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Research Article

Branch Expansion of Private Commercial Banks in Ethiopia: An Empirical Analysis of Challenges and Opportunities

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Abstract

The banking sector in Ethiopia has witnessed significant branch network expansion, yet a large portion of the population, particularly in rural areas, remains unbanked. This study investigates the challenges and opportunities influencing the branch expansion strategies of private commercial banks in Ethiopia. Employing a mixed-methods approach, the research collected both primary data via questionnaires from 100 senior officials across ten purposively selected private banks and secondary data from annual reports. The data were analyzed using descriptive statistics and a pooled Ordinary Least Squares (OLS) regression model. The findings reveal a significant positive relationship between branch expansion and two key opportunity factors: underserved markets and technological advancement. Conversely, regulatory constraints and high operational costs were identified as significant negative predictors, substantially hindering branch growth. Other factors, including economic growth, diaspora remittances, and competitive pressure, were not statistically significant in the model. The study concludes that while substantial opportunities for growth exist in untapped markets and digital integration, these are critically constrained by the regulatory environment and cost inefficiencies. Therefore, it is recommended that private commercial banks strategically target underserved areas and leverage technology, while policymakers should focus on streamlining regulations to foster a more conducive environment for sustainable branch expansion and enhanced financial inclusion in Ethiopia.

Keywords

Branch Expansion, Private Commercial Banks, Challenges, Opportunities, Pooled OLS, Financial Inclusion, Ethiopia

1. Introduction

Globalization, technology advancement, and regulatory changes are causing the global financial services sector to rapidly change and become more competitive [1]. As the foundation of the financial system, the banking industry is vital to the mobilization of savings, the facilitation of investments, and the effective distribution of resources required for economic growth. By directing financial resources into profitable economic sectors, a well-functioning financial system promotes economic growth [2, 3]. The stability and growth of banking systems are essential to both developed and emerging economies, but in many low-income Sub-Saharan African (SSA) nations, like Ethiopia, the banking sector has not yet reached its full potential [4].

The global banking sector has experienced tremendous

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change over the last two to three decades due to both structural adjustments and technical advancements. The way banking services are delivered has changed due to the increasing popularity of electronic and mobile banking as well as the spread of automated teller machines (ATMs) as remote access points. However, since the 1990s, the number of bank branches has actually expanded in spite of this digital boom [5]. These paradox rapid advancements in digital technology and ongoing branch expansion indicate that branches continue to be crucial components of many banking systems. Nonetheless, branch network design is changing. Driven by the expansion of digital channels, banks in developed economies are reconsidering branch layouts and footprints in favor of hybrid, self-service, and community-focused models [6].

Commercial banks, microfinance organizations, and insurance firms control the majority of Ethiopia's banking market. The Ethiopian banking industry is still underdeveloped by international standards, despite significant advancements over the previous few decades [7]. There were 16 banks with 970 branches nationally in 2011, 13 of which were privately held and 3 of which were state-owned [8]. This Figure rose significantly to 5,564 branches by 2019, indicating robust branch network growth [9]. However, the growth is still geographically uneven, with the majority of branches located in big regional towns like Addis Ababa [10]. As a result, the majority of Ethiopians lives in rural areas and has little access to conventional banking services.

In a developing nation like Ethiopia, where a sizable section of the population is still unbanked, branch expansion is essential for improving financial inclusion. Increasing the number of bank branches makes credit, savings, and investment opportunities more accessible, which supports inclusive economic growth [11]. However, a number of issues, including operational expenses, infrastructure limitations, managerial capacity, and regulatory environments, have an impact on the growth of bank branches [12]. Furthermore, the unequal distribution of banking services restricts prospects for rural development and exacerbates regional inequality.

Despite the implementation of branch development strategies by numerous banks, a number of obstacles still exist. Limitations in technology and infrastructure limit the scope and effectiveness of banking activities, particularly in rural areas [2]. Inadequate regulatory frameworks, political unpredictability, and a lack of foreign exchange further limit banks' capacity to successfully grow their networks [11]. Ethiopian banks continue to report robust growth rates in spite of these obstacles, indicating their tenacity and dedication to expanding accessibility.

However, there is a dearth of research on the geographic distribution and growth of bank branches in Ethiopia. There is a knowledge gap about the particular difficulties experienced by developing countries because earlier research, including that of [13, 14], has mostly concentrated on the experiences of rich countries. It is crucial to determine the main obstacles and opportunities impacting branch expansion strategies for private commercial banks in Ethiopia, where the branch-to-population ratio is still low, particularly in rural areas. The remainder of the research is structured as follows: The research technique is presented in section two. The data analysis, findings, and discussion are presented in Section 3. The conclusion, implications, and suggestions are given in section four.

2. Materials and Methodology

In order to reduce the possibility of errors that could result from depending solely on one method and to provide a more comprehensive grasp of the research subject, this study used both quantitative and qualitative methodologies. A more thorough examination of the problems associated with bank branch expansion in Ethiopia was made possible by the combination of quantitative data and qualitative observations. While qualitative information from interviews and document reviews aided in the interpretation and contextualization of the numerical results, quantitative analysis was utilized to measure and analyze data gathered through questionnaires. The results' validity and reliability were reinforced by this triangulation, which also offered a deeper, more complex explanation of the opportunities and difficulties related to bank branch expansion.

This study's primary goal was to outline Ethiopia's bank branch growth potential and constraints. The study used a descriptive research design in order to achieve this goal. A fact-finding method called descriptive research seeks to provide a precise description of circumstances, occurrences, or phenomena. It focuses on methodically characterizing features of a population or region of interest rather than testing theories. In this regard, the study sought to provide a clear picture of the situation of bank branch expansion at the moment, the challenges private banks confront, and the prospective prospects in the industr.

According to the National Bank of Ethiopia (NBE) report, as of June 30, 2024, there were thirty one privately held commercial banks and one publicly owned commercial bank, the Commercial Bank of Ethiopia. Among the prominent private banks are Awash Bank, Dashen Bank, Nib International Bank, Bank of Abyssinia, United Bank, Development Bank of Ethiopia, Lion International Bank, Oromia International Bank, Buna International Bank, Wegagen Bank, Abay Bank, Cooperative Bank of Oromia, Berhan International Bank, Zemen Bank, Addis International Bank, Debub Global Bank, Enat Bank, Omo Bank, Gadaa Bank, Amhara Bank, Ahadu Bank, Tsedey Bank, Tsehay Bank, Shebelle Bank, GohBetoch Bank, Rammis Bank, and Hijira Bank. These banks collectively represent the dynamic and expanding financial landscape of the country.

