



International Markets' Segmentation, Marketing and Performance: A BCG Matrix Approach

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: In today's economy, which is very competitive, strategic management models are used more often to solve business problems by evaluating the current situation and helping to make successful national strategic plans. From this currently, the Boston Consulting Group (BCG) Matrix, one of the most well-known tools for strategic planning, is used to evaluate a company's products to help with long-term strategic planning. It assists businesses in finding fresh development prospects and selecting their future investment strategy. This study intends to investigate international markets' segmentation, marketing and performance of Ethiopian coffee industry using a BCG matrix approach.

Objectives: In this regard, the study has two objectives. First, evaluate Ethiopian coffee industry and its export performance. Second, segment Ethiopian coffee's international markets and assess market attractiveness using the BCG matrix's market share and growth approach.

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Methods: The matrix was utilized to examine Ethiopia's coffee export market and the top twenty Ethiopian coffee export destinations with the highest average values over the last six years (2016–2021) were selected from more than sixty countries. The export values extracted from International Trade Center (ITC) database. An explanatory approach was used in this study. In addition to primary data from semi-structured interviews, sales figures and market share from written documents were used as secondary data.

Results: The outcome suggests that Ethiopian coffee destinations are segmented in international markets using a BCG matrix approach, which assists coffee exporters in deciding whether to finance through investments or be liquidated to free up funds with little potential for use elsewhere.

Conclusion: Ethiopian coffee exports have shown growth globally over six years, though dipped in 2018. Germany, USA, Japan, Belgium, and South Korea are top five destinations among the top twenty for Ethiopian coffee export destinations based on an average of six years' worth of export value.

Keywords: BCG matrix; market growth rate; relative market share; market segmentation; coffee industry.

1. INTRODUCTION

All companies operate in a dynamic and uncertain environment, whether they are regional, global, new, established, small, huge, private, or public. Business executives must choose the appropriate course of action and prioritize their strategic goals in order to effectively distribute resources among diverse tasks and achieve business success in the face of changing customer expectations, technological disruptions, and growing environmental risks. In order to deal with the turbulent and unpredictable marketing conditions that can result in the organization's extinction, managers must create new tools, concepts, methods, and mindsets [1].

Today, coffee is the most popular beverage in the world and has been drunk for more than a thousand years [2,3]. More than 2.4 billion cups of coffee are consumed daily around the world. In the realm of agriculture, coffee is one of the most sought-after ingredients. Despite the fact that coffee has received accolades for its flavor and aroma, its appeal has probably grown in part due to the amount of caffeine it contains [4]. A few of the world's most impoverished rural areas are connected to global markets through coffee production and commerce [5]. Millions of people, from farmers to consumers, are significantly impacted by it on a global scale. As the cultivation, processing, commerce, transport, and distribution of it generate jobs, it is essential to the economics and policies of many developing nations. Smallholders who farm fewer than ten acres account for more than 70% of the world's coffee crop [6].

Arabica coffee originated in Ethiopia after being accidentally discovered in the forest and

gradually domesticated by Ethiopian farmers [7]. Coffee is one of the most significant cash crops in Ethiopia. Directly or indirectly, the production, processing, and selling of coffee support over 15 million people, or about a quarter of Ethiopia's total population [8]. Ethiopia produces 4% of the world's coffee, making it the sixth-largest producer in the world. With more than 40% of the continent's production, it is also Africa's largest producer [9]. Although the coffee industry in Ethiopia remains a mystery, it is crucial to the livelihood of the rural population.

A variety of strategic planning techniques have been developed since strategic planning forms the cornerstone of decision-making in any firm [10]. The growth-share matrix, portfolio matrix, portfolio diagram, portfolio analysis, B-Box, Boston box, and Boston matrix are additional names for this matrix. The BCG matrix was made as a model in 1970 by Bruce Henderson for the Boston Consulting Group [11]. Strategic management, portfolio management, brand marketing, and product management all use the matrix as an analytical tool.

In Ethiopia, especially, there have been no prior studies. Businesses need a constant competitive edge in this fast-paced environment, which requires strategic business analysis. The production of coffee is also a large contributor to Ethiopia's economy. These factors led the researchers to want to address the gap in this study, which examined international markets' segmentation, marketing and performance of Ethiopian coffee industry using a BCG matrix approach. This study is extremely helpful for coffee exporters, policymakers, government officials, and other stakeholders. It provides the

Ethiopian coffee export destinations, presents how market share and growth rate can be used to segment the international markets by applying the BCG matrix.

2. LITERATURE REVIEW

2.1 Concepts of BCG Matrix

The BCG matrix model, sometimes referred to as the growth/share or growth/participation matrix, has increased its use as a strategic tool, claims [12]. The ability to pinpoint an organization's optimal product portfolio (and/or services), a portfolio classified based on market share and industry growth rate, has increased the matrix's use and significance. The BCG matrix is a key tool for managing a portfolio, and it can be used in many different kinds of businesses.

