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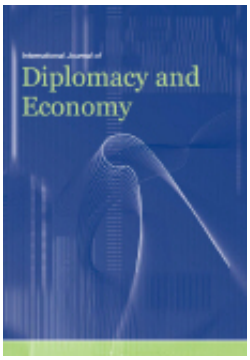

International Journal of Diplomacy and Economy

ISSN online: 2049-0895 - ISSN print: 2049-0887
https://www.inderscience.com/ijdipe

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Alemayehu Ethiopia Derege

DOI: 10.1504/IJDIPE.2024.10061019

Article History:

Received:	15 July 2023
Last revised:	15 October 2023
Accepted:	18 October 2023
Published online:	20 January 2025

Enhancing the competitiveness of Ethiopian cut flower exports using strategic diplomacy

Alemayehu Ethiopia Derege

Department of Economics,
Adama Science and Technology University,
Adama, Oromia Region, Ethiopia
Email: alemayehu.ethiopia@astu.edu.et

Abstract: This study sought to identify the main impacts of diplomacy on Ethiopia's cut flower exports. The fluctuating diplomatic relations with countries of polarised ideology have greatly impacted Ethiopia's main exports. To understand the extent of this issue, the researcher examined the impact of changing diplomatic relations using a treatment effect model. The researcher linked export incentives with cut flower exports, and finally identified challenges for the cut flower export subsector. Based on their analysis, researcher identified low social acceptance of investment in flowers, high competition from other partner countries, and low compensation for land and property that underperforms the sector. The diplomatic relation during the Prosperity Party makes the export of cut flowers fall by 28.4% relative to the EPRDF regime. Based on the results, the study suggests increasing export incentives for the sector. Besides, the government should carefully analyse the economic cost of diplomatic polarisation, assess its current diplomatic ties and ascent towards preferential diplomatic pluralism. Policies that promote economic diplomacy levitate investors' confidence, industry and export in Ethiopia.

Keywords: diplomacy; cut flower; export; incentives; GDP; trade competitiveness.

Reference to this paper should be made as follows: Derege, A.E. (2025) 'Enhancing the competitiveness of Ethiopian cut flower exports using strategic diplomacy', *Int. J. Diplomacy and Economy*, Vol. 11, No. 1, pp.44–62.

Biographical notes: Alemayehu Ethiopia Derege is a distinguished individual who has achieved great heights in economics and academia. He is a dedicated Lecturer, shaping the minds of the future generation. Besides work, he finds joy in sports and music, striking a balance between work and leisure. His most noteworthy achievement is creating large number of economists besides obtaining a PhD in Economics, highlighting his academic prowess and commitment to intellectual growth. Through rigorous research, he has become an expert in his field, contributing valuable insights and knowledge to the society and in the field of the economics.

1 Introduction

Ethiopia's political economy has been shaped over the ages by two opposing economic ideologies, one in the West and the other in the East. The change in ideological beliefs was motivated by the existence of dual domestic blocs, the difference between sources of national and political power concentrated in the northern highlands, and sources of economic power concentrated in the annexed southern and western regions. These characteristics were strengthened under both the Imperial (1941–74) and Revolutionary (1974–91) regimes, and were greatly expanded to promote development programs based on economic exploitation of politically marginalised regions (Keller, 1981). The EPRDF government, which took office in 1991, sought to redress the historical imbalance of political power in combination with 'developing countries' that used the East Asian model to generate rapid economic growth through global integration. In the age of globalisation, economic diplomacy is primarily based on the idea of breaking down trade barriers between trading nations that are expected to boost a particular country's export levels (Van et al., 2009). But on a practical level, the level of economic diplomacy depends on the strategic geo-economic interests of developed countries. For example, the USA and many Western countries favour Egypt over Ethiopia because of their relative strategic advantages. Similarly, Chinese prefer Africa to Arabs due to geo-economic interests (Sun and Zoubir, 2015). China's approach to economic diplomacy after the global financial crisis was aimed at improving the country's competitiveness, but the role traditionally played by trade and investment in reducing tensions with the USA has been replaced. A country's level of competitiveness is positively correlated with bilateral and multilateral economic diplomacy. Because of this, the West has strong ties, but the economic diplomacy of a poor country is largely determined by how submissive that country is to accepting Western ideology in any form (Gavshon, 2019; Tinbergen, 1962; Rosser, 2007; Dunning, 2004).

For example, European countries argue that China's economic diplomacy is divisive and bad for unity because of ideological differences in the economic system. Ethiopia is the oldest and most prominent of many countries, with enormous resources and potential, so the level of economic diplomacy has increasingly contributed to the country's growth and development. For example, during the Derg regime, Ethiopia's economic growth was guided by the Soviet economic system. After the downfall of Derg regime Ethiopia had followed developmental economic policy approach of China without resisting western diplomatic relations. With Prosperity Party (PP) coming to power however, the country has preferred to work with the eastern blocks (especially Russia, China and Turkey) resisting strongly its previous allies (USA and Europe). It is therefore important to see how such diplomatic turmoil is affecting the Ethiopian cut flower industry (which is one of the ideal currency-generating products the country has long had).

One of the main activities of economic diplomacy, economic promotion (particularly trade promotion), increases the level of exports of a particular country. Unlike other African countries, Ethiopia has until recently had stable diplomatic relations with many developed countries. Favourable investment climate, including export stimulating trade policies, attracts many investors, mainly from China, India, Turkey, Europe and East Asia. Ethiopia`s stable diplomatic relations with the rest of the world have helped develop the country's export sector, but unfair trade terms and political unrest have cast doubt on the role played by Ethiopia Qualitatively challenged.

