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THE EFFECTS OF GLOBAL UNCERTAINTY ON WOMEN EMPOWERMENT: EMPIRICAL EVIDENCE FROM DEVELOPING ECONOMIES

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Women Empowerment; Global Uncertainty; Domestic Uncertainty; Gender Development Index; Gender Inequality Index; System GMM

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Abstract
Global uncertainty, driven by economic volatility, political instability, and global crises, has disproportionately affects women in developing economies. These challenges limit access to education, employment, and resources, hindering empowerment. This study examines the influence of global and domestic uncertainty on women's empowerment across 114 developing economies over the period from 2002 to 2022. Understanding these relationships is essential to design policies that strengthen women's resilience and promote inclusive, sustainable development in uncertain global contexts. Employing a dynamic panel data framework and the System Generalized Method of Moments (System GMM), the analysis accounts for endogeneity, persistence effects, and unobserved country-specific heterogeneity. Women's empowerment is proxied using two widely recognized indicators: the Gender Development Index (GDI) and the Gender Inequality Index (GII). It is found that domestic uncertainty increases gender inequality and reduces women's empowerment indicating that women are disproportionately affected compared to men. In contrast, global uncertainty proxied by trade uncertainty and policy uncertainty reduces gender inequality and enhances women's empowerment, suggesting that men may be more adversely affected by global uncertainty than women. Overall, the study underscores that women's empowerment is highly sensitive to domestic macroeconomic stability and institutional quality. It highlights the importance of reducing uncertainty, strengthening political stability, promoting inclusive economic growth, and expanding both public and foreign investment to achieve sustainable gender equality and human development in developing economies.

1.INTRODUCTION
Women's empowerment has appeared as a dominant theme in development discourse, particularly in the perspective of developing economies where structural inequalities continue to restrain women's access to opportunities, resources, and decision-making power. Rooted in the wider framework of human development, empowerment is frequently conceptualized as a multidimensional process including the

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development of women's capabilities, agency, and achievements (Kabeer, 1999; Sundström, et al., 2017). Women's empowerment generally refers to the procedure by which women gain greater control over the resources and choices that define their living standard, including access to education, healthcare, economic opportunities, political participation, and personal autonomy (Zakuan, & Hassan, 2019). In this regard, women's empowerment is not only an end in itself but also a means to attain inclusive growth, poverty reduction, and sustainable development. In spite of significant progress at the worldwide level, gender gaps prevail in many developing societies due to institutional barriers, patriarchal social norms, and limited access to productive assets and decision-making grounds (Khalid, 2025). These persistent inequalities not only hamper women's individual well-being, but also hinder broader socio-economic growth, sustainable development, and poverty alleviation. Evidence of empirical studies suggests that women's empowerment positively contributes to economic performance and social consequences in developing economies. For example, higher household income, better human capital outcomes for children, and greater economic resilience have all been linked to higher female participation in the labor market and access to financial resources (Balasubramanian, et al., 2024).

International institutions, such as the United Nations (UN) and the Organisation for Economic Co-operation and Development (OECD), recognize women economic empowerment and gender equality as key strategies for decreasing poverty and realizing the Sustainable Development Goals (SDGs), particularly SDG 5, which targets to achieve gender equality and empowerment of all women (Balasubramanian, et al., 2024. However, the worldwide landscape of gender empowerment is not uniform. In developing economies, women often face interconnecting disadvantages rooted in socio-cultural norms, limited access to healthcare and education, and discriminatory legal frameworks (Khalid, 2025). These limits are compounded during periods of worldwide uncertainty, for example economic downturns, political instability, health crises, and conflicts, when economic and social systems become stressed and gender inequalities tend to widen (Petreski, et al., 2024). Empirical research on the effects of global crises underscores that such periods can disproportionately influence women. For instance, worldwide economic crises have historically led to shrinkages in sectors with high female employment, reductions in household income for women, and setbacks in progress toward gender equality (DEWI, 2024). '

Women's empowerment is a multidimensional idea that includes economic participation, educational achievement, health results, and political representation. To capture these dimensions, international development organizations commonly use compound indicators for example the Gender Inequality Index (GII) and the Gender Development Index (GDI). The GDI, introduced by the (UNDP, 1995), adjusts the Human Development Index to account for gender gaps in healthcare, education, and income, thereby reflecting inequalities in basic human development attainments. Nonetheless, due to methodological and conceptual limitations, including misinterpretations of its purpose as a measure of inequality rather than development, the GDI has been subject to analysis (Schüler, 2006). In response to these borders, the GII was introduced by (UNDP, 2010) as a more comprehensive measure capturing gender-based disadvantages across three dimensions: reproductive health, empowerment, and labor market participation (Vardanyan, 2024). The GII imitates the loss in human development because of gender inequality, thereby offering a more nuanced comprehending of women's relative deprivation. These both indices offer a multidimensional framework for evaluating women's empowerment beyond labor market consequences alone, making them

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predominantly suitable for evaluating broader social effects of globalization (UNDP, 2020).

The role of global uncertainty, in recent years, has gained increasing attention as a critical factor influencing economic and social outcomes. Global uncertainty, frequently driven by geopolitical tensions, financial market volatility, pandemics, and climate-related risks, can considerably affect investment decisions, labor markets, and policy stability (Heldt, & Mahrenbach, 2019). In developing economies, where institutional frameworks are frequently weaker and social safety nets imperfect, such uncertainty may disproportionately influence vulnerable groups, including women (Braunstein, & Heintz, 2008). For example, economic shocks and crises tend to exacerbate existing gender inequalities by reducing employment opportunities for women, increasing unpaid care burdens, and limiting access to education and healthcare. Although the literature on global uncertainty has primarily focused on macroeconomic variables such as growth, inflation, and investment, its implications for gender equality and women's empowerment remain underexplored (Cuaresma, et al., 2019). Moreover, the intersection between global uncertainty and gender outcomes is complex and multidimensional. On one hand, uncertainty may hinder progress in women's empowerment by constraining government spending on social programs and weakening institutional support for gender equality initiatives (Mariappan, et al., 2025). On the other hand, certain forms of uncertainty, such as technological change and globalization, may create new opportunities for women by expanding access to information, markets, and employment (Adhikari, et al., 2026). However, the benefits of such transformations are often unevenly distributed, with women in developing countries facing structural barriers such as limited access to digital technologies, education, and financial resources (Rodrik, D. (2018). As a result, the net effect of global uncertainty on women's empowerment remains ambiguous and warrants empirical investigation.

