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Jamaican Blue Mountain Coffee Farmers' Effective Strategies for Achieving Profitability

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Walden University
2025

Abstract

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MBA, University of Manchester & Wales, 2002

ACCA, 1997

Research Project Submitted in Partial Fulfillment

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Abstract

Jamaican Blue Mountain (JBM) coffee farmers often fail to improve production, which has the potential for adverse business outcomes. Farmers and business owners are concerned about the sustainability of their farm operations, which is essential for achieving profitability. Grounded in Hawley's risk theory of profit, the purpose of this qualitative multiple case study was to identify and explore effective strategies that JBM coffee farmers used to achieve profitability. The participants were six JBM coffee farm owners in the Jamaican coffee industry who used effective strategies to achieve profitability. Data were collected using semistructured interviews and a review of organizational marketing materials and financial reports. Through thematic analysis, five themes were identified: (a) improve and increase production and productivity, (b) sustainable farmgate price, (c) implement agronomic best practices, (d) supportive institutional framework, and (e) preventing praedial larceny. A key recommendation is for coffee farm owners to collaborate on training in sustainable practices to improve marketing and enhance security. The implications for positive social change include the potential for coffee farm owners and industry leaders to enhance incomes and provide stable employment opportunities for workers, improving living standards for farmers, their communities, and the broader economy.

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Dedication

This project is dedicated to the following people. First and foremost, I dedicate this study to my wife, Millicent, whose committed and unfailing love, support, resolution, patience, guidance, and endless sacrifices were fundamental and critical to the completion of this study. I pursued this study through a difficult period, and I could have lost sight of the goal, but you embraced and supported me throughout this challenging journey. Next, I could not have completed this study without the moral support of my children, Phillip, Janeen, and Kimona, and their spouses, particularly my daughter, Kimona, who provided unwavering support from time to time when I needed it. Further, I am dedicating this study to my parents, father Emmanuel (now deceased), who was a manager of a coffee plantation in the Jamaica Blue Mountains, for Keble Munn (now deceased), who also introduced me to coffee. My mother, Leteria Hall (aka Sortie), was a domestic helper, housewife, and market vendor who sold produce at the market.

The support and encouragement were given to me by two Ph.D. researchers, Dr. Oniel Blake, who encouraged me to resume the program, and Dr. Ronald Blake for his support. I want to thank my chairman, Hon. Michael Lee-Chin of the Mavis Bank Coffee Factory, and the coffee farmers and team members. Again, thanks to all my family members who supported me during this journey. Most importantly, I thank God Almighty for His strength and guidance through this journey. His word reminds me, “I can do all things through Christ who strengthens me.” Philippians 4:13.

Acknowledgments

This project would not have been possible without expert, supportive, and very professional guidance, as well as mentoring from Dr. Theresa Neal, my committee chairperson, and Dr. Kate Andrews, my second committee member. Thank you for your patience and professionalism throughout this process. I also want to thank my success advisors during the program for their keen direction, guidance, and inspiration. I look forward to meeting you personally and having a cup of JABLUM – Jamaica Blue Mountain coffee with you all.

Again, I thank my wife, Millicent Marjorie Grant, for her continuous and fundamental support throughout this program and her continuous prayers. Thank you all. Lastly, and most importantly, I am grateful to God, who has never broken his promise to me that no good thing will he withhold from His children, and for His continued grace, strength, mercy, and love that He extended to me every day and night. His love and care are beyond my understanding. It is unsearchable.

Thank you, Lord.

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Section 1: Foundation of the Project

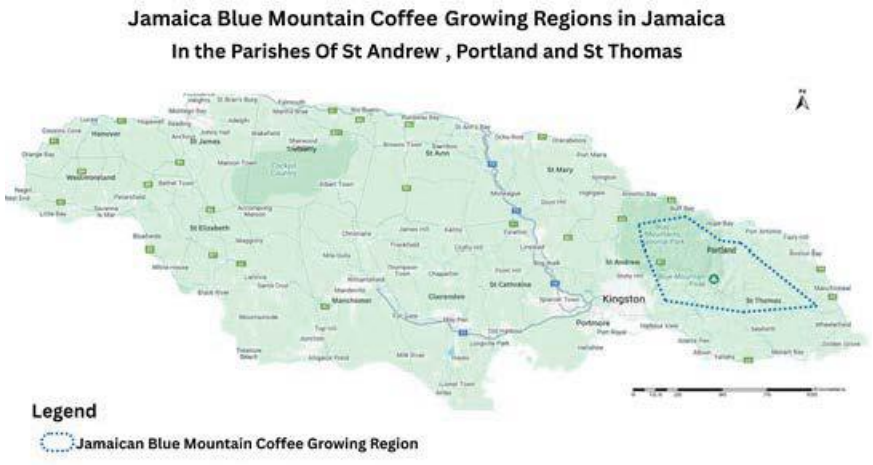
Background of the Problem

Coffee is considered the second-largest traded commodity globally (Hansen, 2024). Experts consider Jamaican Blue Mountain (JBM) coffee to be the finest in the world (Birthwright & Mighty, 2023). However, Mighty and Granco (2021) identified the lack of profitability among JBM coffee farmers as a significant problem that requires attention. In this doctoral study, I explored effective strategies for achieving profitability for these coffee farmers.

JBM coffee, renowned for its high quality and high cost, is grown by 5,000 farmers in the Blue Mountain range in Jamaica, specifically in St. Andrew, St. Thomas, and Portland, as noted in Figure 1. JBM is the highest-value Arabica coffee bean exported, with an average unit price of $22–$35 per kilogram, compared to the global average of $4 for Arabica coffee, and accounts for less than 0.1% of the world's coffee production (Blue Mountain Estates Coffee, 2020). This coffee is grown between 3,000 and 5,500 feet above sea level (Gee, 2024). J. Williams (2022) estimated the global coffee farming population to be between 12.5 and 25 million farmers. The average production of JBM coffee is 30 boxes of cherry coffee or 270 pounds of green beans per acre, which is 30% of the national standard and 15% of the global production standard (Mighty & Granco, 2021). The coffee is grown at high altitudes and produced by a small percentage of the world's coffee farmers.

Figure 1

Major Coffee Growing Regions in Jamaica



The Jamaican coffee industry has seen many changes, successes, and challenges. According to Mighty and Granco (2021), in 2015, coffee production declined, leading to a shortage of exports. Dealers increased prices to farmers, reaching a peak in 2016–2017 of as high as $94 per box in JBM regions and $39 in non-Blue Mountain regions. They further concluded that as more coffee entered the local market, there was an oversupply, and prices fell, so that by 2018–2019, farmers' prices were almost half of those offered 2 years earlier (on average $38 per box in JBM regions and $26 in non-Blue Mountain regions), providing a test case for modeling profitability in the local industry. JBM coffee farmers are struggling to keep their businesses viable. The high selling price of JBM green beans does not translate into profitability for the farmers, who argue that sustainable coffee production is not possible without the involvement of the private sector

and government intervention (Guido et al., 2020). In this project, I explored the strategies to achieve profitability for JBM coffee farmers.

Business Problem Focus and Project Purpose

The specific business problem was that some JBM coffee farmers lacked effective strategies to achieve profitability. Therefore, the purpose of this qualitative multiple case study was to identify and explore effective strategies that JBM coffee farmers used to achieve profitability. The targeted population for this study consisted of six purposefully sampled JBM coffee farmers involved in the strategic development and implementation of a framework that would support effective strategies leading to the profitability of the JBM coffee farmers. Data sources for this project included (a) conducting semistructured interviews with six open-ended questions with coffee farmers as the primary data source; (b) secondary data sources related to organizational internal archival data, such as financial models, records, and artifacts of JBM farms; and (c) public data, such as reports on websites related to the topic. Hawley's (1893) risk theory of profit served as the conceptual framework for this research project.

Research Question

What effective strategies do JBM coffee farmers use to achieve profitability?

Assumptions and Limitations

Assumptions

Assumptions are facts that the researcher of a study assumes to be true (Ewing, 2023). I made four assumptions in this study. The first assumption was that coffee farmers would provide adequate and truthful responses during the interviews. Another

assumption was that the participants would share useful information on their farming strategies. I also assumed that coffee farmers had equal access to necessary farming equipment and technologies. My final assumption was that the sample size of at the six coffee farmers in the study would be adequate for a multiple case study.

Limitations

Limitations are inherent flaws in the design of a research study that can impact the results and conclusions of the research (Ross & Bibler Zaidi, 2019). This study had limitations, such as subjectivity, researcher bias, participant bias, generalization, limited scope, time constraints, replicability issues, resource insensitivity, a lack of prior research studies on the topic, and difficulties in coding. Additionally, some farmers were unwilling to cooperate with me due to fears of not providing complete information.

Transition

In summarizing Section 1, JBM coffee is considered the finest in the world, but JBM coffee farmers are facing a lack of profitability. JBM coffee farmers are struggling to achieve profitability despite the high selling price of their coffee. The purpose of this qualitative multiple case study was to explore effective strategies that JBM coffee farmers could use to achieve profitability to address the problem of low profitability. Section 2 will include a review of the literature regarding the conceptual framework and the scholarship on the business topic. In Section 3, I will describe the research project methodology. Section 4 will contain the findings and conclusions of the study, which will include a presentation of the findings, tables and figures, business contributions,

recommendations for professional practice, implications for social change, recommendations for further research, and the conclusions of the study.

Section 2: The Literature Review

A Review of the Professional and Academic Literature

Introduction and Organization

The purpose of this qualitative multiple case study was to identify and explore effective strategies that JBM coffee farmers used to achieve profitability. In this literature review, I provide a comprehensive understanding of the JBM's current state. This literature review includes discussions of the conceptual framework; business problem; and resolution to the business problem, which includes farmgate price, the coffee value chain, the impact of climate change, intercropping, addressing threats to coffee production, and financial incentives.

To search for the literature, I used the following databases: Google Scholar, APA PsycArticles, Dissertations and Theses @ Walden University, SAGE Research Methods, SAGE Journals, SAGE Knowledge, ProQuest Central, ProQuest Dissertation and Theses, and Walden library books. The following search terms yielded the articles reviewed in this section: *farm gate coffee prices, JBM coffee, coffee growers, coffee plantation*, *coffee prices, production of coffee in Jamaica*, *the productivity of coffee in boxes per acre in Jamaica*, *Jamaica's national coffee production*, *the total acreage of coffee in production*, *number of coffee trees per acre*, *variety of coffee planted*, *number of coffee farmers in Jamaica*, *global coffee farmers and production*, *cost of input in Jamaica*, *Jamaica's coffee production chain*, *coffee regulatory framework*, *government support of coffee farmers*, *coffee certification*, *programs*, *specialty coffee*, *fair trade certification*, *coffee supply chain*, *agronomic concerns for coffee farming*, *rural farm roads*, *farm input*,

problem statement, and *business problem*. The literature review included information from 50 journal articles, books, and professional organizations. Of the 50 sources, 47 (94%) were peer-reviewed articles, and 45 (90%) were published within the last 5 years (i.e., 2021–2025).