Economic diplomacy in African countries is primarily development diplomacy aimed at improving the quality of life of African citizens. Thus, many researchers have sent Chinese diplomatic missions to Ethiopia to 'search for raw materials' in exchange for the development of the service sector. According to Addis et al. (2021), the recent development of China-Ethiopia diplomatic relations is based on their integral economic development, they said.

Economic diplomacy is underscored as a cornerstone for expanding Ethiopian export sub-sector, through mechanisms like capacity development, economic openness and international economic alliances. However, the efficacy of such strategies displays variability, largely influenced by geopolitical tensions and political divergence (Endris et al., 2023; Gebreluel, 2023; Jungudo, 2023). Ethiopia's diplomatic relations in Africa and its interplay with major external players like the USA and China have been dynamic, inherently influencing its economic diplomacy and regional stature (Verhoeven and Woldemariam, 2022). Consequentially, the country is gradually gravitating towards Eastern alliances in response to mounting Western economic pressures.

Recently, Ethiopia's stable economic diplomacy with other countries has become unpredictable and volatile, likely working in opposite directions in the growth and export subsectors. Despite the existing scholarly research on Ethiopia's grand strategy and economic diplomacy, there is a lack of focus on the interconnection between ideological changes, grand strategy and its diplomatic wavering. Furthermore, understanding the role of external actors, such as the USA, China and Russia, in Ethiopia's economic and diplomatic standing poses another gap in the current literature Gieg (2023).

This study seeks to relate the role of Ethiopia's economic diplomacy to the growth and attractiveness of the export subsector, as there is a clear research gap in this area as little research is available in Ethiopia. In view of this, this research analyses the impact of diplomacy in increasing the value of cut flower products in Ethiopia, identify key challenges facing Ethiopia`s cut flower export sector and finally estimate the effectiveness of government export incentives.

2 Literature review

2.1 The theoretical framework of economic diplomacy

Economic diplomacy is an essential aspect of international relations that focuses on promoting economic interests and cooperation among nations. It involves various tools like trade negotiations, investment promotion and economic sanctions to pursue national interests (Van Bergeijk, 2014). The involvement of non-government actors is crucial for inclusive and sustainable economic development (Bayne and Woolcock, 2011). Economic diplomacy plays a role in shaping trade flows and patterns through bilateral and multilateral agreements. It involves negotiation, cooperation, competition and conflict (Zirovcic, 2016; Ponsatí, 2004) depending on factors like government policies, trade agreements and market conditions. Ultimately, economic diplomacy enhances a country's economic competitiveness and attract foreign investments while maintaining international relations and promoting economic growth.

2.2 Empirical review

Since 1993, the government has implemented trade policy reforms, including deregulating markets and prices, privatising state-owned enterprises, adjusting tax and surveillance policies and removing trade barriers and subsidies. Export earnings are expected to reach 20% of GDP by exploiting niche markets such as horticulture, floriculture, animal husbandry and mining. Commercial cut flower cultivation, which began in 1980, has developed into an attractive industry (Belwal and Chala, 2007) and this export value has skyrocketed to reach over US$100 million [EIU, 2008 and Ethiopian Horticultural Producers and Exporters Association (EHPEA)].

Ethiopia's cut-flower industry has experienced significant growth in recent years and has become one of the leading exporters in Africa and the world. There is significant difference in the share of cut-flower export during various regimes of the country. When we compare past and present, there is clear difference on the role played by cut-flower in the country's economy. The export share of cut flowers has been steadily increasing, with an average annual growth rate of 46% since 1997 and, since 2004; the export share has grown by more than 100% annually (COMTRADE, 2008; United Nations COMTRADE, 2010). Currently, there are over 100 private companies involved in the production and export of cut flowers, with a majority owned by foreign investors. The value of cut flower exports has also seen a significant increase, reaching $235 million in 2021 (OEC, 2021). The Netherlands, Saudi Arabia, the UK, Norway and Seychelles are the main destinations for Ethiopian cut flower exports. Cut flowers account for a growing share of Ethiopia's total exports, reaching 8.32% in 2021 (TrendEconomy, 2023). Despite the challenges posed by social unrest the Ethiopian cut-flower industry shows great potential and the government is implementing reforms to attract more foreign investment (Floral Daily, 2021). Since recent times, however, the erratic political diplomacy of the country is curbing the country's export potential.

Ethiopia enjoys certain advantages that create ample opportunities for being one among the principal producers and exporters of flower in the world. As a whole, the finding reveals that foreign investments, government support and the formation of the Horticulture Producers and Exporters Association are the major catalysts in the sector. With the attention given by the government to this sector coupled with the advantages that Ethiopia has, the country has been able to attract both domestic and foreign investors. Ethiopia`s performance in floriculture acts as an eye opener for other African countries.

Ethiopia offers a physical and climatic environment that is unique in the world, which has rapidly expanded its role as an international year-round supplier of cut flowers. There are 85, of which 60 are exclusively roses. As an example, the 135,000 kg (98% rose) quantities have been sent to Norway in the last three months. Most of the cut-flower destinations of Ethiopia is Europe and USA, respectively. The Embassy supports some of the most important sub-sectors of the agricultural industry such as the flower, vegetable and fruit sector, sesame and dairy products (Gobie, 2019). Ethiopia has a clear and achievable trade policy that helps develop and secure a wide range of international market links, thereby generating a large amount of foreign currency. Therefore, the country's economic foreign policy has helped the country diversify its trade and increase its export volume.