In figure 1, it is shown that global uncertainty, including economic instability, political conflicts, and health crises, creates negative conditions that disproportionately affect women by increasing poverty, reducing job security, and limiting access to essential public services (Duflo, 2012). These shocks generate major barriers to empowerment, particularly through restricted access to education and healthcare and reduced economic opportunities. As a result, gender inequality increases, which is reflected in a worsening GII, especially through higher maternal mortality, increased adolescent birth rates, and lower female political participation (Neumayer, & De Soysa, 2011). Similarly, global uncertainty negatively affects GDI by widening gender gaps in education attainment, income equality, and life expectancy. However, the diagram also highlights that supportive policies and programs, such as gender equality initiatives and social protection systems, can reduce these harmful impacts by strengthening women's access to resources and opportunities (Bhalotra, & Umana-Aponte, 2010). Therefore, women's empowerment outcomes depend on whether uncertainty-driven barriers dominate or whether effective interventions are implemented to protect women's development and equality

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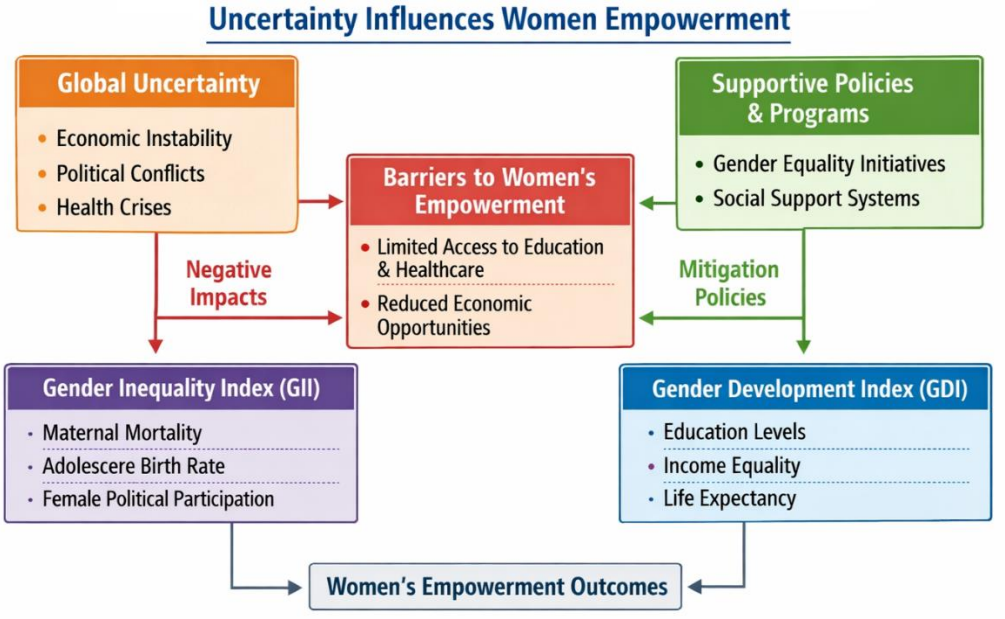


Figure 1: Uncertainty and Women Empowerment

Women's empowerment remains a persistent challenge in developing economies despite decades of policy efforts and international commitments toward gender equality. Although progress has occurred in education, health, and labor participation, gender gaps persist, especially in low- and middle-income countries. These disparities are reflected in the GDI and GII indices, yet improvements remain uneven and vulnerable. The empirical literatures highlights that macroeconomic factors for example GDP per capita, FDI, and government consumption play a essential role in shaping women's empowerment consequences through improved access to education and healthcare for women, (Dollar, & Gatti, 1999). Similarly, FDI can create employment opportunities for women, particularly in export-oriented industries (Seguino, 2000). Political stability is also a key determinant, as stable governance structures tend to support gender-inclusive policies and institutional reforms (Kabeer, 2012). Despite these insights, the empirical relationship between these macroeconomic variables and gender indices remains inconclusive across different contexts. More essentially, the role of both domestic and global uncertainty has become increasingly relevant in recent years. Economic policy uncertainty, global trade volatility, and geopolitical risks can disrupt economic activities, reduce investment, and weaken institutional effectiveness through negatively influence of uncertainty on economic growth, investment, and employment (Beker, et al., 2016) and (Bloom, 2009). Women, who are often overrepresented in informal and vulnerable employment sectors, are disproportionately affected by economic instability and uncertainty (Alon, et al., 2020).

In spite of the recognized importance of uncertainty, limited attention has been given to its direct and indirect effects on women's empowerment as measured by GDI and GII. Domestic uncertainty, such as political instability, may hinder government efforts to implement gender-sensitive programs. Similarly, global uncertainty, captured through world trade uncertainty and economic policy uncertainty, can affect export performance, capital flows, and labor

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markets, thereby influencing gender outcomes in developing economies. Therefore, the central problem addressed in this study is the absence of a systematic and integrated analysis of how global and domestic uncertainty, alongside key macroeconomic factors, influence women's empowerment in developing economies. By utilizing GDI and GII index as dependent variables and uncertainty with economic indicators as explanatory variables, this study seeks to provide a more nuanced understanding. Although research on women's empowerment has grown, major gaps remain in developing economies. Most studies emphasize traditional determinants such as education, income, and labor participation, often using limited proxies rather than composite indices like GDI and GII (Duflo, 2012); (Kabeer, 1999). Additionally, macroeconomic factors such as GDP, FDI, and government spending are usually examined in isolation (Seguino, 2000); (Dollar, & Gatti, 1999), ignoring the broader uncertainty environment. While uncertainty has gained attention (Beker, et al., 2016); (Bloom, 2009), its gendered effects remain underexplored beyond crisis-specific contexts (Alon, et al., 2020). Few studies incorporate multiple uncertainty dimensions or use both GDI and GII together. Moreover, cross-country panel evidence focused on developing economies remains limited, highlighting the need for more comprehensive analysis. This study also contributes to understanding women's empowerment in developing economies by using a panel data of 114 economies from 2002 to 2022. Applying dynamic panel GMM addresses endogeneity and captures temporal persistence, offering robust insights into the gendered impacts of global uncertainty and advancing prior research limited by single proxies, small samples, or short time spans (UNDP, 2010); (Bloom, 2009); (Arellano, & Bond, 1991).

2.Literature Review and Theoretical Background

The Gender Development Index (GDI) was introduced by the (UNDP, 1995), as a gender-sensitive extension of the Human Development Index (HDI). The GDI adjusts the HDI by incorporating gender disparities in three core dimensions: life expectancy, education, and income, thereby reflecting the extent to which gender inequality reduces overall human development (Anand, & Sen, 1995). Unlike pure inequality measures, the GDI captures how disparities between men and women penalize aggregate development outcomes, emphasizing that gender inequality is not only a social issue but also a developmental constraint (Bardhan, & Klasen, 1999). Scholarly literature highlights the conceptual significance of the GDI as a pioneering effort to integrate gender into development metrics. According to (Klasen, & Schüler, 2011), the GDI was designed to reflect the loss in human development due to gender gaps, making it a "gender-sensitive" rather than a "gender inequality" index. This distinction is critical, as several studies argue that the GDI has often been misinterpreted as a direct measure of gender inequality (Schüler, 2006). Such misinterpretations have limited its policy relevance and empirical application in comparative studies. Empirical research further suggests that while the GDI is useful in highlighting gender disparities in basic capabilities, it suffers from methodological limitations. For example, (Dijkstra, & Hanmer, 2000), argue that the GDI relies heavily on the structure of the HDI and therefore inherits its limitations, including the narrow selection of indicators and insufficient sensitivity to intra-household inequalities. Similarly, (Bardhan, & Klasen, 1999), proposed revisions to improve the income component of the GDI, indicating that its construction requires continuous refinement to ensure accuracy and comparability. Another stream of literature reviews the GDI for its inability to fully capture multidimensional aspects

