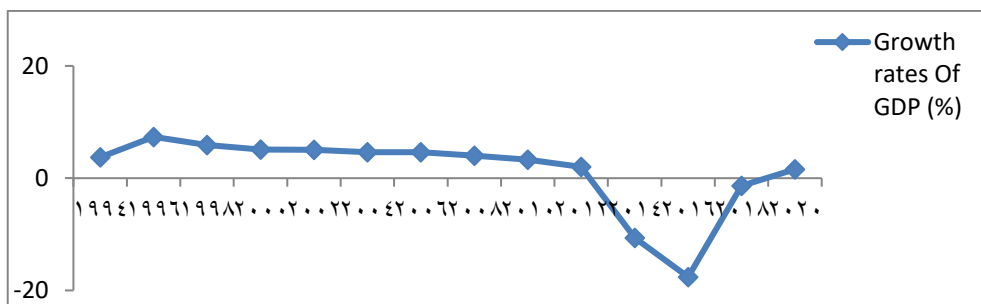


Figure (1) Economic growth rates of Yemen for (1994-2020)

Source: Prepared by researchers according to statistics book data

Poverty Trends and Analysis:

The period of economic reforms starting in 1995 coincided with significant poverty expansion. Poverty increased from (23.22% in 1994) to (41.8% in 1998). After a steady rise until (2005), it briefly declined to (41.5%) in 2006, before sharply increasing to (63.22% by 2020). During the civil conflict and international interventions from (2014 to 2020), poverty

rose by approximately (30%). Overall, from 1994 to 2020, poverty rates increased by (172%) (Figure 2).

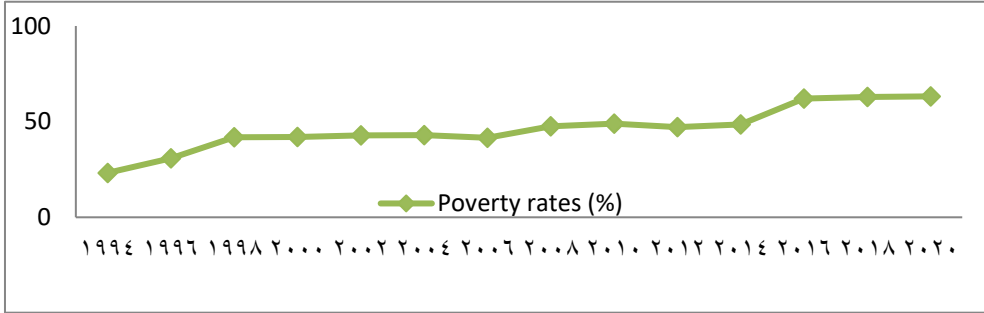


Figure (2) Poverty Rates of Yemen for (1994 – 2020)

Source: Prepared by researchers according to statistics secondary data

Discussion:

The data indicate a strong linkage between political instability, economic growth, and poverty. Periods of positive growth (1994-2010) were associated with moderate poverty increases, suggesting that growth alone was insufficient without inclusive social policies. Periods of negative growth (2011-2020) coincided with rapid poverty increases, confirming the vulnerability of Yemen’s economy to conflict and governance challenges. These findings align with global literature emphasizing that sustainable poverty reduction requires growth combined with human capital development, employment generation, and social protection (Breisinger, Diao, Collion, & Rondot, 2011; Elshahawany & Elazhary, 2024; Gates, Hegre, Nygård, & Strand, 2012; Lackner, 2022; Malone & Nitzschke, 2009)

International Comparison of Economic Growth:

Yemen’s economic growth remains among the lowest globally and within the Arab world. Table (2) shows that Yemen’s annual growth in (2020) was only 1.6%, ranging from (-14.6% to 5.6%) during (1995-2020). By comparison, fragile and conflict-affected regions averaged (2.3%), sub-Saharan Africa (4.5%), and the Arab world (5.1%). Rwanda is the top performer among the countries analyzed, with a (9.4%) growth rate in (2020), illustrating the potential for post-conflict recovery through effective governance, political stability, economic reforms, and investment in human capital and infrastructure. China achieved 8.4%, and Latin America and the Caribbean (6.9% in 2020) (Figure 3).