2.2 Market Growth Rate

The market growth rate is the rate of a company's market size expansion [13]. One aspect to take into account when evaluating an organization's performance is the market growth rate. This is so that it can determine whether or not a business's market is expanding. It gives an insight into the potential scale of the opportunity for an organization. High market growth rates imply increased earnings and occasionally profits, but they also involve significant monetary expenditures that are used as investments to drive expansion. One important performance indicator is the growth rate of the company in relation to the market growth rate. The following formula can be used to get the market growth rate:

$$\text{Market Growth Rate} = \left(\frac{\text{current value} - \text{previous value}}{\text{previous value}} \right) * 100$$

2.3 Relative Market Share

Relative market share is one of the criteria used to evaluate a business portfolio. Market share is a company's measure of how much of a particular market it controls [14]. It lists the market share of a company or a brand in comparison to that of its main rival. It does, however, show the market share of each participant or item at any given time. A shift in relative market share indicates whether a company is catching up to or falling behind a rival [15]. The following formula is used to determine the relative market share for the specific market:

$$\text{Relative Market Share} = \left(\frac{\text{Average Value during the study period}}{\text{Average Value by the Market leader}} \right) * 100$$

2.4 BCG Matrix Model

This model was one of the earliest used to plan society's economic and social development. The BCG matrix is a diagram that Bruc (1970) created to aid Handerson in allocating institutions' production lines, product management, and as a technical instrument to assess portfolio and strategic management. This business-level approach aided corporations in growing their manufacturing and service divisions. The four categories of the BCG matrix are stars, cash cows, question marks, and dogs [16]. Additionally, a horizontal axis for relative market share position and a vertical axis for industry growth rate are offered.

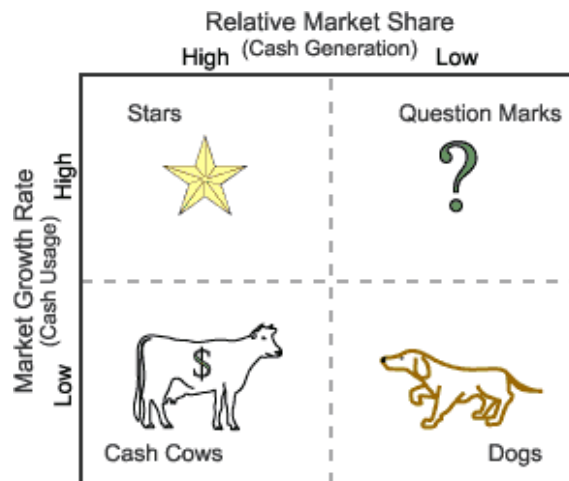


Fig. 1. BCG Matrix [17]

The strategic suggestions are very important for these four categories of classified firms, such as "Invest in Stars," "Milk the Cows to Invest in High Growth Areas," "Solve the Question Marks by either reinvestment or divestment," and "Divest or liquidate the Dogs."

2.4.1 Stars

Despite being the company's leaders, they nevertheless require a lot of assistance to get promoted or placed. They generate significant amounts of money in this situation to maintain a commanding market share. Due to their rapid growth rate, they also spend a lot of money. The star change into a cash cow when the market share increases significantly, the industry reaches maturity, and the rate of market growth slows [17].

2.4.2 Cash cows

High earnings and cash flow are the hallmarks of a cash cow. In a mature, low-growth market, Cash Cow has a large market share and a strong competitive position. Additionally, cash cows need little investment to maintain market share and a dominant position [18].

2.4.3 Question marks

A question mark is also known as a "wild cat" or "problem child question." Due to their low market share, high payment demands, and low return rates, question marks exhibit the weakest cash characteristics. Management must decide whether it will ever raise its market share through significant investment or decide to leave the market if the share stays unchanged [19].

2.4.4 Dogs

They stand for companies that operate in mature markets with slow or no market growth and have weak market shares. Due to their poor business approach, they are unable to produce or consume a significant amount of money. Due to their poor interior and external positions, they are known as dogs. Dogs' companies are frequently closed, sold off, or reduced through economization. Because of their small market share, these business units have cost disadvantages [17].

1. Objectives of the Study

- To provide an overview of Ethiopian coffee industry and its export performance.

- To segment Ethiopian coffee's international markets and assesses market attractiveness using the BCG matrix's market share and growth approach.

