Investigating the Contribution of Foreign Direct Investment to Coffee Crop Production: A Case Study of Burundi

By

KANYANA, Aline

THESIS

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

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Committee in charge:

Professor Lee, Seung-Joo, Supervisor

Professor Michell, Anthony

Professor Liu, Cheol

Approval as of May, 2023

Abstract

This paper uses a mixed methodology to investigate the contribution of FDI to coffee crop production in Burundi and what can be done to attract FDI in the coffee sector. It also examines the major causes of the decline in coffee production, its causes. Time series data analysis from 1980 to 2021 was used to track the annual production levels and exports and to determine the extent of the decline in production. From the analysis of the collected data, the study finds that 1) the main reasons for the coffee production decline were high cost of production, the aging of coffee trees, and marginal competition. 2) The benefits to Burundi in increasing coffee production included contributions to the national GDP and job creation. 3) The main contribution from FDI that can increase coffee production is strengthening cooperatives' governance and management practices, distributing improved inputs, replanting coffee trees, and increasing the number of wet mills or coffee washing stations in leading coffee-producing regions. 4) Government regulation (no investor ownership), corruption, and competition were the main barriers to FDI in Burundi, and 5) Burundi's actions to attract FDI and improve the investment climate were good governance and a stable and reasonable exchange rate. This paper proposes strategies to adopt and upgrade the skills using TOWS frameworks, keep on training farmers, motivate youth who work in the sector, assure transparency, and ensure that all coffee companies together can achieve the expected results.

Keywords: Foreign direct investment, coffee crop production, Burundi.

DECLARATION

I, Kanyana Aline, confirmed that this was my original work, and no one offered help. All citations and references have been correctly identified. I am doing this research project as part of the requirements for conferring a Master's degree in Public Management (Strategic Management as the first specialization; Finance and Macroeconomics as the second specialization) at the KDI School of Public Policy and Management.

Student Signature:

Date: 10/3/2023

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LIST OF ABBREVIATIONS

AFCA	African Fine Coffees Association
APROCO	African Promotion Company
ARFIC	Autorité de Régulation de la Filière Café (Authority Regulator of the Coffee Industry)
BRB	Banque de la République du Burundi (Bank of the Republic of Burundi)
CWS	Coffee Washing Station
EAC	East African Community
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
KALICO	Kahawa Link Company
OCIBU	Office du Café du Burundi (Coffee Board of Burundi)
ODECA	Office pour le Dévelopement du Café (Coffee Development office)
SODECO	Société de Déparchage et Conditionnement du café (Society for Stripping and Packaging Coffee)
SOGESTAL	Société pour la Gestion des Stations de Lavage (company for the management of washing stations)
US	United States

USAID United States Agency for International Development

SECTION 1: INTRODUCTION

1.1. Foreign Direct Investment and Coffee Crop Production

There has been a growing recognition that FDI is a key instrument in economic development because it provides the financial resources required to spearhead growth in industries. For example, in Burundi, there has been a growing interest in finding out the extent of the contribution of FDI to Burundi's coffee crop production. The topic has attracted considerable attention, with researchers arguing that FDI seems to be a potential contributor to ending the government's investment gap and socio-economic development (Hallam, 2011; Klaus et al., 2011; Rosenberg et al., 2018; Santangelo, 2018; Santos et al., 2014). The focus of attention on the coffee sector is driven by the fact that coffee exports contribute about 6% of the country's GDP (see Lenaghan et al., 2018). Apart from foreign exchange mobilization, the coffee sector helps to improve incomes for many rural households, reduce poverty, and maintain macroeconomic stability. This combination makes coffee production a strategic and priority sector for the government, investors, and development partners. Furthermore, like other East African economies, Burundi's economic structure is dominated by agriculture. Therefore, agriculture is a key determinant of poverty and hunger reduction, and foreign income in the country. More than 90 percent of Burundians work in the sector and are an important source of government revenue as the country's growth and development are closely linked to agricultural production and exports (WFP, 2019).

Nonetheless, coffee crop production in Burundi has been in structural decline for over 41 years. For example, in 1980, the production was 27,960 metric tons, but in 2021, it was 13,800 metric tons, representing a decline in production of almost 14,160 tons (indexmundi, 2021). But given the importance of this sector to the Burundian economy, the government has instituted some policies to attract FDI into the sector to bridge the financial resource gap. However, the extent of the decline in production over the past 41 years is still questionable. Lenaghan et al. (2018) state that although new foreign direct investment is flowing into the Burundian agriculture sector annually, there is a persistent decline in coffee crop production. This shows that there could be some factors or issues that are limiting the effectiveness of FDI to impact positively on the coffee sector, hence low production, and low exports. Since FDI has been marked as one of the strategies to boost coffee production in Burundi, it is imperative to investigate the impact and contribution of FDI on the coffee sector.

Previous research has mainly focused on finding the causes of the decline of coffee crop production over the past 41 years rather than examining the impact and contribution of FDI on the coffee crop production sector. Therefore, this research paper intends to fill this gap in the literature by investigating the extent of the contribution of FDI to coffee crop production in Burundi for the period 1980–2021 and observing the relationship between FDI and coffee crop production.

1.2 Background

Burundi is a small country in East Africa and one of the least developed countries in the world (UNDP, 2019), with a population of 11.89 million (Worldometer, 2020) and an area of 27,834 square kilometers (World Bank, 2019). Over the past five years, most Burundians have lived in severe multidimensional poverty, and recurrent ethnic violence (Uvin 2009; UNDP 2019).

Burundi's economic position is critical due to the entrenched corruption, social marginalization, impunity, unpredictable nature, complete lack of accountability, and clientelism that have caused infrastructure destruction and poverty (Uvin, 2009).

Burundi is the most fascinating coffee-producing country in the world. It is one of the only two African countries to have competed for the top prize in specialty coffee (Rosenberg et al., 2018). Burundi's economy is highly dependent on coffee production, which accounts for 40% of total exports (ICO Trade Flows, 2018), an extremely high figure in modern times. It is also ideal for growing coffee, with altitudes ranging from 1,500 to 2,200 meters and a temperate tropical climate with abundant rainfall. It also grows large quantities of Red Bourbon, one of the most popular varieties of coffee, and primarily uses wet processing methods to preserve quality (Rosenberg et al., 2018).

Coffee was introduced to Burundi in the 1930s by the Belgians, who had brought over Arabica coffee seedlings. The coffee industry was privately owned for more than ten years after the country gained independence in 1962, and because of ongoing political upheaval, the quality and quantity of coffee produced during that time slowly declined (Evenson, 2019). Despite the value of coffee to the economy, Burundi is continuously experiencing a decline in coffee production levels since 1990, which has reduced the income of coffee growers (Lenaghan et al., 2018).

Despite all these challenges, coffee production remains one of the major economic activities in Burundi. The coffee industry provides income for roughly 800,000 families, which represents 40% of the population who grow coffee in Burundi (World Data Atlas, 2020). Coffee farming provides 60–80 percent of foreign currency revenues to the Burundian economy (Further Africa, 2020; Thiruchelvam et al., 2018). For a sizeable part of rural families, the coffee industry helps to achieve the objectives of improved income distribution and poverty reduction. It also supports macroeconomic stability by mobilizing foreign earnings.

Together, these factors make coffee a strategic target for programs supported by government funding as well as donations, particularly in light of the 2008 wave of liberalization and privatization initiatives.

By bridging the financial resources gap in agriculture and other industries, FDI seems to be one of the answers to developing countries' economic progress. Burundi established the API in 2008 to develop and promote investment in the country to boost economic growth and openness by welcoming, assisting, and supporting investors (US Department of State, 2021). However, the policy concern for Burundi, like other African countries, is that although it has been theoretically established that FDI inflows help spur the growth of industries, particularly the coffee sector, the results seem not to be consistent with the Burundi economy suggesting the existence of major challenges that prevent meaningful investors’ interest in the country as an investment destination (Irakoze & Yu, 2020).