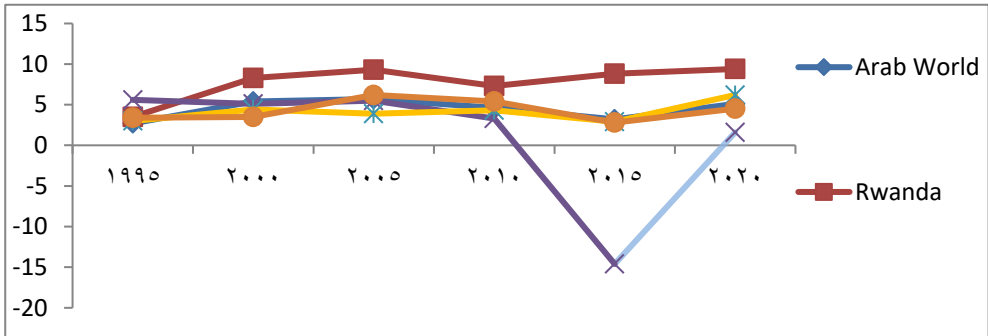


Figure (3) The evolution of Economic growth in Yemen and other countries around the world for (1995-2020)

Table (2)

Economic growth in Yemen and other regions (1995-2020)

Country/Region	1995	2000	2005	2010	2015	2020
Arab World	2.7	5.4	5.7	4.6	3.2	5.1
Europe & Central Asia	2.1	4.3	2.8	2.6	1.1	6.5
East Asia & Pacific	5.1	4.9	5.1	7.1	4.2	6.2
Fragile & Conflict-affected Areas	2.8	3.3	7.7	4.4	2.0	2.3
Latin America & Caribbean	1.5	3.8	4.3	5.9	0.9	6.9
Middle East & North Africa	2.9	5.7	5.1	5.1	2.4	5.5
Sub-Saharan Africa	3.4	3.5	6.2	5.4	2.8	4.5
Rwanda	3.5	8.3	9.3	7.3	8.8	9.4
China	10.9	8.5	11.4	10.6	7.0	8.4
Yemen	5.6	5.1	5.5	3.3	-14.6	1.6
The World	3.0	4.4	3.9	4.3	2.9	6.2

Source: Prepared by researchers according to statistics secondary data

This comparison highlights the gap between Yemen and countries that have successfully leveraged governance, stability, and economic reforms for sustainable growth. Rwanda's experience offers valuable lessons for Yemen, demonstrating that post-conflict recovery and poverty reduction are achievable with integrated strategies that combine political stability, human capital investment, and economic reforms.

Statistical Analysis:

Data on poverty rates and economic growth in Yemen for the period (1994-2020) were collected and analyzed. The descriptive statistics showed that the average poverty rate during this period was (46%), while the

average economic growth was only (1.2%), indicating that economic growth was insufficient to effectively reduce poverty in Yemen.

Correlation Analysis:

The correlation between economic growth, war, and poverty was examined using Pearson’s correlation coefficient. The results (Table 3) revealed a significant negative correlation between economic growth and poverty ($r = -0.693$, $p < 0.01$), indicating that higher economic growth is associated with lower poverty rates. Conversely, the war variable showed a positive correlation with poverty ($r = 0.719$, $p < 0.01$), demonstrating that periods of war, instability, and civil conflict contribute significantly to increased poverty rates.

Table (3)

Pearson Correlation between poverty, GDP, and war in Yemen

Poverty	Economic growth	WAR
Pearson Correlation	-0.693**	0.719**
Sig. (2-tailed)	0.000	0.000
N	26	26

Note: Correlation is significant at the 0.01 level (2-tailed)

Multiple Regression Analysis:

To further investigate the impact of economic growth and war on poverty, a multiple regression model was estimated. The war variable was coded as a dummy variable (0 = absence of war/stability, 1 = presence of war/conflict).

The model’s assumptions, including linearity and normal distribution of variables, were verified. The regression results (Table 4) indicated that the model is statistically significant ($F = 16.804$, $p < 0.01$) with an $R^2 = 0.558$, meaning that (55.8%) of the variance in poverty rates is explained by the model.