Conceptual Framework: Hawley's Risk Theory of Profit

Profits play a vital role in sustaining and growing businesses in the coffee industry, including farms, processing facilities, roasteries, coffee shops, and importing/exporting companies. However, there are usually risks involved in gaining and sustaining profits. In the risk theory of profit, introduced in 1893, Hawley (1893) suggested that profit is the reward for risk-taking in a business. Hawley argued that other factors of production, such as land, labor, and capital, are not concerned with whether the entrepreneur makes a profit or suffers losses. Taking on higher risks can lead to greater expected profits (Hawley, 1893). Hawley postulated that business risks can arise from various factors, such as nonavailability of raw materials, competition's introduction of better substitutes, technology obsolescence, market price fluctuations, and natural disasters. Hawley also maintained that entrepreneurs are rewarded for their willingness to take risks, which is a crucial factor in their success. These ideas suggest that entrepreneurs should carefully weigh the potential risks and rewards before making any business decisions (Hawley, 1893). Therefore, entrepreneurs are rewarded for taking risks, as are farmers in the JBM coffee industry.

Furthermore, entrepreneurs aim to earn more than management's wages by taking on business risks. Hawley's (1893) risk theory of profit assumes that profits arise from

factor ownership as long as the ownership involves risk. Hawley argued that entrepreneurs must assume risks to qualify for additional rewards (i.e., profit), which is the price they pay to assume the business risk. Risk in business may arise due to several factors, such as obsolescence of a product, nonavailability of crucial materials, sudden fall in prices, introduction of a better substitute by the competitor, or risk due to war, fire, or any other natural calamity (Boianovsky, 2008). Profit is, therefore, the reward for assuming business risk, determined by what individuals are willing to pay.

Greater profitability requires taking on greater risk, but achieving maximum profitability requires minimizing risk. Hawley's (1893) risk theory of profit is based on the notion that the businessperson would expect adequate compensation more than the actuarial value, which is the premium on calculable risk, for assuming the risk. Every entrepreneur aims to earn more than the management's wages by taking on the business risk. The major reason behind Hawley's opinion that profit should be maintained over and above the actuarial business risk is that the assumption of risk is annoying, and it leads to trouble, anxiety, and disutility of several kinds among businesspeople. Thus, assuming risk grants the entrepreneur a claim to a reward above the actuarial business risk.

Hawley's (1893) profit consists of two parts: One represents the compensation for the actuarial loss suffered due to several classes of risks assumed by the entrepreneur, and the second represents the inducement to bear the consequences due to the exposure to risk in the entrepreneurial adventures. In Hawley's opinion, profit is a residue; therefore, this

theory is also called a residual theory of profit. JBM coffee farmers are seeking to gain residue from the sale of their crops.

Entrepreneurs undertake production in anticipation of demand, which involves risk. Bhasin (2023) stated that there are four types of risk: replacement, obsolescence, risk proper, and uncertainty. The first two are insured, while the other two are unknown and unforeseen risks. Bhasin concluded that the reward for risk-taking must be higher than the actual value of the risk, and no entrepreneur would be willing to undertake risks if they received only the normal return. Hawley (1893) further argued that entrepreneurs can avoid certain risks by paying a fixed amount to the insurance company, but cannot eliminate all risks through insurance. Critics have argued that profit is not solely due to risk-taking, but also to organizational and coordinating ability, and innovation (Hirsch, 2020). Knight (2006) argued that unforeseen and noninsured risks account for profit, with foreseeable risks being covered through insurance and unforeseeable risks being uninsured. Empirical evidence is limited that proves that entrepreneurs earn more in risky enterprises because all enterprises are risky due to uncertainty and the goal of making large profits.

The association of this theory with the current study was the risk associated with coffee farmers in growing JBM coffee, which affected profitability. Using the risk theory of profit, I examined the variables of farm gate price paid for a box of cherry coffee, coupled with the management of production costs, the impact of climate change, good agricultural practices, and how the risks were managed, which led to the profitability of the JBM coffee farmer.

Business Problem Evidence

The specific business problem was that some JBM coffee farmers lacked effective strategies to achieve profitability. For coffee producers/farmers exploring ways to improve profitability, there were two broad options: reduce the cost of production or obtain a higher price for the crop. The reduction of the cost of production includes the increase in the productivity of the coffee crop per acre (Petrich, 2021). Fundamentally, correct crop nutrition increases nutrient availability in the soil (Briat et al., 2020). This, in turn, increased coffee quality and yield, which in turn improved market value.

JBM coffee farmers' profitability is influenced by various factors that collectively influence the final price of their coffee. Mighty and Granco (2021) focused on a geospatial profitability model for coffee production, examining the Jamaican coffee industry and highlighting the importance of understanding revenue fluctuation for decision-making in the industry. There is the importance of defining the income and production cost of the JBM coffee farmer. A farmer's profit depends on balancing total income with costs, with various coffee farming models producing different amounts of coffee and quality, influencing the final price (World Coffee Research, 2021). Therefore, the profitability of JBM coffee farmers was influenced by factors such as income, production costs, and quality, all of which contributed to determining the final price of their coffee.

Profitability in agricultural production can be defined in various ways. At its simplest, profitability is defined as income minus operating or production costs (Kenton, 2023). In the context of agricultural production, profitability can be defined in a few

additional ways. A farmer may or may not include their own labor as a part of the input cost. Depreciation of equipment and debt interest payments can also be included in operating costs. To assess whether a farm is profitable, the farmer may compare the rate of return on farm investment to the rate of return on working outside of the farm (Mighty & Granco, 2021). For this study, I defined profitability as income minus direct production cost. The cost and profitability analysis of producing specialty coffee in El Salvador and Honduras provided scholarship support for the JBM coffee farmers. Carpio et al. (2023) aimed to determine the cost structure and profitability of producing specialty coffee in Honduras and El Salvador, and a survey of 14 farmers revealed that Honduras had lower costs and higher profits than El Salvador, with specialty-conventional coffee being more profitable than organic production. This was important to the current study because it provided a framework of cost structure and profitability for the JBM coffee farmers toward sustainability in profitability.

Farm productivity is a widely discussed issue in the coffee industry. Price fluctuations and challenges with pests and diseases mean that low productivity levels are a significant issue for coffee farmers worldwide, including those at JBM. However, by investing in certain areas across their farms, producers/farmers can take steps toward improving productivity and profitability (Petrich, 2021). To succeed and make a profit, JBM coffee farmers must improve productivity, and this can be achieved by investing in specific areas of their farms. Kittichotsatsawat et al. (2022) stated that crop yield and its prediction are critical in agricultural production planning. The prediction of cherry yields is crucial in agricultural production planning, as demonstrated by the artificial neural

network model. In coffee farming, each healthy tree can produce approximately 2,000 cherries per year or about 4,000 coffee beans (a coffee cherry typically contains two coffee beans), which translates to roughly 1 pound of roasted coffee per year per healthy tree (Mills, 2023). This is defined as cherry yield. Productivity is, therefore, achievable for coffee farmers, particularly those cultivating JBM coffee.

In the current study examining a model of JBM feasibility, I made several assumptions regarding the income and production costs per acre for the JBM coffee farmer. I assumed a cherry coffee farmgate price of $67 per box. At the then-current production level of 30 boxes per acre, the total income from 1 acre of coffee was $2,000; this was matched with the production cost per acre (see Table 1). I defined income for the JBM coffee farmer as the quality of cherry coffee produced and sold multiplied by the price per box paid to the coffee farmer.

Table 1

Jamaica Blue Mountain Cherry Coffee Feasibility per Acre (in $ currency)

	30 boxes	50 boxes	70 boxes
Revenue (number of boxes x $65.00) per box	$1,950	$3,250	$4,550
Production cost	2,269	2,269	2,269
Reaping cost	484	806	1,129
Transportation cost	58	97	135
Total cost	2,811	3,172	3,533
Profit/loss	(861)	78	1,017

The hierarchical model of profitability in coffee is an innovative approach for estimating profitability in small-scale coffee production. This model combines contextual knowledge and hierarchical model of profitability phases to create a conceptual framework. The model has been evaluated with independent data and achieved high accuracy, precision, recall, and *F*-score percentages; specifically, the model achieved 81.72% accuracy, 81.33% precision, 92.30% recall, and 83.46% *F-score* (Casilimas et al., 2021). The results of the current study provided strategies that could be used to achieve profitability among JBM coffee farmers.

Coffee production and profitability worldwide are at risk. The climate crisis is impacting coffee production globally, particularly for sensitive C. arabica varieties, with 55%–62% of current coffee-growing areas projected to become unsuitable for production by 2050 (Jacobi et al., 2024). Smallholder farmers in JBM rely heavily on coffee farming;

however, poor returns and the climate crisis in coffee-growing regions make it challenging for them to achieve profitability.

Business Problem Resolution

Strategies That Can Lead to Profitability

The key strategies that can lead to profitability include increasing the farm gate price to the JBM coffee farmer, which is currently $65 per box. Other strategies include a nominal increase in the price of cherry coffee from the JBM farmers or increased value added, which will require further investment, as well as a delay in cash flow. In this current study, I focused on the farm gate price to the JBM farmer, given the need for cash flow. The simultaneous strategies included the effective management of production costs and the reduction of the weighted average cost resulting from increased production and productivity per acre. The increase in the productivity of the JBM coffee farmer, which is currently at 30 boxes or 60 pounds of cherry berries per acre and presently yields 9 pounds of green beans per box, will yield 270 pounds of green beans, of which 70% are currently exported at a weighted average of $13.50 per pound and 30% at $5 per pound. The current income from one yield at this production level is $2,962.50 or $98.75 per box of cherry coffee berries (Ministry of Agriculture, Fisheries and Mining, 2022).

I focused on low productivity, which could be addressed by implementing good agricultural or cultivation practices. Good agricultural practices include appropriate plant nutrition, soil management, and land husbandry (Rietra et al., 2022). The low plant density is also a constraint, as although it is standard to have 873 plants per acre planted at 8 inches x 5 inches, several farms have plant densities below this level (Martello et al.,

2022). One strategy that can be explored is to increase the current plant density by 40% and further resupply the coffee farms to reach the standard of 873 trees per acre. After 2–3 years, cherry berry production will come from more trees than now. Next is adequate timing for good agricultural practices. Regarding plant nutrition, depending on the farm location and soil test results, 0.25 ounces of plant nutrition should be applied two to three times per year (Ichami et al., 2022). Due to the high input costs, some farmers cannot afford to do this. Following that, there is the implementation of pest and disease management. The plants and the berries can be affected by American leaf spots and berry borer, which will affect the production/productivity of the trees even if the berries are not (Rodriguez-Gallo et al., 2024). The nondevelopment of the beans will result in the berries being rejected due to their lack of development, and the berries become floats that cannot contribute to the income (Grabowski, 2024). Another strategy is the implementation of shade management and the assessment of climate change. JBM coffee farms lack shade, highlighting socio-ecological factors influencing cultivation choices. Priorities should include promoting organic soil fertility and shade tree use (Willis & Johnson, 2020). The phenology of the plant is also critical because nutrition needs to be applied at the flowering stage, pimento berry stage, and berry development stage to contribute to the fruit development (Alsubhi & Alzahrani, 2023). By addressing these various factors, such as increasing plant density, ensuring timely nutrition application, managing pests and diseases, and incorporating shade management, JBM coffee farmers can significantly enhance coffee production and sustainability in their operations.