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of women's empowerment. While it includes health, education, and income, it excludes dimensions such as political participation, decision-making power, and social norms, which are central to empowerment discourse (Arellano, & Bond, 1991). Consequently, scholars argue that the GDI provides only a partial picture of gender equality and must be complemented with other indices (Klasen, & Schüler, 2009). Moreover, assumptions used to address missing data and standardization across countries can lead to biased comparisons, particularly between developed and developing economies. Recent studies also emphasize the continued relevance of the GDI in the context of sustainable development. The index is widely used to assess gender-based disparities in human capital and their implications for achieving Sustainable Development Goals (SDGs). For example, (Riniwati, et al., 2023), demonstrate that the GDI serves as a useful tool for evaluating gendered dimensions of development quality, particularly in developing regions where disparities remain pronounced.

The Gender Inequality Index (GII) was introduced by (UNDP, 2010), to address the conceptual and empirical limitations of earlier indices such as the GDI and the Gender Empowerment Measure (GEM). The GII measures gender disparities across three key dimensions: reproductive health, empowerment, and labor market participation. The introduction of the GII marked a significant advancement in gender measurement by incorporating multidimensional aspects of inequality (Berik, 2022). Unlike the GDI, which adjusts human development outcomes, the GII directly captures disparities in opportunities and achievements. According to (Berik, & Rodgers, 2023), the GII aligns more closely with the capabilities approach by focusing on constraints that limit women's agency and well-being. This makes it particularly relevant for analyzing structural inequalities in developing economies. Empirical study of (Perrin, 2022) have widely used the GII to examine the relationship between gender inequality and economic development. Research indicates that higher gender inequality is associated with lower economic growth, reduced human capital accumulation, and weaker institutional performance. Further, GII has thus become a key indicator in cross-country analyses of development and social progress. Furthermore, its inclusion of reproductive health indicators—such as maternal mortality and adolescent birth rates—provides a more comprehensive understanding of gender disparities, particularly in low-income countries (Gelard, & Abdi, 2016). Further, research has documented persistent gender gaps in economic and political participation worldwide, noting that structural inequalities in labor markets and occupational segregation hinder women's agency and exacerbate inequality (Heilman, & Caleo, 2018). Empirically, studies investigating macro-level uncertainty find that economic and geopolitical uncertainty tends to worsen gender inequality, especially in employment and health dimensions, although impacts on education and legal rights can be mixed (Nguyen, 2022). Complementary research indicates that policy uncertainty undermines subjective health outcomes for women, suggesting broader socio-economic consequences beyond employment (Shittu, et al., 2025). Meanwhile, literature on globalization and gender suggests that external socio-economic drivers, including international trade and global integration processes, can influence the GII, although contextual factors such as legal enforcement and societal norms mediate these effects (Amin, & Sabermahani, 2017). Together, these studies underscore the complex pathways through which global uncertainty intersects with entrenched gender inequalities, reinforcing the need for focused research on how uncertainty shapes women's empowerment in developing economies through mechanisms captured by composite indices like the GII (Dahlum, et al., 2022).

From a theoretical standpoint, early frameworks in figure 2 laid the foundation for understanding empowerment in the context of economic

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participation and structural inequalities. The figure illustrating multiple theoretical pathways that contribute to women's empowerment and its measurement. Firstly, Feminist Political Economy Theory highlights how structural gender inequalities are embedded within economic systems, shaping access to resources and opportunities (Kabeer, 1999). This perspective highlights that empowerment requires addressing systemic disparities in income, labor participation, and resource control (Biewener, & Bacque, 2015). Secondly, Institutional Theory focuses on formal and informal rules, norms, and organizational structures that govern gender roles, suggesting that institutions can either constrain or enable women's agency (North, 1990). Thirdly, Empowerment Theory centers on agency and power, defining empowerment as the process through which individuals gain the ability to make strategic life choices (Kabeer, 1999). In fourth, Social Exchange Theory explains empowerment through reciprocal relationships and access to resources, where individuals negotiate power within social interactions (Blau, 1964). In the last, the Capabilities Approach, developed by (Sen, 1999), conceptualizes empowerment in terms of expanding individuals' freedoms and capabilities to achieve valued outcomes. Figure 2 summarizes the theoretical discussion.

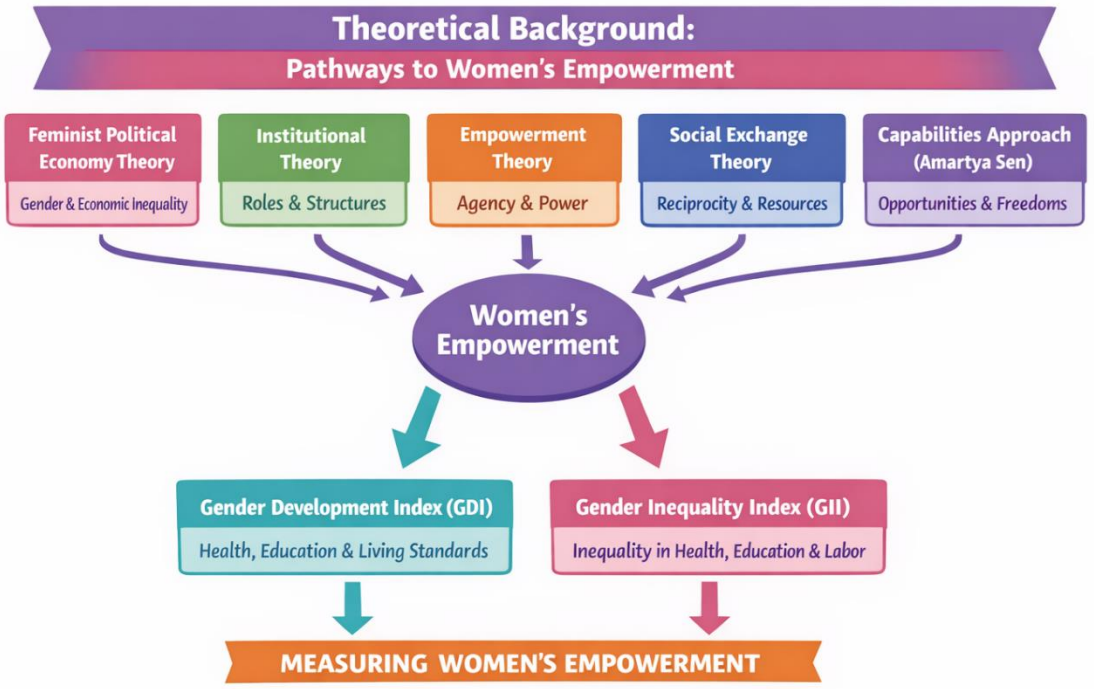


Figure 2: Theoretical Background

3. Empirical Methodology

3.1 Empirical Model

This section presents the econometric models utilize in order to examine the influence of global and domestic uncertainties on women empowerment. For this purpose, this study utilizes two dependent variables in panel data specification. In the first model, the study utilizes Gender Development Index (GDI) while in second model, Gender Inequality Index (GII) is used. Using both indices permits the study to capture complementary features of women empowerment. Although GDI focuses on relative attainments amongst genders, GII highlights