Table (4)

Multiple Regression Analysis of Poverty, Economic Growth, and War

Variable	B	T	Sig.	VIF
Constant	43.14	24.701	0.000	–
Economic Growth	-0.454	-2.077	0.049	1.876
War	1.039	2.533	0.019	1.876

The results show that economic growth has a statistically significant negative effect on poverty ($B = -0.454$, $p = 0.049$), indicating that an increase in economic growth reduces poverty rates. Meanwhile, war has a statistically significant positive effect on poverty ($B = 1.039$, $p = 0.019$), implying that in years of conflict, poverty increases by approximately 1.039 points compared to years of stability. The VIF values for both variables were 1.876, indicating no multicollinearity problem. The resulting multiple regression equation is expressed as:

$$Y = \alpha + B_1x_1 + B_2x_2 + e$$

Poverty ($=43.14 - 0.454$) (Economic growth) ($+1.039$) (War)+e. These findings highlight that sustainable economic growth alone is insufficient to reduce poverty in Yemen; political stability and conflict resolution are also critical determinants of poverty reduction.

Discussion of Results in Light of Research Questions, Objectives, and Hypotheses:

- 1- Trends in Economic Growth and Poverty (RQ₁/ Objective 1/ H₁): Yemen's economic growth fluctuated during (1994-2020), peaking at (7.36% in 1996) and turning negative in 2014–2018. Poverty increased from (23.22% to 63.22%). These trends confirm a negative relationship between growth and poverty, supporting H₁.
- 2- Impact of Conflict on Poverty (RQ₂/ Objective 2/ H₂): Regression analysis shows the war variable significantly increases poverty ($B=1.03$, $Sig=0.019$). This validates H₂, indicating that conflict mitigates the poverty-reducing effects of economic growth.
- 3- Quantitative Relationship between Growth and Poverty (RQ₃/ Objective 3/ H₃): Economic growth negatively affects poverty ($B=-0.454$, $Sig=0.049$; Pearson $r = (-0.693)$, confirming H₃ quantitatively. Growth reduces poverty, but its effect is limited in the presence of conflict.
- 4- Lessons from Rwanda (RQ₃/ Objective 4/ H₄): Rwanda's post-conflict recovery demonstrates that sustainable poverty reduction requires combined economic growth and institutional reforms. Yemen can adopt similar strategies-governance, stability, investment in human capital and infrastructure-supporting H₄ that growth alone is insufficient without reforms.

Conclusion and Policy Recommendations:

The aim of the current study was to investigate the impact of economic growth, conflict and poverty in Yemen (1994-2020), with comparative insights from Rwanda as a model of post-conflict success. The results show that poverty levels in Yemen have significantly increased due to the country's slow and erratic economic growth, which is exacerbated by protracted political unrest and civil wars. Economic development alone is insufficient to reduce poverty; social investment, job creation, and inclusive policies that benefit disadvantaged people must be added, according to descriptive and regression assessments. The regression analysis showed that economic growth had a statistically significant negative impact on poverty ($B=-0.454$, $Sig=0.049$) and that conflict had a significant positive impact ($B=1.03$, $Sig=0.019$). Rwanda's example shows that, even in post-conflict environments, integrated economic reforms, human capital investment, and strategic governance can lead to sustainable growth and poverty reduction.

In the Yemeni case, these relationships are clearly evident. The ongoing armed conflict, which began in (2015), has changed political and economic systems in ways that have boosted the informal economy, diminished the efficacy of formal institutions in managing public resources, and distorted the distribution routes for humanitarian and development aid. These problems have weakened the state's ability to boost growth and alleviate poverty, hence it is critical to include corruption and poor governance variables in statistical models to examine the relationship between economic growth and poverty in Yemen. Furthermore, the literature highlights that any approach for addressing the economic consequences of conflict cannot be restricted to quantitative economic issues; rather, it must be founded on a comprehensive vision that includes fighting corruption and fostering good governance. Studies indicate that the success of economic reconstruction efforts depends on three fundamental conditions: (1) ending the fighting and restoring public security; (2) the availability of political will to combat corruption; and (3) the existence of broad societal will that believes in and supports the possibility of reform. Accordingly, statistical modeling of the relationship between economic growth and poverty in Yemen must consider these institutional and governance determinants as mediating factors to explain the variation in growth and poverty indicators between the conflict

and post-conflict phases, and to identify priority areas in future economic recovery policies.