1.3 Statement of the Problem

Although there is evidence of new FDI inflows into the Burundian agriculture sector annually, there is a persistent decline in coffee crop production. This demonstrates that either FDI is insignificant in enhancing the growth of the coffee sector, or the amount of FDI inflows is insufficient to cause growth; alternatively, there may be other factors or issues limiting the effectiveness of FDI to positively impact the growth of the coffee sector, resulting in the current low levels of production and exports. The study seeks to investigate why coffee production is continuously on the decline despite having evidence of new FDI inflows into the coffee sector since the country has hailed attraction FDI as one of the best strategies to revamp coffee production.

1.4 Research Objective

This research paper seeks to investigate the contribution of FDI to coffee crop production in Burundi, as coffee farming is important to the Burundian economy, as well as establish the factors that have contributed to the decline in coffee production which may be possibly limiting the effectiveness of FDI in reviving the coffee sector. The study will also use a case study of Vietnam to show how coffee production and exports have increased with FDI support and draw lessons for Burundi.

1.5 Research Questions

1. What are the main reasons for the decline in coffee production in Burundi?
2. Should Burundi focus on increasing coffee production? why? What are the benefits?
3. Can FDI contribute to increased coffee production? case example of other countries such as Rwanda, Uganda, and Vietnam?
4. What are the main barriers to FDI flow in Burundi?
5. What should Burundi do to attract FDI and improve the investment climate?

1.6 Structure of the research

The remainder of the paper is structured as follows: Section 1 highlights an introduction and background on coffee crop production in Burundi. Section 2 outlines a brief literature review on the contribution and impact of FDI on coffee crop production in Burundi. Section 3 introduces the methodology used in data collection and analysis procedures. Section 4 shows the results gathered during the interview. Section 5 discusses the results obtained. Section 6 gives the conclusion of the paper, recommendations, implementation for future research, and limitations of the study.

SECTION 2: LITERATURE REVIEW

2.1. Definition

At the outset, it is imperative to define the key concept in this paper, which is FDI as well as highlight the debate that has always been there about its impact on the economy of the host country. Various organizations and scholars have defined FDI in different ways to reflect different contexts and concepts, such as economic concepts established by the System of National Accounts (SNA, 2008), the Balance of Payments and International Investment Position (IMF, 2008), direct investment positions, and related direct investment financial and income flows (OECD, 2008). However, they all seem to have a common understanding that it is a form of investment by a source country in the host country, hence the majority just adopted the OECD benchmark definition.

Many researchers have defined FDI by looking at a specific target, for example, the contribution to the increase in the economic growth of a host country (Dritsaki & Stiakakis, 2014; see also Sahraoui et al., 2015; Fadhil & Almsafir, 2015). They argue that FDI is extremely significant in all nations, particularly emerging ones; it is even regarded as the engine of economic growth and development. How do the Organization for Economic Cooperation and Development (OECD) and the Corporate Finance Institute (CFI) define FDI? CFI (2022) defines FDI as an investment by an entity in one nation into a business or corporation in another country to develop a long-term stake. According to the OECD (2022), FDI is a sort of cross-border investment in which a resident of one economy acquires a long-term interest in and considerable influence over a resident of another economy. The OECD benchmark definition became the most preferred as it reflects various concepts and serves several purposes, such as providing a single point of reference for FDI statistics compilers and users, providing international standards, and providing an objective basis for measuring the difference in methodologies, among others.

The FDI concept is quite ubiquitous, easy to come by, and has been well documented by many globally recognized institutions and researchers, but there is still no consensus on whether it should be promoted as an instrument for enhancing economic growth or not. On one hand, proponents of FDI argue that FDI results in a rise in the host country's exporting capabilities, leading to an increase in foreign exchange earnings, particularly in developing nations. FDI also improves the availability of capital for domestic investments, promotes the creation of new employment, strengthens technological transfer, and boosts overall economic growth. (Dritsaki & Stiakakis, 2014; see also Susic et al., 2017).

On the other hand, opponents of FDI argue that foreign investment may have a detrimental impact on domestic firms if foreign investors force out indigenous manufacturers and become monopolists. The balance of payments of the host country may suffer as a result of a significant outflow of investor profits or excessive input imports. CFI (2022) states that despite numerous positives, FDI has two major drawbacks: displacement of local businesses and the profit repatriation entrance of giant enterprises like Walmart, which may replace local businesses. Walmart is frequently chastised for pushing away small firms that are unable to compete with its reduced prices. The primary concern with profit repatriation is that businesses won't reinvest profits in the host country. As a result, the host nation experiences significant capital outflows. As a result, many countries have regulations that somewhat restrict foreign direct investment, but has Burundi experienced this?

2.2 Global and regional perspectives of FDI in Burundi coffee crop production

According to Parfait (2020), coffee is the second-most exported raw resource after oil and is considered a global good since its production and consumption are not limited to a single state or continent but instead promote global economic, social, and cultural interconnectedness. Although globalization has had many beneficial consequences, it has also had a number of detrimental economic repercussions (such as price decreases because of competition) and environmental effects (such as climate change) that may be harming the availability of high-quality coffee. There are 120 million small producers worldwide, 25 million of them in Africa, and their livelihoods are negatively impacted by this sector's negative spillover effects.

2.2.1 Global and regional perspectives on FDI

- FDI and growth (FDI influences growth by raising total factor productivity and increasing the efficiency of resource use (Li et al., 2021; UNCTAD, 2022; An & Yeh, 2020). However, some researchers find the effect to be small (see OECD, 2002).
- Some researchers found evidence that FDI crowds out domestic investment (Jude, 2015; Ahmed et al., 2015) but some researchers concluded that FDI is complementary to FDI since it increases domestic investment (see Fruman & Forneris, 2016; Naila et al., 2016).
- FDI and trade and investment (positive relationship - see Whiteaker, 2020; Sohail et al., 2021) FDI and trade and investment (negative relationship - see Soomro et al., 2022)
- A positive relationship between FDI and technology transfers (see Osano & Koine, 2016; Mohamed et al., 2021; Newman et al., 2015) and a negative relationship (see Liu, 2008).
- A positive relationship between FDI and human capital enhancement (see Van et al., 2020; Hoang et al., 2019); a negative relationship (see Demissie, 2015).

2.2.2 Global and regional perspectives on FDI on coffee production

There is substantial evidence that FDI is beneficial, investors' perceptions of Africa as a destination for investments have been tarnished by armed conflict and terrorism, policy uncertainty, macroeconomic stability, and insufficient and corrupt legal systems in some African countries. As a result, inflows tend to be lower, which minimizes the benefits that follow (see Gerlach & Liu, 2010; KPMG, 2016; Ferreira, 2016; Kubi et al., 2020; OECD, 2018). The study seeks to find out if this has also been the case with Burundi.

2.2.3 What does the literature say about FDI and coffee production in Burundi?

There is a scarcity of empirical research on the impact and contribution of FDI to the coffee sector (Ajayi, 2008). Only a few studies investigate the causes of the decline of the coffee sector and explore ways of boosting the sector (but see World Bank, 2008; Lenaghan et al., 2018; Feller, 2019) and very few studies look at the impact and contribution of FDI on the overall growth of the economy (but see Ndoricimpa, 2014).

According to UNCTAD (2014), FDI inflows to Burundi increased by 65 percent on average each year between 2004 and 2013, with a significant year-to-year variation. Burundi’s FDI of USD 6.8 million in 2013 was nearly twice as high as at any other point in the previous decade and in 2020, net FDI inflows for Burundi was 8.47 million US dollars. Nonetheless, this remains East Africa's lowest FDI influx. UNCTAD (2020) reported that policymakers are assisted by the World Investment Report, which monitors global and regional FDI patterns and documents national and international investment policy developments. However, because of the COVID-19 epidemic, worldwide flows of FDI plummeted to $1.5 trillion in 2019, significantly below the trough hit during the global financial crisis and erasing the already sluggish rise in international investment over the previous decade. Flows to developing nations will be particularly heavily hit since export-oriented and commodity-linked projects will be particularly hard hit.