The low production and productivity of JBM coffee farmers is a critical issue that needs to be addressed to resolve the problem of lack of profitability. Darwanto and Waluyati (2019) found that Central Sulawesi's land, particularly in Sigi Regency, is ideal for cultivating Lembah Palu shallots due to their distinctive aroma and dry/crispy nature. Sigi Regency, the primary rice supplier for the Central Sulawesi Community, experienced a 5.3% decline in harvested area due to damaged agricultural land. Policy interventions increased sustainability, including corporate farming; however, low production and quality yields hindered maximum profits (Muksin & Iskandar, 2021). Agricultural agencies and leaders in the coffee industry could create policy interventions to increase sustainability and profitability for JBM coffee farmers.

The global coffee industry generates significant revenue of over $100 billion, and over 500 billion cups of coffee are consumed annually. However, the industry is vulnerable due to the limited use of only two species of coffee plants, Arabica and Robusta, out of the 124 available. The industry is also facing increasing threats impacting its sustainability; crop pests, diseases, and poor farming practices are all exacerbated by climate change (Kath et al., 2020). The poor road infrastructure in less developed countries, such as Jamaica, increases the cost of production for coffee farmers, thereby reducing their profitability.

Key parameters of an organization's success include essential contributions. Marketing and brand innovation, product quality, strategic planning, and implementation emerged as the top three key parameters (Do et al., 2020). Kassahun (2021) studied the adoption of Ethiopian garden coffee production technology packages and found that 57%

of farmers reached a high adoption status, with factors such as gender, education, farm size, labor availability, credit facilities, and perception of improved coffee varieties influencing adoption. Simultaneous implementation will enhance coffee productivity.

Adopting sustainable agricultural practices among coffee farmers suggests potential solutions to improve productivity and profitability in the JBM coffee industry. H. Pham et al. (2022) highlighted low adoption rates of sustainable agricultural practices among Vietnamese coffee farmers despite their proven benefits. H. Pham et al. further sought to identify the attributes of sustainable agricultural practices that motivate Vietnamese coffee farmers to adopt them. This approach can also be considered to help resolve the problem of the JBM coffee farmer.

Increased production and yield among JBM coffee farmers are critical to addressing the problem of low profitability. Ronaghi and Forouharfar (2020) found in a study conducted in Iran that various factors, including performance expectancy, effort expectancy, and social influence, impact farmers' intention to use technology in smart farming. According to Reynolds-Cuéllar et al. (2020), the "Technology Design for Coffee Production: A Co-Design Experience" is a community-based course hosted by the Massachusetts Institute of Technology and facilitated by local coffee farms in Colombia. This program is designed to provide individuals with a comprehensive understanding of the technology used in coffee production. By engaging with local coffee farmers, participants are exposed to real-world challenges and opportunities in the coffee industry, which enables them to develop effective and innovative solutions. Technology-based

models could be replicated for the JBM coffee farmers to aid productivity and profitability.

Farmgate Price

The farmgate price is a crucial concept for coffee farmers, as it determines the prices paid by buyers for green coffee and can potentially enhance the profitability of JBM coffee farmers. Catacutan and Ulep (2021) stated that the farmgate price is one of the most frequently used terms that refers to the prices paid by buyers, such as importers or roasters, for green coffee. Farm gate prices enable farmers to receive higher prices for their produce, provided there are interested buyers (Mighty & Granco, 2021). Farmers sell their coffee at town plazas or exchange points, where they are paid different prices set by cooperatives and private buyers. Prices vary based on the type of coffee and associated premiums. The coffee is sold in cherry or parchment form and is not ready for export (Cuevas, 2021). In the JBM coffee-growing regions, JBM coffee farmers deliver the cherry coffee to the processors' depots, where they are paid the farmgate price. An increase in the farmgate price will increase the profitability of JBM coffee farmers.

The Jamaican and Global Coffee Industry

There is a struggle to sustain profitability throughout the Caribbean, including the JBM coffee farmers. Socio-ecological changes in coffee production systems in the Caribbean are causing hardship and uncertainty for farmers, hindering effective climate action, and requiring local resilience (Campbell, 2021). Guido et al. (2020) identified the determinants of vulnerability in the Blue Mountains of Jamaica, where coffee supports smallholder farmers, who are vulnerable to social and environmental changes. Therefore,

local resilience strategies must be implemented to increase the profitability of the JBM coffee farmers.

The Coffee Value Chain

The coffee value chain comprises input suppliers, producers, collectors, pulper operators, secondary processors, and traders. A value chain assessment is crucial for improving profitability and sustainability (Khatri et al., 2023). Wang et al. (2021) proposed an integrated forecasting method for the Vietnamese coffee bean industry, to address concerns over an inefficient value chain and control risks in the sustainable agriculture supply chain, despite coffee being the most traded commodity. Therefore, a critical examination of the JBM coffee value chain could offer some solutions to achieving sustained profitability.

Other strategies that can lead to profitability for JBM coffee farmers include intercropping, crop rotation, and diversification. Sutherland et al. (2021) evaluated the inclusivity of on-farm demonstrations in Europe, where they are more commonly led by research institutes or individual farmers. This model could be replicated by JBM farmers with the help of our research institutes.

Impact of Climate Change and Migration Strategy

It is essential to highlight the impact of climate change on agricultural production in Jamaica. According to Schiffling and Kanellos (2022), climate change presents a persistent challenge to supply chains, with droughts causing water levels to decline globally, thereby impacting major shipping routes. This results in reduced freight capacity and decreased ship capacity. Birthwright and Mighty (2023) predicted that climate

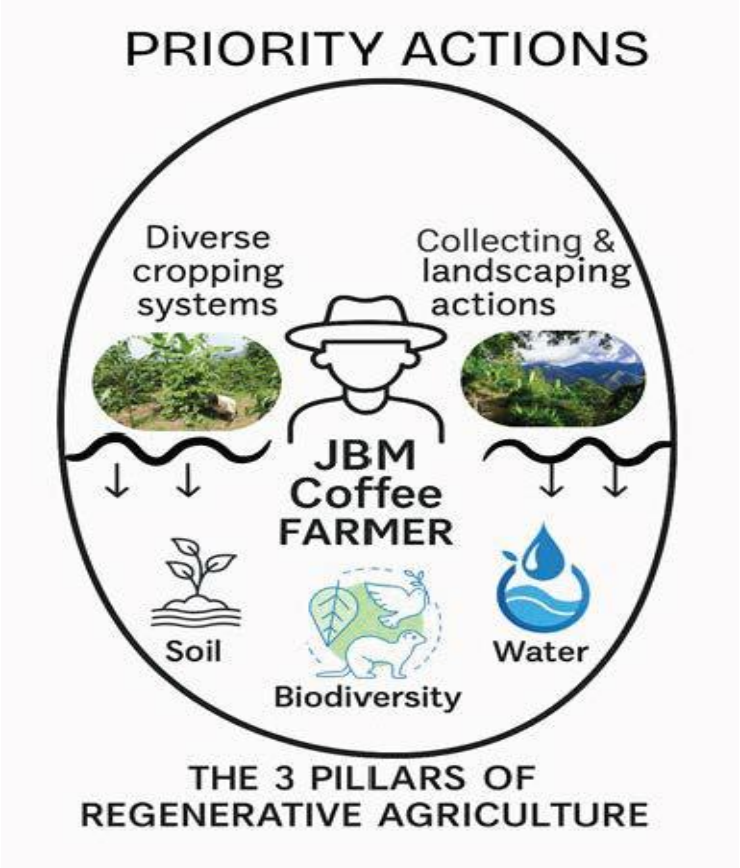
change would lead to a decline in Jamaica's coffee production. Smallholder farmers may be affected, necessitating holistic strategies such as agronomic practices, affordable irrigation, shade management, and integrated pest and disease management. Asmara et al. (2022) found, in a study on potato farmers in the Bromo Plateau, that high risks in farming stem from climate change and environmental conditions, with potatoes being the primary commodity produced in high-altitude areas. The use of intelligent farming or improved technology will also help resolve the problems faced by the JBM coffee farmers.

Further, concerning climate change, challenges to coffee production in the JBM regions are becoming starker without adequate adaptation measures (Gee & Pulleman, 2023). JBM regions can anticipate a reduction of the land suitable for coffee growth. While other regions may become more conducive to growing coffee, much of this land is located in the watershed and forestry-protected areas, and further, some of the lands are idle and not cultivated (Gee & Pulleman, 2023). Since coffee is a long-term crop, JBM coffee farmers face important decisions: what they plant and how they cultivate their land will determine productivity and profitability for the next decade or longer.

With the impact of climate change, regenerative agriculture is required. The priority actions for regenerative agriculture include diverse cropping systems, collective and landscape actions, and the three pillars, which are soil, biodiversity, and water (see Figure 2; Nestlé Global, n.d.). In the JBM region, improving the farm road network, which is currently very poor, and increasing the production costs of JBM farmers will lead to regenerative agriculture and profitability.

Figure 2

Holistic Model of Regenerative Agriculture



Regenerative agricultural practices have a positive impact on land, farmers, and the coffee sector by enhancing soil health, biodiversity, and water resources. These practices aim to protect and restore soil fertility, prevent erosion, and optimize nutrient management, ultimately enhancing productivity and ecosystem services (Gee & Pulleman, 2023). For the JBM coffee farmers, this includes diversifying cropping systems as well as collective and landscape action. In a study by Kaido and Fuyuki (2021), they analyzed the cost and profitability of direct marketing between a cooperative

and its farmers, finding a high variable cost and a higher cost-benefit ratio for the farmers. The JBM coffee farmers could model this equation to boost their profitability.

The dominant cultivar in the Rubiaceae madder family, coffee arabica, is a flowering species believed to have been the first to be cultivated, accounting for 60% of global coffee production (Hayden, 2024). In JBM, a Brazilian variety, also known as the arabica typica coffee, represents over 70% of the coffee produced. This is so because the features enhance the JBM coffee characteristics (Morrisson, 2024). The downside to this variety is that the production and maintenance costs are very high, as it is less resistant to pests and diseases (Morrisson, 2024). Arabica coffee is one of two main species, representing 58%, that make up the global coffee supply; the other is Robusta, which represents 42%. The other varieties grown are hybrid varieties of caturra, geisha, and so forth (Kath et al., 2020). In addition to the lower resistance to pests and diseases of the Arabica typica, the other varieties are also higher in productivity. A resolution to the lack of profitability could be increasing the overall productivity with the introduction of other varieties of the current arabica typica without affecting the overall quality of the JBM coffee.

Intercropping

Intercropping is an agricultural practice employed by the JBM coffee farmers. According to Klave (2023), intercropping, the practice of growing multiple crops together, has been instrumental in preserving and thriving numerous industries, including coffee's future. Intercropping coffee with bananas offers farmers a second income source, but studies show it is only financially beneficial, as coffee matures between 3 and 5 years

(Klave, 2023). Currently, the JBM coffee farmers practice intercropping with bananas, plantains, and other crops. This practice could be expanded to include ginger, turmeric, and pimento, with pimento planted along the land's border.