3. METHODOLOGY

3.1 Description of Study Area

Ethiopia is located in the northeastern region of the Horn of Africa, covering a total area of 1.1 million km². The landlocked nation has shared borders with Somalia to the east and southeast, Djibouti to the east, Eritrea to the north and northeast, Kenya to the south, South Sudan to the southwest, and Sudan to the west. Ethiopia's varied topography includes high mountains, flat-topped plateaus, and lowlands surrounding them, deep gorges cut by rivers, and rolling plains. Its elevations range from 110 metres below sea level in the northeast at the Denakil Depression to more than 4,600 metres above sea level in the Simien Mountains in the north, according to [20]. Ethiopia is a diverse country with deserts, lush plateaus, tropical lowlands, high altitude mountains, and plains below sea level. In Sub-Saharan Africa, it has the second-highest population [21]. As per the most recent [22], Ethiopia has 122,036,616 people, of which 21.3% reside in urban regions. It's interesting to note that the population of the nation is primarily youthful, with a median age of 19.5 years.

3.2 Data Collection and Analysis

The researchers used the Boston Consulting Group matrix to classify Ethiopian coffee's international markets into four cells: stars, cash cows, question marks, and dogs. Two key factors were used to apply this matrix: the rate of market growth and the relative market share. The top 20 coffee export destinations with the highest average export values over the last six years (from 2016 to 2021) were chosen from a list of over 60 countries. The results of this research are helpful in advising policymakers on the strategic management concerns that can increase the exports of coffee from the country by identifying which markets could be classified by the matrix. In this study, both qualitative and quantitative data were used to answer the most important research questions. The majority of the quantitative data was in the form of secondary data, while the qualitative data was mostly based on primary data. To better understand the general challenges affecting Ethiopia's international coffee marketing; semi-structured

interviews with key individuals in the coffee industry were conducted on topics related to the country's trade policy, with a focus on export coffee.

4. RESULTS AND DISCUSSION

4.1 Export Performance

Coffee stands as a pivotal cash crop within Ethiopia and globally. Approximately a quarter of Ethiopia's populace, equating to 15 million individuals relies on coffee production, processing, and marketing for their livelihoods, either directly or indirectly [23]. Ethiopia ranks as the world's sixth-largest coffee producer, contributing 4% of global coffee production. Additionally, it holds the distinction of being Africa's foremost coffee producer, contributing over 40% of the continent's total output [24]. Despite its significance in generating export revenues for Ethiopia, the coffee subsector remains relatively opaque, yet it remains crucial for sustaining the income of rural communities.

The below Fig. 2 reveals several key trends and insights of the analysis of Ethiopian coffee exports over the last six years (2016-2021). The data indicates a positive trend in Ethiopian coffee exports, with the export value increasing from

\$725,390,000.00 in 2016 to \$1,189,214,000.00 in 2021. This represents a significant overall growth trajectory for the Ethiopian coffee industry. The peak export performance was observed in 2021, with the highest recorded export value of \$1,189,214,000.00. This suggests that the Ethiopian coffee industry experienced particularly strong performance in that year. Conversely, the lowest export performance was recorded in 2016, with an export value of \$725,390,000.00. This may indicate a temporary downturn or challenges faced by the industry in that particular year. The compounded average growth rate of 10.39% over the six-year period indicates a sustained and healthy expansion of the Ethiopian coffee industry. This growth rate suggests that the industry has been able to consistently increase its export value over time, which is a positive indicator of its long-term viability and competitiveness in the global market.

In conclusion, the analysis highlights a positive growth trend in Ethiopian coffee exports over the last six years, with significant variations in performance from year to year. Despite challenges, the industry has demonstrated resilience and potential for further expansion, supported by sustained demand and strategic initiatives.