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structural inequalities and restrictions faced by women. The dynamic econometric specifications can be expressed as follows:

$$GDI_{it} = \beta_0 + \beta_1 GDI_{i,t-1} + \beta_2 PS_{it} + \beta_3 GDPPC_{it} + \beta_4 FDI_{it} + \beta_5 GE_{it} + \beta_6 FP_{it} + \beta_7 DU_{it} + \beta_8 GU_{it} + \varepsilon_{it} \dots (1)$$

$$GDI_{it} = \beta_0 + \beta_1 GDI_{i,t-1} + \beta_2 PS_{it} + \beta_3 GDPPC_{it} + \beta_4 FDI_{it} + \beta_5 GE_{it} + \beta_6 FP_{it} + \beta_7 DU_{it} + \beta_8 GTU_{it} + \varepsilon_{it} \dots (2)$$

$$GII_{it} = \beta_0 + \beta_1 GII_{i,t-1} + \beta_2 PS_{it} + \beta_3 GDPPC_{it} + \beta_4 FDI_{it} + \beta_5 GE_{it} + \beta_6 FP_{it} + \beta_7 DU_{it} + \beta_8 GU_{it} + \varepsilon_{it} \dots (3)$$

$$GII_{it} = \beta_0 + \beta_1 GII_{i,t-1} + \beta_2 PS_{it} + \beta_3 GDPPC_{it} + \beta_4 FDI_{it} + \beta_5 GE_{it} + \beta_6 FP_{it} + \beta_7 DU_{it} + \beta_8 GTU_{it} + \varepsilon_{it} \dots (4)$$

where, GDI_{it}, and GII_{it}, represent the Gender Development Index and Gender Inequality Index for country "i" and time "t", while, $GDI_{i,t-1}$, and $GII_{i,t-1}$, are the lagged values of GDI and GII, capturing the dynamic persistence of women's empowerment and gender inequality. The expected signs of the explanatory parameters depend on theoretical associations with women's empowerment. The other control parameters in both models normally include GDP per capita, female total population, political stability, FDI inflow, and government expenditure, as proposed by the gender development empirical literatures (Kabeer, 2016); (Dollar, & Gatti, 1999). Previous empirical studies propose that economic instability disproportionately distresses women employment and political demonstration, leading to spreading gender gaps (Seguino, & Were, 2014). PS is Political Stability and is generally expected to have a positive influence on the GDI. Stable political backgrounds encourage effective policy implementation, improved governance, and improved access to healthcare, education, and employment opportunities for women. GDP per capita (GDPPC) is also probable to have a positive association with GDI. Higher levels of income usually reflect improved economic development, greater educational attainment, improved health services, and better employment opportunities for women. Next, FDI may have a positive influence on GDI because international investment can create employments, technology transfer, and encourage modern labor market practices that upsurge female employment and economic participation. Further, GE is Government Expenditure is generally expected to positively effect GDI, predominantly when public spending is directed toward health, education, and social welfare programs. FP is Female Population and may have a positive influence on GDI because a larger proportion of women in the population can upsurge labor force participation and social demand for gender-inclusive strategies.

DU is Domestic Uncertainty and expected to have a negative influence on GDI. Political and Economic uncertainty within a country disheartens investment, reduces employment opportunities, and interrupts social development programs. GU stands for Global policy uncertainty and is likely to influence negatively on gender development. In the last, GTU stands for Global Trade Uncertainty.

3.2 Data

This study utilizes panel data of 114 developing economies, covering multiple economies over a defined time period from 2002 to 2022, subject to data availability and consistency across variables.

This study depends exclusively on secondary data sources obtained from worldwide recognized databases to guarantee the reliability, and consistency across economies and over time. In the perspective of this study, the data of GDI and GII are acquired from United Nations

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Development Program (UNDP). The data of GDP per capita, female total population, FDI inflow, and government expenditure are obtained from World Development Indicator (WDI). The indicator of political stability is obtained from the Worldwide Governance Indicators (WGI). The choice of parameters is consistent with preceding empirical studies on gender equality and macroeconomic uncertainty (Baliamoune-Lutz, 2019). Table 1 describes the variables used in the study along with their expected signs.

Table 1: The Descriptions and Measurements of Variables

Variables	*Symbol*	*Measurements or Proxy*	*Descriptions*	*Expected Sign*	*Source*
Gender Development Index (GDI)	*GDI*	*Index*	*"The Gender Development Index (GDI) assesses gender-based differences in performance in three important areas of human development: standard of living (estimated earned income), education (mean and projected years of schooling), and health (life expectancy). It is computed as the ratio of the Human Development Index (HDI) values for men and women; a score of one denotes complete equality."*	*Dependent Variable*	*UNDP*
Gender Inequality Index (GII)	*GII*	*Index*	*"The Gender Inequality Index (GII) is a composite statistic developed by the United Nations Development Programme (UNDP) that assesses gender-based inequality in three important areas: labor market participation, empowerment, and reproductive health. With ratings ranging from 0 (perfect equality) to 1 (highest inequality), it emphasizes the loss of human development brought on by gender inequality."*	*Dependent Variable*	*UNDP*
GDP per Capita growth	*GDPPC*	*United States dollars*	*"Gross domestic product is the total income earned through the production of goods and services in an economic territory during an accounting period. It can be measure in three different ways: using either the expenditure approach, the income approach, or the production approach. The general population to achieve a per capita estimate has divided the core indicator." This indicator denotes the percentage change over each previous year of the constant price (base year 2015) series in United States dollars.*	+	*World Bank*
Female Total Population	*FP*	*Share of female*	*"Female population between the ages 15 to 64 as a percentage of the total female*	*+ or -*	*World Bank*