Addressing Threats to Coffee Production

Addressing the threats to JBM coffee production is crucial to resolving the profitability issues faced by JBM coffee farmers. H. vastatrix is a significant threat to the coffee industry, consuming nutrients and causing symptoms such as leaf spots, wilting, fruit dropping, and, in some severe cases, plant death. While climate change is a major concern, the real issues and solutions lie in the production methods and farming practices employed (Kath et al., 2020). This is an issue with the JBM coffee farmers and their farming practices. High-intensity coffee monocultures in commercial production zones breed diseases, such as coffee leaf rust, which are more severe in deforested areas. Increased canopy cover could enhance insect diversity, reduce the need for chemical spraying, and improve coffee habitats (Kath et al., 2020). JBM coffee farmers can, therefore, incorporate shade trees in coffee monoculture areas to help mitigate the spread of diseases like coffee leaf rust and promote a more sustainable agricultural environment.

Financial Incentive

Creating financial incentives for smallholders in the coffee industry is crucial for their resilience and sustainability. The government and environmental organizations face challenges in creating financial incentives for JBM coffee farmers, who stand to lose the most. Diversified coffee systems are important for farmers to weather market fluctuations and maintain crop yields. Recognizing the economy’s impact on species diversity is

crucial for a robust and productive coffee industry (Kath et al., 2020). The implementation of a coffee crop insurance scheme is also a critical pillar for success and profitability in the coffee industry. A SWOT analysis of the industry shows its strengths, weaknesses, opportunities, and threats as depicted in Table 2.

Table 2

SWOT Analysis of the Coffee Industry

Strength	Weaknesses
• JBM and Jamaican High Mountain Supreme are already both world renowned brands • Unique climatic conditions • Jamaica primarily cultivates the C. Arabica Typica, one of the highest demand varieties of coffee beans • Preferential trade agreement with the European Union	• There is a geographically limited area where JBM coffee may be cultivated • Non membership with the ICO • Industry is regulatory intensive • Susceptibility to adverse weather conditions.
Opportunities	**Threats**
• Expansion to additional markets due to the rise in demand for specialty coffee • Transforming JBM into a luxury brand • Expansion in the production of Jamaican High Mountain Supreme • Value added products such as coffee pods and capsules • Coffee Tourism	• Brand infringement • Coffee leaf rust disease • Climate change

Transition

In summary, in Section 2, I highlighted the strategies employed by JBM coffee farmers to achieve profitability. The various databases used to explore the lives and

perceptions of coffee farmers were also discussed. Profitability for JBM coffee farmers depend on balancing total income with costs, as various coffee farming models produce different amounts and qualities of coffee, which in turn influence the final price. Addressing low productivity levels is crucial for the success and profitability of farmers. Strategies for the business problem resolution include increasing farm gate prices, effective cost management, and reducing the weighted average cost. Another strategy is the need for regenerative agriculture, which includes diverse cropping systems, collective and landscape action, and effective water management. Financial incentives for smallholders are also crucial for their resilience and sustainability. Section 3 provides a clear outline of the research project methodology. Section 4 will focus on the study's findings and conclusions, presenting the results, as well as business contributions and recommendations for professional practice, including implementation strategies for social change. It will also include recommendations for further research and a conclusion to the study.

Section 3: Research Project Methodology

Project Ethics

As a researcher, I was the primary data collection instrument. In qualitative research, the researcher is the primary instrument for data collection (Wa-Mbaleka, 2019). The success or failure of research depends primarily on the researcher's qualities: a deep understanding of the subject being researched; consistent, unbiased self-reflection; good knowledge of research design; and understanding of the culture and values of the research context as well as a solid theoretical understanding of the subject (Adosi, 2020). My role in data collection involved analyzing data, gathering resources, verifying facts, sharing findings, adhering to methodologies, conducting fieldwork, and maintaining confidentiality. I was responsible for preserving rigor and credibility.

The importance of profitability and sustainability in JBM coffee production extends beyond the farmers and owners. As Kassan et al. (2020) recommended, researchers should recognize and consider their personal and professional positions and actively engage in reflexivity. This involves an ongoing process of critically examining beliefs and assumptions associated with the phenomenon under investigation. My experience with coffee began at an early age when my father worked on a coffee plantation, and I presently drink coffee daily. While not biased toward JBM coffee, I recognize the importance of profitability and sustainability in JBM coffee production because it affects not only the JBM coffee farmers and owners but also the broader coffee value chain, including third-world farmers, farm families, and communities.

Researchers have a responsibility to conduct research ethically (Goernert, 2022). I collated and analyzed data in accordance with the ethical principles and guidelines for research involving human subjects outlined in the *Belmont Report*. The three core principles of the *Belmont Report* are respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). In relation to respect for persons, I treated individuals as autonomous agents and protected those with diminished autonomy. Regarding beneficence, there was an obligation to minimize harm and maximize benefits and justice, ensuring reasonable, nonexploitative, and well-considered procedures are administered fairly and that there was the fair distribution of costs and benefits to potential research participants. These principles guide ethical research to protect participants' rights and welfare.

In research, it is crucial to prioritize informed consent, conduct thorough risk/benefit assessments, and thoughtfully select subjects to uphold ethical standards and ensure the integrity of the research process (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). The purpose of informed consent, a fundamental aspect of clinical research, involves providing research participants with information about a study and obtaining their voluntary agreement to participate. This process safeguards the rights and welfare of participants by ensuring they comprehend the nature, potential benefits, and possible risks of participating (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). As the researcher, I provided each participant in the

interview process with a consent form for their signature, showing they agreed with the guidelines of the study.

If a participant no longer wishes to continue their involvement in a study, this is considered a withdrawal of consent (Dahal, 2024). The participant can withdraw consent at any time by providing written notice, verbal communication, or simply choosing not to participate further. The researcher also has the authority to withdraw a participant if they deem it to be in the participant's best interest or for other valid reasons. Upon the participant's verbal or written withdrawal from the study, their information should cease to be collected (Dahal, 2024). In the current study, I clearly explained to all the participants that they had the right to withdraw at any time. The procedures for withdrawal included informing me of their decision, completing the official withdrawal process, and providing verbal or written confirmation of their withdrawal. Additionally, I discussed with the participants whether the data collected from them up to that point may be used or discarded.

Incentives are unique benefits offered to research participants, including cash payments, gifts, vouchers, access to treatment, educational opportunities, and prizes. These incentives can range from financial compensation for time and contributions to academic benefits, access to new treatments, and altruism, where participants contribute to scientific research knowledge and potentially benefit society (Saleh et al., 2020). Incentives can range from cash payments to random prizes (Abdelazeem et al., 2022). In the current research project, I explained to all the participants that there would be no incentives and that the aim was to be objective and truthful. The measures that I, the

researcher, took to ensure that the ethical protection of participants was adequate involved the following:

- Informed consent by participants: I fully informed them about the nature of the research, what it would involve, and any potential risks or benefits before they agreed to participate.
- Confidentiality: I protected the participants' privacy by not mentioning their names but referring to them as Participants 1 to 6 (i.e., P1, P2, etc.). I also handled all the information confidentially and advised the participants that their data would be kept confidential.

Minimizing physical, psychological, or emotional harm was also a priority. As a researcher, I ensured that the data provided did not affect participants in any of the above ways. Furthermore, I conducted a debriefing session to explain the study, its purpose, and the results. Again, I reassured them that if they became uncomfortable, they had the right to withdraw without any negative consequences and that a Walden University committee reviewed my research proposal to ensure that the ethical standards were met.

As the principal researcher and student, I committed to securely storing all data collected from participants for 5 years. This measure was taken to protect the participants' confidentiality and comply with data protection regulations. The Walden University Institutional Review Board (IRB) approval number for the study is: 01-10-25-0198839.

Nature of the Project

I selected the qualitative multiple case study design for this project, using semistructured interviews with open-ended questions to gather data from the coffee farmers. Semistructured interviews are characterized by open-ended questions that researchers use to discover what is occurring or has occurred (Busetto et al., 2020). The qualitative multiple case study method is advantageous because it allows for cross-case analysis, focusing on the differences and similarities between cases to develop theories about factors driving these variations (Hunziker & Blankenagel, 2021). Using the case study design, I aimed to understand the similarities and differences between coffee farms and identify strategies for achieving profitability. Case studies enable researchers to explore intricate phenomena in-depth within some specific context (Rashid et al., 2019).

Population, Sampling, and Participants

In this study, the targeted population consisted of six purposefully sampled JBM coffee farmers who were involved in the strategic development and implementation of a framework that supported effective strategies aimed at increasing the profitability of JBM coffee farmers. I selected participants from JBM coffee farmers who grew coffee in the JBM regions, with farm sizes categorized as small (1 to 5 acres), medium (5 to 10 acres), and large (over 10 acres). Participants were selected prior to data collection. Purposeful sampling is employed in qualitative research because it yields information of the most significant utility to the study, rather than relying on chance, as random sampling implies (Stratton, 2024). Purposeful sampling enables the researcher to identify and select information-rich cases, effectively utilizing limited resources to select individuals or

groups who are highly experienced with the phenomenon of interest (Stratton, 2024). Coffee farmers involved in growing JBM coffee possess valuable knowledge and experience regarding the revenue, factors, and costs that contribute to the growth and production of JBM coffee. Most have been involved in growing JBM coffee for many years, enabling me to identify effective strategies for achieving profitability and sustainability in the JBM coffee industry.

Before contacting prospective participants, I obtained approval from the Walden University IRB and had the organizational agreement signed. Once the IRB granted permission to conduct the study, my strategy was to acquire telephone numbers and email addresses of the JBM coffee farmers from the Jamaica Agricultural Commodities Regulatory Authority (JACRA). I contacted the farmers directly via email. When they agreed to participate, I sent them the informed consent form and then scheduled the interview time, inquiring whether the participant preferred a face-to-face or a virtual interview using the Zoom platform. Even before the interview, establishing a working relationship and building rapport with each participant was crucial. Regardless of the interview mode, the researcher should contact each participant by phone before the scheduled interview to build rapport, manage expectations, and create a comfortable environment for open dialogue, adding legitimacy to the research (Roller & Lavrakas, 2015). I built rapport by contacting each participant by phone to demonstrate an interest in their organization, clarify the study and my role in the research, and ensure a bias-free interpretation of the collected data. Additionally, I ensured that each participant knew

their answers would be kept confidential and that they could withdraw from the study at any time.

In qualitative research, there is no one-size-fits-all answer for the ideal number of interviews. Conducting three to six interviews is considered a standard recommendation to avoid bias and reach a well-founded conclusion (Bergelson et al., 2022). Naeem et al. (2024) described data saturation as occurring when the researcher derives no new concept-relevant information from participant interviews or focus groups; however, six to 12 interviews often achieve data saturation, especially in homogeneous studies. The key is the quality of the interviews rather than the quantity (Hennink & Kaiser, 2022).