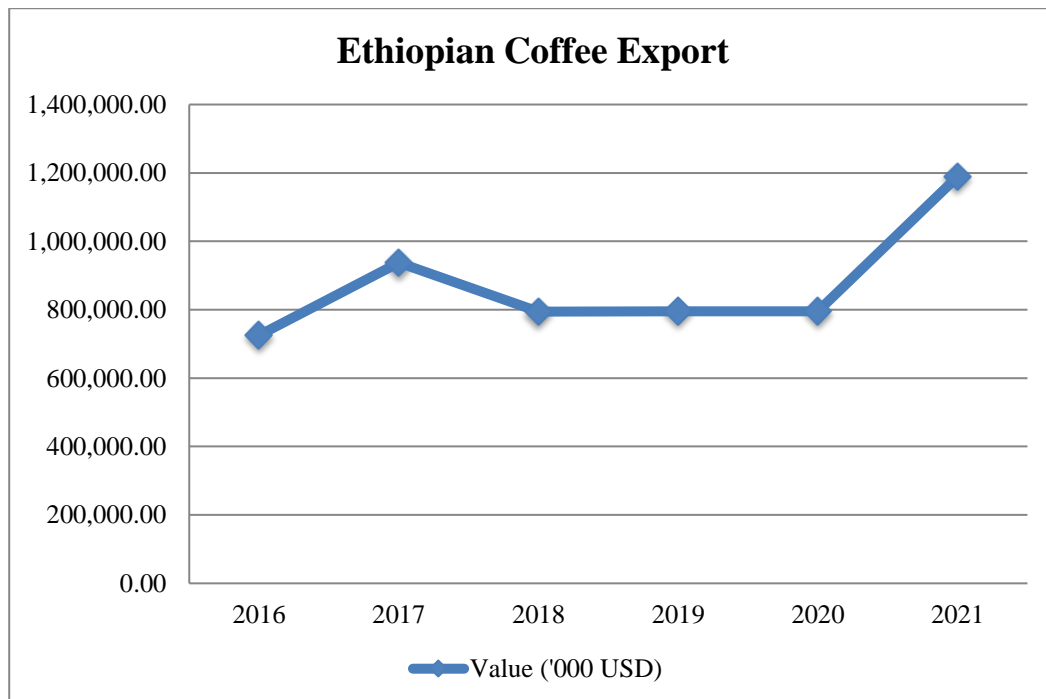


Fig. 2. Ethiopian coffee export performances in value
 Source: Authors' computation based on ITC Database (2022)

Table 1. Average Ethiopian coffee exports to top twenty countries

| S. No. | Country | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Average Values ('000 USD) |
|---------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------------------|
| 1 | Germany | 124,783.00 | 154,730.00 | 127,327.00 | 129,713.00 | 106,731.00 | 214,021.00 | 142,884.17 |
| 2 | Saudi Arabia | 115,634.00 | 139,392.00 | 117,663.00 | 118,027.00 | 137,433.00 | 156,549.00 | 130,783.00 |
| 3 | USA | 91,397.00 | 133,598.00 | 127,552.00 | 116,944.00 | 119,677.00 | 160,153.00 | 124,886.83 |
| 4 | Japan | 60,109.00 | 87,363.00 | 75,395.00 | 89,157.00 | 68,361.00 | 93,969.00 | 79,059.00 |
| 5 | Belgium | 58,782.00 | 89,813.00 | 62,044.00 | 60,923.00 | 76,069.00 | 123,166.00 | 78,466.17 |
| 6 | South Korea | 44,783.00 | 52,413.00 | 39,384.00 | 45,486.00 | 56,377.00 | 81,154.00 | 53,266.17 |
| 7 | Italy | 37,791.00 | 45,027.00 | 37,514.00 | 34,597.00 | 25,034.00 | 35,729.00 | 35,948.67 |
| 8 | France | 33,710.00 | 30,256.00 | 22,383.00 | 21,427.00 | 20,012.00 | 31,663.00 | 26,575.17 |
| 9 | Sudan | 16,701.00 | 25,789.00 | 34,200.00 | 25,214.00 | 26,894.00 | 17,041.00 | 24,306.50 |
| 10 | Australia | 17,259.00 | 22,060.00 | 18,114.00 | 17,001.00 | 15,949.00 | 28,896.00 | 19,879.83 |
| 11 | United Kingdom | 27,748.00 | 30,323.00 | 19,342.00 | 14,902.00 | 11,376.00 | 13,768.00 | 19,576.50 |
| 12 | China | 6,260.00 | 8,209.00 | 15,663.00 | 14,519.00 | 17,943.00 | 45,955.00 | 18,091.50 |
| 13 | Taipei, Chinese | 9,921.00 | 12,248.00 | 12,724.00 | 15,285.00 | 22,276.00 | 26,260.00 | 16,452.33 |
| 14 | Jordan | 6,424.00 | 13,501.00 | 11,003.00 | 11,626.00 | 15,336.00 | 18,344.00 | 12,705.67 |
| 15 | Russian Federation | 7,229.00 | 11,162.00 | 5,528.00 | 9,362.00 | 8,889.00 | 14,838.00 | 9,501.33 |
| 16 | Spain | 10,289.00 | 13,210.00 | 9,940.00 | 7,656.00 | 4,770.00 | 9,653.00 | 9,253.00 |
| 17 | Canada | 7,260.00 | 7,175.00 | 7,807.00 | 5,852.00 | 6,959.00 | 10,709.00 | 7,627.00 |
| 18 | Netherlands | 5,862.00 | 8,580.00 | 7,370.00 | 8,192.00 | 5,365.00 | 7,876.00 | 7,207.50 |
| 19 | Sweden | 10,357.00 | 8,766.00 | 5,152.00 | 3,823.00 | 3,349.00 | 6,442.00 | 6,314.83 |
| 20 | United Arab Emirates | 2,057.00 | 4,919.00 | 2,281.00 | 6,325.00 | 5,108.00 | 11,554.00 | 5,374.00 |

Source: Authors' computation based on ITC Database (2022)