Hallam (2011) also argued that FDI provides developmental benefits such as technology transfer, employment creation, and infrastructure development. Furthermore, FDI in agriculture is considered a viable approach for investing in economies to improve national food security, especially given the fluctuating global food markets (Klaus et al., 2011). According to Lenaghan et al. (2018), apart from foreign exchange mobilization, the coffee sector helps improve incomes for many rural households, reduce poverty, and maintain macroeconomic stability. Coffee production is now a strategic and priority sector for the government, investors, and development partners.

Having discussed the significance of FDI, it is also important to shed light on why coffee production is important for socio-economic development in the region and the world over. One of the main sources of revenue for many African countries that are agro-based is coffee. In Rwanda, the primary source of family income and export revenues is coffee farming, and it is shown that coffee production generates around 27 percent of all export earnings; therefore, it occupies a special place in Rwanda's economy (Ngango & Kim, 2019). Coffee farming supports the livelihoods of approximately 4 million smallholder farms in Ethiopia, and coffee alone supports the livelihoods of approximately 15 million Ethiopians—16 percent of the total population (ECFF, 2017).

2.2.4 What does the literature say about FDI and coffee production in Rwanda?

For Rwanda to accommodate its growing population and relieve the strain on rural land, 200,000 new employment opportunities must be created annually. Although its export portfolio has expanded in diversity, some weaknesses still exist. Policymakers should investigate the opportunities presented by economy-wide initiatives to deepen the supply chain and enhance incentives in vital industries like tourism, coffee, tea, mining, animal products, and horticulture (English et al., 2016).

From 2009 through 2021, Rwanda's FDI totaled an average of 236.74 USD million, with a record high of 384.46 USD million in 2019 and a record low of 99.92 USD million in 2020 In 2021, Rwanda's foreign direct investment rose by USD 211.90 million (National Bank of Rwanda, 2021).

2.2.5 What does the literature say about FDI and coffee production in Uganda?

Uganda is one of the nations that produces and exports the most coffee-related goods worldwide. Both domestic and foreign income in the nation has benefited greatly from the production of coffee. Additionally, coffee is a major source of employment, particularly for rural smallholder growers (Verter et al., 2015)

2.2.6 What does the literature say about FDI and coffee production in Vietnam?

Vietnam is the world’s second-largest coffee exporter, with a 14.2% market share, having exported its goods to more than 80 nations and territories (VNA, 2022). In 2013, coffee exports made up 17% of all commodity exports and 2% of Vietnam's GDP. Vietnamese industry relies heavily on the production of coffee. Robusta and Arabica are the two types of coffee grown in Vietnam: Robusta accounts for 90% of total production (Cremaschi et al., 2018).

The Vietnamese government raised the foreign ownership limit (FOL) for public companies (excluding banks) to 100% (from 49%) on September 1st, 2015 (Hoang, 2015). The above policy position taken by Burundi is very different from Burundi government which reports that it gives property to foreigners for industrial, commercial, and cultural use and can rent it out, yet full ownership is reserved for Burundians.

2.3 Burundi coffee industry and background

The coffee business in Burundi goes back to the 1960s when the government had little influence over it. After the Belgians imposed such rigorous controls on coffee growing, it earned a terrible reputation. Coffee went out of favor, the quality declined, and finally, most trees were down. Burundi witnessed an upsurge in investment in the 2000s because of its neighboring nation Rwanda's success in regrowing its economy. (Jeavons, 2020).

2.3.1 Coffee product, process, and skill upgrading and export

Burundi's coffee production involves more than 800,000 families, with each smallholder farm cultivating around 250 trees with roughly 122 million coffee trees and a production area of 70,000 hectares. The average coffee cherry production per tree is around one kilogram, which is much below the yields recorded in other coffee-growing locations, such as Asia and Latin America (Feller, 2019).

Table 1

Coffee product process

Production	Primary process	Secondary Process	Exports
800,000 families 3.6 million persons 70,000 ha 122 million plants(trees)	267 Washing plants(cooperatives, public,private,national and international).	9 plants for removing the fleshy pulp(permanent)(public,private,national and international).	72 exporters public4,coop.39,private,national24 and international 5).

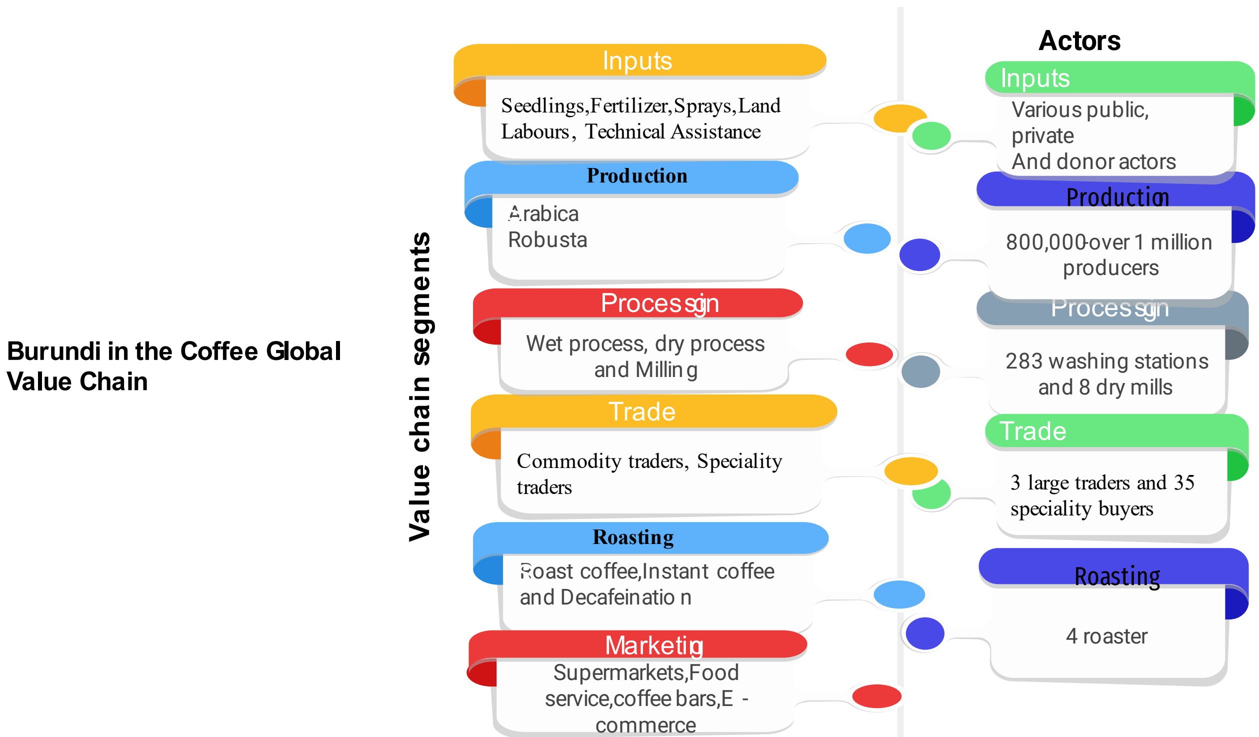
Note. Adapted from Feller (2019)

2.3.2 Coffee Global Value Chain – Burundi

The 13th-largest producer of Arabica coffee in the world, Burundi has a long history of producing coffee. It employs nearly a million people, the majority of whom are smallholder farmers, with one out of every two households producing coffee for monetary gain (Bamber et al., 2014). Commercial-grade coffee that has been entirely washed or has been washed makes up 90–95 percent of the coffee sold in the country. Figure 1 shows the value chain segments and the actors:

Figure 1

Burundi in the global value chain



Notes. Adapted from Bamber et al., (2014); Lenaghan (2018), Feller (2019), Rurema (2019).