Member checking is a method where data transcripts are presented to participants for feedback, aiming to enhance the credibility of the data (McKim, 2023). In the current research study, I employed the member checking process. Member checking involves interpreting the interviewee's responses to ensure reliability and validity. This process is preferred over simply reviewing the interview transcript (McLeod, 2024). After conducting the initial interview, I interpreted the participant's responses and shared the interpretation with the participant for validation. Member checking maximizes reliability and validity, aiding in achieving data saturation. To achieve data saturation through member checking, I reviewed and interpreted the interview transcripts, summarized each question and response, and provided the summary to the participant for validation. I continued the process until no new data were obtained. Data analysis began once the data were synthesized and validated through member checking.

Data Collection Activities

As the researcher, I systematically gathered suitable data to address my study's research question. In qualitative research, the researcher plays an integral part in the data collection process and is crucial in obtaining participant data (Tomaszewski et al., 2020). The researcher can achieve this through surveys, interviews, experiments, focus groups, and observational studies. Other methods include document study, nonparticipant observations, and artifact analysis. The goal is to address critical questions and evaluate the outcomes of research or product improvements (Reed et al., 2021). The qualitative researcher commonly serves as the instrument and uses construct study-specific, open-ended interview questions to gain knowledge of a particular phenomenon (Busetto et al., 2020). Open-ended interview questions provide a medium for participants to share their specific knowledge and experiences with few to no limitations associated with close-ended questions (Lahmer, 2022). In addition to the open-ended questions used in the semistructured interviews and some company/archival documents, I created an interview protocol (see Appendix). According to Shoozan and Mohamad (2024), the interview protocol guides the researcher in conducting professional interviews. A well-designed interview protocol is essential for obtaining the most accurate information from study participants; however, simply having a good protocol does not guarantee a successful interview.

My role in the data collection included voice recording of the face-to-face and virtual semistructured interviews. The semistructured interview template, a digital

recorder, and computer software (i.e., Microsoft Word) were the primary tools used for data collection. At the beginning of the interview, following the interview protocol, I introduced myself; explained the purpose of the study; and provided a hard copy of the informed consent form, which was signed prior to the commencement of the interview. I then turned on my recording device and began the interview by asking open-ended and follow-up questions, listened actively and attentively, and avoided leading or biased questions. As Roberts (2020) recommended, I used follow-up questions to elicit more detailed responses from participants when necessary. Some handwritten notes were also taken while I observed the participants during the interviews. My research notes reflected participants' body language and nonverbal cues to aid in data interpretation. I then thanked the participants and informed them that we would continue our correspondence via email. The interviews lasted no more than 1 hour. In member checking, I reviewed and shared my interpretation of the interviewee's responses for validation and then continued the member checking and follow-up process via email.

In qualitative research, maintaining the reliability and validity of the data collection instrument or process is crucial. Researchers must consistently and reliably achieve replicable results (Rose & Johnson, 2020). Bans-Akutey and Tiimub (2021) stated that triangulation confirms research findings, reduces methodological deficiencies, provides more insights, quickly identifies and eliminates inconsistent data, and enhances the validity and credibility of the study. Therefore, I rigorously implemented data triangulation in the current study to compare information from multiple sources and ensure the reliability of the findings. According to Donkoh and Mensah (2023), data

triangulation involves thoroughly cross-referencing data gathered from interview responses, observations, and transcripts from recordings of each participant to ensure consistency. They also stated that employing multiple methods and data sources in research is nonnegotiable to provide a comprehensive and unbiased interpretation. The validity of the study was ensured through assertive member checking, which involved rigorous confirmation of data interpretation accuracy with the participants (see McKim, 2023). Using the member checking process, I robustly summarized participants' responses and sought clarification when necessary. Data triangulation and member checking helped to ensure reliability, validity, and data saturation.

Interview Questions

1. What effective strategies did you use to achieve profitability?
2. What, if any, level of effective strategies training did you require to achieve profitability?
3. How did you measure the success of your effective strategies to achieve profitability?
4. What were the significant challenges to implementing effective strategies to achieve profitability?
5. How did you overcome these challenges of implementing effective strategies to achieve profitability?
6. What additional information can you share about effective strategies you use to achieve profitability?

Data Organization and Analysis Techniques

Data Organization

Ensuring data are organized effectively is a fundamental aspect of the qualitative research process. Data organization enhances comprehension of raw qualitative data, making it easier to understand and analyze. Transcripts unlock the value of raw data, allowing for easier markup and coding (Lester et al., 2020). Techniques, like transcription, data reduction, and coding help refine and shape the data, revealing meaningful insights. Data organization streamlines the process, making it more manageable for researchers. Proper data organization is the pivotal initial phase in the transition from data collection to analysis, ultimately culminating in the derivation of meaningful insights (Bingham, 2023).

Organizing and sorting research data securely can be challenging, but protecting participant information is necessary in research (Tankala, 2023). My primary data comprised typed notes in Microsoft Word and a recording of the interview. I utilized Microsoft Excel to organize the interview and participant data further. I securely stored hard copies of my notes and recordings in a fireproof safe, and all remaining information was stored on a password-protected external hard drive. I intend to retain all data and documents for 5 years, after which I plan to delete all electronic data and shred all physical data.

Data Analysis Techniques

Data analysis is crucial for effectively interpreting research findings. The primary objective of data analysis is to ensure an accurate and valid interpretation of the data

(Hassan, 2023). After the recorded interviews were transcribed verbatim using Microsoft Word, they were paraphrased for member checking. I reviewed and shared my interpretation of the participants' responses for validation, then continued member checking and the follow-up process via email. The data analysis began once the final interpretation was approved, meaning data saturation had been reached.

Researchers employ triangulation to enhance the validity and reliability of their research findings. As a critical method, I chose to incorporate data triangulation. This approach involves utilizing multiple data sources, such as surveys, interviews, observations, and document analysis, to understand the phenomenon being studied comprehensively (Tenny et al., 2022). To help ensure the credibility and trustworthiness of the data, I utilized triangulation techniques to identify similarities across the interviews. This method of triangulating data helped to enhance the credibility of the research findings.

In this qualitative case study, I used Braun and Clarke's (2006) thematic analysis process, examining the transcript, keywords, and phrases used by the participants, which were then coded and presented. Thematic analysis is a method used by researchers to identify common themes or patterns among participants (Naeem et al., 2023). The identification of common themes is essential for the proper interpretation of qualitative data. Braun and Clarke proposed a six-step approach to thematic analysis: (a) familiarizing oneself with the data, (b) generating codes, (c) identifying themes, (d) reviewing themes, (e) defining and naming themes, and (f) writing up the report. This comprehensive framework enabled me to discern common themes in my research and

accurately interpret the data. In conducting a thematic analysis of interview data, researchers follow a structured six-phase process to derive meaningful insights from qualitative data (Braun & Clarke, 2006). I followed their six steps to identify recurring patterns in my data. In Phase 1, I familiarized myself with the data by reading transcripts to identify potential themes or recurring ideas. This initial engagement allowed me to consider possible codes or themes. I used the NVivo software to organize the data imported from the Microsoft Word file. Manually analyzing large amounts of qualitative data can be time-consuming. Still, NVivo software streamlines the process, helping researchers manage and interpret data more effectively and create visualizations from various content sources (Almusallam, 2021). For Phase 2, I generated initial codes by assigning shorthand designations to multiple aspects of the data. This coding process was iterative, meaning new codes emerged as more data were analyzed. I ensured that code definitions were grounded in objective statements to maintain focus on the participants' experiences. The NVivo software also assisted me in the coding process. In Phase 3, I searched for themes, found connections among the codes, and collated them into potential themes. This phase involved gathering all relevant data that aligned with each identified theme. For Phase 4, I reviewed the themes to ensure their integrity by re-reading the data. The themes had to effectively address the research question and encapsulate the participants' experiences, views, or behaviors. In Phase 5, I named and verified themes, finalizing a list of themes and subthemes. Here, NVivo was utilized again. The software efficiently organized and analyzed qualitative data, fostering collaboration, producing high-quality research outcomes, and saving time. I focused on identifying and thoroughly

examining the most significant themes in the material. This involved relating these critical themes to existing literature and integrating them within the conceptual framework to gain a comprehensive understanding. Finally, in Phase 6, I created a detailed report that encapsulated the identified themes and provided an overview of the research process and outcomes. To ensure that I did not develop a biased view of the topic being studied, I coded and analyzed the participants' interviews and company archival documents on JBM coffee production and profitability.

Reliability and Validity

Reliability

Reliability in qualitative research pertains to the consistency of responses among different data coders. Cole (2023) posited that reliability can be improved by thorough field notes, employing recording devices, and transcribing digital files. Reliability refers to a study that can be replicated with similar outcomes, ensuring the findings are consistent with the same objective methods (Nha, 2021). More replicated findings indicate a more reputable study. According to Janis (2022), creating reliable and dependable data is essential for establishing rigor and trustworthiness in qualitative research. Enhancing the dependability of research findings involves reducing the possibility of researcher bias. Reliability is crucial for establishing the trustworthiness and validity of research outcomes. In my study, I employed member checking to establish dependability. I contacted participants by email for the member checking step posttranscription and initial coding, sharing summaries of their interview responses via

phone and email to confirm the accuracy of my interpretations. Member checking was employed until data saturation was achieved, when no new data were found.

Validity

Validity is critical in qualitative research. The validity of the findings is related to the careful recording and continual verification of the data that the researcher undertakes during the investigative practice (Cypress, 2017). Validity provides readers with information on what procedures were followed to ensure that the findings presented accurately reflect participants' responses (Johnson et al., 2020). Establishing validity involves transcribing interviews using audio recordings instead of the researcher's notes (McMullin, 2021). Using recordings will help to ensure the accuracy of transcribed data, thereby enhancing credibility. Qualitative researchers should collect data until data saturation is reached, where no new themes are present. Using multiple data collection tools increases the likelihood of reaching data saturation (Mwita, 2022). Member checking is a crucial validation step to guarantee the accurate capture and interpretation of information for the study's intended purpose (McKim, 2023). Employing the member-checking method, I validated the collected interview data by confirming the accuracy of my summaries of the interview responses with the participants. The study's validity was enhanced through member checking, and data were collected until data saturation was reached, resulting in no new information. According to S. K. Ahmed (2024) and Naeem et al. (2024), validity in qualitative research encompasses credibility, transferability, and confirmability of the findings, and achieving data saturation is crucial for ensuring these aspects.

Credibility

The credibility of a research study reflects the researcher's precision in reporting the study's data. da Silva Frost and Ledgerwood (2020) emphasized the importance of researchers establishing confidence in their findings. Various techniques, such as member checking, data triangulation, and prolonged observations (Moser & Korstjens, 2018), can be employed to assess the credibility of a study. Through data collection, the researcher can influence the credibility of an investigation (Moser & Korstjens, 2018). The researcher's approach to data collection can determine whether their representation of the data aligns with the participants' viewpoints. According to S. K. Ahmed (2024), ensuring credibility involves collecting reliable data, utilizing a strict interview protocol, involving participants in member checking, and accurately interpreting and reporting the findings. Another approach for ensuring validity involves transcribing interviews using audio recordings instead of the researcher's notes (Coleman, 2022). After conducting interviews, I listened to the audio recordings, transcribing each word and analyzing participants' responses. I reviewed and shared my interpretation of the participants' responses for validation, then continued the member-checking and follow-up process via email. The process continued until no new data were found, reaching data saturation. The member-checking process was crucial to validate my understanding or correct any misunderstandings based on the responses I gathered from the emails. I sought to accurately represent the participants' thoughts, opinions, understanding, and feelings to encourage them to assess the information for consistency, alignment, and truth. I

remained engaged in the member-checking process until the participants confirmed that I fully comprehended their viewpoints, thus ensuring the credibility of my data.