Table 2. Market growth rate of each destination

| S. No. | Country | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Average Market Growth rate |
|---------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|
| 1 | Germany | - | 24.00 | -17.71 | 1.87 | -17.72 | 100.52 | 18.19 |
| 2 | Saudi Arabia | - | 20.55 | -15.59 | 0.31 | 16.44 | 13.91 | 7.12 |
| 3 | USA | - | 46.17 | -4.53 | -8.32 | 2.34 | 33.82 | 13.90 |
| 4 | Japan | - | 45.34 | -13.70 | 18.25 | -23.33 | 37.46 | 12.81 |
| 5 | Belgium | - | 52.79 | -30.92 | -1.81 | 24.86 | 61.91 | 21.37 |
| 6 | South Korea | - | 17.04 | -24.86 | 15.49 | 23.94 | 43.95 | 15.11 |
| 7 | Italy | - | 19.15 | -16.69 | -7.78 | -27.64 | 42.72 | 1.95 |
| 8 | France | - | -10.25 | -26.02 | -4.27 | -6.60 | 58.22 | 2.22 |
| 9 | Sudan | - | 54.42 | 32.61 | -26.27 | 6.66 | -36.64 | 6.16 |
| 10 | Australia | - | 27.82 | -17.89 | -6.14 | -6.19 | 81.18 | 15.76 |
| 11 | United Kingdom | - | 9.28 | -36.21 | -22.96 | -23.66 | 21.03 | -10.50 |
| 12 | China | - | 31.13 | 90.80 | -7.30 | 23.58 | 156.12 | 58.87 |
| 13 | Taipei, Chinese | - | 23.46 | 3.89 | 20.13 | 45.74 | 17.88 | 22.22 |
| 14 | Jordan | - | 110.17 | -18.50 | 5.66 | 31.91 | 19.61 | 29.77 |
| 15 | Russian Federation | - | 54.41 | -50.47 | 69.36 | -5.05 | 66.93 | 27.03 |
| 16 | Spain | - | 28.39 | -24.75 | -22.98 | -37.70 | 102.37 | 9.07 |
| 17 | Canada | - | -1.17 | 8.81 | -25.04 | 18.92 | 53.89 | 11.08 |
| 18 | Netherlands | - | 46.37 | -14.10 | 11.15 | -34.51 | 46.80 | 11.14 |
| 19 | Sweden | - | -15.36 | -41.23 | -25.80 | -12.40 | 92.36 | -0.49 |
| 20 | United Arab Emirates | - | 139.13 | -53.63 | 177.29 | -19.24 | 126.19 | 73.95 |

Source: Authors' computation based on ITC Database (2022)

Table 3. Results of relative market share

| S. No. | Country | Average Values ('000 USD) | RMS | S. No. | Country | Average Values ('000 USD) | RMS |
|---------------|----------------|----------------------------------|------------|---------------|----------------------|----------------------------------|------------|
| 1 | Germany | 142,884.17 | 2.93 | 11 | United Kingdom | 19,576.50 | 0.40 |
| 2 | Saudi Arabia | 130,783.00 | 2.69 | 12 | China | 18,091.50 | 0.37 |
| 3 | USA | 124,886.83 | 2.56 | 13 | Taipei, Chinese | 16,452.33 | 0.34 |
| 4 | Japan | 79,059.00 | 1.62 | 14 | Jordan | 12,705.67 | 0.26 |
| 5 | Belgium | 78,466.17 | 1.61 | 15 | Russian Federation | 9,501.33 | 0.20 |
| 6 | South Korea | 53,266.17 | 1.09 | 16 | Spain | 9,253.00 | 0.19 |
| 7 | Italy | 35,948.67 | 0.74 | 17 | Canada | 7,627.00 | 0.16 |
| 8 | France | 26,575.17 | 0.55 | 18 | Netherlands | 7,207.50 | 0.15 |
| 9 | Sudan | 24,306.50 | 0.50 | 19 | Sweden | 6,314.83 | 0.13 |
| 10 | Australia | 19,879.83 | 0.41 | 20 | United Arab Emirates | 5,374.00 | 0.11 |

Source: Authors' computation based on ITC Database (2022)

The analysis provides insights into the export destinations of Ethiopian coffee over six years from 2016 to 2021. The study identifies the top twenty nations for Ethiopian coffee exports based on their average export value over the six years. Germany emerges as the leading importer of Ethiopian coffee, with an average import value of \$142,884,170.00. This indicates a significant demand for Ethiopian coffee within the German market. Following Germany, Saudi Arabia and the United States are identified as significant importers of Ethiopian coffee. Saudi Arabia imports coffee worth an average of \$130,783,000.00, while the United States imports an average of \$124,886,830.00. While Germany leads in terms of average import value, there are variations in the import volumes among the top importing countries. This suggests differing levels of demand and consumption patterns within each market. The United Arab Emirates is noted as the least importer among the top twenty importers, with an average coffee value of \$5,374,000.00. This indicates a relatively lower demand for Ethiopian coffee within the UAE compared to other top importers.