2.3.3 Main Growing Regions

While coffee fields may be found all over Burundi, there are a few primary growing locations where temperature and altitude result in a diversity of diverse tastes in their coffee.

Table 2

Five main coffee-growing regions

Regions	Location	Types of coffee
1. Kirimiro (Gitega)		The Kirimiro region of Burundi lies in the country's center and is close to other favorable coffee-growing areas. The northern region,

		approaching Buyenzi, is where it is most profitable to produce coffee. Kirimiro has typical temperatures of 12 to 18°C, an annual rainfall of around 1,100 mm, a high altitude, and mineral-rich soil that is ideal for growing coffee trees. A coffee lab is in Gitega and oversees assessing the quality of coffee exports.
2.Bweru(Muyinga)	Northeastern Burundi,	In the northeastern section of Burundi, the Bweru area shares a border with Tanzania. It is one of the most fruitful areas in the nation, producing some of the greatest coffee beans in the world because to its rich soil, 1800-meter elevation, and 1,300 mm of annual rainfall on average.
3.Bugesera (Kirundo)	also found in northeast Burundi	Despite having generally lower yields than other regions of Burundi, Bugesera has a long tradition of producing high-quality coffee. The area is situated between 1,400 and 1,600 meters above sea level and borders Rwanda. The area provides favorable circumstances for premium producing coffee plants.

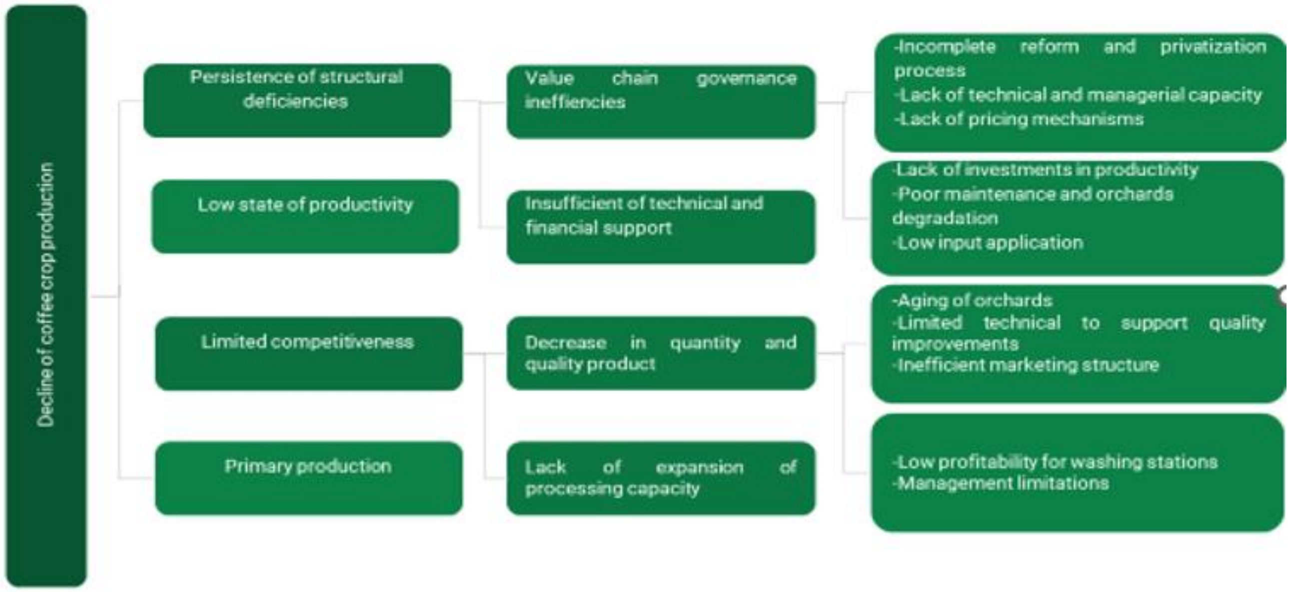
4.Mumirwa (Bubanza)	Northern province - borders Rwanda and the Democratic Republic of the Congo	Another significant area to produce coffee in Burundi is Mumirwa, which shares a border with both Rwanda and the Democratic Republic of the Congo. With an average yearly rainfall of 1,100 mm, its farming heights range from 1,100 to 2,000 meters above sea level. There, temperatures consistently range between 18 °C and 22 °C.
5.Buyenzi (Kayanza & Ngozi)	North, near the Burundi-Rwanda border	Due to its mild climate, which includes an average annual temperature of 18°C and farms that are between 1,700 and 2,000 meters above sea level, Buyenzi is one of the best places in Burundi to grow coffee. This is because the region's climate allows the plants to receive plenty of rain in April and the chance to dry out by July without having to worry about over-ripening.

Notes. Adapted from: Goulding (2022); see also Perfect daily grind (2017); see also Jeavons (2020)

2.3.4 Logic tree of Burundi coffee challenges

Figure 2

Coffee logic tree



Note. Adapted from Feller (2019)

Despite several efforts to boost the performance of Burundi's coffee industry, Feller (2019) has demonstrated that the country's whole economy is experiencing significant instability and declines that cannot be attributed to chance or climatic causes alone. Some of the contributing factors to this state of affairs include:

2.3.5 Positive factors and strategies

Despite all the weaknesses, in 2020, the government decided to re-enter this industry, and there is a positive factor that the World Bank and others are investing in measures to enhance specialty coffee production and demand in the "Global South"(Feller, 2019). This little African nation has to enhance quality throughout the value chain and concentrate on the lucrative specialty coffee markets. Such initiatives will make it possible to distinguish the nation's products (Feller, 2019).

Table 3

Coffee TOWS Framework Analysis

TOWS Matrix of coffee	**External Factors**	
	Opportunities:	**Threats:**
	Upgrading into niche specialty segment (product upgrading) -Improve marketing initiatives to position Burundi as a specialty coffee producer - Possibility of utilizing EAC's reputation for high-quality coffee (Led by Kenya &Ethiopia) -Increase productivity through soil management techniques, rehabilitation of plantations, and pruning (process upgrading) -Improve environmental management of washing stations to position the country as a sustainable coffee supplier.	-Price volatility for commodity coffee on the global market -Declining coffee -Aging producer population &limited engagement by youth -Potato taste -2015 elections undermined both local and foreign investment

	S/O:	**S/T:**
Strengths: - climate and geographic conditions ideal to produce specialty coffee -Tradition of coffee production with many producers relatively cheap land and labor costs - Long-standing washing station culture encourages the creation of bears of greater grade. -improved business environment	-Upgrading the product into specialty coffee production -Improve marketing through an improved business environment -Upgrading the process and environmental management through a well-established washing station	-Production of specialty coffee to meet the global market demand -Improved business environment and support the production to avoid the declining coffee and potato taste -Engage more youth through production with many producers
Weaknesses: -Low productivity (old trees, lack of good agricultural practices, poor access to inputs, etc.) -Transportation of infrastructure is weak,	**W/O:** -Avoid low productivity by upgrading the product and soil management techniques -Improve Human capital by improving marketing initiatives.	**W/T:** -Inadequate water management, soil acidity& nutrient depletion causes the decline of coffee

increasing costs both internally
and for export
-Lack of access to finance
places the burden of crop
financing on private washing
stations
-Inadequate water
management, soil acidity&
nutrient depletion
-Human capital: Lack of
administration, management,
and marketing skills at all
levels

Notes. Adapted from Bamber et al., (2014)

The motivation for me to research this issue is backed by the need to ascertain the impact of FDI on coffee crop production, identify the gaps within the existing literature, and occupy that niche through this research. I am also using Vietnam as an example to draw lessons on the strategies and policy actions that can be employed to make FDI more effective in boosting coffee production.