The target population of this study consisted of employees from private commercial banks across Ethiopia. A two-stage sampling method was employed to select the respondents. In the first stage, ten private commercial banks namely Awash Bank (1994), Dashen Bank (1995), Bank of Abyssinia (1996),

Wegagen Bank (1997), Abay Bank (2010), Cooperative Bank of Oromia (2005), Oromia International Bank (2008), Hibret Bank (1998), Addis International Bank (2011), and Berhan International Bank (2010) were purposively selected. The choice of these banks was based on the availability of structured data, their long operational history, and their diverse experience in branch expansion, which could yield valuable insights into the study topic. In the second stage, ten senior officials who were directly involved in branch expansion activities were selected from each bank. This resulted in a total of 100 respondents. Since the total number of the target population was fewer than 200 individuals, the study employed a census sampling method, thereby including all 100 senior officials as respondents. This approach ensured comprehensive coverage and improved the accuracy of findings.

The study relied on both primary and secondary sources of data. Primary data were collected through structured questionnaires distributed to the selected senior bank officials. These questionnaires captured information related to the banks' experiences, challenges, and strategic considerations in branch expansion. Secondary data were obtained from the annual reports of private commercial banks and the National Bank of Ethiopia's Bank Supervision Directorate. Combining these data sources allowed the researcher to analyze the issue both from the perspective of policy documents and real-world practices, ensuring that the findings reflect a balanced and evidence-based understanding of bank branch expansion in Ethiopia.

Data analysis and presentation technique

The primary research instrument was used in this study was a questionnaire, complemented by secondary data sourced from various publications and the National Bank of Ethiopia (NBE) websites to address the study's objectives. The questionnaire comprised both open-ended and closed-ended questions to capture diverse responses. The data collected included both quantitative and qualitative elements, ensuring a comprehensive understanding of the research topic. To analyze the data, a descriptive approach was employed, utilizing statistical tools such as means, percentages, charts, and Tables to interpret the findings effectively. This combination provided a robust framework for achieving the research objectives. Moreover, multiple linear Regression model was applied for identifying significant challenge and opportunity of private commercial banks in Ethiopia.

Model Specifications

To examine the challenges and opportunity of bank branch expansion over time panel regression models was used in this study. There are several types of panel models, such as constant coefficients model, fixed effects models and random effects models. In constant coefficients models both intercepts and slopes have constant coefficients. For this model all of the data are pooled and run an ordinary least squares regression model. In short, this research the researcher was employed pooled ordinary least squares regression model.

$$Y_{it} = \beta_0 + \sum_{k=1}^{4} \beta_k \text{Opportunity}_{kit} + \sum_{m=1}^{5} \gamma_m \text{Challenges}_{mit} + \epsilon_{it}$$

Where:

1) Yit: Dependent variable Bank Branch Expansion for bank i in year t.
2) Opportunitykit: Set of opportunity variables (k=1, 2, …,4).
3) Challengemit: Set of challenge variables (m=1, 2, …,5).
4) βk: Coefficients representing the impact of opportunity variables.
5) γm: Coefficients representing the impact of challenge variables.
6) ϵit: Error term capturing unobserved factors.

Model Equation

The pooled regression equation can be specified as:

$\text{Branch_Expansion}_{it} = \beta_0 + \beta_1 \text{UnderservedMarket}_{it} + \beta_2 \text{EconomicGrowthit} + \beta_3 \text{TechAdvancement}_{it} + \beta_4 \text{DiasporaRemittance}_{it} + \gamma_1 \text{RegulatoryConstraintsit} + \gamma_2 \text{HRChallengesit} + \gamma_3 \text{OperationCostit} + \gamma_4 \text{CompetitivePressureit} + \gamma_5 \text{Instabilityit} + \epsilon_{it}$

Description of Variables and Hypothesis

Dependent Variable: If one variable depends upon or is a consequence of the other variables, it is termed as a dependent variable. For this study banks branch expansion is a dependent Variable and it is measured by number of branches 2013 to 2022.

Independent Variables: Independents Variables is variable that successor to the dependent variable is termed as independent variables each independents variable has several questions which in turn using for challenges and opportunities of banks branch expansion and it is measured by likert scale.

Table 1. *Description and Measurement of Variable.*

Variable	Description	Measurement	Expected sign
Number of Branch	NB	Number of branches	NA
Opportunities			
Underserved market	A set of question	Ordinal	+
Economic growth	A set of question	Ordinal	+

Variable	Description	Measurement	Expected sign
Technological advancement	A set of question	Ordinal	+
Diaspora and remittance	A set of question	Ordinal	+
Challenges			
Regulatory constraints	A set of question	Ordinal	-
Human resources challenges	A set of question	Ordinal	-
High operation cost	A set of question	Ordinal	-
Competitive pressure	A set of question	Ordinal	-
Economic and political instability	A set of question	Ordinal	-