Overall, the analysis highlights Germany as the primary destination for Ethiopian coffee exports, with significant demand also observed in Saudi Arabia and the United States. Understanding these patterns can inform strategies for market expansion and export growth in the Ethiopian coffee industry.

4.2 Market Growth Rate

The market growth rate delineates the speed at which a company's market size expands. This metric holds significant importance in assessing an organization's performance as it signifies the expansion or contraction of the business's market. It provides valuable insights into the potential future opportunities for the organization and the scale at which it can operate effectively [25].

The results of the market growth rate over the five-year period are shown in Table 2.

The analysis of the table highlights the market growth rates of Ethiopian coffee exports to various countries from 2016 to 2021. The United Arab Emirates, China, and Jordan emerge as the top three countries with the highest positive market growth rates. The United Arab Emirates leads with an impressive growth rate of 73.95%, indicating a significant increase in demand for

Ethiopian coffee within the UAE market. China follows closely with a growth rate of 58.87%, reflecting a rapidly expanding market for Ethiopian coffee in China. Jordan also demonstrates notable growth at 29.77%, indicating growing popularity and demand for Ethiopian coffee within the Jordanian market. Despite overall positive growth trends, some countries experience negative market growth rates. The United Kingdom stands out with the lowest negative growth rate of -10.50% among the top twenty Ethiopian coffee importers. A negative growth rate suggests a decline in demand or market saturation, indicating potential challenges in sustaining or expanding Ethiopian coffee exports to the UK. Understanding market growth rates is crucial for exporters to identify opportunities and challenges in different markets. High-growth markets like the UAE, China, and Jordan present opportunities for increased exports and market penetration strategies. Countries with negative growth rates, such as the UK, may require targeted marketing efforts or adjustments in export strategies to reverse declining trends and regain market share.

Overall, analyzing market growth rates provides valuable insights for exporters to optimize their strategies, capitalize on growth opportunities, and address challenges in expanding Ethiopian coffee exports to various global markets.

4.3 Relative Market Share

Relative market share stands as a crucial parameter in assessing a business's portfolio. This metric, as outlined by [26], gauges the degree of control a company wields within a specific market. It achieves this by juxtaposing the market share of a firm or brand with that of its primary competitor, thereby illuminating the comparative market dominance of each entity.

This analysis highlights the relative market share of coffee exports to different countries, indicating the varying degrees of importance of each market in the global coffee trade. Germany emerges as the leading destination for coffee exports, with a relative market share of 2.93%. This suggests that Germany plays a significant role in the global coffee market. Following Germany, Saudi Arabia and the USA hold substantial market shares of 2.69% and 2.56%, respectively. Both countries represent important markets for coffee exporters, indicating their significant coffee consumption and demand. The analysis reveals a diverse landscape of coffee

export destinations, with various countries holding notable shares of the market. This diversity underscores the global nature of the coffee trade and the importance of catering to multiple markets for coffee producers. While Germany, Saudi Arabia, and the USA exhibit strong market shares, other destinations, such as the United Arab Emirates, lag significantly behind, with a market share of only 0.11%. This suggests potential challenges or limitations in penetrating certain markets. Understanding the relative market share of different export destinations is crucial for coffee exporters. It helps them identify key markets where demand is high and adjust their strategies to capitalize on opportunities. Additionally, it highlights areas for potential growth or improvement, such as exploring ways to expand market share in underperforming regions.

Overall, the analysis underscores the importance of assessing relative market share to gain insights into the dynamics of the global coffee trade and inform strategic decision-making for exporters.

4.4 Classification of International Coffee Market Using the BCG Matrix Approach

The BCG matrix requires systematic classification rules, an exploratory analysis tool based on interaction to reach agreement among various managers, and specialized classification scenario analysis for logic classification searching. By providing a framework for assessing product success, the BCG matrix enables businesses to decide which products to invest more in and which to drop entirely. Additionally, it can assist businesses in locating a new product to release on the market.

The market growth rate, expressed as a percentage, is visually depicted by the growth-plot matrix line vector, a commonly utilized tool that categorizes growth into "high" and "low" segments. When the annual market growth rate surpasses 10%, it's considered to fall within the high-growth category [27]. However, in this specific context, a defined benchmark of 1.0 is established, indicating that for a target country to achieve a significant relative market share, it must possess a market share at least equivalent to its primary competitor [28,29]. Also adopted a growth rate cutoff of 10% and a relative market share of 1.0 when using the BCG matrix to

illustrate its usefulness for educational managers of private higher education institutions in the interior of São Paulo state.