Floriculture is one of the emerging subsectors of agriculture in Ethiopia (Gobie, 2019). For example, According to OEC (2021) report, Ethiopia ranks fifth in global cut-

flower export, generating $235 Million per annum, disseminated mainly to Europe. The main incentives offered by the Ethiopian government to support this industry are: Exemption from import duties and other taxes when importing raw materials required for the manufacture of capital goods and export goods. Exemption from export tax and all other taxes on exported goods and services. These incentive packages have mainly contributed in raising floriculture investment in the country as more than 100 foreign investors registered within the last five years alone (OEC, 2021).

Economic diplomacy serves as the use of government relationships and government influence to promote the commercial interests of companies in a foreign country. A broader interpretation of economic diplomacy also includes the use of economic instruments for political ends (e.g., security, alliances). As a result, economic diplomacy is part of a collection of bilateral and multilateral (e.g., cultural, historical, political) relationships between nations. The impact of economic diplomacy on trade has been very difficult for scholars and it empowers Countries to Facilitate Economic Exchanges with Trading Partners.

According to Lai (2018), economic diplomacy plays significant role in attracting foreign investment in terms of modern system of international relations, as well as exemplary mechanisms for attracting investment through the implementation of economic diplomacy (Adkhamjonovich, 2022). These policy adjustments constitute a pragmatic reorientation to the rapidly changing global environment spurred, in particular, by China's growing activism in the field rather than a move away from economic diplomacy as the key foreign policy instrument. Therefore, the launch of economic diplomacy to accomplish foreign policy objectives and adjusting the domestic environment for the success of such objectives is crucial.

Based on Daba (2022), the EPRDF's launch of economic diplomacy is driven both by development in the international system and domestic realities such as underdevelopment and abject poverty. Ethiopia's economic relationship with China continues to scale new heights with both state and private Chinese capital penetrating various sectors of the East African country's economy (Ziso, 2020).

Economic diplomacy plays a crucial role in today's globalised world, where countries are increasingly interconnected through trade and investment. The economic diplomacy remains a vital aspect of international relations, facilitating economic cooperation and addressing challenges. It requires effective diplomatic communication, collaboration between nations and the need for proactive measures to address economic challenges in highly dynamic world. The literature review suggests that policymakers and diplomats should stay informed about the evolving trends in economic diplomacy and be prepared to adjust strategies accordingly. Recent literature assumes effectively leveraging economic diplomacy can promote global economic interests, stability and prosperity.

Justinek (2021) highlighted the turbulent nature of the global economy, noting that crises can impact economic diplomacy. The author suggests that despite the challenges faced, countries need to adapt their diplomatic strategies to ensure economic stability and growth. This study emphasises the importance of proactive measures in managing economic uncertainty. Continuing with crises, Justinek (2022) focused on the transition from one crisis to another. The author argues that economic diplomacy is essential during times of uncertainty as it enables countries to collaborate and mitigate the adverse effects of crises. This study identified effective diplomatic communication and coordination are the most important to address economic challenges. Looking towards the future, Justinek (2023b) speculated on what the year 2023 may bring in terms of economic diplomacy.

The author suggests that geopolitical shifts and technological advancements will significantly impact economic relations between nations, highlighting the evolving nature of economic diplomacy and the need for constant adaptation.

In many literatures, the transformation of custom union to single market, where goods, capital and manpower freely mobile, is suggested to promote prosperity of Europe. In the context of the European Union (EU), Justinek (2023a) analysed the state of economic play and the role of economic diplomacy. The author explores how the EU's economic policies and diplomatic efforts have shaped its standing in global markets. In relation to this, the paper provides insights into the specific challenges faced by the EU and the importance of economic diplomacy in promoting its interests. Justinek suggested that the EU's economic diplomacy strategy should move from business support to an emerging strategy that focuses on policy coherence, global influence, coordination, regulatory cooperation and political dialogue. He also noted that the EU should tap into foreign markets to promote business and investment abroad and attract foreign investment to its territory

Economic diplomacy largely forms the basis for foreign policy-making between states (Chatterjee, 2020). According to Gavshon (2019), assistance related to strategic interest causing diplomatic wars between the west and the east in Africa. Similarly, the political triumph of counter-revolutionary social forces over radical nationalist and communist social forces in Indonesia during the 1960s, as well as the nation's strategic Cold War location and proximity to Japan, were the main causes of Indonesia's explosive growth during the 1970s and 1980s (Rosser, 2007). This has implications for other resource-rich nations because it necessitates modifications to existing power and interest structures as well as the emergence of favourable external political and economic circumstances for development.

There is much discussion about how foreign aid affects the type of regime in recipient nations. The effectiveness of Western aid conditionality in sub-Saharan African nations has been hampered by the end of the Cold War and the Soviet Union's subsequent replacement (Dunning, 2004). This underlines how crucial the geopolitical setting is in shaping the causal effects of development assistance.

Practically, economic diplomacy is mainly used to advance national interest as a means to excel ones economic competitiveness on global market. The conflicting ideologies of westerns and eastern block and Ethiopia's unsustainable persuasion to either of both has plummeted its export earnings very significantly and this requires careful reconsiderations of its diplomatic and economic policy.