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		population aged 15–64	*population. Population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship."*		
Political Stability and Absence of Violence	*PS*	*Estimate*	*"The Political Stability and Absence of Violence/Terrorism (PV) as a governance indicator measuring perceptions regarding the likelihood that a government will be destabilized or overthrown by unconstitutional or violent means. It assesses the risk of politically motivated violence, terrorism, and civil conflict."*	*+ or -*	*World Bank*
Foreign Direct Investment	*FDI*	*Percentage of GDP*	*"Foreign direct investment (FDI) are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP."*	*+ or -*	*World Bank*
General Government Final Consumption	*GE*	*Percentage of GDP*	*"Final consumption expenditure is expenditure on goods and services by resident institutional units for the direct satisfaction of human needs or wants, whether individual or collective. General Govt. includes all government current expenditures for purchases of goods and services (including compensation of employees), and most expenditures on national defense and security, but excludes government military expenditures that are part of Govt. capital formation." This indicator is express as a percentage of GDP, which is the total income, earned through the production of goods and services in an economic territory during an accounting period.*	*+ or -*	*World Bank*
Domestic Uncertainty	*DU*		*"Domestic uncertainty refers to a condition where economic mediators, including households, firms, and policy-makers within an economy are unable to accurately predict*	*+ or -*	

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			future economic conditions, leading to a state of unwillingness and the rearrangement of economic decisions. It is a localized, internal phenomenon that rises from volatility in domestic policy, financial markets, or political instability."	
World Trade Uncertainty and Policy Uncertainty	*GTU GU*	*World Trade Uncertainty Policy Uncertainty*	*"The uncertainty adjacent future international trade policies, including tariffs, trade agreements, and regulations, which discourages corporate investment and upsets global supply chains, is known as world trade uncertainty (WTU). The World Trade Uncertainty Index (WTUI) calculate it by examining how frequently "uncertainty" and trade-related phrases appear in economic data from 143 different nations. It frequently rises amid geopolitical crises."*	*+ or -*

Sources: World Bank and UNDP

This study utilizes System Generalized Method of Moments (GMM) panel data estimation method introduce by (Arellano, & Bover, 1995) and further extend by (Blundell, & Bond, 1998) for the empirical findings. The System GMM is a vibrant panel data method of estimation, which is, develop to address main econometric issues endogeneity, unobserved heterogeneity, simultaneity bias, and vibrant persistence in the dependent parameters. The estimation method is expressly suitable for panel datasets categorized by a large cross – sectional aspect (N) and a comparatively small time aspect (T), which is a common structure in cross – country studies. In the perspective of this study, System GMM is predominantly suitable because women empowerment are insistent over time, might instantaneously influence, be affected by, global and domestic uncertainty parameters. This method also tackles the issues by, utilizing internal instruments derived from lagged values of endogenous parameters.

The validity of System GMM depends on several assumptions: While first order serial correlation in differenced residuals is projected, second order serial correlation (AR(2)) must be non-existence. These assumption is verified by utilizing using the Arellano Bond test (Arellano, & Bond, 1991) for autocorrelation. Further, instruments necessity be appropriate, correlated with endogenous parameters and exogenous un-correlated with the error term. Instrument legitimacy is verified by utilizing the Hansen test (Hansen, 1999) and Sargan test (Sargan, 1958) of over classifying restrictions.

4. Empirical Results

This section of the study presents the empirical findings acquired from System GMM methodology. The empirical outcomes are described separately for the two models of the study. In both models specifications, global uncertainty is scrutinize together with a set of macroeconomic and institutional control parameters. The empirical findings of system GMM of the models with GII is given in the Table 2. The lagged value of GII_{t-1} is positive and statistically significant at 1% level of significance

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across all specifications, representing strong determination in gender inequality over time. The coefficient on GDP per capita shows negative and statistically significant influence on GII in all model specifications, implying that economic growth improves women access to health, education and employment opportunities by its negative influence on GII which contribute to decreasing gender inequality ((Khakimova, 2024; Assoumou-Ella, 2019; Sangaji, 2018)). The coefficient of female population has a positive and statistically significant influence on the GII in all models. This finding advocates that a larger female population, in the deficiency of passable institutional support and wide-ranging policies, may strengthen gender inequalities in developing economies (Elson, 2012). Further, political stability and absence of violence has a negatively and statistically significant influence on GII across all models specifications. It indicates that higher political stability and absence of violence is associated with lesser gender inequality. This finding proposes that politically stable situations contribute considerably to improving gender equality in developing economies (Kaufmann, et al., 2011). Furthermore, the findings designate that FDI does not exert a statistically significantly effects on GII. While the coefficients value diverges in sign ranging from somewhat negative to positive, indicating the deficiency of a vigorous relationship amongst FDI and GII in the consider developing economies (Seguino, 2015).

Table 2: Uncertainty and Women Empowerment: Gender Inequality Index (GII)

Variables	*(1)*	*(2)*	*(3)*
	GII	*GII*	*GII*
$(GII)_{t-1}$	*0.9775****	*0.9605****	*0.9548****
	(276.6343)	*(284.1147)*	*(276.7883)*
GDP Per Capita	*-0.0003****	*-0.0005****	*-0.0007****
	(-6.2766)	*(-7.5309)*	*(-9.4714)*
Female Population	*0.0012****	*0.0012****	*0.0012****
	(27.5465)	*(17.7672)*	*(16.7833)*
Political Stability	*-0.0016****	*-0.0033****	*-0.0037****
	(-3.1383)	*(-7.0524)*	*(-6.7924)*
Net Inflow of FDI	*-0.00001*	*0.000001*	*0.00002*
	(-0.3210)	*(0.4758)*	*(0.6315)*
Govt. Final Consumption	*-0.0001**	*-0.0001****	*-0.0002****
	(-1.7181)	*(-2.7668)*	*(-3.0837)*
Domestic Uncertainty	*0.0034****	*~*	*~*
	(4.1464)	*~*	*~*
World Trade Uncertainty	*~*	*-0.00002****	*~*
	~	*(-4.5530)*	*~*
Policy Uncertainty	*~*	*~*	*-0.00002****
	~	*~*	*(-6.9187)*
Observations	*1,687*	*1,687*	*1,687*
No. of Economies	*89*	*89*	*89*
No. of Instruments	*59*	*59*	*59*
Hansen est (p-val)	*0.311*	*0.217*	*0.218*
AR2 test (p-val)	*0.283*	*0.281*	*0.279*

Note: t-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.1

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Moreover, the coefficient of general Govt. final consumption spending has a negative and statistically significant effect on GII crosswise the specifications of all models. The negative indication suggests that higher Govt. final consumption is associated with a decrease in GII. This finding shows that increased public expenditure contributes to improving gender parity outcomes in developing economies (Duflo, 2012) and (Elson, 2012).

Next, the coefficient of Domestic Uncertainty has a positive and statistically significant influence on GII (Column 1: Table 2). This result advocates that upsurges in domestic uncertainty are associated with an increase in gender inequality in developing economies. This finding is consistent with theoretical opinions and empirical indication that uncertainty at the domestic level rising from economic instability, political conflict, policy irregularity, and institutional insubstantiality, excessively affects welfare and empowerment consequences of women (Bloom, 2014; Elson, 2012). Next, the coefficient of World Trade Uncertainty shows negatively and statistically significant influence on GII (Column 2: Table 2). This finding proposes that higher levels of global trade uncertainty are connected with a lessening in gender inequality in developing economies (Stiglitz, 2017; Rodrik, 1998). Additionally, the coefficient value of Policy Uncertainty also shows negatively and statistically significant influence on GII (Column 3: Table 2). This finding proposes that, in developing economies, increases in Policy Uncertainty are connected with a lessening in gender inequality.