SECTION 3: RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes the techniques utilized for the study: research design, sample procedure, data gathering instruments and methodologies, limits and merits, and ethical issues. The goal of the chapter was to demonstrate that the findings were accurately gathered, acquired, processed, presented, and evaluated.

3.2 Study area

This research was conducted in Burundi, a small country in East Africa's Great Lakes area, surrounded by Rwanda to the north, Tanzania to the east and south, and the Democratic Republic of the Congo to the west. Burundi has a land area of 27,834 square kilometers and a population of 12,857,000 people (OEC World, 2022).

A purposive sample was drawn from Bujumbura, which was formerly the political capital (as of 2019) but is now the economic capital, with Gitega, the second town, serving now as the capital's political role. Some of the interviewees were drawn out in Muramvya-Kiganda commune (62.4 kilometers) and Gitega (98.9 kilometers) from Bujumbura. Interviews were conducted in French, which is the official language, and for more explanation, sometimes they were using the native language, which is Kirundi, and some used the English questionnaire in filling it out.

3.3 Study design and data collection method

The research follows a mixed-methods approach. It combines qualitative and quantitative data. Interviews were conducted with the use of a data collection tool (a questionnaire). We conducted nine interviews, one with each company's person in charge of coffee crop production.

Four people and I (the interviewers) collected the data. The four went to the workplaces of the people to be interviewed and presented them with a questionnaire, which they completed in the presence of the interviewers. They first explained the content of the questionnaire in detail to the people to be interviewed. I emailed some of them, sent them the link to the questionnaire through Google survey forms, and texted them through WhatsApp; the interview was done through a call.

3.4 Companies of Interest and the Unit of Investigation

A company is a commercial structure that is legally distinct from its owners. It is a complex corporate structure with greater setup and administration costs because of additional reporting requirements and higher-level legal duties. A corporation's structure is better suited to a medium-sized to large firm due to its structure, expenses, and legal duties (NSW, 2019). For this study, the companies involved in coffee crop production were interviewed.

3.5 Sampling (sample size)

The following coffee companies were included in this study: APROCO, BUDECA, BRB, INTERCAFE, KALICO, MICOSTA 2, MURAMBI COFFEE, ODECA, and COCOCA. They were not chosen at random because two of them (BUDECA and MICOSTA 2) are key players in the coffee industry. Companies and respondents from the Gitega countryside, Muramvya, and Bujumbura city participated in the Interview. After determining the sample size, the decision to choose the mentioned companies was made with the assistance of a statistician from the Institute of Statistics and Economic Studies of Burundi (ISTEEBU). According to him, their operations make up between 85 and 90 percent of all those that are connected to the coffee industry in Burundi. Therefore, purposive sampling was used.

However, here is the description of the nine companies with which interviews were conducted:

1. **ODECA** (Office for the Development of Burundi Coffee) is located on Tanzania Boulevard in Bujumbura City. With the foundation of the Office for the Development of Coffee (ODECA) on January 7, 2020, the state seized all its legacies, and the state-owned

companies were liquidated. Only the staff of ARFIC (the Regulatory Authority of the Coffee Sector) were transferred.

2. **The BRB** (Bank of the Republic of Burundi) is in Bujumbura, in Government Avenue. Its main objective is to foster price stability and a sound financial system. It also plays a central role in maintaining macroeconomic stability. In addition, regarding the coffee sector and FDI, it oversees the setting up of export prices for coffee and the number of metric tons to be exported each year and is responsible for the FDI contribution to Burundi.
3. **INTERCAFE**: is located on Rue Pierre Ngendanumwe in Bujumbura. It is Burundi's coffee interprofessional association. It establishes a structure for collaboration and decision-making for the whole coffee industry. Intercafe Burundi oversees "Café du Burundi" extension services, promotion, branding, and marketing (AFCA, n.d)
4. **APROCO** (African Promotion Company) is in Muyinga-Mwakiro commune; it purchases all its coffee from small individual growers and processes it in its privately-owned processing plants. Their objectives are the production and promotion of specialty coffee to increase production, the increase in the price of cherries to producers, the production of organically grown coffee, the promotion of fair trade, maintaining the natural balance, and protection of the environment.
5. **BUDECA:** has a population of about 30,000 and is situated in Gitega, Burundi's new capital. Since there are over 3,000 employees at the mill, the majority of whom are hand pickers, Budeca employs nearly 10% of Gitega's total population for at least half of the year (during the milling season). The mill typically produces 300 containers of 320 bags of coffee each year, and before shipping, coffee is delivered to Budeca, the biggest dry mill in Burundi (Sucafina, 2019).

6. **KALICO** (Kahawa Link Company) is in Bujumbura in Revolution Avenue. It is a family-owned company with seven washing stations located in the northern east of Burundi. To ensure traceability, Kalico invested in an app called GESTAL. It helps identify each parchment lot's origin and the farmer's identity. Five of its washing stations are located in KIRUNDO province and two are in MUYINGA province (KALICO, 2018).
7. **Murambi coffee**: This washing station operates at an altitude of 1,640 meters and processes coffee cherries from neighboring small farms, which thrive at such a high altitude. It produces a fully washed Bourbon from the Muramvya region of Burundi. This coffee is processed at the Murambi Coffee Washing Station (DrinkTrade, 2022).
8. **Micosta 2**: is a female-owned and led coffee company. It was founded in 2012, following the privatization of the Burundi coffee industry. Micosta's mission is to develop the culture of coffee, work with coffee growers, and encourage and supervise the associations of women and young people. It produces an exquisite Arabica Bourbon and grows over 155 hectares in Muyinga Province in northern Burundi, near the borders with Tanzania and Rwanda.
9. **COCOCA**: It is in Bujumbura city and is a union of coffee farmer cooperatives founded in October 2012 by cooperatives that have established their own depulping and washing units. The COCOCA gathering presently includes 33 cooperatives with over 27,000 coffee producers as members, 34 washing stations, and a Horamama Coffee Dry Mill. It enables financial access, quality management, accreditation, and market access for cooperatives. Its objective is to enhance specialty coffee processing skills, create certified coffee, promote coffee members, and strengthen capacity.

The case study's groundwork came from interviews with a number of executives from the public and private sectors.

People who are involved in the production of coffee were chosen as interviewees within a corporation. Even though it is not involved in coffee production, BRB is in charge of calculating the cost of coffee, the number of metric tons exported annually, and whether or not it has increased or decreased. It also takes part in the statistical selection process. BRB is also in charge of FDI contributions to Burundi.

Table 4.

Public coffee companies versus Private coffee companies

Public coffee companies	Private coffee companies
BRB	MICOSTA 2
ODECA	KALICO
	MURAMBI COFFEE
	APROCO
	BUDECA
	INTERCAFÉ

Note. The table shows the names of the private and public coffee producers in Burundi

3.6 Sources of Data

The responses from Burundi Republic Bank (BRB) and seven other coffee companies, which are regarded as trustworthy data sources, were used for the analysis.

The goal of this research article was to investigate the contribution of FDI in coffee crop production in Burundi as well as the variables leading to the fall in coffee output in Burundi during the last 41 years (1980 to 2021), for which I utilized both primary and secondary data. Primary data is information gathered by the researcher for a specific reason. Alternatively, primary data are those that a researcher or organization obtains for the first time to conduct a statistical investigation. Primary data are facts that researchers independently gather from reliable sources like interviews, surveys, experiments, and so forth. Primary data is seen as the best type of data for research and study because it is often obtained directly from the source of the data. To put it another way, primary data are the measurements made and recorded during a first-person investigation (Agarwal, 2019).