3 Methodology

3.1 Type of Data and methodology

3.1.1 Data and its sources

Both primary and secondary data were used in this study. Primary data are collected from managers, community leaders and workers working in a cut flower company in the Oromia region. Information gathered from these audiences is used to analyse the challenges and opportunities of the cut flower industry for the companies, workers and people living in the area. Secondary data are collected from published and unpublished

reports, documents and literature of cut flower exporters. In addition, structured data on cut flower exports, GDP, export incentives, policies, trade competitiveness (export price of cut flowers/world price), economic development (diplomacy) from Central Bureau of Statistics, Commission of Investment, Ethiopian Commodity Exchange, etc.

3.1.2 Methodology of the study

The impact of administrative regime on cut-flower export is analysed with the help of treatment effect model. With regime changes from EPRDF to PP, the country altered its main diplomatic partner from the west to the east, forming strong ties with China and Russia abandoning its former trade partners. This has brought significant impact on cut-flower export and associated revenues. In view of this, the researcher tried to estimate how significant the change in diplomacy has brought on overall economic performance of the country. Accordingly, an analysis of the impact of economic diplomacy on Ethiopian exports and the effectiveness of government export incentives on exports is discussed using a quantitative approach, by applying treatment effect model whereas a qualitative approach is used to analyse the challenges of Ethiopia`s cut flower export sector. In-depth interviews capture all the necessary questions to help researchers identify the role, challenges and contributions of the Ethiopian cut flowers industry to the Ethiopian economy.

3.1.3 The method of data analysis

Treatment effect model

Treatment effect models estimate the impact of treatment by comparing treated to control groups. Common in public policy, healthcare, education and social sciences where randomisation is not feasible. Treatment effect models are useful to answer the question of what would have happened without treatment and can address selection bias (Tofighi, 2021). In cases without random treatment assignment, treatment effect models can form comparable groups based on similar characteristics, reducing bias and improving treatment effect estimates. They can show how treatment works on different groups, highlighting the populations that benefit most. Treatment effect models have limitations, such as relying heavily on assumptions about the data and modelling process (Ding et al, 2019). Treatment effect models can be sensitive to data and analysis, so researchers should use best practices like sensitivity analysis and robustness checks for reliable and applicable results.

Propensity score matching balances confounding variables between treatment and control groups in observational data analysis. PSM estimates propensity scores for each subject to predict treatment probability. A matching algorithm pairs similar individuals in the treatment and control groups based on these scores. Improves covariate balance, reduces bias and increases treatment effect precision.

ATE is the difference in the outcomes between the treatment and control groups on average. It is calculated as the mean difference in outcome variable between the treatment and control groups. ATE is useful for estimating the causal effect of the treatment on the outcome (Y) for treated and non-treated, can be given by equation (1).

$$\text{ATE} = E\left[Y \mid T = 1\right] - E\left[Y \mid T = 0\right] \tag{1}$$

Propensity Score Weighting (PSW) weights individuals in the sample by the inverse of their propensity score. This method assigns more weight to individuals who are less common in the sample, making them more representative of the population. The outcome variable is then regressed on the weighted treatment variable to obtain an estimate of treatment effects. The propensity score matching, for a given explanatory variable, can be by equation (2).

$$P(Z) = \Pr(T = 1 \mid Z) \tag{2}$$

The distance metrics, used to calculate the similarity of data points, can be estimated using equation (3) as:

$$M_{i,j} = \left| P(Y_i) - P(Y_j) \right| \tag{3}$$

Based on the result of distance matrix calculated on equation (3), we can estimate matched pairs of treated using equation (4) as

$$T_i = M_j \tag{4}$$

where $j = \text{argmin}\left(M_{i,j}\right)$

In order to capture constant distribution of variance for both treated and controlled variables we use weigh variables based on equation (5).

$$\begin{aligned} w(ip) &= 1 / P(Y_p) \text{ for treated observations,} \\ (jp) &= 1 / \left(1 - P(Y_p)\right) \text{for control observations} \end{aligned} \tag{5}$$

Finally, the outcome regression for the treatment effect model can be estimated using equation (6) as follows:

$$Y_i = a + bT_i + e_i \tag{6}$$

ATET is the effect of treatment on those who actually received it, rather than on the whole population. It estimates the effect of treatment on individuals who are similar in characteristics to the treated group. ATET is calculated as the difference between the treated group's outcome and the untreated group's average outcome.

$$\text{ATET} = \left(1 / N_1\right) * \sum \left(Y_i \mid T_i = 1\right) - \left(1 / N_0\right) * \sum \left(Y_i \mid T_i = 0\right) \tag{7}$$

TEM models have several advantages in estimating treatment effects. They adjust for confounding variables, improve balance between treatment and control groups and account for selection bias. However, these models are sensitive to model specification, the choice of matching algorithm and the quality of the covariate data. Additionally, these methods may be computationally intensive and time-consuming.

Empirical model specification

Both descriptive and analytical approaches can be applied to answer key research questions, goals and research gaps. For analytical purposes, the researchers used a time-series approach by collecting and analysing secondary data on cut flower exports, GDP and export incentives. Time series data are constructed to cover the EPRDF and current ruling governments (PP), helping to see how the change of government is affecting

Ethiopia`s export sector. To do so, the research applied several analytical econometric approaches (like treatment effect model and OLS approach).