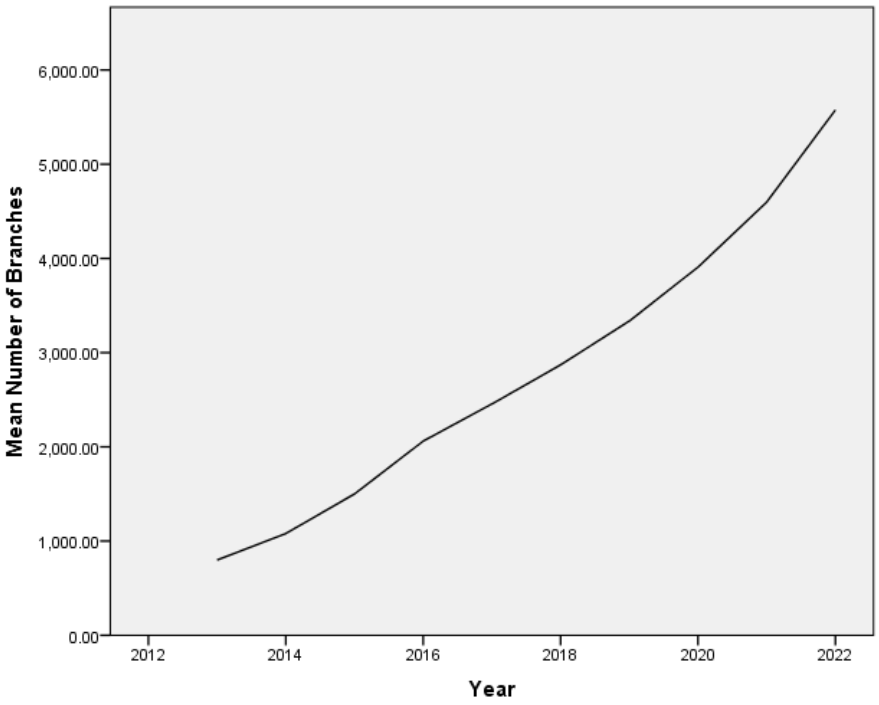
Sources: - Developed by the researcher

3. Results and Discussion

This chapter presents the results and discussions of the responses gathered from the respondents through questionnaire. In order to get a representative data questionnaires were prepared and specifically the interview questions are also prepared. In the discussion, the trends of branch expansion with other key performances of the private commercial bank should be reviewed, and then the results of descriptive statistics for the factors influencing branch expansion to determine which opportunity and/or challenge has great impact in branch opening plan of the private commercial banks should be discussed.

The questionnaires were distributed physically in person to retail operation managers, marketing managers, customer relationship managers, district managers, department managers, and directors, whereas structured interview has been made with one district manager, one head office retail/operation managers' one marketing manager and one senior officer of the bank on branch expansion related staffs of ten private commercial banks they are directly responsible to branch expansion.

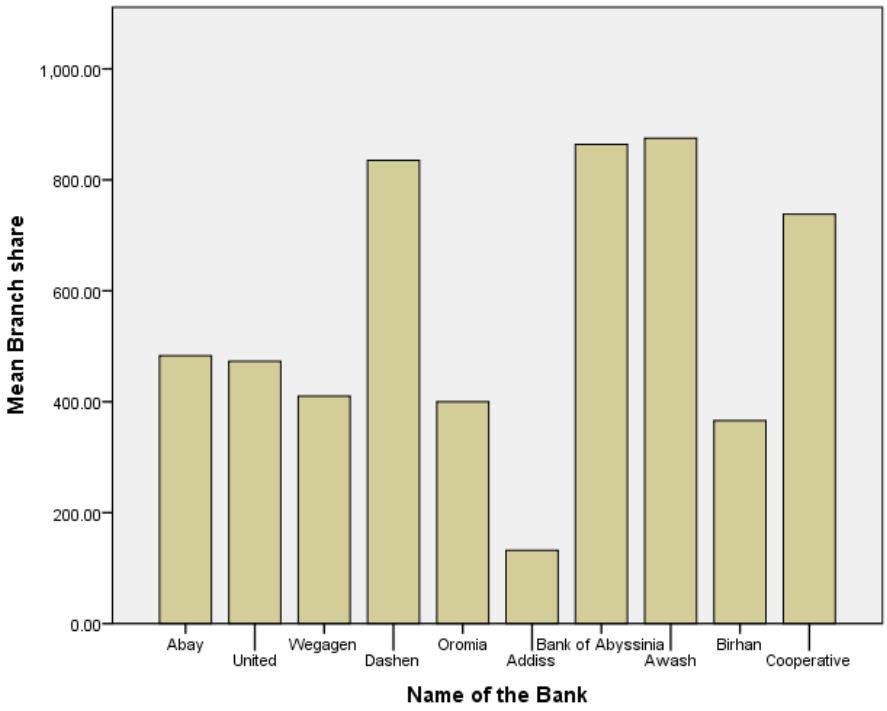
Branch Expansion Trend &Branch share of Private commercial banks in Ethiopia



Source: Own survey 2025

Figure 1. *Branch Expansion Trend.*

The chart shows a continuous upward trend in total values over time, from 2012 to 2022. The Total increases steadily, with a consistent slope, indicating sustained growth. In 2012, the value starts near 0 but climbs progressively, surpassing 6000 by 2022. The data suggests a period of uninterrupted, exponential or linear growth across the decade. This may represent cumulative totals, such as revenue, population, or another metric, highlighting significant long-term expansion (Figure 1).



Source: own survey 2025

Figure 2. *Branch Share of private commercial Banks.*

The bar chart illustrates the mean branch share for various banks. Dashen, Bank of Abyssinia, and Awash stand out with the highest mean branch shares, surpassing 800, indicating their dominant presence in the market. Cooperative Bank also demonstrates a significant share, approaching these leaders, suggesting strong regional or niche performance. In contrast, Addis Bank exhibits the lowest mean branch share, reflecting either limited network expansion or a smaller operational scale. Mid-performing banks like Abay, United, Wegagen, and Oromia maintain moderate shares around the 400-600 range, showing consistent yet less extensive reach compared to the top performers. This distribution reveals a significant disparity in branch distribution across the banking sector, with a few institutions dominating while others occupy smaller market segments. These differences may stem from varying business strategies, regional focuses, or resource allocation.

Analyses of Opportunities and Challenges on Branch Banking Expansion

Opportunity of Branch Banking Expansion

Table 2. *Underserved Market.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Our cooperative effectively identifies and addresses the needs of underserved markets	10	20	11	36	23
	10.0%	20.0%	11.0%	36.0%	23.0%
Accessing underserved markets is a significant growth opportunity for	12	13	11	34	30

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
our cooperative	12.0%	13.0%	11.0%	34.0%	30.0%
The products/services of our cooperative are affordable and accessible to underserved communities	13	17	10	34	26
	13.0%	17.0%	10.0%	34.0%	26.0%
Lack of market infrastructure limits our ability to serve underserved markets	13	16	11	33	27
	13.0%	16.0%	11.0%	33.0%	27.0%
Expanding to underserved markets aligns with our cooperative's mission and goals	8	14	10	34	34
	8.0%	14.0%	10.0%	34.0%	34.0%

Source: SPSS output2025

Based on the data presented in Table 2, respondents demonstrate a strong, optimistic consensus regarding their cooperative's engagement with underserved markets. A significant majority believe the organization effectively identifies market needs and that accessing these areas represents a vital growth opportunity. Furthermore, most respondents affirm that the cooperative's products are affordable and accessible, and that this expansion aligns with its core mission and strategic goals, highlighting a clear strategic fit. However, this positive outlook is tempered by a significant operational challenge. A concurrent majority identified limited market infrastructure as a substantial barrier to effective service delivery. While a small portion of respondents expressed neutrality or skepticism, the overall data indicates a firm belief in the cooperative's commitment and potential. The findings ultimately underscore that to fully capitalize on this potential, targeted strategies are essential to overcome the critical infrastructure gaps that currently hinder deeper market penetration and service effectiveness.