Despite these established benchmarks, there remains a lack of consensus among scholars regarding the delineation between "high" and "low" growth in market growth rates. For instance, [30] employed a reduction of 12.5% in the projected market growth rate to assess the performance of the service sector within Hangzhou's Xiacheng District, China.

The aforementioned chart, which places the four BCG matrix quadrants in relation to the destinations for the Ethiopian coffee market, makes this clear. The four cells of the BCG matrix correspond to the four strategic management decisions of invest, divest, maintain, and enhance [31].

The analysis identifies star markets as those characterized by a combination of two key factors: a large market share and high growth potential. Germany, USA, Japan, Belgium, and South Korea are singled out as major destinations for Ethiopian coffee exports that fall within this star market category. These markets are deemed to offer the greatest potential for development and substantial returns. Consequently, the recommended export marketing approach for companies operating in these markets is to invest in expansion. By focusing resources on scaling up operations and meeting the demand in these star markets, companies can capitalize on the opportunities presented and maximize their growth potential and profitability in the Ethiopian coffee export industry.

This analysis introduces the concept of cash cow markets, which are characterized by a high market share but a low growth rate. Saudi Arabia is identified as significant markets for Ethiopian coffee falling into this category. These markets are described as crucial revenue generators for the company, indicating that they contribute substantial profits. To sustain this advantageous position and continue reaping the rewards, the suggested export marketing strategy involves further investment. By allocating resources towards maintaining and enhancing the company's presence in these cash cow markets, businesses can ensure ongoing profitability and capitalize on the steady demand for Ethiopian coffee in these countries.

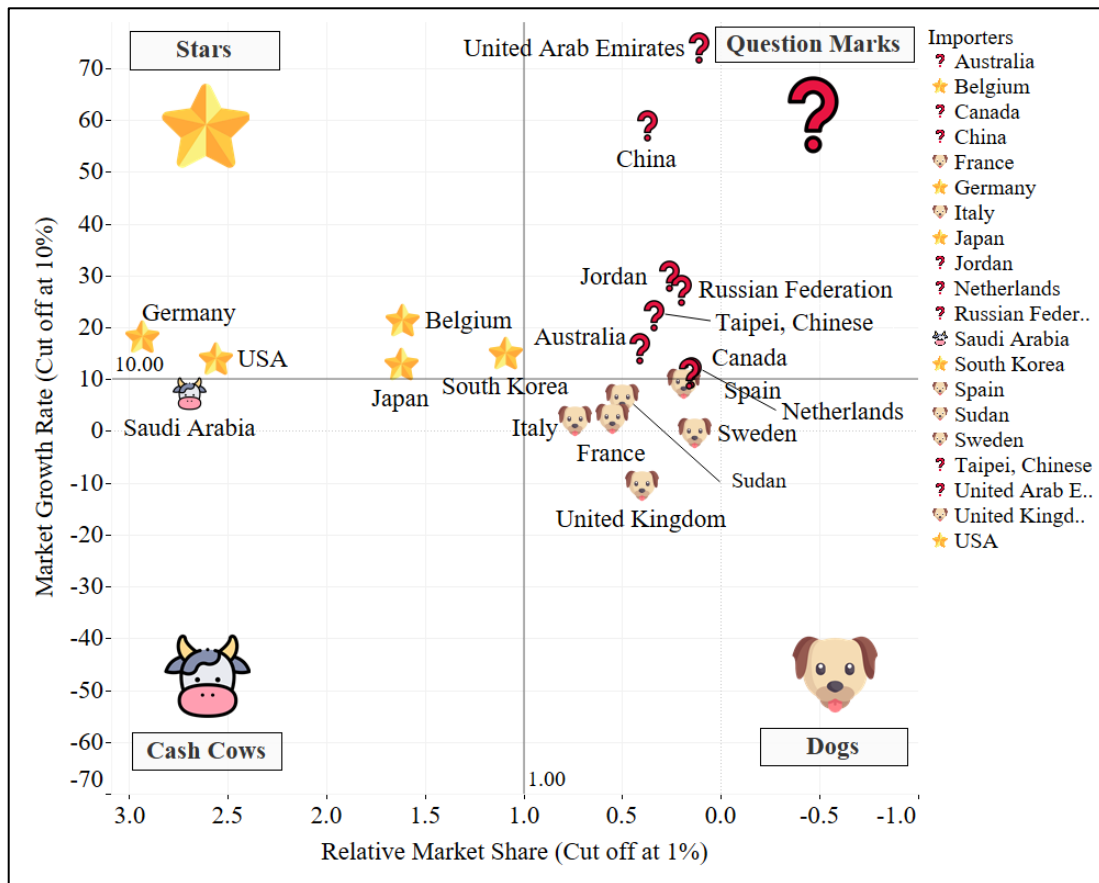


Fig. 3. Ethiopian coffee export markets classification using the BCG matrix approach
 Source: Author's computation based on ITC Database and Tableau Output (2022)

The analysis discusses question-mark markets, which exhibit rapid growth but possess a low market share. Countries such as Australia, China, Taipei-Chinese, Jordan, the Russian Federation, Canada, Netherlands and the United Arab Emirates are categorized under question-mark markets for Ethiopian coffee exports. The recommended export marketing strategy for these markets involves selective investment in those with significant growth potential while considering divestment from others. By strategically allocating resources and focusing on markets with promising growth prospects, Ethiopian coffee exporters can maximize their chances of success in these dynamic yet uncertain market environments.