Beyond the statistical findings, this study highlights how Yemen's development issues are closely linked to institutional and structural problems that have been made worse by the conflict. Based on the findings mentioned in the literature regarding the reconstruction of a countries following a conflict, "corruption, weak public administrations, informal economies, and improperly managed international aids are 'nodes' that are intertwined and sustain a condition of under-development/weak institutions". The institutional troubles are sustained by wartime structures.

Considering the present condition that Yemen is experiencing, moving from an active conflict stage to a negotiations stage, policy action should concentrate on dismantling this deep-rooted structure even before a complete deal is achieved as part of a peaceful settlement. The significance of this negotiation stage includes:

- 1- Reversing wartime political/military structures that continue to control economic resources and political power, so that governance will be by merit, rather than by force, once the conflict is over.
- 2- Protecting national borders and regularizing cross-border trade, so as to transform illegal trafficking rings into legitimate economic activities that will contribute to state finances.
- 3- reforming and professionalizing public administration, improving integrity, transparency, and capacity to effectively absorb and manage international aid.
- 4- Building strong institutions of the judiciary and legislature, as rule of law is the foundation of successful anti-corruption activities.
- 5- Fostering a culture of public service, making a distinction between personal and public interest, and preventing high government officials from being above oversight and due process.

Such a strategy is consistent with the international examples, including both Rwanda and Liberia, that achieved a foundation for inclusive growth and reduced poverty significantly through early reforms, judicial accountability, and management transparency over natural and economic resources. A similar strategy is, therefore, critical in Yemen, one that will, on the one hand, help this country to achieve economic growth but will, on

the other hand, build a relationship between citizens and the state, which is crucial to sustain growth through human development due to the significance of this relationship to a peaceful state.

Finally: The study highlights that a coordinated approach between macroeconomic strategies and institution-building activities is a prerequisite if the country is to overcome consequences of conflict and make a transition out of its entrenched state of poverty, so that Yemen can embark, as a newly formed, onto the trajectory seen in the resilient economies that have emerged following conflict, as exemplified by the Rwandan model.

Key Conclusion:

- 1- The growth has a significant impact on poverty; Yemen's low average growth (1.2% over 1994-2020) minimizes its impact.
- 2- Civil conflicts and political instability lead to higher poverty rates.
- 3- The benefits of economic growth are diminished for the poor due to weak institutions and inadequate social protection.
- 4- Dismantling wartime politico-military groups that retain control over political authority and economic resources in order to ensure that future government is founded on legitimacy and merit rather than influence.
- 5- Post-conflict countries may resolve disputes, generate sustained growth, and reduce poverty via targeted reforms, human capital investment, and coordinated governance.

Policy Recommendations:

- 1- Foster inclusive economic growth by targeting sectors that employ unskilled workers, including SMEs, agriculture, and local manufacturing.
- 2- Bolster investment in human capital through improvement of education, vocational training, and gender equality initiatives to better empower vulnerable sectors.
- 3- Enhance governance and institutions by focusing on transparency, accountability, and efficiency to ensure a favorable investment climate.
- 4- Prevention and resolution of conflicts by making peace and political stability a prerequisite for development.
- 5- Coordinated governance, targeted reforms enable post-conflict countries to manage disputes while achieving long-term growth and poverty reduction.
- 6- Facilitate investment by making government procedures easier, establishing economic zones, as well as providing tax incentives.

- 7- Infrastructure development involving investment in the areas of transportation, energy, and technology to enhance economic diversification and market access.
- 8- Encouraging a culture of public service, a distinction between personal and public interests, and a leadership that is not exempt from oversight and due process.
- 9- The strengthening of the judicial and legislative frameworks, as the rule of law is the foundation for anti-corruption and good governance.
- 10- Removing wartime structures of politics and the military, by which control over economic resources and politics is exerted, so as to make future politics depend on merit rather than force.

The execution of these approaches will allow Yemen to move away from the patterns of conflict and poverty to a 'sustainable development path.

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