Table 3. *Economic Growth.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Economic growth in the country positively impacts the operations of our cooperative	13	17	9	35	26
	13.0%	17.0%	9.0%	35.0%	26.0%
Increased consumer income levels enhance the demand for our cooperative's services/products	5	12	12	33	38
	5.0%	12.0%	12.0%	33.0%	38.0%
Economic downturns have a significant adverse effect on our cooperative's performance	5	12	13	29	41
	5.0%	12.0%	13.0%	29.0%	41.0%
Our cooperative contributes to the economic growth of the communities we serve	14	17	8	35	26
	14.0%	17.0%	8.0%	35.0%	26.0%
Economic growth creates opportunities for our cooperative to diversify its services/products	15	23	14	28	20
	15.0%	23.0%	14.0%	28.0%	20.0%

Source: SPSS output 2025

The performance of the cooperative and the overall economy are clearly and reciprocally linked, (Table 3). The vast majority of respondents concur that increased consumer affluence and area economic growth directly benefit the cooperative by boosting demand. On the other hand, they also generally agree that economic downturns have a detrimental effect on performance, indicating a strong susceptibility to financial swings. The cooperative is viewed as a contributor to local economic development in addition to a benefit. However, there is a lack of strategic consensus over whether

expansion generates chances for diversification. In the end, the cooperative's well-being is closely linked to the state of the economy, underscoring the vital necessity of capitalizing on successful times while constructing strong defenses against future downturns.

Table 4. *Technological Advancement.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Adoption of new technologies has significantly improved our cooperative's productivity	12	17	11	35	25
	12.0%	17.0%	11.0%	35.0%	25.0%
Lack of technical expertise is a barrier to implementing technological advancements	14	22	12	29	23
	14.0%	22.0%	12.0%	29.0%	23.0%
Technology has enhanced communication and coordination among cooperative members	10	17	10	37	26
	10.0%	17.0%	10.0%	37.0%	26.0%
Investment in technology is a priority for our cooperative	5	12	12	33	38
	5.0%	12.0%	12.0%	33.0%	38.0%
Advanced technologies improve the competitiveness of our cooperative in the market	11	20	17	27	25
	11.0%	20.0%	17.0%	27.0%	25.0%

Source: SPSS output 2025

Table 4 shows that there is broad agreement within the cooperative regarding the importance of technical innovation. The vast majority of respondents agree that the use of technology has improved internal communication and increased productivity. In addition, most people consider technology investment to be a strategic priority. Despite this optimism, a significant obstacle to implementation is apparent, since most also cite a lack of internal technical skills. A sizable minority of respondents disagree, reflecting differing opinions on technology's impact on the market, despite the fact that more than half of them think it increases competitiveness. This mix of hope and caution shows that the company is dedicated to technical advancement but also understands that closing important talent gaps is essential to its success. For the cooperative to fully leverage technology for operational efficiency and competitive advantage, prioritizing workforce training and effective implementation strategies is paramount.

Table 5. *Diaspora and Remittance.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Remittances from diaspora communities positively impact the financial stability of our cooperative	15	19	9	33	24
	15.0%	19.0%	9.0%	33.0%	24.0%
The diaspora plays a key role in providing market opportunities for our cooperative’s products	14	19	9	34	24
	14.0%	19.0%	9.0%	34.0%	24.0%
Collaboration with diaspora communities has enhanced the cooperative's access to funding	11	19	12	34	24
	11.0%	19.0%	12.0%	34.0%	24.0%
Remittances are a reliable source of investment for the development of our cooperative	14	15	9	37	25
	14.0%	15.0%	9.0%	37.0%	25.0%

Source: spss output 2025

Table 5 shows the influence of diaspora and remittances on the cooperative's operations. A majority of respondents view remittances as beneficial, with 57% (33% agree, 24% strongly agree) stating that they positively impact the cooperative's financial stability, and 58% (34% agree, 24% strongly agree) believing the diaspora creates market opportunities for products. Additionally, 58% (34% agree, 24% strongly agree) agree that collaboration with diaspora communities enhances access to funding, emphasizing the strategic importance of these relationships. Remittances are also seen as a reliable source of investment for development, supported by 62% (37% agree, 25% strongly agree). However, disagreement ranges between 29% and 34% across the statements, reflecting skepticism or potential challenges in fully leveraging diaspora contributions. Neutral responses are relatively low (9%-12%), suggesting that most respondents hold definitive views on the role of diaspora and remittances. Overall, the survey underscores the significant impact diaspora communities have on the cooperative's financial health, market access, and funding, though some barriers to maximizing these benefits persist. Strengthening partnerships and addressing concerns among stakeholders could enhance the cooperative's ability to tap into diaspora resources as a sustainable source of growth and development.

Challenges of Branch Banking Expansion

Table 6. *Regulatory Constraints.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Regulatory requirements create significant challenges for our cooperative's operations	14	16	9	37	24
	14.0%	16.0%	9.0%	37.0%	24.0%
The complexity of regulatory processes leads to delays in achieving our goals	15	18	9	34	24
	15.0%	18.0%	9.0%	34.0%	24.0%
Compliance with regulatory standards increases the cost of operations for our cooperative	11	16	10	33	30
	11.0%	16.0%	10.0%	33.0%	30.0%
Regulatory constraints limit our ability to innovate and expand	12	20	9	32	27
	12.0%	20.0%	9.0%	32.0%	27.0%

Source: spss output 2025

Table 6 explores the impact of regulatory constraints on the operations of the cooperative. A majority of respondents agree that regulatory requirements pose significant challenges, with 61% (37% agree, 24% strongly agree) highlighting this as an issue. Similarly, 58% (34% agree, 24% strongly agree) believe the complexity of regulatory processes leads to delays in achieving goals. Compliance with regulatory standards is seen as a financial burden, with 63% (33% agree, 30% strongly agree) agreeing that it increases operational costs. Additionally, 59% (32% agree, 27% strongly agree) feel that regulatory constraints hinder innovation and expansion efforts. Neutral responses remain low, ranging from 9% to 10%, indicating that most respondents have clear views on the effects of regulations. However, disagreement levels across statements range from 26% to 32%, showing that some respondents perceive regulatory challenges as less significant. Overall, the data underscores the widespread belief that regulatory constraints impose operational, financial, and strategic challenges on the cooperative. These findings suggest a need for streamlined regulatory processes and supportive frameworks to reduce compliance costs and delays, enabling the cooperative to focus on growth, innovation, and achieving its goals more effectively.