Although the growth in export sector is defined by both internal and external factors, this research is delimited to assess the effect of internal factors on Ethiopian cut flower export performance. The treatment effect model is ideal to estimate impact evaluation (Frölich and Sperlich, 2019). The cut flower production can be expressed as:

$$\begin{aligned} &Supply\left(cut\ flower\right) = \\ &f\left(growth, government\ diplomatic\ policy, trade\ policy, trade\ competitiveness, ...\right) \end{aligned} \tag{8}$$

In this case, trade policy is intended to represent Ethiopia's export promotion policy (researchers focus on export incentives). There are many export incentives that the government has recently implemented, and this includes tax cuts, low rent for investment, etc. Foreign policy is of absolute value for a regime change from the Derg to the current Prosperity Party. Trade competitiveness can be measured by the relative Ethiopian cut flower export prices compared to world market prices. Cut flower exports are measured by the value of Ethiopia's cut flower exports relative to Ethiopia's GDP. Annual GDP growth is also included as an explanatory variable to measure the role of Ethiopia's growth and the development of the country's export sector.

Mathematically, the above function can be written as,

$$\begin{aligned} Value\ \left(cut\ flower\ export\right)_t = \beta_0 + \beta_1 gdpgt + \beta_2 dplmc \\ + \beta_3 eincentive + \beta_4 tcomp + e_t \end{aligned} \tag{9}$$

where:

VALUE OF CUT-FLOWER EXPORT	SHOWS THE EXPORT VALUE OF ETHIOPIAN CUT FLOWER RELATIVE TO GDP OF THE COUNTRY
GDPGT	ANNUAL GDP GROWTH RATE
DPLMCT	DIPLOMACY- CATEGORICAL VARIABLE CAPTURING VALUE OF 1 FOR PROSPERITY (PP) AND 0 FOR EPRDF
EINCENTIVET	EXPORT INCENTIVE OVER TIME
TCOMP	TRADE COMPETIVENESS OVER TIME-MEASURED BY EXPORT AS A CAPACITY OF IMPORT OF ETHIOPIA

To measure the impact of diplomacy, researchers used treatment effects model. In the first step, the regression results for the control variable (diplomacy during EPRDF) and treatment variables (diplomacy during prosperity party) are regressed separately. Then, in a second step, using the treatment model the researcher performed a comparative analysis between the two regressions. Mean treatment effect measures the relative difference between the two scenarios (PP vs. EPRDF).

$$Impact\ of\ diplomacy = f\left(PP\right) - f\left(EPRDF\right) \tag{10}$$

Similarly, the researcher follows the same approach for our third objective of measuring the effectiveness of export incentives for cut flower industry exports. Here, however, the researcher divides the period from 2011 to 2020 into two segments based on the volume and value of cut flower exports. The periods when export incentives are high (2014, 2015, 2018, 2019, 2020) takes dummy variable high incentive scenario and the other

periods (2011, 2012, 2013, 2016, 2017) are Identified as low Export period and are labelled to represent low-incentive scenario. Based on this understanding, the impact of export incentives are determined as:

$$Impact\ of\ export\ incentive = f\left(high\ incentive\right) - f\left(low incentive\right) \tag{11}$$

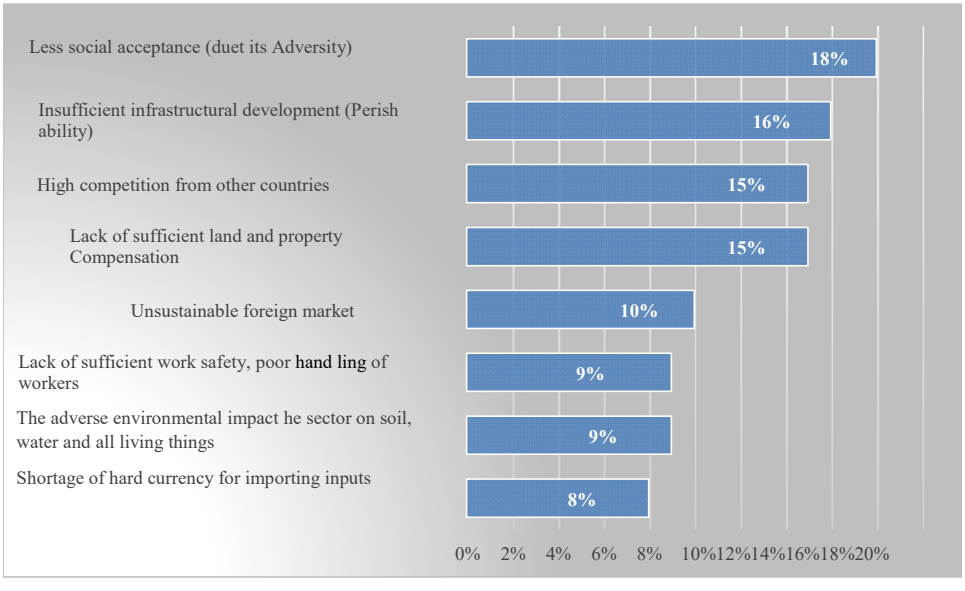
After all necessary model diagnostics tests, the researcher performed the analysis using STATA 16 and present its finding in the following section.

4 Finding and discussion

4.1 Challenges of Ethiopian cut flower export sector

Cut flowers are among the top ten agricultural export sectors that generate foreign income in Ethiopia (Gebreeyesus and Iizuka, 2012). The industry is one of the oldest export industries, but its growth lags far behind expectations (expert opinion). A transcript of an interview from Meskel Flower, one of the leading cut flower exporters, states: '*I think the government needs to work hard to bring society and the export sector together and reach agreement on everything else*.' As the results in the chart below show, growth in this sector has been restrained by declining social acceptance of the flower based FDI. Ethiopia's investment in cut flowers occupies highly productive agricultural land that could have yielded higher yields if it had been used for grain production.