Transferability

In considering transferability, researchers should recognize that while complete replication of research may not be feasible, identifiable patterns and themes should still emerge within the data (Stahl & King, 2020). Acknowledging that each participant's perspectives and narratives may vary is essential (McKibben & Breheny, 2023). I meticulously documented all facets of the research process and utilized data coding to establish transferability.

Confirmability

To enhance confirmability in research, researchers must gather additional details or explanations during data collection in semistructured interviews. They can also validate their interpretations through member checking to ensure the participants agree with their findings (S. K. Ahmed, 2024). Using multiple sources of evidence and triangulation to compare diverse data can strengthen the confirmability of the findings (Arias Valencia, 2022). Stahl and King (2020) proposed that confirmability involves the idea that other researchers would support or corroborate the research. Addressing the research's validity and reliability helps establish credibility and integrity. Confirmability is achieved when the findings are directly derived from the data. To create confirmability, I retained detailed notes of the decisions and analyses throughout the research process and applied member checking.

Data Saturation

Qualitative researchers should persist in data collection until they achieve data saturation, signifying the point at which no new themes emerge. Employing multiple data collection methods increases the volume of data collected, enhancing the chances of reaching data saturation (Mwita, 2022). Consistency and dependability are vital to data saturation (Janis, 2022). Using open-ended questions, triangulation, and, in particular, member checking helped to ensure my study's reliability and validity. Member checking is when the researcher interprets the interviewee's responses to guarantee reliability and validity. This process involves interpreting the participant's responses, sharing the interpretation with the participant for validation, and continuing until no new data is obtained. This indicates that data saturation has been reached, and no new information will emerge from the interviews.

Transition and Summary

Section 3 contains the plan for the methods and processes used in my research study. The research study components of this section include the project ethics, nature of the project, population sampling and participants, data collection activities, and interview questions. Quality research is ethically sound with the protection of participants. Finally, in this section, I provided information on the data organization and the analysis processes and procedures to ensure the reliability and validity of the research. In Section 4, I will present the findings and conclusion of the study, which will include the presentation of the findings, business contributions and recommendations for professional practice,

implications for social change, recommendations for further research, and the study's conclusions.

Section 4: Findings and Conclusions

Presentation of the Findings

The purpose of this qualitative multiple case study was to explore effective strategies that JBM coffee farmers used to achieve profitability. The research question for this study was: What effective strategies do JBM coffee farmers use to achieve profitability? Data were collected from six JBM coffee farmers in Jamaica using semistructured interviews with open-ended questions. Secondary data were also collected through the market strategy report, JBM feasibility study, JACRA industry status report, and farm visit/inspection reports, which the farmers generated. I analyzed the data using Braun and Clarke's (2021) six-phase process for thematic analysis. The five themes that emerged from the data analysis were (a) improve and increase production and productivity, (b) sustainable farm gate price, (c) implement agronomic best practices, (d) supportive institutional factors, and (e) prevention of praedial larceny.

Theme 1: Improve and Increase Production and Productivity

All participants interviewed expressed that improving and increasing production and productivity could translate to greater efficiencies, lower costs, and higher income for JBM coffee farmers and help achieve sustainable profitability. In the interviews, all the participants shared experiences relating to the positive impact that increased production and productivity per acre could have on their JBM coffee farming and could contribute to higher revenues for a JBM coffee farmer. For example, P1 shared,

> My average production of coffee from 20 acres of mature coffee, that is coffee aged over 3 years, is 2,000 boxes, which is 100 boxes of cherry coffee berries per acre. This production compares to the national average production of 30 boxes per acre.

P5 expressed, "Growth in acreage of coffee planted and the increase in production and yield per acre are essential strategies for our profitability." P5 continued, "We try to scale up and increase volumes, we add value-added products and improve revenues and margins, and ensure quality control to ensure consistency of final product and ultimately customer retention."

All participants interviewed associated the impact and the management of climate as another factor that could contribute to JBM coffee farmers' profitability. Coffee is one of the most globally traded commodities and substantially contributes to the livelihoods of millions of smallholders worldwide (Y. Pham et al., 2019). For JBM coffee farmers, a climate-sensitive perennial crop, coffee is likely to be highly susceptible to climate change. As experienced, several storms, hurricanes, and adverse weather events have negatively impacted the production of JBM coffee farmers, leading to crop loss, income decline, and reduced profitability (Guido et al., 2020). P1, P2, P5, and P6 shared that addressing the challenges posed by climate change is crucial for ensuring the sustainability and financial viability of JBM coffee farming in the face of an increasingly unpredictable environment. P5 stated,

> There are weather challenges. Our industry is extremely vulnerable to weather events: excessive rains, drought, hurricanes, etc., and there is no insurance to

> cover these types of events, so the recovery time after such events is lengthy and the cost significant.

Secondary data played a vital role in developing the theme of improved and increased production and productivity for JBM coffee farmers. Pitterson's (2024) report established a clear link between increased productivity, reduced costs, and higher incomes, reinforcing the proposed improvements. The market strategy report illustrated how better production could elevate living standards and offered valuable knowledge on best practices. Three subthemes that emerged from the participants' interviews supported the improve and increase production and productivity theme: (a) market dynamics, (b) farm size, and (c) cost and revenue.

Market Dynamics

All six participants shared that analyzing coffee pricing factors highlights various market forces' intricate dynamics. The principles of supply and demand, production costs, and the impact of climate change are critical elements that significantly influence the market value of coffee, and understanding these factors is essential for grasping the complexities of the coffee economy (Utrilla-Catalan et al., 2022). On this subtheme, P1 said, "Production costs, including labor, transportation, and raw materials, are important for understanding how profitable coffee farming is. If these costs change, coffee producers may need to raise their prices to keep their profits healthy." P3 added,

> As coffee-growing areas face challenges or lose the ability to produce, the supply of coffee may drop. This decrease in supply could cause prices to rise

> significantly, making the already complicated supply and demand situation in the coffee market even more difficult.

P5 said, "Several factors affect our profits as JBM coffee farmers. Climate change, global market uncertainties, and complex market conditions all play a role. These challenges arise from changing production environments." These factors can lead to the consolidation of coffee farms, disruption of supplies, and changes in prices and trading systems (ByteBridge, 2025). Implementing adaptive strategies could enhance resilience and ensure the sustainable profitability of JBM coffee farming in the face of these challenges.

Secondary data played a pivotal role in developing the subtheme of market dynamics. Pitterson (2024) and Ashley (2022) helped identify the subtheme by analyzing industry trends, consumer preferences, and market dynamics. These data exposed growth and decline patterns, making it easier to highlight emerging topics on the coffee pricing landscape, including production costs, such as labor and raw materials, and the impacts of climate change, which lead to yield fluctuations and price increases. These topics collectively illustrate the challenges and dynamics shaping the coffee pricing landscape, facilitating a focused understanding of the relevant subtheme in the current market.

Farm Size

The current study's findings for this subtheme showed that the size of their farms influences the profitability of JBM coffee farmers. Garzón Delvaux et al. (2020) suggested that larger operations tend to yield better financial outcomes. P3 shared, "The size of a farm can greatly affect our profitability. Small farms struggle with limited

resources and market access, hindering profitability." P4 said, "Very small farms typically face financial difficulties, leading to losses or lower profits than medium and large farms." In the interviews, P5 said, "The impact of coffee farm size on profits can vary depending on factors, such as location, crop yield, market demand, quality of coffee beans produced, and pricing strategies." P5 and P6 also expressed that farmers should increase their farm size to at least a medium-sized farm, 4 to 5 acres or more, to increase JBM farm efficiency and profit. All participants agreed that by scaling up their operations, JBM coffee farmers can enhance their profitability by increasing production and productivity as well as ensuring a more sustainable profit and future for their livelihoods. Supporting expansion boosts individual farmers' success and strengthens the entire JBM coffee community, enhancing profitability for everyone involved in its cultivation.

Secondary data played an important role in developing the subtheme on how farm size impacts the profitability of JBM coffee farmers. The data from the existing market strategy reports and farm visit/inspection reports helped me identify the subtheme by highlighting significant trends and correlations. By analyzing production rates and profit margins, it became clear that farming practices, such as shade-grown coffee, agroforestry, water management, soil conservation, and timely application of inputs, were most effective in optimizing yields based on farm size. The insights from the market strategy reports and the farm visit/inspection reports facilitated a deeper understanding of how various farm sizes influence overall performance, highlighting specific areas that necessitate further exploration or improvement.

Cost and Revenue

All participants interviewed believed that cost and revenue could be critical to the profitability of the JBM coffee farmers. P1 shared,

> The cost of running a JBM coffee farm can range from $94 per acre at a production level of 30 boxes per acre to $50 per acre at a production level of 70 boxes per acre, depending on factors, such as location, scale, and farming practices.

P5 stated that JBM coffee production accounts for almost .5% of the world's total coffee production, making it one of the world's most expensive and sought-after coffees. Revenue significantly impacts the profitability of the JBM coffee farmer (Mighty & Granco, 2021). P6 shared, "By diversifying crop production, enhancing growing and processing methods, and adopting effective marketing techniques, we can unlock new levels of profitability."

P5 further stated, "The profitability of coffee farming has emerged as a critical area of strategic focus, especially in light of pressing issues, such as climate change and the challenges of rural development." P6 also said, "Specifically, inadequate infrastructure, particularly the poor condition of road networks, significantly hampers the operational efficiency and market access for us, JBM coffee farmers." All six participants highlighted that these poor road conditions contribute to a lack of profitability in their JBM coffee farming. P1 said, "The persistent absence of reliable transportation significantly inflates production costs for us, farmers, and constrains our access to essential markets. This limitation directly impacts our ability to sell produce efficiently

and undermines our overall income potential." P2 shared, "Consequently, the reduced market access can lead to unsustainable farming practices, as we, farmers, struggle to sustain our livelihoods in an increasingly competitive environment." P3 added,

> Without dependable transportation, the timely delivery of goods becomes challenging, leading to potential spoilage and financial losses. This transportation gap not only hinders farmers' immediate profitability but also jeopardizes our long-term sustainability and growth within the agricultural sector.

Additionally, changing weather patterns imposed by climate change introduce further uncertainties, impacting yields and the quality of coffee beans, which are essential for maintaining competitiveness in the market (Regassa & Gebisa, 2024). Cost and revenue, impacted by factors, like poor infrastructure, climate change, and market access, significantly affect the profitability and sustainability of JBM coffee farmers.

Secondary data played a significant role in developing the subtheme concerning the cost and revenue critical to the profitability of JBM coffee farmers. By analyzing Pitterson (2024) and Ashley (2022), I uncovered trends in coffee prices and consumer preferences. I benchmarked standard farming costs and assessed broader economic factors like trade policies. This information along with primary data clarified the financial dynamics affecting the profitability of JBM coffee farmers. Rising production costs, fluctuations in global coffee prices, and changes in consumer preferences for specialty or organic coffees influence the profitability of JBM coffee farmers. Trade policies and exchange rate variations also affect revenues, while initial investments in sustainability

can yield long-term profits. Additionally, weather conditions significantly impact crop yields and quality, which is crucial for financial health in coffee farming.