Table 7. *Human Resources Challenges.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Our cooperative faces difficulties in recruiting qualified personnel	10	24	7	36	23
	10.0%	24.0%	7.0%	36.0%	23.0%

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Retaining skilled employees is a persistent challenge for our cooperative	10	20	10	34	26
	10.0%	20.0%	10.0%	34.0%	26.0%
The lack of adequate training programs impacts the productivity of our cooperative's workforce	13	20	11	32	24
	13.0%	20.0%	11.0%	32.0%	24.0%
Human resource shortages hinder the growth of our cooperative	10	17	9	38	26
	10.0%	17.0%	9.0%	38.0%	26.0%
Employee turnover negatively affects the operations of our cooperative	19	20	11	30	20
	19.0%	20.0%	11.0%	30.0%	20.0%

Source: own survey 2025

Table 7 highlights human resources challenges faced by the cooperative. A majority of respondents agree that recruiting qualified personnel is a significant difficulty, with 59% (36% agree, 23% strongly agree) identifying it as a challenge. Similarly, 60% (34% agree, 26% strongly agree) feel retaining skilled employees is a persistent issue. The lack of adequate training programs is also seen as a concern, with 56% (32% agree, 24% strongly agree) agreeing it impacts workforce productivity. Furthermore, 64% (38% agree, 26% strongly agree) believe human resource shortages hinder the cooperative's growth. Employee turnover is acknowledged as a problem, though with slightly less consensus, as 50% (30% agree, 20% strongly agree) indicate it negatively affects operations, while 39% (19% strongly disagree, 20% disagree) downplay its impact. Neutral responses are relatively low across all statements (7%-11%), showing most respondents hold clear positions on these issues. Overall, the data reveals significant human resources challenges, particularly in recruitment, retention, and training, which affect productivity and growth. Addressing these challenges through enhanced hiring practices, robust retention strategies, and employee development programs could strengthen the cooperative's workforce and support its long-term success.

Table 8. *High Operation Cost.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Rising operational costs pose a significant challenge to the sustainability of our cooperative	14	18	10	34	24
	14.0%	18.0%	10.0%	34.0%	24.0%
The cost of energy and utilities significantly impacts our cooperative's profitability.	9	15	12	30	34
	9.0%	15.0%	12.0%	30.0%	34.0%
Managing operational costs is a priority for our cooperative's leadership.	3	11	14	30	42
	3.0%	11.0%	14.0%	30.0%	42.0%
High input costs (e.g., seeds, fertilizers, equipment) reduce our cooperative's competitiveness.	13	17	8	36	26
	13.0%	17.0%	8.0%	36.0%	26.0%
Cost-effective solutions are essential for ensuring the viability of our cooperative.	5	16	10	33	36
	5.0%	16.0%	10.0%	33.0%	36.0%

Source: spss output 2025

Table 8 underscores the challenges posed by high operational costs to the cooperative's sustainability and competitiveness. A majority of respondents (58%, with 34% agreeing and 24% strongly agreeing) identify rising

operational costs as a significant threat to sustainability. Similarly, 64% (30% agree, 34% strongly agree) recognize the cost of energy and utilities as a key factor affecting profitability. Leadership prioritizes managing operational costs, as reflected by 72% agreement (30% agree, 42% strongly agree). High input costs, such as seeds, fertilizers, and equipment, are noted as reducing competitiveness by 62% (36% agree, 26% strongly agree). The necessity of cost-effective solutions is widely acknowledged, with 69% (33% agree, 36% strongly agree) emphasizing their importance for the cooperative's viability. Neutral responses range between 8% and 14%, indicating some uncertainty, while disagreement levels (ranging from 14% to 30%) suggest differing perceptions of the severity of these challenges. Overall, the data reveals that rising operational costs, particularly energy, utilities, and inputs, significantly affect the cooperative's profitability and competitiveness. Leadership's focus on managing costs and identifying cost-effective strategies will be crucial for ensuring sustainability and maintaining market relevance amidst these financial pressures.

Table 9. *Competitive Pressure.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Intense competition from other cooperatives and private businesses affects our market share.	4	13	13	31	39
	4.0%	13.0%	13.0%	31.0%	39.0%
Our cooperative struggles to differentiate its products/services from competitors.	13	17	8	36	26
	13.0%	17.0%	8.0%	36.0%	26.0%
Price competition puts pressure on our cooperative's profitability.	5	15	10	32	38
	5.0%	15.0%	10.0%	32.0%	38.0%
Adapting to the competitive landscape is a challenge for our cooperative.	10	18	11	35	26
	10.0%	18.0%	11.0%	35.0%	26.0%
Collaborating with competitors could help mitigate competitive pressures.	10	15	9	39	27
	10.0%	15.0%	9.0%	39.0%	27.0%

Source: spss output 2025

The Table on competitive pressure reflects the significant challenges faced by the cooperative in maintaining its market position. A majority of respondents (39%) strongly agree that intense competition from other cooperatives and private businesses has a negative impact on their market share, with 31% agreeing. The cooperative also appears to struggle with differentiation, as 36% agree and 26% strongly agree that distinguishing their products or services from competitors is difficult. Additionally, price competition is a major concern, with 38% strongly agreeing and 32% agreeing that it pressures the cooperative's profitability. Adapting to the competitive landscape is another challenge, with 35% agreeing and 26% strongly agreeing. While there is some openness to collaboration with competitors to ease competitive pressures, with 39% agreeing and 27% strongly agreeing, 15% of respondents disagree with this strategy. This data highlights the tough competitive environment the cooperative operates in and the need for strategic adjustments, whether in product differentiation, pricing strategies, or considering collaboration with competitors. The responses suggest that despite some challenges, there is recognition of the potential benefits of partnerships to mitigate competitive forces.