3.7 Data Analysis, Interpretation, and Presentation

All the data gathered throughout the interview process was thoroughly evaluated, interpreted, and presented. Tables and visuals were used to illustrate the key results. Quantitative and qualitative approaches were applied in data collection, analysis, and processing. Quantitative research is expressed with numbers and graphs.

It is employed to confirm or validate assumptions and hypotheses. Common quantitative procedures include surveys with closed-ended questions, experiments, and observations that are documented as numbers. Open-ended interview questions, written accounts of observations, and literature reviews that explore ideas and hypotheses are typical qualitative techniques. Qualitative research is expressed through language. Understanding thoughts, ideas, or experiences is done with it (Streefkerk, 2019).

In the current study, the collected data were fed into the portable computer with the use of a master table (spreadsheet) in Microsoft Excel. These data were analyzed by the content analysis method. The data presentation was done using Microsoft Word and PowerPoint tools.

3.8 Ethical Considerations

All participants in this study were given the following assurances: informed consent, anonymity, confidentiality, risk of harm, and communication of results. All coffee companies and interview respondents received a promise that any sensitive information revealing their names and interview responses would be kept private.

SECTION 4: RESULTS

Table 5

Companies interviewed.

Public coffee companies	Private coffee companies
BRB	MICOSTA 2
ODECA	KALICO
	MURAMBI COFFEE
	APROCO
	BUDECA
	INTERCAFÉ

Many companies among those interviewed were from the private sector. This is due to the fact that the coffee sector in Burundi has been privatized since 2005.

Table 6

Main reasons for declining coffee production

Variables	**Number of Responses**	**Reasons for the choice**
Cost/Price	8 companies named this variable to be the reason for declining coffee production.	The real price paid to the producer has been deteriorating for nearly 20 years. Coffee farmers are demotivated.

		Invest a lot and gained less
Aging	6 companies named this variable to be the reason for declining coffee production.	Aging trees give a poor yield compared to what they gave before.
Marginal competition	4 companies named this variable to be the reason for declining coffee production.	A state-owned company (ODECA) operates as a regulator and economic operator in the coffee sector. Limited competitiveness of the firms involved.
Government regulation	3 companies named this variable to be the reason for declining coffee production.	The texts governing the coffee sector are not well communicated to all companies.
Variables	**Number of Responses**	**Reasons for the choice**
Taste	2 companies named this variable to be the reason for declining coffee production.	climate change, unexpected pest hit up of coffee trees, soil infertility, lack of supervision and agricultural inputs.

Quality	2 companies named this variable to be the reason for declining coffee production	climate change, unexpected pest hit coffee trees, soil infertility, lack of supervision and agricultural inputs
Insufficient infrastructures	2 companies named this variable to be the reason for declining coffee production	Lack of goods roads and electricity Insufficient number of wet mills or coffee washing stations
Covid-19 Outbreak	1 company named this variable to be the reason for declining coffee production	The pandemic has negatively impacted all economic activities without sparing the coffee sector
Product	1 company considered this variable as a reason for the coffee production decline	Low production as a result of inadequate technical and financial support for farmers
Others: climate change, unexpected pests hit the coffee trees, soil infertility, lack of supervision and agricultural inputs.	2 companies named these variables to be the reason for declining coffee production	Floods, hotter and drier seasons, and weather systems.

Table 7

Benefits for Burundi to focus on increasing coffee production.

Why?		**Benefits**	
Reasons	**Number of responses**	**Benefits**	**Number of responses**
Contribution to the national economy	9	Job creation	**8**
Attracting more FDI	4	Technology	2
Others: contribution to the social and economic development of the community of coffee growers (cooperatives)	1	Others: Access to the more profitable international market	1

All the respondents to the questionnaire answered yes to the question about whether everything must be done to increase coffee production in Burundi. The reasons are given above in the table (contribution to the national economy and attraction of more FDI). The employees reported that coffee is the primary source of income for the nation (foreign currency) and that it has provided jobs for numerous individuals. The benefits of increased production include the creation of more jobs, Access to the lucrative NICHE foreign market, and advancements in technology. access to cutting-edge agronomic techniques to produce more and more quickly, as well as modern technology like the internet (to promote their activities).

Table 8

FDI contributions to increased coffee production.

Contributions	Number of responses	Reasons for the choice
Strengthening cooperatives' governance and management practices	7	Establish a workforce that can transparently oversee and manage coffee industry enterprises.
Distributing improved inputs	5	Access to funding for good practice coaching
Replanting coffee trees	5	Replace the aging ones
In the top coffee-producing regions, more wet mills or coffee washing facilities should be built.	5	Make available the financial means necessary for the purchase of these machines
Strengthening public-private dialogue among stakeholders	3	Resources both financial and technical are accessible to value chain participants.
Others: Review the producer price increase to encourage the population to start growing coffee	1	To motivate the farmers to work more and produce more

Table 9

The main barriers to FDI in Burundi

Barriers	**Number of responses**	**Reasons for the choice**
Government regulation	**6**	unjust and inefficient management with respect to companies in the coffee industry and coffee farmers lack of reliable economic statistics
Corruption	5	Corruption can put an investor off a destination
Insufficient Infrastructures	5	The agro-technological domain is lagging and the industry lacks digital technologies.
Competition	5	Boost marketing initiatives
Others: • Lacking clear identification of FDI, who is ready to collaborate and work with coffee producers' companies.	2	

• Limited access to information related to coffee production. • Burundian coffee companies have little visibility on internet networks.		

Table 10

Burundi's actions to attract FDI and improve the investment climate.

Actions	Number of responses	Reasons for the choice
Good governance	**7**	Fight against corruption and promote transparency in the management of the coffee sector
Financial and capital access to foreign exchange	6	for effective financial and trade relations with other nations
Strong institutional capacity	5	To make sure the coffee industry is properly restructured to increase yield in terms of quality and quantity

Reduce corruption	5	To attract more investors
Stable and reasonable exchange rate	5	for greater economic stability and to stop inflation.
High-skilled labor	3	To better supervise coffee growers and ensure good management of the coffee sector
Good internet connectivity	3	Boost marketing initiatives and company visibility
Availability of reliable economic statistics	3	To assist in establishing effective strategic planning
Others: Creation of a window of investment opportunity by the government, Hiring based on skills	2	Public-private partnerships should be encouraged to modernize the sector and make it more competitive.

Since the 1980s, there has been a fluctuation in the annual production of coffee in Burundi (according to the above-mentioned curve). But since 2003, we have noted a significant drop in production (Figure 3).

Figure 3

Coffee crop production in tons (1980-2021)