Increasing coffee production and productivity aligns with Hawley's (1893) risk theory of profit, emphasizing the need to manage both internal factors, like resource management, and external factors, such as market conditions (Ginn, 2024; Malesu & Syrovátka, 2024). The findings of this study align with existing literature highlighting the importance of adaptability for JBM coffee farmers facing challenges, like climate change and market fluctuations (see Zachariou et al., 2025). The current study also reinforces the necessity of a comprehensive risk management strategy, as emphasized by Saleem et al. (2024) and Asai and Antón (2024). Additionally, the current study findings support the assertion that larger farm sizes lead to better financial stability (see Harkness et al., 2022; Svobodová et al., 2022) and underscore the role of infrastructure quality, particularly road conditions, in enhancing market access and income (see Callanta & Moreno, 2024). Ultimately, the current study's findings validate the importance of improving and increasing production and productivity as effective strategies for achieving profitability of JBM coffee farmers.

Theme 2: Sustainable Farmgate Price

The participants in the current study expressed that the sustainable farmgate price paid to JBM coffee farmers for JBM cherry berries is critical to their profitability, and all participants agreed that this is the case. All the participants interviewed highlighted that the sustainable farmgate price significantly impacts the profitability of the JBM coffee farmers. P5 said, "The sustainable farmgate price depends on several factors. These

include how processing firms work together, the ratio of investment to productivity, and the specific features of the local area." P1 shared, "The payment per box rate of coffee has gone from $22 to $75 over the last 5 years, with the current level at $65." P1 also stated,

> The farm gate price is critical to my profitability as the farm gate price must cover the cost relating to the growing of the coffee, crop care and harvest cost. When the farm gate price for cherry coffee is low, then it challenges the profitability of the coffee farm versus when the farm gate prices cover cost, then this is a gross profit margin.

All participants indicated that payment of $50 and above with a productivity of 65 to 70 boxes per acre would lead to the profitability of their farms. The profitability of JBM coffee farming depends on various factors, including initial investment, yield potential, coffee quality, market price, input cost, government policies, support for the coffee farmers, and improvement of rural development and, in particular, roads (Freitas et al., 2024). Successful marketing strategies and access to technology for processing and distribution can significantly enhance overall profitability for JBM coffee farmers.

The data highlighted in the market strategy reports provided a clear understanding of pricing trends and their impact on farmers' income. By analyzing these trends, it became evident that many coffee farmers struggle financially due to inconsistent and often unfair pricing. This information directly supports the theme of fair farmgate pricing being essential for their financial stability. The secondary data illustrated farmers' current economic challenges and underscores the broader implications of pricing practices within

the coffee industry, reinforcing the need for a more equitable approach to pricing that benefits all stakeholders involved.

According to Hawley's (1893) risk theory, those who take risks in production are entitled to profit, the cost of business risk. JBM coffee farmers manage risks, like price fluctuations, to enhance profitability in a volatile market. Farmgate prices for JBM coffee depend on market conditions and buyer relationships, with vertical integration enhancing farmer compensation (Partyka & Paiva, 2024). Increased investments improve yields and profitability, reflecting global demand (Czubak & Pawłowski, 2024). Intercropping is also highlighted as a sustainable method for farmers to stabilize income amid market fluctuations (Toker et al., 2024). This study contributes to the literature by linking these established concepts—market dynamics, vertical integration, investment in productivity, and sustainable farming practices—as well as demonstrating their interdependence and the critical role they play in supporting farmers within the coffee industry. Thus, the current study's findings authenticate sustainable farmgate prices as an effective strategy for achieving the profitability of JBM coffee farmers.

Theme 3: Implement Agronomic Best Practices

All participants agreed that agronomic best practices, which include plant population, age of coffee trees, fertilizer applications, agrochemical applications, labor cost, and the availability of labor, are critical to the profitability of the JBM coffee farmer. Agronomic practices include shade-grown coffee, which is growing coffee under a canopy of trees; agroforestry, which is combining the growing of coffee with other trees and crops; water management, which is efficient irrigation and water use; and soil

conservation techniques to protect and improve the soil (Martinez et al., 2023; Nasiro, 2024). P1, P5, and P6 suggested that the best agronomic practices to use, including agroforestry, intercropping, and soil conservation strategies, are examples of sustainable alternatives to boost the JBM coffee production. P5 said, "We host farmers' meetings where we share agronomic best practices and utilize training material from JACRA, our regulatory authority that provides technical support to the industry." P2 added, "The profitability of the coffee farm is influenced by timely application of input to the coffee plantation, which includes application of manure, fertilizer, resuscitation of the farm, plant training, and reaping cherry at the appropriate time." P5 stated,

> Agronomic best practices affect the profitability of my coffee farm. These activities include ongoing instruction in excellent agricultural practices, agroforestry, organic farming, intercropping, and soil conservation methods. We, as farmers, can boost productivity and profitability by using improved coffee varieties and best practices.

All participants stated that agronomic practices, including agrochemicals in JBM coffee farming, are critical for profitability because they prevent and control pests, diseases, and weeds, improving coffee harvests for the JBM coffee farmer. However, it is crucial to ensure that the handling and use of these chemicals do not lead to intoxication or death. The correct timing for the application is also very critical (Tudi et al., 2021). While agrochemicals play a vital role in enhancing the profitability of JBM coffee farming, their safe handling and timely application are essential to prevent health risks.

All participants agreed that labor costs and availability are critical for JBM coffee farmers. Regarding labor costs, P5 responded,

> Labor plays a pivotal role in shaping both costs and revenues for farmers engaged in cultivating JBM coffee, which is known for its labor-intensive growing processes. This reliance on manual labor significantly affects the overall performance of the farms. During peak harvesting seasons, a pronounced labor shortage emerges as a critical issue within the JBM coffee industry.

P4 said,

> Coffee picking is inherently seasonal and often nomadic, meaning that labor availability fluctuates greatly and can lead to severe shortages at vital times. Currently, labor accounts for an astonishing 50% to 60% of the total production costs associated with JBM coffee, making it a major factor in the economic viability of these farms. This inconsistent labor supply not only diminishes the operational efficiency of JBM coffee farms but also threatens the long-term sustainability of the industry, as farmers struggle to meet production demands during essential harvesting periods, risking potential losses and diminished quality of their crops.

The practices used by participants in cultivating JBM coffee are influenced by the specific characteristics of the region where the coffee is grown. This conclusion is drawn from primary data collected about those practices. P2 stated, “The unique conditions of the growing area (like climate, soil, and altitude) directly affect how the coffee is produced.” Secondary data has been instrumental in developing the theme of agronomic

practices. JBM feasibility study provides historical context, enables comparative analysis, and offers insights into agricultural policies and market trends. Economic evaluations derived from Pitterson (2024) and Ashley (2022) helped quantify the cost-effectiveness of practices, guiding informed decision-making for JBM coffee farmers and stakeholders and ultimately enhancing sustainable agronomic approaches.

Agronomic practices like agroforestry and organic farming help JBM coffee producers manage risks and enhance sustainability, aligning with Hawley's (1893) risk theory of profit by promoting stable profits through calculated risks. Sustainable practices in coffee production, such as shade-grown coffee and agroforestry, enhance biodiversity and soil health, aligning with findings from Manson et al. (2024) and Kamakaula (2024). The interplay of water management, soil conservation, and integrated pest management highlights the importance of balancing ecological health with economic viability, as discussed by Bracken et al. (2023) and Zhou et al. (2024). Finally, understanding labor dynamics is critical for addressing the challenges faced by smallholder farmers, emphasizing the need for systemic solutions to ensure economic sustainability in the coffee sector (Birthwright & Mighty, 2023; Pereira et al., 2022). This current study's findings resonate strongly with the prevailing themes in contemporary research, reinforcing the necessity for implementing agronomic best practices as an effective strategy for achieving the profitability of JBM coffee farmers.

Theme 4: Supportive Institutional Framework

All participants in the study agreed that institutional factors have a significant impact on JBM coffee farming. On this topic, P2 said,

> We need access to credit, access to the market for agricultural input, where we can get discounts if we buy in bulk, and access to market output, green beans, where we could do further processing and sell the coffee directly to the market.

P5 stated, "We utilize training materials from JACRA, our regulatory body that provides technical support to the industry. We also access support in research and development from JACRA and the buyers of cherry coffee." P4 also stated,

> We use combined learning/training approaches/methods to offer flexibility and convenience while retaining the advantage of person-to-person interactions, hence not falling behind in production. These include coffee farmers' field days, where coffee farmers meet to share best practices, showcase innovative technologies, and discuss emerging trends. These would include live demonstrations, workshops, panel discussions, and opportunities for networking.

P5 continued,

> The Jamaica Agricultural Commodities Regulatory Authority (JACRA) is going to give us coffee farmers in the Blue Mountains about $35 million to help us out. JACRA is also starting a big project to look at all the different types of coffee grown in Jamaica and other coffee-producing countries and find ways to make them better. JACRA is also working with the University of the West Indies (UWI) Mona to check for pesticides in young coffee beans that are going to be exported.

Secondary data played a crucial role in developing the theme regarding the impact of institutional factors on JBM coffee farming. Analyzing Ashley's (2022) market strategy report and economic statistics, patterns emerged regarding how government

policies, market access, and agricultural support programs influence farmer decision-making and productivity. P4 stated, "When we as farmers understand available agricultural support programs, we can make informed choices about crop selection and technology adoption, enhancing productivity." Analyzing market trends allows the JBM coffee farmers to adapt their strategies to meet consumer demand, ensuring competitiveness.

Aligned with Hawley's (1893) risk theory of profit, the study highlights institutional factors as crucial for managing risks and enhancing JBM coffee farmers' profitability while supporting sustained growth. This study's findings closely align with existing literature on agricultural development and JBM coffee farming, underscoring the importance of institutional factors like access to credit and efficient market access. Haryanto et al. (2023) highlighted that financial support enables farmers to invest in quality inputs, while Bulkagrochem (2025) indicated that bulk purchasing enhances competitiveness. Alam et al. (2024) emphasized the role of extension services and agricultural research in boosting productivity, and Benitez-Altuna et al. (2023) stressed the value of strong buyer-supplier relationships. Thus, the current study's findings affirm that a supportive institutional framework is an effective strategy for achieving the profitability of JBM coffee farmers.

Theme 5: Preventing Praedial Larceny

All participants in the study identified the theft of cherry coffee as having a significant impact on the profitability of the JBM coffee farmers. They say this act of theft leads to increased costs to provide additional security and loss of revenue. P1, P2,

P3, and P4 indicated they could lose nearly 20% of their production to coffee theft or praedial larceny. P6 stressed, "The act of theft impacts our revenue significantly as well as increases our cost of operation." P5 added, "The impact of coffee theft on the profitability of JBM coffee farming includes reduced profitability over time, leading to the consolidation of coffee farms and the disruption of coffee supplies. P1 said, "As a result, [we] the JBM coffee farmer struggles to cover the costs of producing coffee consistently and making a profit." P2 also added,

> When the actual crop produced is significantly lower than what was anticipated, it raises concerns about potential theft or loss due to larceny. This analysis can shed light on patterns or spikes in praedial larceny incidents, particularly in areas where coffee farmers are experiencing consistent shortfalls in their harvests.