Table 3 presents the results on the effects of uncertainty on women empowerment using Gender Development Index (GDI) as dependent variable. The results provide support to the earlier results. The findings illustrate that GDP per capita is positive and significant influence across all models. It implies that, economic growth accelerates gender parity by increasing resources for public programs, generating employment opportunities for women, and dropping poverty-related limitations on female education and labor participation (Klasen, 2019). Further, the influence of the female population on GDI diverges depending on the condition. Increasing the number of women does not essentially result in more gender parity; instead, it may straining already scarce resources and insipid focused gender programs. Further, the coefficient of political stability and absence of violence has exhibits interesting patterns demonstrating that stable political environments encourage gender equality programs. Political stability permits governments to implement policies endorsing gender equality in long-term (Ali, et al., 2025). Moreover, FDI is positive and statistically significant. It implies that, foreign investments generate formal employment opportunities, frequently in export-oriented sectors that utilize women. FDI also presents best practices in corporate social accountability, including gender enclosure. FDI oriented growth can permit women economically by offering wage employment and dropping dependency on informal and low-productivity sectors (Lederman, 2011).

Table 3: Uncertainty and Women Empowerment: Gender Development Index (GDI)

Variables	*(1)* *GDI*	*(2)* *GDI*	*(3)* *GDI*
$(GDI)_{t-1}$	*0.9929****	*0.9532****	*0.8515****
	(353.3421)	*(227.2040)*	*(57.0029)*
GDP Per Capita	*0.0001****	*0.0002***	*0.0001*
	(3.9728)	*(2.3335)*	*(1.1867)*

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Female Population	*-0.0001****	*0.0000*	*0.0002**
	(-2.7322)	*(0.5667)*	*(1.6895)*
Political Stability	*-0.0003**	*0.0013****	*0.0050****
	(-1.9422)	*(6.2378)*	*(6.1137)*
Net Inflow of FDI	*0.0000*	*0.0000*	*0.0001*
	(0.7050)	*(0.7807)*	*(1.6541)*
Govt. Final Consumption	*0.0000**	*0.0001****	*0.0001***
	(1.8316)	*(4.0040)*	*(2.3351)*
Domestic Uncertainty	*-0.0032****	*~*	*~*
	(-7.3206)	*~*	*~*
World Trade Uncertainty	*~*	*0.00002****	*~*
	~	*(3.4122)*	*~*
Policy Uncertainty	*~*	*~*	*0.00008****
	~	*~*	*(4.1746)*
Observations	*1,690*	*1,690*	*1,690*
No. of Economies	*89*	*89*	*89*
No. of Instruments	*59*	*56*	*59*
Hansen est (p-val)	*0.368*	*0.164*	*0.301*
AR2 test (p-val)	*0.444*	*0.343*	*0.393*

Note: t-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Further, the coefficient value of Govt. Final Consumption has a positively and statistically significant influence on. It implies that the public spending positively contributes to gender equality. Next, the coefficient value of Domestic Uncertainty has a negative and statistically significant influence on GDI. Next, the coefficient of World Trade Uncertainty has a positive and statistically significant influence on GDI. The coefficient of Policy Uncertainty has a positive and statistically significant influence on GDI. Lastly, the coefficient of Global Average has a positive and statistically significant influence on GDI.

In diagnostic tests, the value of Hansen Test of all models shows that, prob. value are greater than 0.05 or 5% level of significance, indicating that, instruments are valid, effective and over – identifying limitations are not violated. Next, the value of AR(2) Test of all model shows that, prob. value are greater than 0.05 or 5% level of significance, confirming no second – order autocorrelation in first – differenced errors, validating the utilization of System GMM technique. These tests offers confidence in the strength of the estimated coefficients.

5. Results and Discussions

This study examines the influence of domestic and global uncertainty on women's empowerment measured by Gender Inequality Index (GII) and Gender Development Index (GDI). It is found that GDP per capita has negative influence on GII and positive impact on GDI. In GII, it implies that, as GDP per capita increases, economic resources per capita and average income also increase. Higher level of income permits households and governments to allocate more resources toward health and education systems (Assoumou-Ella, 2019). Furthermore, typically, economic growth develops job markets, more jobs opportunities and higher demand for labor will lead to increase the labor force participation for women, improve wage rate, and women economic bargaining power reinforces, which interprets to

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lower gender inequality. In employment, reducing gender inequalities tends to enhances GDP per capita and promotes empowerment (Naveed, et al., 2023). As economies improve and societies become more affluent, traditional gender standards often change. Higher per capita of GDP is associated with greater attentiveness and advocacy for gender parity, which translates into strategies and social norms that lower gender inequality (Barnat, et al., 2019) and (Dijkstra, & Hanmer, 2000). Moreover, expanding economic opportunities that escort rising level of GDP per capita tend to increase women participation in salaried work, improve wages, and encourage legislative improvements that safeguard women rights. Gender equality not only contributes to economic growth but also benefits from it, creating a virtuous cycle where higher GDP per capita is both a driver and outcome of abridged gender inequalities (Mitra, et al., 2015). In GDI, it implies that, an increase in GDP per capita can shows a positive and significant influence on the GDI through several economic, social, and institutional networks, an association extensively recognized in empirical research. Higher GDP per capita typically reflects stronger economic performance and better national wealth, which improves the capacity of an economy to invest in health, education, services, and social structures, which are the key elements of the GDI (Gani, & Al-Fori, 2019). Higher economic growth diminishes poverty and decreases resource constraints that formerly limited female access to human capital investments, thus fostering gender parity and empowerment in developing economies contexts (Bhoganadam, et al., 2014). In previous studies, countries with higher income levels lead to exhibit smaller gender inequalities in health and education consequences (Ram, et al., 2022). Likewise, investment in social protection systems, reinforced by robust economic growth, improves women access to childcare, parental leave, and safety nets, which support sustained contribution in the labor market and education. Beyond economic procedures, long-term developments in GDP per capita are also accompany by institutional and moral shifts that support gender parity. Wealthier economies typically create more robust legal defenses against gender discrimination sustain anti-discrimination legislation, and implement policies that support women rights in politics, work, and education factors that improve results measured by the GDI (Merouani, & Perrin, 2022).