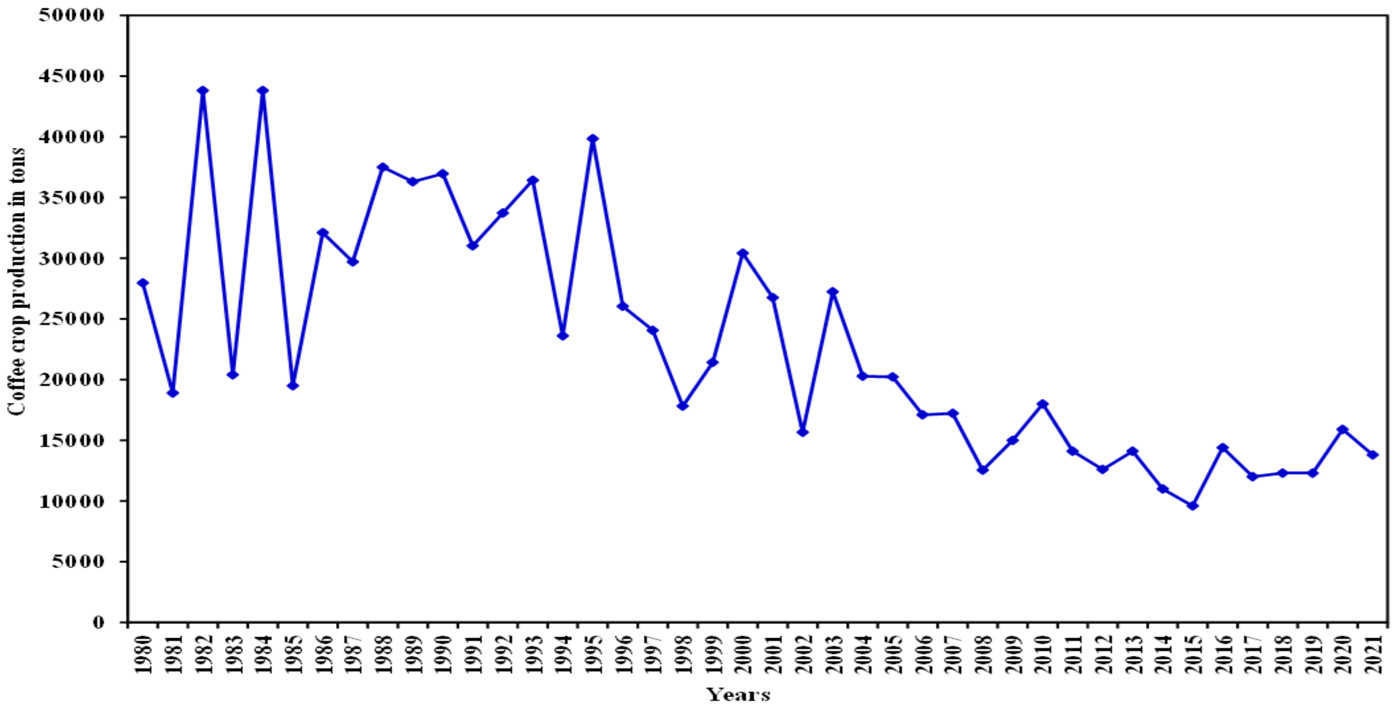
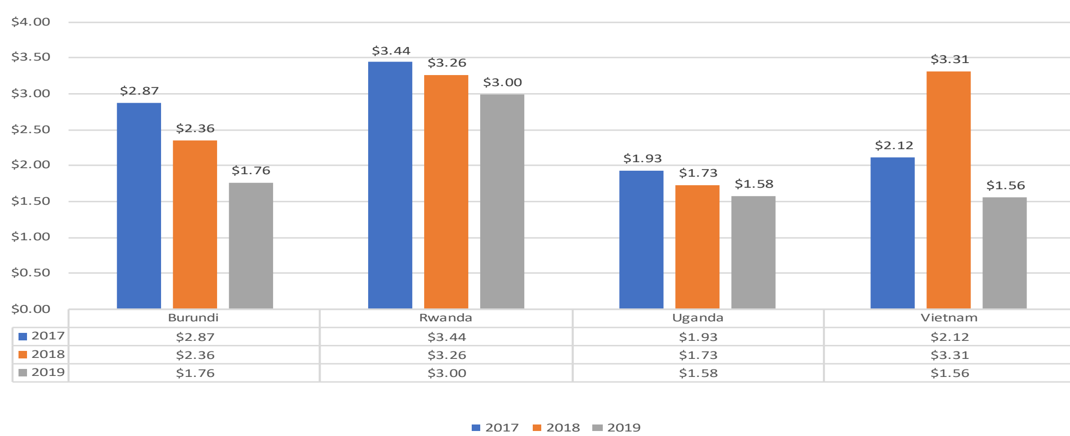


Figure 4

Export market prices for Burundi, Rwanda, Uganda, and Vietnam



Note. Adapted from Selina Wamucii (2019)

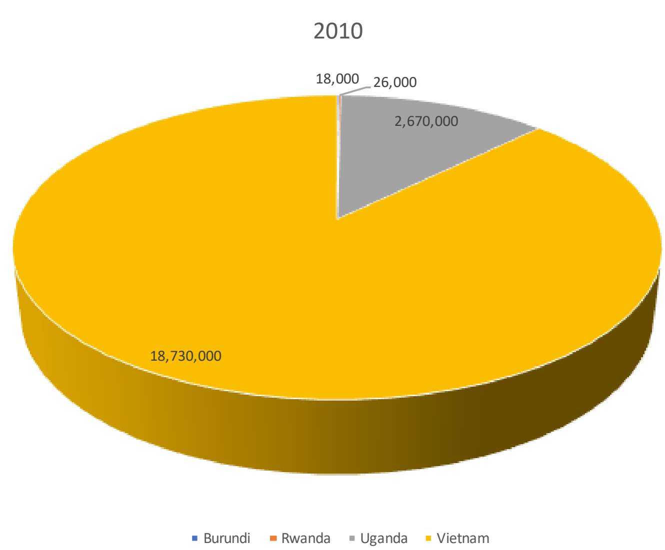
The following provides a summary of the above graph situation in each of these four countries in 2019 (Figure 4):

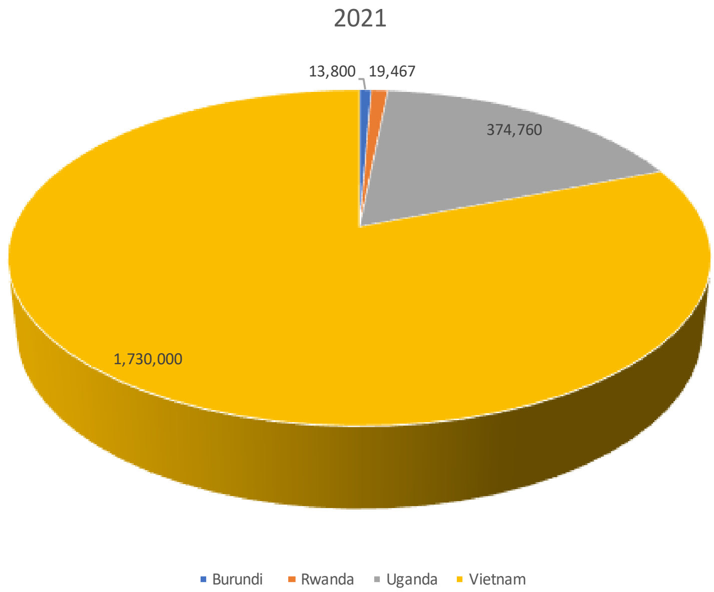
The export price decreased by -7.959% in 2019 to $3.00 per Kilo for Rwanda versus the export price decreased by -8.561% in 2019 to $1.58 per kilo for Uganda versus the export price decreased to -52.779% in 2019 to $1.56 per kilo (Vietnam). In comparison, the export price fell by -25.641% in 2019 to $ 1.76 per kilogram (Burundi).

However, the drops in Burundi were three times higher than it was in the other countries Rwanda and Uganda.

Figure 5:

Tons of Coffee harvest in 2010 versus 2021 for Burundi, Rwanda, Uganda, and Vietnam





Looking at figure 5 for the coffee tons harvested it is seen that the coffee has been on a decline even in 10 years ago in the four countries.

Comparison of coffee quality

Vietnam is one of the top two coffee-producing nations in the world, according to data from the International Coffee Organization.

In terms of export volume, only Brazil and Vietnam were ahead of each other. Vietnamese coffee is frequently seen as a lower-quality commodity, even though it contributes significantly to the coffee industry. This is mostly because the Robusta bean, which is notorious for its bitterness and high caffeine concentration, is used to make it on a large scale (Asian Commodities, n.d.; see also Cooper, 2022).