P4 stated,

> Theft of agricultural goods, which is called praedial larceny, has a big effect on how much money coffee farmers make. To stop this, sellers and buyers need to be made aware of the problem, assets need to be properly recorded, and the practice needs to be legally punished.

In this theme, the data collected from farm inspections and feasibility studies can help identify the impact of such theft on JBM coffee farmers' livelihoods. Understanding these trends can lead to better protective measures and policies to combat praedial larceny, helping to safeguard JBM coffee farmers' investments and ensuring food security.

The study of JBM coffee farms reflects Hawley's (1893) risk theory of profit, linking environmental risks to profitability. For JBM farmers, cherry coffee theft poses a significant risk that affects their earnings, emphasizing the need for adaptation to maintain profitability in a competitive market. The findings of this study on cherry coffee theft contribute to existing literature by emphasizing the economic and social impacts of theft on agricultural communities. It aligns with research by Dhillon and Moncur (2023), who noted significant production losses threatening the viability of small farms and supports the connection between higher theft rates and poverty highlighted by Mighty and Granco (2021). By quantifying a 20% profit margin loss and advocating for community engagement and technological solutions, this study reinforces the need for collaborative strategies to enhance security in agriculture (see Kangana et al., 2024). Thus, the current study's findings validate preventing praedial larceny as an effective strategy for achieving the profitability of JBM coffee farmers.

Business Contributions and Recommendations for Professional Practice

The study's findings present several key applications for business practices within the JBM coffee sector. One of the most critical applications is the optimization of cultivation practices. Farmers can adopt recommended cultivation strategies that focus on improving production efficiency and sustainability. Ngure and Watanabe (2024) asserted that implementing improved farming techniques and selecting superior coffee varieties can lead to higher yields and lower costs, ultimately enhancing profitability. These advancements not only contribute to individual farmer success but also play a significant role in enhancing the overall sustainability of the coffee industry.

Another significant area of application lies in investment decisions. Business leaders can leverage insights into the investment potential of the specialty coffee market to inform their financial strategies. Understanding the profitability of new farming practices allows stakeholders to prioritize investments that support nurseries and improve the quality of coffee plants (Megersa, 2022). This focus on quality can strengthen the entire supply chain, as improved plants lead to better produce, fostering a healthier market environment. By making informed investment choices, stakeholders can enhance operational efficiency and drive long-term growth.

The feasibility of coffee trading and distribution also presents ample opportunity for businesses. By analyzing cost structures and profitability within trading enterprises, companies can better identify consumer preferences and optimize their supply chain processes (Juhara, 2024). This strategic focus can lead to improved market positioning and enhanced profitability for all stakeholders involved (Shribman, 2024). A deep understanding of both the market landscape and consumer behavior can empower businesses to make informed decisions that directly affect their competitiveness in the industry.

Moreover, consumer education initiatives are vital for market growth. Marketing professionals can develop campaigns that highlight the unique qualities of JBM coffee, such as its rich heritage and artisanal production methods (Island Coffee Traders, 2025). When consumers are well-informed, their perception of the product improves, driving demand and encouraging purchases that align with premium pricing (Theocharis & Tsekouropoulos, 2025). Investing in consumer education not only elevates the product's

status but also solidifies customer loyalty because consumers are more likely to support brands that resonate with their values.

Collaboration across the supply chain is another crucial aspect highlighted by the findings. The interconnectedness of various stakeholders, including farmers, exporters, and policymakers, emphasizes the need for partnerships. By fostering collaboration, businesses can create a unified approach to enhancing sustainability and profitability, ensuring that everyone involved benefits from the industry's growth (Ispiryan et al., 2024). Additionally, integrating sustainable practices into operational strategies is essential for long-term success, as it supports both coffee quality and economic stability in the communities involved (Singh, 2024). Implementing these strategies can ultimately position JBM coffee as a leader in the specialty coffee sector.

Implications for Social Change

Exploring effective strategies for achieving profitability for JBM coffee farmers benefits not only them but also the broader community. Dunfey (2023) defined social change as the transformation of cultural and social institutions through human interactions and connections over time, significantly influencing society. The findings from this study may hold valuable implications for processors, exporters, and importers of JBM coffee. The profitability strategies of the JBM coffee farming sector extend beyond individual financial gains, influencing core aspects of rural and societal development. By adopting sustainable practices that enhance profitability, farmers can make a substantial impact on their communities (Wright, Bekessy, et al., 2024). Increased incomes derived from optimized coffee production enable farmers to reinvest in their

local economies, resulting in more stable employment opportunities for farm workers and an overall improvement in living standards throughout the rural JBM region.

Moreover, these profitability strategies play a significant role in fostering rural peace and stability. As farmers experience higher profitability, they can allocate resources toward community infrastructure, education, and health services, thus creating a positive ripple effect that strengthens rural livelihoods (Kyeyune & Ntayi, 2025). For example, incorporating shade trees into coffee farms can enhance both yields and profitability while promoting environmental sustainability, which directly benefits local ecosystems and the communities that depend on them (Wright, Gordon, et al., 2024).

Findings from my study revealed several factors crucial to developing a profitable JBM coffee farm. By understanding these factors, JBM coffee farmers can increase their farm incomes, create more stable employment opportunities for farm workers, and foster enhanced rural and community development, thereby contributing to peace and stability in rural areas while boosting the country's foreign exchange earnings. Integrating shade trees into JBM coffee production maximizes yields, increases overall output, and improves profitability. This integration is vital to the livelihoods of hundreds of thousands of farmers, their families, and workers across the rural JBM region.

Farmers can expand their operations by transitioning from profitable coffee farming to processing and direct marketing, including opening coffee shops and utilizing e-commerce platforms. The growth of JBM coffee profitability can lead to a consistent supply of quality specialty coffee worldwide, driving consumer demand for the product at a sustainable price. Increasing consumer demand for JBM coffee may lead to higher sales

and revenues for farmers. They can then use these profits to enhance their standard of living, reinvest in their local communities, and support their workers. With JBM coffee farmers' ongoing support and efforts, American consumers and global audiences can continue to enjoy exceptional artisan coffee.

Recommendations for Further Research

The current study has illuminated critical profitability strategies for JBM coffee farmers; however, it simultaneously reveals several areas that necessitate further academic inquiry. Addressing these knowledge gaps can significantly enhance our understanding of the intricate challenges and multifaceted opportunities within the specialty coffee sector. A pertinent avenue for future research involves the exploration of climate-smart practices, which could yield innovative methodologies for mitigating the adverse effects of climate change on JBM coffee cultivation. Investigating the adoption of agroforestry systems, drought-resistant coffee varieties, and precision farming techniques may provide essential insights into enhancing the resilience and productivity of these farming operations.

Additionally, an economic analysis of farm expansion represents a vital area for exploration, particularly concerning small and medium-sized farmers engaged in JBM coffee production. Such research could offer a comprehensive examination of the economic repercussions associated with scaling up farm sizes, providing valuable data on the balance between increased investment and resultant profitability. Furthermore, understanding how farm expansion affects resource allocation, labor efficiency, and

market access is crucial for devising effective strategies that promote sustainable growth within this sector.

The impact of consumer education programs merits further investigation, particularly regarding their long-term effects on consumer behavior, market dynamics, and global demand for JBM coffee. Such studies would help stakeholders develop targeted marketing campaigns that resonate with diverse consumer demographics. Additionally, evaluating the effectiveness of institutional support mechanisms provided by governmental and nongovernmental organizations can yield insights into how financial aid and technical training influence farmer success. Collectively, these research endeavors can pave the way for sustainable development, enhanced profitability, and greater resilience in JBM coffee farming, fostering broader efforts towards equitable and sustainable agricultural practices.

Limitations identified in Section 1 of this research study can be addressed in future research. To enhance the understanding of subjectivity and bias in qualitative studies, it is essential to adopt a multidimensional approach that includes engaging in reflexivity to assess researcher biases, creating nonjudgmental environments to foster open dialogue with participants, and contextualizing findings within broader frameworks for generalization. Clear and transparent methodologies are crucial for ensuring replicability, while citing previous studies helps identify research gaps and situates new work within existing literature. Additionally, employing transparent coding schemes and seeking iterative feedback during data analysis can refine interpretations and uncover

deeper insights, ultimately enriching the quality and applicability of qualitative research results.

Conclusion

The purpose of this qualitative multiple case study was to explore effective strategies for achieving profitability of JBM coffee farmers. The findings of this study underscore the necessity for JBM coffee farmers to improve rural infrastructure, enhance production efficiency, secure equitable pricing, and implement sustainable agronomic practices. By aligning their operations with established profit theories, JBM coffee farmers can more effectively navigate the complexities of the coffee market and improve their financial sustainability.

The implications of increased profitability extend significantly to rural development across Jamaica. As JBM coffee farmers succeed, they can generate employment opportunities in agriculture and related sectors, thus contributing to local economic revitalization and mitigating urban migration. The local coffee industry must also foster a cooperative initiative to enable farmers to thrive. The measures to be taken should include enhanced agronomic practices, improving the management of shade cover on farms and agroforestry, pest and disease management practices, and improved financing. The insights derived from this study possess broader relevance, as JBM coffee farmers have the potential to impact international markets by promoting profitable, sustainable agricultural practices and producing sustainable, high-quality coffee beans.

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Appendix: Interview Protocol

Interview Protocol

1. Reading opening statement: Thank you for agreeing to participate in this study and allowing me to interview you. Your participation in this study on organic food supply chain strategies is important to further understanding this topic. You had an opportunity to read about this study before the interview and understand that your participation is voluntary. You may stop at any time. I will be recording this interview and taking notes. I will provide my interpretation of the interview for your approval and to ensure the content is accurate. Any information obtained for this interview and process will be completely anonymous. Do you have any questions?
2. Present the consent form and answer any questions about participants' concerns.
3. Obtain a signature and provide the participant a copy of the Informed Consent Form. (Retain a copy for my files.)
4. Turn on the recording device and note the date and time.
5. Ask semistructured interview questions:
    a. How do you use market information to make strategic business decisions to achieve profitability?
    b. How do you manage production costs while maintaining quality standards to achieve profitability?
    c. How do you navigate challenges such as fluctuating market prices and climate change to achieve and sustain profitability?
    d. What key factors contribute to your success in the market in achieving profitability?
    e. How do you ensure high quality in your coffee production to achieve profitability?
    f. What additional information can you share about effective strategies you use to achieve profitability?
6. End the interview by discussing member checking with the participant and scheduling a time for the follow-up member checking interview.
7. Thank the participant for their time and cooperation.
8. Confirm participation contact information
9. Perform member checking protocol.
10. Transcribe the interview,
11. Review and interpret the interview transcript.
12. Synthesize the responses into a summary paragraph.
13. Provide a copy of the summary and notes to the participant via email.
14. Conduct member-checking follow-up interviews to discuss and clarify responses.
15. End protocol.