Table 10. *Economic and Political Instability.*

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
Economic instability negatively impacts the financial performance of our cooperative.	10	15	11	37	27
	10.0%	15.0%	11.0%	37.0%	27.0%
Political instability creates uncertainties that affect long-term planning.	12	21	13	29	25

Statement	Strongly Disagree	Disagree	neutral	Agree	Strongly Agree
	12.0%	21.0%	13.0%	29.0%	25.0%
Fluctuations in exchange rates and inflation rates increase operational risks for our cooperative.	12	18	10	35	25
	12.0%	18.0%	10.0%	35.0%	25.0%
Government policies during times of instability significantly impact our operations.	3	11	14	30	42
	3.0%	11.0%	14.0%	30.0%	42.0%
Building resilience to economic and political instability is critical for our cooperative's sustainability.	16	19	10	31	24
	16.0%	19.0%	10.0%	31.0%	24.0%

Source: spss output 2025

The Table on economic and political instability indicates that the cooperative recognizes the substantial impact of both economic and political factors on its operations. Economic instability is seen as a significant threat to financial performance, with 37% agreeing and 27% strongly agreeing that it negatively affects the cooperative's financial outcomes. Political instability is also a concern, with 29% agreeing and 25% strongly agreeing that it creates uncertainties that complicate long-term planning. Similarly, fluctuations in exchange rates and inflation rates are seen as increasing operational risks, with 35% agreeing and 25% strongly agreeing. The role of government policies during times of instability is considered crucial, as 42% strongly agree and 30% agree that these policies significantly impact their operations. Despite these challenges, the cooperative acknowledges the importance of building resilience to economic and political instability for long-term sustainability, as evidenced by 31% agreeing and 24% strongly agreeing with this statement. Overall, the responses highlight a strong awareness of the risks posed by both economic and political instability, with a clear focus on the necessity of adaptive strategies and resilience-building to navigate such challenges effectively. The cooperative's ability to manage these risks will be vital for its continued success and sustainability.

Table 11. *Descriptive Summary Statistics.*

Variable	Minimum	Maximum	Mean	Std. Deviation
Number of Branches	18	875	281.83	195.368
Underserved Market	1.00	4.90	3.4120	1.08192
Economic Growth	2.20	4.90	3.4740	.64332
Technological Advancement	.00	4.70	1.6413	.83167
Diaspora and Remittance	.25	5.00	1.8615	1.33974
Regulatory Constraints	1.00	8.10	3.5500	1.28657
Human Resources Challenges	1.00	6.70	3.4490	.97156
High Operation Cost	.25	5.00	1.8585	1.31507
Competition	.25	3.00	1.3763	.77229
Economic and Political Instability	.25	5.00	2.0958	1.39694

Source: SPSS output 2025

The quantitative analysis shows trends in private commercial bank branch expansion in Ethiopia. The data indicate sustained growth in branch networks from 2012 to 2022, with dominant banks such as Dashen, Awash, and Bank of Abyssinia maintaining a significant market share. Descriptive statistics identifies major factors influencing branch expansion, including economic growth, technology, diaspora remittances, and regulatory constraints.

Opportunities for expansion exist in underserved markets, with 64% of respondents agreeing on its potential. Economic growth positively impacts operations (61% agreement), while 71% believe rising consumer income increases demand. Technological advancements improve productivity (60% agreement), But technical expertise remains a barrier. Diaspora remittances support financial stability (57% agreement).

Challenges include regulatory constraints (61% agreement), human resource shortages (59% agreement), and high operational costs (58% agreement). Competitive pressures further complicate expansion efforts. Overall, strategic planning must address both opportunities and challenges to ensure sustainable growth in Ethiopia's banking sector.

Econometric Analysis

Appropriate Test in Multiple linear regression model

Multicollinearity Test

Table 12. Multicollinearity test.

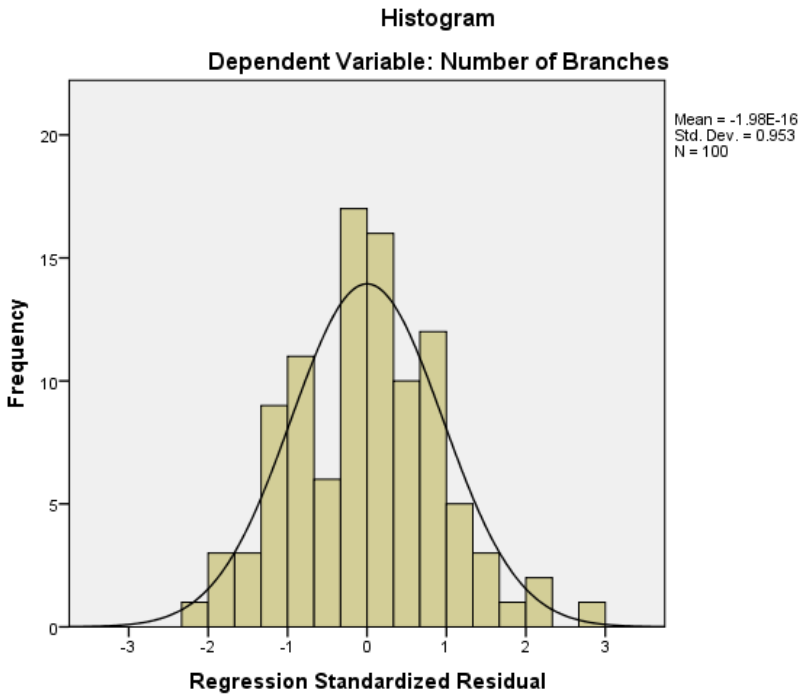
Variable	Collinearity Statistics	
	Tolerance	VIF
Underserved Market	.848	1.179
Economic Growth	.848	1.179
Technological Advancement	.715	1.399
Diaspora and Remittance	.952	1.050
Regulatory Constraints	.719	1.391
Human Resources Challenges	.898	1.114
High Operation Cost	.953	1.049
Competition	.902	1.108
Economic and Political Instability	.974	1.026

a. Dependent Variable: Number of Branches

Source: model output 2025

The collinearity statistics in this Table, including Tolerance and Variance Inflation Factor (VIF), indicate whether multicollinearity is present among the independent variables. Tolerance values close to 1 and VIF values below 10 suggest that multicollinearity is not a concern. In this model, all variables have Tolerance values ranging from 0.715 to 0.974 and VIF values ranging from 1.026 to 1.399, which are well within acceptable limits. This indicates that the independent variables such as Underserved Market, Economic Growth, and Technological Advancement are not highly correlated with one another, and each provides unique information to the model when predicting the dependent variable (Number of Branches). Therefore, multicollinearity does not compromise the reliability of the regression analysis.