Further, across all models specifications, the female population have positive influence on GII, which implies that, increase in female population is associated with higher GII index, which have three dimensions, procreative health, empowerment, and labor market participation (Sedgh, & Bearak, 2025). Further, in developing economies, higher female population often reveal young demographic profiles with extraordinary birth rates, where gender inequalities in education and labor force participation persevere. When more female do not have equivalent access to secondary and higher education, and are separated into informal, voluntary, and low-productivity work, their participation in labor market is constrained contributing to higher index values of GII (Kim, & Kim, 2014). Thus, little attainment of education and participation in labor force of female are foremost constraints on women empowerment and social inclusion (Abbas, et al., 2021); (Amin, & Sabermahani, 2017). High populations of female, especially when combine with inadequate rights and norms preferring early marriage and childbearing can guide to higher risks of maternal health and adolescent pregnancies, both of which are portion of the health dimension of GII (Akbash, et al., 2019). In terms of GDI, it is indicate that, female population displays mixed outcomes. It implies that, the size and structure of the female population plays complex role in determining gender development consequences. In some scenario, a larger female population can be link with positive investments in human capital and amplified gender parity, whereas in others it may overlap with structural limitations, labor market capacity, and resource

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competition, leading to lesser gender development outcomes. It is argue that, higher percentage of women in the population can escalate female participation in economic and social domains when supported by permitting institutions and policies, thereby enhancing gender development (Klasen, 1999); (Sen, 1999). Further, economies with comparatively higher female population shares frequently invest more in female health and education, which increases labor force participation for women and positively contributes to composite gender index like GDI (Seguino, 2000). Likewise, demographic weight can interpret into political and social effect that improves gender consequences when effective social strategies are in place (Round, & Odedokun, 2004). Further, the findings also implies that, greater gender development can lead to decrease fertility and hence structures of different female population over time (Mayer, 2004). The economies with different stages of demographic evolution experience varying influence of female population on gender empowerment indexes, at early phases may show positive investments on health and education, while later phases may encounter labor market bottlenecks (Seguino, 2000). The positive effect probable reflects the situations where increased female populations coincide with better health, education, and labor market occasions, enabling higher value of GDI, and consistent with (Round, & Odedokun, 2004) and (Klasen, 1999).

The study finds that political stability and the absence of violence are associated with lower values of the Gender Inequality Index (GII). In developing economies, political stability plays a crucial role in shaping gender equality outcomes by fostering an environment conducive to inclusive policymaking, long-term development planning, and the effective implementation of laws that protect and promote women's rights (Lehmijoki & Palokangas, 2006). Stable governments are better positioned to allocate resources toward essential social services such as education, healthcare, and social protection programs, which disproportionately benefit women and address key dimensions of the GII, including reproductive health and educational attainment (Ionescu, 2018). Moreover, political stability ensures continuity in public service delivery, enabling sustained access to healthcare, family planning, and education, factors critical for reducing gender disparities in health and human capital. It also enhances a country's attractiveness to both domestic and foreign investment, expanding labor markets and increasing employment opportunities for women, thereby improving their economic participation (True, 2022). In stable political and legal environments, women encounter fewer barriers to participation in economic and political spheres, leading to improved empowerment outcomes (Thebo, et al., 2025). Conversely, political instability weakens institutions, disrupts essential services, and reinforces restrictive social norms, often sidelining gender equality initiatives and increasing gender-based violence Webster, et al., 2019). In terms of GDI, the estimated coefficient of political stability and absence of violence exhibits a nuanced pattern across models. In the first model, it is negative and statistically significant, while from models two to five it becomes positive and significant in relation to the GDI. This shift reflects the complex and context-dependent relationship between political stability and women's empowerment. Political stability is widely regarded as a fundamental condition for enhancing women's empowerment, as peaceful environments reduce barriers to female participation in education, governance, and labor markets, while ensuring safer conditions for rights, health, and economic opportunities (Almugren., et al., 2024). Empirical evidence further suggests that strong institutions and governance frameworks improve gender equality outcomes by supporting policies that enhance women's socio-economic participation (Thebo, et al., 2025). However, in conflict-affected or transitional contexts, short-term instability and violence can constrain women's empowerment. Political unrest often increases gender-based violence, restricts

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access to education and healthcare, and deepens economic insecurity, negatively affecting key GDI components such as life expectancy, education, and income equality (Christian, et al., 2025). It also reduces women's political representation and weakens institutional support systems. In contrast, the positive coefficients in later models highlight the long-term benefits of stability. When combined with strong governance, rule of law, and gender-sensitive policies, political stability fosters sustainable improvements in health, education, economic participation, and political inclusion (Ellis, & Lopez-Claros, 2020).

The findings show that, across all model specifications, FDI inflows do not have a statistically significant effect on the GII. This suggests that variations in FDI alone do not sufficiently explain changes in gender inequality in developing economies. This result aligns with existing empirical literature, which reports mixed evidence on the relationship between FDI and gender inequality. As an economic phenomenon, FDI primarily reflects investments by multinational enterprises seeking market expansion, efficiency, or resource access, and its benefits for gender equality depend heavily on economic structure and the nature of investment. One key explanation is that FDI in many developing countries is concentrated in capital-intensive and male-dominated sectors, limiting its impact on women's employment and broader socio-economic status (Dheera-aumpon, & Changwatchai, 2025). In such cases, while overall employment may rise, gender gaps in health, education, and political participation—core components of the GII remain largely unaffected. Although FDI can promote gender equality under certain conditions, such as when firms adopt inclusive practices or when supportive legal and social frameworks exist, these conditions are not consistently present across developing economies. Moreover, FDI influences gender outcomes mainly through indirect channels, including economic growth, labor market changes, and technology transfer. However, structural barriers—such as limited access to formal employment, cultural constraints, and weak legal protections—often prevent women from fully benefiting from these opportunities (Ouedraogo, et al., 2025). Consequently, the overall effect of FDI on GII remains insignificant, highlighting that improvements in gender equality require broader institutional and policy support beyond FDI alone. In terms of GDI, the findings indicate that FDI inflows have a positive and statistically significant effect on the GDI. This suggests that increased FDI contributes to improving gender development outcomes in developing economies through multiple interconnected channels. Empirical evidence shows that FDI stimulates economic growth, labor demand, technological diffusion, and institutional quality, which collectively help reduce gender gaps in health, education, and income—the core dimensions of the GDI. Increased foreign investment is associated with higher demand for female labor, technological spillovers, and the adoption of corporate practices that promote gender equality (Ouedraogo, et al., 2025). FDI also enhances household and government income, enabling greater investment in female education and healthcare, thereby improving women's life expectancy and educational attainment (Braunstein, & Heintz, 2008). Employment opportunities for women expand, particularly in export-oriented and service sectors, where female participation is typically higher, contributing to improved economic outcomes (Nica, et al., 2023). Moreover, FDI promotes female labor force participation in low- and middle-income countries, directly strengthening the income component of the GDI (Hossain, et al., 2022). At the firm level, multinational enterprises often introduce gender-inclusive practices that reduce discrimination and improve wages and working conditions for women. Additionally, FDI facilitates technology transfer and skill development, increasing women's productivity and access to higher-skilled jobs (Ghazalian, 2024). It also encourages institutional reforms and

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gender-sensitive policies, including anti-discrimination laws and support for female entrepreneurship (Fang, et al., 2019).