Figure 1 Challenges of Ethiopian cut flower export (based on the degree of severity)



Note that the degree of severity represents the level of seriousness of the problem as agreed by majority of the respondents.

The intense chemical demands of cut flower production make the land less fertile than when used for other agricultural activities. Poor waste management systems in production plants, highly polluting chemicals released into (soil, water and air) greatly reduce the social acceptability of cut flower exports enterprise. The level of land and property compensation given to owners also significantly (negatively) reduced the social acceptability of businesses. The company felt that all owners were well compensated upon move-in and could not seek further property compensation. Approximately 18% of those surveyed cited declining social acceptance as the biggest challenge for expanding cut flowers to Ethiopia. Another challenge is the inadequate (and poor) infrastructure necessary for the export of flowers. About 16% of respondents consider poor infrastructure facilities to be the second biggest challenge to Ethiopia's cut flower exports. Cut flowers are one of the investment activities classified as perishable and thus require modernised protective facilities prior to sale to the final customer. For this purpose, a sufficient number of the best modes of transportation (furnished) must be available. However, due to the high cost, it is very difficult to meet the required number in a short period of time. Furthermore, it is important to implement all international export requirements in order to maintain the latest security levels, and the existing infrastructure is not well developed and cannot be exported in the required quantity in a short period of time.

Fair competition is one of the most important business drivers. Data show that the Netherlands, Colombia, Ecuador and Kenya are the top four exporters in the world. Ethiopia ranks fifth in bouquet value with a 2.3% share (in the world), but more than 97% of her global exports are from other competitive countries. Such large differences in global markets have a significant impact on market share, pricing policies and global acceptance of our export capabilities. Far from earning sustainable foreign exchange, the high level of finishing by other major exporters revealed by the respondents contributed to cut flower spoilage, which could even shut out Ethiopian exporters, (15%) believed that the presence of a high level of maturity from other countries constrained growth in this sector. The effectiveness of exports depends on the productivity of the workers employed in the sector.

In most developing countries, job security and working conditions are not considered important to most investors. With investments that use large amounts of chemicals to improve production and productivity, it is imperative to keep everyone working in your organisation safe. However, in most cases, no one cares about the safety and working conditions of workers, so they are forced to face problems and are forced to leave the organisation and look for another business, which leads to the production of the sector. Even top management (9%) believes that safety conditions for workers and the surrounding community are lacking.

4.2 The effect of change in government (diplomacy) on Ethiopian cut flower export

Diplomacy is a very important concept in international trade and relations between nations. Countries with the best and smoothest international relations are able to achieve significant growth in the export subsector. Political relations play an important role in international relations. Distorted political relations between nations will have a negative impact on relations between nations, and the export sector will gradually hit the floor.

Table 1 Cut flower export by diplomacy (from 2011 to 2020)

Diplomacy	*Statistic*	*Export incentive ($)*	*Trade competitiveness*	*Cut flower export ($M)*	*GDP ($)*
EPRDF	Mean	5.97E+09	1.27E+11	402.1465	5.70E+10
	Maximum	6.47E+09	1.39E+11	482.3294	8.18E+10
	Minimum	5.33E+09	1.20E+11	311.0363	3.20E+10
	Standard deviation	3.58E+08	6.77E+09	5.839446	1.77E+10
PP	Mean	7.43E+09	1.86E+11	280.1097	9.59E+10
	Maximum	7.63E+09	2.30E+11	311.9938	1.08E+11
	Minimum	7.06E+09	1.47E+11	240.1823	8.43E+10
	Standard deviation	3.28E+08	4.18E+10	3.657515	1.17E+10
Total	Mean	6.41E+09	1.45E+11	365.5354	6.87E+10
	Maximum	7.63E+09	2.30E+11	482.3294	1.08E+11
	Minimum	5.33E+09	1.20E+11	240.1823	3.20E+10
	Standard deviation	7.80E+08	3.53E+10	7.775331	2.43E+10

There is a large difference in the average export value of cut flowers between the two different diplomatic relations with Ethiopia. For example, the average export value of cut flowers was $402 million in EPRDF and $208 million in PP. This has led to a relaxation of diplomatic relations between cut flower importing countries. Evidence suggests that Europe is Ethiopia's largest export destination for horticultural crops, accounting for 80% of exports. North America, Middle East, Far East, some Africa and other countries also source Ethiopian horticultural products. Diplomatic relations between Ethiopia and Europe are currently at its worst, which is having a major impact on the cut flower industry. Average revenue from cut flowers is estimated at around US$365 million between 2011 and 2020, which is very important and needs to be strengthened to alleviate the severe foreign exchange shortage. The cut flower industry received a larger export stimulus during the PP period ($7 billion) than during the EPRDF period ($5 billion). The Ethiopian government provides tax exemptions, loans and subsidies, free or very low rental prices for land, reduced export taxes (very low/no export tax), abolition of export restrictions/requirements, very low export transaction costs and Such. From this figure, we can see that Ethiopia provided an average value of US$6 billion between her 2011 and her 2020. Another important issue affecting the export performance of cut flowers is trade competitiveness. In this study, trade competitiveness is measured as the ratio of the export price index to the import price index. The results in the table show that Ethiopia's trade competitiveness has improved slightly on average over the past decade. This was one of the factors affecting the value of the country's cut flower exports. Average trade competitiveness was (1.86) during the PP period and remained at 1.27 during the EPRDF period. Therefore, the country's trade competitiveness is slightly improved.