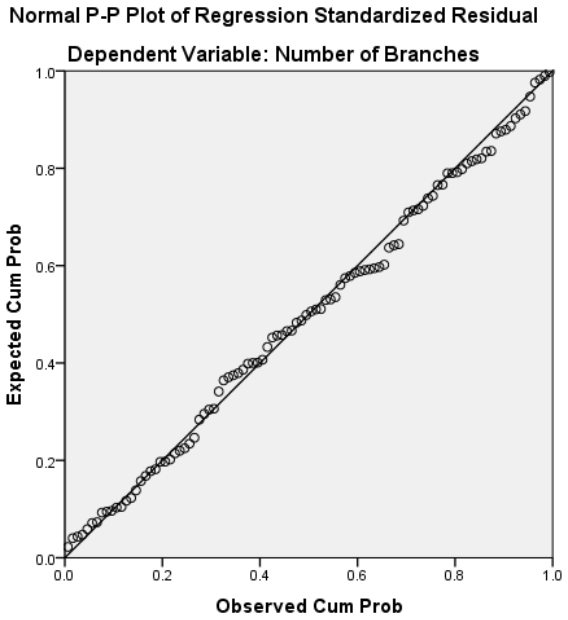
Normality test



Source: SPSS output 2025

Figure 3. Normality test.

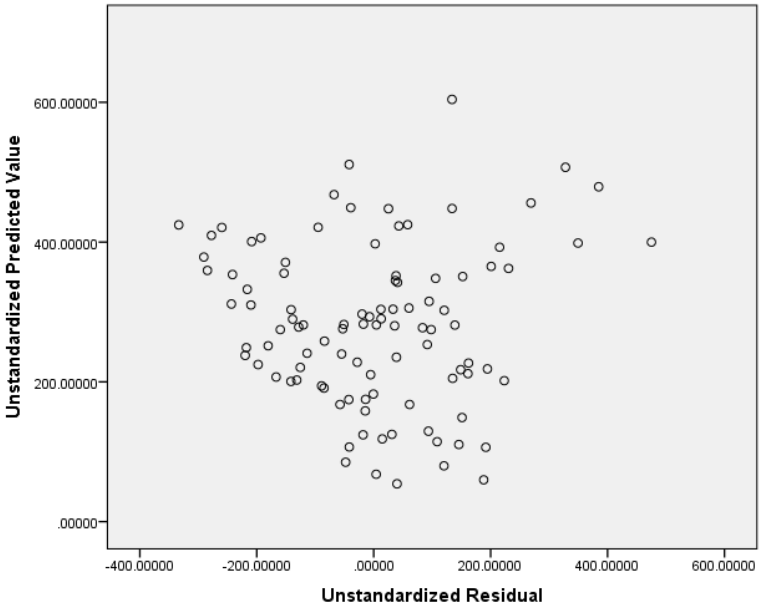
The histogram displays the distribution of standardized residuals for the regression model predicting the Number of Branches. The residuals demonstrate an approximately normal distribution, closely following the superimposed normal curve. The mean residual is effectively zero, indicating the model is free from systematic bias, while the standard deviation illustrates the variability present. The vast majority of residuals fall within the expected range of two standard deviations. Given the number of observations, this normal distribution of residuals confirms that a key assumption for the regression model has been met, thereby validating the model for reliable statistical interpretation and prediction (Figure 3).



Source: SPSS output 2025

Figure 4. *Normality test.*

Heteroscedasticity test



Source: model output 2025

Figure 5. *Heteroscedasticity test.*

The scatterplot shows how unstandardized residuals (on the x-axis) and unstandardized projected values (on the y-axis) from a regression model relate to one another. The distribution of residuals shows no discernible pattern or systematic organization, indicating that the homoscedasticity assumption (constant variance of residuals) is probably met. The fact that the points seem haphazardly dispersed suggests that the residuals are independent of the expected values. Wider residual ranges at some expected values and a few outliers, however, point to possible departures from perfect homoscedasticity. More research should be done on this. Overall, the scatterplot suggests that the regression model is rather well-suited for predictive analysis, supporting the assumption of residual randomness. Additional diagnostic testing could support these findings (Figure 5).

Discussion of estimated Multiple linear Regression model

Table 13. Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.585a	.343	.277	166.111

a. Predictors: (Constant), Economic and Political Instability, Regulatory Constraints, Competition, High Operation Cost, Human Resources Challenges, Diaspora and Remittance, Underserved Market, Economic Growth, Technological Advancement

Source: SPSS output, 2025

The regression model shows an R value of 0.585, indicating a moderate correlation between the predictors (such as Economic and Political Instability, Regulatory Constraints, etc.) and the dependent variable. The R Square value of 0.343 suggests that approximately 34.3% of the variance in the dependent variable is explained by the predictors. The Adjusted R Square value of 0.277, which accounts for the number of predictors in the model, is slightly lower, indicating that after adjusting for the number of variables, the model still explains 27.7% of the variance. The Std. Error of the Estimate of 166.111 represents the average distance between the observed values and the values predicted by the model.

Table 14. ANOVA output.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1295327.738	9	143925.304	5.216	.000b
	Residual	2483368.372	90	27592.982		
	Total	3778696.110	99			

a. Dependent Variable: Number of Branches

b. Predictors: (Constant), Economic and Political Instability, Regulatory Constraints, Competition, High Operation Cost, Human Resources Challenges, Diaspora and Remittance, Underserved Market, Economic Growth, Technological Advancement

Source: model output 2025

The analysis of variance (ANOVA) results for the regression model reveal that the regression model significantly explains the variation in the number of branches. The sum of squares for the regression is 1,295,327.738, with 9 degrees of freedom, yielding a mean square of 143,925.304. The F-statistic is 5.216, and the associated p-value (Sig.) is 0.000, which is below the commonly used threshold of 0.05, indicating that the model as a whole is statistically significant. This suggests that the predictors Economic and Political Instability, Regulatory Constraints, Competition, High Operation Cost, Human Resources Challenges, Diaspora and Remittance, Underserved Market, Economic Growth, and Technological Advancement collectively have a meaningful impact on the dependent variable, the number of branches. The residual sum of squares is 2,483,368.372, with a mean square of 27,592.982, indicating the variation not explained by the model. The total sum of squares is 3,778,696.110.