The study finds that general government final consumption expenditure has a negative and significant effect on the GII in developing economies. This indicates that higher public spending is associated with lower gender inequality. Government expenditure on key sectors such as education, healthcare, social protection, and public services plays a critical role in shaping gender equality outcomes by improving women's access to essential resources and opportunities. Increased public spending on education enhances female enrollment and reduces gender gaps in educational attainment, thereby strengthening women's human capital and labor market prospects (Zouheir, et al., 2025). Similarly, higher government expenditure on healthcare improves reproductive health outcomes, including maternal care and access to medical services, which directly reduces gender disparities captured in the GII (Britt, & Egerer, 2024). Moreover, government consumption often includes social protection and labor market programs such as childcare support, maternity benefits, and income transfers. These measures reduce women's time constraints, promote labor force participation, and enhance economic independence (Sidek, 2021). Targeted public spending on women's empowerment further helps address structural barriers and increases female participation in economic activities. Additionally, effective public expenditure strengthens institutional capacity to deliver inclusive services and promote social equity, particularly in contexts where private markets may fail to address gender disparities (Rafat Zaman, 2024). In terms of GDI, the findings indicate that government final consumption expenditure has a positive and statistically significant effect on the GDI in developing economies. This suggests that increased public spending contributes to improved gender development outcomes by enhancing the availability and quality of essential services that disproportionately benefit women. Government expenditure on sectors such as education, healthcare, social protection, and public services directly supports key dimensions of the GDI, including health, education, and living standards. Empirical evidence shows that higher public spending improves women's access to education and healthcare, leading to better life expectancy, literacy, and educational attainment core components of gender development (Zouheir, et al., 2025). Investment in education, in particular, reduces gender gaps in schooling and strengthens women's human capital and labor market participation (Ghazalian, 2024). Similarly, government spending on healthcare enhances maternal health services, reduces female mortality, and improves overall well-being (Nurwanti, et al., 2021). In addition, public expenditure supports gender-responsive programs such as childcare services, social protection, and labor market policies that lower barriers to female employment and increase income opportunities (Britt, & Egerer, 2024). These initiatives promote women's economic participation and financial independence, contributing to higher GDI values. Furthermore, effective government spending helps address structural inequalities and expand access to essential services, particularly where private provision is limited.

The study finds that domestic uncertainty has a positive and significant effect on the GII, implying that higher uncertainty increases gender inequality in developing economies. Domestic uncertainty arising from economic instability, political unrest, social conflict, and policy volatility tends to weaken women's empowerment across multiple dimensions, including employment, education, health, and rights. One key channel is the labor market. Women are often concentrated in more vulnerable and informal jobs; during periods of uncertainty, firms reduce hiring and rely more on temporary or insecure employment, disproportionately affecting women. This leads to lower female labor force participation, higher unemployment, and widening gender gaps in

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income and economic opportunities (Nguyen, 2022). Economic crises and recessions further intensify these disparities, with women experiencing greater income losses and long-term setbacks in career progression (Blanton, et al., 2019). Domestic uncertainty also negatively impacts women's health and well-being. Instability strains healthcare systems and limits access to maternal and reproductive services, increasing health risks and worsening outcomes captured in the GII. During crises such as conflicts or pandemics, women face greater barriers to essential healthcare, further deepening inequalities (Wenham, et al., 2020). Moreover, uncertain political and regulatory environments reduce investment and entrepreneurial activity, disproportionately affecting women who already face structural barriers to finance and market access (Manocha, et al., 2024). Weak governance and policy inconsistency also undermine the enforcement of gender equality laws and delay reforms. In terms of GDI, The findings indicate that domestic uncertainty has a negative and statistically significant effect on the GDI in developing economies. This suggests that rising uncertainty—driven by economic instability, policy volatility, political unrest, and domestic crises reduces women's socio-economic opportunities, limits access to essential services, and weakens overall empowerment. A key channel is the labor market. Domestic uncertainty increases vulnerable and informal employment while reducing stable, wage-based jobs, disproportionately affecting women and lowering their labor force participation (Nguyen, 2022). Since women are overrepresented in low-paid and insecure work, economic downturns and crises tend to intensify gender gaps in income and employment outcomes (Wenham, et al., 2020). These conditions directly weaken the income and employment dimensions of the GDI. Domestic uncertainty also affects household behavior and human capital formation. During crises, women often face job losses, reduced access to credit, and a greater burden of unpaid work, limiting their ability to invest in education and skill development (Nurwanti, et al., 2021). Households may also reallocate resources away from female education and healthcare, undermining long-term development outcomes. Health and education outcomes are further disrupted during periods of instability. Evidence from major shocks such as the COVID-19 pandemic shows significant declines in women's employment and interruptions in access to education and healthcare, reducing opportunities for empowerment (Dempere, & Grassa, 2023). Political instability and conflict also restrict women's mobility, participation, and safety, while increasing exposure to gender-based violence and reducing political representation.

6. Conclusion and Policy Implications

This study presents the empirical findings on the influence of global and domestic uncertainty on women's empowerment in developing economies. The study employs two widely recognized indicators the Gender Development Index (GDI) and the Gender Inequality Index (GII) to capture different dimensions of gender outcomes. Using a dynamic panel data framework (System GMM), the analysis accounts for both short- and long-run effects while addressing country-specific heterogeneity and endogeneity. Overall, the results are consistent across models and provide robust evidence on the macroeconomic and institutional determinants of gender outcomes. The findings show that GDP per capita has a positive and significant effect on women's empowerment, indicating that higher income levels improve access to healthcare, education, and employment opportunities. Economic growth enhances human capital and reduces structural inequalities, thereby lowering gender inequality and improving gender development. Similarly, a higher female population share positively influences gender outcomes by strengthening women's participation in economic and political spheres and increasing demand for gender-responsive policies. Political stability emerges as a key determinant, as stable environments support

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effective governance, policy continuity, and sustained investment in social sectors. In contrast, instability weakens institutions and diverts resources away from development. Additionally, government consumption expenditure improves gender equality by enhancing access to education, healthcare, and social protection.

It is found that domestic uncertainty increases gender inequality and reduces women's empowerment, indicating that women are disproportionately affected compared to men. In contrast, global uncertainty proxied by trade uncertainty and policy uncertainty reduces gender inequality and enhances women's empowerment, suggesting that men may be more adversely affected by global uncertainty than women. Based on the findings, it is suggested that policymakers should adopt gender-responsive policies to mitigate the adverse effects of domestic uncertainty on women by strengthening social protection, financial inclusion, and decent employment opportunities. Although global uncertainty reduces gender inequality, policies should ensure that this improvement reflects genuine gains in women's empowerment rather than disproportionately negative effects on men. Thus, differentiated policy responses are essential to promote gender equality and inclusive economic growth.

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