4.3 Econometrics result

4.3.1 The effects of diplomatic relation on cut-flower export of the country

The researcher sought to estimate the impact of diplomatic relations on Ethiopia's cut flower exports using a linear regression model. The dependent variable is Ethiopia's cut flower value, and the independent variables are trade competitiveness, export incentives, GDP and diplomacy. Diplomacy is a dummy variable (PP is 1, EPRDF is 0). To avoid spurious regressions, all variables are transformed to natural logarithms and robust standard errors are used in regression. All classical tests were performed prior to regression and the regression results are shown in Table 2 below. Double stars indicate significance levels at the 5% significance level. Model variables explain about 96.5% of the total variation (R^2-squared) in the model. The goodness of fit of the model, indicated by the root MSE, indicates that the data best fit the estimated line. Therefore, both the R^2-squared and the square root MSE tell us that the model is correctly specified. Besides, the *F*-value (ANOVA) is significant. That is, not all variables are zero at the same time.

Table 2 Regression result for cut-flower export model

Linear regression model for cut flower export						
All variables in natural logarism	ANOVA	$F(4, 5)$				188.5
		Prob. > *F*				0.0000
		R^2-squared				0.9657
		Root MSE				0.05491
Cut flower export	*Coefficient*	*Std. Err. (Robust)*	*t*	*P-values*	*[95% Conf.*	*Interval]*
Trade competitiveness	–0.3958531**	0.0943703	–4.19	0.009	–0.63844	–0.15327
Export incentives	0.6604833**	0.2435449	2.71	0.042	0.034431	1.286535
GDP	–0.4865771**	0.0858751	–5.67	0.002	–0.70733	–0.26583
Diplomacy	–0.0848763	0.0563961	–1.51	0.193	–0.22985	0.060095
Constant term	10.9672**	3.843048	2.85	0.036	1.088328	20.84607

Note: **Significant at 5% level of significance.

The results in the table above (see Table 2) show that all variables except diplomacy largely determine the value of Ethiopia's cut flower exports. Trade competitiveness is reducing the export value of Ethiopia's cut flowers. This means that Ethiopia's trade terms are deteriorating, which has a significant (and negative) impact on the cut flower industry. It is also observed that economic growth is negatively related to the export subsector. This may be related to the relative appreciation of the currency (meaning the currency has not depreciated as much as it should). It is theoretically proven that currency devaluation promotes exports and discourages imports.

Another important takeaway from the table is that export incentives have a positive (and significant) impact on Ethiopia's cut flower industry. The more export incentives the government provides, the more value and volume of cut flower exports Ethiopia brings to the world. Another issue that can be observed from the table is that all the coefficients of the independent variables have inelastic values. This suggests that Ethiopian cut flowers are less sensitive to trade competitiveness, incentives, diplomacy and GDP (national income). However, relatively speaking, Ethiopia's cut flower sector

has responded better to the level of incentives that the government is offering to the sector. To determine how much diplomatic relations affect cut flower exports, impact assessment regressions were estimated separately for PP and EPRDF, and finally treatment effects were used to estimate how important the differences were. did. The results in Table 3 show that during the PP regime (2018–2021), export incentives contributed positively (and significantly) to cut flower industry growth, while trade competitiveness (worsening terms of trade) contributed to market growth. is suppressed. Export value of cut flowers. On the other hand, the previous government's GDP growth rate (EPRDF) determines cut flower exports (negative). This means that economic growth has not been optimally exploited to improve exports of cut flowers.

Table 3 Does the diplomacy doing its best during EPRDF or PP?

Variables		*(Average treatment effect)*	*(Potential mean effect)*	*(Observed mean effect during EPRDF)*	*(Observed mean effect during PP)*
Trade competitiveness	Coefficient			0.351	–0.767***
	Standard error			(0.539)	(0)
Export incentive	Coefficient			0.0688	1.014***
	Standard error			(0.529)	(1.90e-10)
GDP	Coefficient			–0.462***	0.00671
	Standard error			(0.0624)	(0)
PP vs. EPRDF	Coefficient	–0.284***			
	Standard error	(0.0556)			
Diplomacy during (PP)	Coefficient		3.651***		
	Standard error		(0.0460)		
Constant				4.587	–0
				(4.557)	(3.90e-09)

Notes: Robust standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

The average treatment effect (–0.284) was significant at 10%, implying an average 28.4% decrease in cut flower export value during the PP regime compared to EPRDF. The potential mean effect (3.651) was positive (and significant), suggesting that diplomacy made a more important contribution to cut flower exports during his EPRDF than his PP regime. In addition, cut flower exports are highly sensitive to export incentives during the PP regime (1.014). Therefore, based on this figure, it can be said that this government needs to do more to improve diplomatic relations between the major importers of cut flowers.

4.3.2 The effectiveness of government export incentive on export sector

Export stimulus packages are one of the key policy tools used by governments regarding export promotion strategies. To determine the effectiveness of export incentives for cut flower exports, he divides the government's export incentives over the past decade (2011–2020) into two categories. 2014, 2015, 2018, 2019, 2020) and other periods (2011, 2012, 2013, 2016, 2017) identified as low period export section. Based on this category,

two separate regressions are created comparing high incentives versus low incentives offered to exporters. So the following table shows the big difference between the two scenarios.