Smallholder farmers in Burundi produce most of the country's coffee, much of it of high quality. Burundi is quickly making a name for itself in the specialty coffee in the world with its super-sweet, crisp, and frequently flowery coffees (Sucafina, 2020). Burundi ranks as the 29th-largest producer of coffee in the world, despite its modest exports when compared to other African giants like Kenya and Ethiopia (Brennan, 2022).

Rwanda: Bourbon, a highly regarded arabica type renowned for its superior cup quality, accounts for over 95% of Rwanda's total coffee production. Because of this, Rwandan coffees often have bright, clear flavors with sweet, flowery notes and a finish resembling tea (Yoong, 2022). Additionally, Rwanda is currently the ninth-largest producer of coffee in Africa out of 21 countries, and 30th out of 51 globally. There are more than 450,000 small-scale coffee farms that, on average, have 165–175 coffee trees or less than a hectare of land to grow coffee (Sawyer, 2022).

East African nation Uganda is one of the leading producers of coffee. Robusta coffee is well-known for being grown in this nation. As a result, their coffee beans are consumed by customers all over the world. Uganda is recognized as the third greatest coffee-producing nation in the world, and its coffee beans are the best because of their low acidity, gentle flavor, and a pleasant aroma.

SECTION 5: DISCUSSION

5.1 Discussion of the findings from the descriptive interview

The purpose of this paper was to investigate the contribution of FDI to coffee crop production in Burundi and the questions the study attempted to answer are: 1) What are the main reasons for the decline in coffee production in Burundi? 2) Should Burundi focus on increasing coffee production? Why? What are the benefits? 3) Can FDI contribute to increase coffee production? case example of other countries such as Rwanda, Uganda, and Vietnam. 4)What are the main barriers to FDI flow in Burundi? 5)What should Burundi do to attract FDI and improve the investment climate?

The study found that 1) the main reasons for the coffee production decline were cost, aging, and marginal competition because no motivation for producers less paid and invest a lot of effort and profit is less, the need to replant trees, and limited competitiveness. According to AfricaNews (2020), the economist Akintore Adelard, price no longer fascinates farmers to the point where they opt not to devote additional resources and time to coffee, and coffee reduced favor, quality also decreased (Jeavons, 2020).

2) The benefits of Burundi's emphasis on increasing coffee production included contributions to the national economy, contribution of exports to the country's gross domestic product (GDP) - about 6% (see Lenaghan et al., 2018 and job creation. The coffee industry provided income for roughly 800,000 families, which represents 40% of the population who grow coffee in Burundi (World Data Atlas, 2020)

3) The main contribution from FDI that can increase coffee production is strengthening cooperatives' governance and management practices, distributing improved inputs, replanting coffee trees, and increasing the number of wet mills or coffee washing stations in leading coffee-producing regions because the establishment of a workforce that can transparently oversee and

manage coffee industry enterprises, access to funding for good practice coaching and adding machines.

4) Government regulation unjust and inefficient management with respect to companies in the coffee industry and coffee farmers and lack of reliable economic statistics; corruption put investors off a destination and competition to boost marketing initiatives were the main barrier to FDI in Burundi.5) Burundi’s actions to attract FDI and improve the investment climate were good governance in promoting transparency; Financial and capital access to foreign exchange trade relations; strong institutional capacity need restructuring; reducing corruption to attract more investors and stable and reasonable exchange rate for economic stability and stopping inflation. The U.S. Department of State stated in 2021 that in order for Burundi to draw foreign direct investment, the country must address a number of long-standing problems, including corruption, weak institutional capacity, poor governance, access to and expatriation of foreign exchange restricted, a low-skilled labor force, poor internet connectivity, and a lack of/unreliable economic statistics.

SECTION 6: CONCLUSION

Approximately 6% of the nation's GDP is derived from coffee exports (see Lenaghan et al., 2018). Around 800,000 families, or 40% of Burundi's population, depended on the coffee market for their income (World Data Atlas, 2020). But during the past 20 years, a steady reduction in coffee crop productivity has been noted.

The primary causes of the reduction in coffee production were cost, aging trees, and marginal competition since producers were unmotivated to exert a lot of effort when the profit was poor, trees needed to be replanted, and there was little competition.

Realizing the quality and productivity potential of switching from low-priced commodity coffee to more expensive specialty coffee is the primary strategy for reforming the Burundian coffee industry (IMF 2012; WB 2016; Lenaghan et al., 2018). 800,000 households that depend on coffee for their livelihoods may be pulled out of poverty by raising productivity, quality, and coffee prices.

The main way that FDI can boost coffee production is by improving cooperative governance and management procedures, dispersing better inputs, replanting coffee trees, and increasing the number of wet mills or coffee washing stations in the top coffee-producing regions by establishing a workforce that can transparently oversee and manage coffee industry enterprises, accessing funding for good practice coaching, and installing machines.

To draw in additional FDI, Burundi must solve enduring problems including insufficient institutional capability and bad governance.

Recommendations

First, the government should combat corruption and encourage transparency in the administration of the coffee industry.

Second, the government should also be prepared to provide the farmers with financial support, which would enable them to increase both the amount and quality of their output.

Third, we advise that those in charge of running cooperative societies have a better level of education and access to modern technology. This will allow them to manage effectively and improve the equitable distribution and allocation of resources.

Fourth, to ensure that the farmers receive greater earnings from their yields, the cooperative societies that sell the coffee on behalf of the farmers should bargain for higher prices for the yields.

Fifth, FDI should increase its contribution to developing countries, especially in Burundi in the coffee sector to raise the economy and job creation.

Lastly, employ people with a positive mindset and complementing abilities in coffee crop production and have knowledge of the right marketing and product to advertise.

Limitations of the study

First, a small number of interviews were conducted.

Second, no access to needed data on time as many of the interviewees were very busy.

Third, Companies changed addresses and no update on the website.

Lastly, from reports the 2020 results have not yet been published about the contribution of FDI in the coffee sector.

Areas for future research

Future longitudinal research with a focus on FDI contributions to the coffee sector in Burundi would be required for an in-depth analysis of FDI contribution to the growth of the coffee sector in Burundi.

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APPENDIX

I attached the interview request letter, the letter from the person in charge of coffee production in that company asking for an appointment, the KDI enrollment certificate as proof that it is academic research, and my passport.

Interview Questionnaire

I am Aline Kanyana, a student in Master of Public Management (KDI School, South Korea). I am researching on: Investigating the Contribution of Foreign Direct Investment to Coffee Crop Production (A case study of Burundi). I would like your input in helping me answer the questions below. Thank you very much for your contribution.

Interviewer: Aline Kanyana	Date:
Company:	Function:
Phone number:	
Something else to clarify: ……………...	

Question 1. What are the main reasons for the decline in coffee production in Burundi?

Product	Quality
Taste	aging
Cost	margin, competition
Insufficient infrastructures	government regulation
COVID-19?	Others: …………….

Question 2. Should Burundi focus on increasing coffee production? Why? What are the benefits?

Why?	What are the benefits?

a. contribution to national economy b. attracts more FDI others: ………………………………….	a. Technology b. Job creation Others: …………………………………….

Question 3. Can FDI contribute to increase coffee production? Case example of other countries such as Rwanda, Uganda and Vietnam

YES : If yes explain: …………… distributing improved inputs replanting coffee trees strengthening cooperatives' governance and management practices strengthening public-private dialogue among stakeholders increasing the number of wet mills or coffee washing stations in leading coffee-producing regions	NON :

Question 4. What are the main barriers to FDI flow in Burundi?

Insufficient Infrastructures	government regulation
Corruption	competition

others: ……….	

Question 5. What should Burundi do to attract FDI and improve the investment climate?

1. Good governance	2. Strong institutional capacity
3. Reduce corruption	4. Stable and reasonable exchange rate
5. High-skilled labor	6. financial and capital access to foreign exchange
7. Good internet connectivity	8. Availability of reliable economic statistic
9. Others: …………	