This analysis discusses dog markets, which are characterized by both a low market share and a low rate of growth. Countries like Italy, France, Sudan, the United Kingdom, Spain, and Sweden are identified as falling into this category for Ethiopian coffee exports. The suggested export marketing approach for these markets is

divestment, implying the consideration of withdrawing resources or reducing involvement. However, it's emphasized that extensive analysis is necessary before making such decisions. This underscores the importance of carefully evaluating factors such as market trends, consumer preferences, and potential future developments to make informed choices regarding the allocation of resources in these less promising markets.

5. CONCLUSION

The agricultural sector holds immense significance in the global economy. In Ethiopia, it constitutes over half of the GDP, 80 percent of exports [32]. Beyond its role as a crucial export commodity, coffee plays a vital role in sustaining the livelihoods of millions of smallholder farmers and various stakeholders involved in the coffee industry.

The analysis of Ethiopian coffee exports reveals a mixed trend over the past six years, with

overall growth in the percentage of global exports from 2016 to 2021. However, there was a decrease in export values in 2018 compared to 2017. Among the top twenty destinations, Germany, the USA, Japan, Belgium, and South Korea stand out as key destinations based on an average of six years of export value data. Moreover, the United Arab Emirates, China, and Jordan exhibit the highest positive market growth rates. In terms of relative market share, Germany leads the pack, followed by Saudi Arabia and the USA. This analysis underscores the dynamic nature of Ethiopian coffee exports and highlights the importance of understanding market trends and dynamics for strategic decision-making in the industry.

The Ethiopian coffee market analysis utilizing the BCG matrix provides valuable insights into the positioning of various nations. The identification of star markets, comprising Germany, USA, Japan, Belgium, and South Korea, highlights regions with higher growth rates and relative market shares. Saudi Arabia emerges as a significant cash cow market. However, the majority of nations fall within the "question" category, indicating the need for focused efforts to elevate them to either the "star" or "cash cow" categories. Furthermore, thorough investigation is warranted for nations categorized as dog markets before any divesting judgments are made. This analysis underscores the importance of strategic planning and targeted actions to optimize the performance of Ethiopian coffee exports in diverse global markets.

6. RECOMMENDATIONS

Depending on the assessment made, the following recommendation has been given:

Overall coffee demand is heavily influenced by the coffee's sustainable quality. Another critical aspect is timely delivery, which increases client and customer happiness. In addition to being happy to receive their goods on time, customers will also enjoy the delivery procedure thanks to cordial courier services. More specifically, managers should carefully evaluate and search for optimal co-alignment with the firm's resources and capabilities, the technological characteristics of their industries, and the environmental peculiarities of the international markets targeted. This is because the choice of a more standard or tailored export marketing strategy is situation-dependent. In addition to the aforementioned, coffee exporters should sketch the optimal path

to take in the BCG matrix, from start-up to market leader. Question Marks and Stars are expected to be financed through investments made by Cash Cows. And dogs should be sold or liquidated to free up money with limited potential for use elsewhere.

However, when implementing laws pertaining to the coffee industry, the government or policymakers should take into account the position of the coffee international market. The role of government institutions is vital in enhancing Ethiopia's coffee export performance, so emphasis should be placed on creating an enabling policy environment and increasing the export support institutions' capacity to offer services with reliability. The government should enhance infrastructure, notably electric power, as the lack or poor quality of electric power primarily hinders the unique businesses of processed coffee exporters. As a result, the majority of firms' export performance is being impeded by infrastructural issues.

7. LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDIES

This study has some shortcomings and limitations. The purpose of the study was to ascertain how the Ethiopian coffee was being marketed, performed, and segmented in the international markets using a BCG matrix approach. As a result, the study's scope is restricted to the aforementioned area and using the BCG matrix approach; other business analysis models are not taken into account. Additionally, because this study was restricted to Ethiopia, it solely examined the coffee industry.

Therefore, additional business analysis models such as SWOT, PESTLE, and Porter's Five Forces Framework that can help comprehend the organizational environment and think more strategically about business should be examined and are therefore left for future research. Additionally, important factors for other nations and industries should be taken into account since they are pertinent to the nation's economic contributions.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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