Based on the results in Table 4, both GDP and trade competitiveness have had a negative (and significant) impact on the cut flower export subsector during periods of high incentives. On the other hand, three variables (diplomacy, trade competitiveness and GDP) are negatively (and significantly) associated with the cut flowers export sub-sector. The analysis shows that Ethiopia has failed to capitalise on none of these (comparative trade advantage, diplomatic advantage and economic growth advantage), which are the main reasons for its poor performance. The value of the average treatment effect (0.234) was significant at 5%, which means that the export value of cut flowers in the periods when export incentives were high (2014, 2015, 2018, 2019, 2020) was 23.4% above the period during low export incentive scenario (2011, 2012, 2013, 2016, 2017). Political diplomacy was less effective in promoting cut flower exports in scenarios with high export incentives, and reduced export values in scenarios with low export incentives. Therefore, it can be concluded that export incentives for cut flower exports as the best promotion strategy are of great importance, rather than diplomacy, when it comes to choosing the best cut flower export promotion strategy.

Table 4 Effectiveness of government export incentives on export sector

Variables cut-flower export		*(Average treatment effect)*	*(Potential mean effect)*	*(Observed mean effect during high export incentive)*	*(Observed mean effect during less export incentive)*
Trade competitiveness	Coefficient			–1.545***	–0.418***
	Standard error			(0.535)	(0.0431)
Diplomacy	Coefficient			0	–0.0952***
	Standard error			(0)	(0.0241)
GDP	Coefficient			–0.389***	–0.311***
	Standard error			(0.0351)	(0.0344)
High export incentive vs. low export incentive	Coefficient	0.234**			
	Standard error	(0.101)			
Low export incentive	Coefficient		3.389***		
	Standard error		(0.156)		
Constant				52.74***	22.15***
				(13.33)	(1.455)

Notes: Robust standard errors in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

5 Conclusions

As one of the developing countries in the world, Ethiopia depends mainly on the export of commodities such as agricultural products (coffee, chat, flowers, oilseeds, livestock), minerals and other commodities. However, by their very nature, commodity exports are less likely to affect the balance of payments, currency, growth, etc. International trade is

a very important part of international relations. International relations can have a significant impact on the volume and value of the export sub-sector. However, Ethiopia's cut flower sector has performed poorly (below expectations) despite its significant impact on the country's foreign exchange earnings. Ethiopia is the fifth largest exporter of cut flowers in the world and second only to Kenya in Africa, but contributes only 2.3% of the global market. This study therefore aimed to measure the importance of diplomatic relations among the Prosperity Party (PP) compared to the EPRD party in promoting cut flower exports. It also needs to identify the challenges faced by the cut flower export sub-sector. Finally, the study must determine the impact of government export incentives on export promotion.

This study used both qualitative and quantitative approaches to achieve its objectives. Key informant interviews with cut flower exporters were conducted to identify the main challenges of the sector. We use economic regression to estimate the impact of the effects of diplomatic and export incentives on the value and volume of the cut flower industry. The study identified the top four challenges (based on severity) for the Ethiopian cut flower industry includes low social acceptance of the sub-sector, perishable commodities, inadequate infrastructure necessary for export, competition from other exporting countries, lack of adequate compensation and inadequate foreign markets for corresponding orders.

Ethiopia's cut flower industry is responsive to trade competitiveness, export incentives, GDP growth and diplomacy. This means that changing any of the factors will significantly improve the country's export promotion. The cheap labour slogan of the country has caused sectoral labour instability, contributing (significantly) to the decline in cut flower exports. The diplomatic relations under the EPRDF regime has raised cut-flower export more significantly than the PP regime. This was mainly due to change in county's trade partner from the west to the east (following regime change from EPRDF to PP). As a result, diplomatic relation during the PP regime has significantly reduced cut flower exports by 28.4% compared to EPRDF regime. The export stimulus has wide-ranging impact on cut flower exports. High export stimulus decreased the volume of cut flower exports by an average of 23.4% compared to the low export incentives scenario. The level of trade competitiveness spiked (significantly) during the high export incentive scenario. More importantly, if the country has make choice, the improvement in diplomacy is more fruitful than export incentive policy in excelling cut-flower export.

The private investment ownership mentality of the society around investment projects are crucial for the successfulness of any FDI. In order to improve such mentality, the private sectors may provide various social welfare improving investments like constructing health centre, education, roads, job opportunities for nearby society and providing fair and justifiable compensation for property owners. The absence of private cut-flower waste disposal system has also posed serious negative externality and government need to consider the establishment of separate areas for cut flower investment, waste disposal and management. Besides, the conducive working environment (workplace safety) need to be standardised.

The diversion of diplomatic ties from west to the east has plummeted the cut-flower export that has been a core for Ethiopia's foreign currency generation. Therefore, Ethiopian government should stop and think with whom it should collaborate. Especially, cut-flower industry's recent growth status has clearly figured out how important the west were for the Ethiopian Economy.

Export competitiveness level of Ethiopia need be improved through export incentive and devaluation strategies. These are observed to significantly improve the terms of trade. The current exchange rate, is not sufficiently revealing the true scarcity of foreign currency, has blowing impact on FDI and export promotion strategy of the country.

6 Limitation of the study

The importance of economic diplomacy in international trade cannot be denied, especially in today's ever-changing political landscape. In recent times, the tensions between the western and eastern blocks have reached a critical stage, leading many countries, including least developed ones, to prioritise political-led economic policies over economic-led political decisions. In order to check theoretical dynamism of the current economic diplomacy, it is vital to extend similar types of studies. While this research focuses specifically on Ethiopia, it would be valuable to conduct similar studies on a larger scale, encompassing cross-regional units of analysis, longitudinal trans-boundary panel data, which unfortunately was not considered in this study.

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