Table 15. Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	59.395	131.193		.453	.652
Underserved Market	67.203***	16.753	.372	4.012	.000
Economic Growth	39.302	28.180	.129	1.395	.167
Technological Advancement	62.517***	23.743	.266	2.633	.010
Diaspora and Remittance	20.130	12.770	.138	1.576	.118
Regulatory Constraints	-33.981***	15.307	-.224	-2.220	.029
Human Resources Challenges	-10.158	18.136	-.051	-.560	.577
High Operation Cost	-34.886***	13.001	-.235	-2.683	.009
Competition	-34.222	22.759	-.135	-1.504	.136
Economic and Political Instability	-7.575	12.107	-.054	-.626	.533

a. Dependent Variable: Number of Branches

Source: model output 2025

The analysis reveals key predictors influencing the Number of Branches. Significant Positive Predictors include Underserved Market and Technological Advancement, indicating that these factors contribute to an increase in the number of branches. Expanding into underserved markets and leveraging technological advancements positively impact branch establishment. On the other hand, Significant Negative Predictorsinclude Regulatory ConstraintsandHigh Operation Cost, showing that stringent regulations and elevated operational costs hinder branch expansion. Meanwhile, several predictors did not exhibit statistically significant effects. These Non-Significant Predictors include Economic Growth, Diaspora and Remittance, Competition, Economic and Political Instability, and Human Resources Challenges. Their lack of significance suggests that these factors may not strongly influence the number of branches or their effects might be indirect and influenced by other variables.

The regression equation for Branch Expansion variables was:

Branch_Expansion= 59.4-34RegulatoryConstraints. 10.2HRChallenges.34.9OperationCost-34.2CompetitivePressure.7.6Instability+ 67.2UnderservedMarket+ 39.3EconomicGrowth+ 62.5TechAdvancement+ 20.1DiasporaRemittance

The Underserved Market variable is found to be a highly significant and positive predictor of branch expansion in the regression analysis. All other things being equal, the statistically significant coefficient shows that a unit increase in this component results in a significant increase in the number of branches. This result provides empirical support for private commercial banks' principal growth strategy of focusing on areas with restricted financial access. Serving unbanked populations is both a developmental goal and a feasible business model, according to the financial inclusion paradigm [11]. Banks can develop new clientele and spur organizational expansion by addressing the latent demand in these areas. For branch network expansion to be viable, underserved markets must be deliberately prioritized.

According to the regression study, branch expansion is positively and statistically significantly influenced by technological advancement. The noteworthy coefficient shows that the adoption of technology immediately promotes network growth, allowing organizations to get over the conventional obstacles of physical expansion. This research highlights how digitalization has revolutionized the banking industry by improving operational scalability and customer reach through innovations like automated systems and data analytics. In line with the worldwide trend of combining digital and physical channels for market penetration, technology integration enables banks to set up branches more effectively [6]. Therefore, in a financial environment that is changing quickly, strategic investment in technology is essential to sustainable growth and competitive advantage rather than just an operational improvement.

Regulatory constraints have a statistically significant and detrimental impact on branch extension, according to the regression analysis. When all other variables are held constant, the significant negative coefficient shows that higher regulatory barriers consistently limit the number of branches a bank can open. This result provides actual evidence of how restrictive rules, bureaucratic complexity, and severe compliance requirements can lead to operational inefficiencies, increase costs, and eventually discourage network expansion.

Policymakers and banking institutions must work together to create a favorable environment for financial inclusion and long-term growth. To efficiently expand their services and achieve more general economic growth objectives, banks must streamline regulatory procedures and create frameworks that strike a balance between operational flexibility and essential oversight.

According to the analysis, branch expansion is significantly predicted negatively by High Operation Cost (B = -34.886, p = 0.009). This result shows that, for constant other parameters, the number of branches drops by about 34.886 for every unit rise in operating costs. Businesses find it challenging to maintain or grow their networks due to the substantial financial pressures imposed by high staffing, utility, rent, and other operating expense charges. This emphasizes how crucial cost control techniques are to achieving sustainable growth. The substantial impact of high costs emphasizes the necessity for businesses to maximize resources, use cost-effective technology, and bargain for advantageous conditions in order to successfully address these issues.

Contributions of branching to Private Commercial Banks & to the Society

Overall respondents are clearly said that the society is the source of deposit, resources, foreign currency and the banks are by supporting the society lending loans, more investment and this is creating employment and banking expansion are supporting the macroeconomic development. It means that respondents thought on the contribution of branch expansion undertaken by the private commercial bank more inclines to deposit mobilization business transaction facilitation and its role in creating access to the unbanked society and Banks and the society work together for mutual benefit.

The interview revealed that the aggressive branch banking expansion of the organization is driven by the desire to improve accessibility and meet growing demand for banking services across Ethiopia. The key reasons for expansion include reaching underserved markets, increasing customer base, and enhancing service delivery. The competitive nature of the Ethiopian banking sector is intense, with many banks striving to secure market share. The bank follows specific policies regarding branch locations, ensuring alignment with business objectives. Branch expansion is seen as a means to promote financial inclusion and improve the saving culture. Evaluations focus on customer reach, profitability, and market penetration. Opportunities include expanding into rural areas, while challenges include high operational costs and regulatory hurdles. To maximize opportunities and minimize challenges, the bank emphasizes cost optimization, regulatory engagement, and leveraging technological advancements.

4. Conclusion and Recommendation

Over the past ten years, Ethiopia's private commercial banks have made impressive strides in branch expansion, with the overall number of branches increasing significantly and showing a steady upward trend. The sector's strategic commitment to increasing physical banking access and fostering financial inclusion in both urban and rural areas is reflected in this expansion. More people will be able to interact with formal financial institutions and obtain loans, savings, and other financial services thanks to the expansion, which is in line with Ethiopia's larger objectives for economic development. By making significant investments in outreach and infrastructure, private banks have been instrumental in bringing financial services to previously neglected communities. These banks' competitive branch network distribution also reveals a changing financial environment where client reach, service diversification, and innovation are critical success factors.

Even with this tremendous advancement, there are a number of obstacles to keep branch expansion moving forward. Due to growing costs for manpower, infrastructure, and logistics, especially in remote areas, operational costs are still considerable. Furthermore, strict licensing requirements and regulatory complexity continue to impede expansion efforts, deterring smaller banks from growing their networks. Although technological change presents opportunity for efficiency, it also necessitates substantial investment and adaptability. In order to guarantee further advancements in branch expansion and financial inclusion, these difficulties highlight the significance of strategic planning, creativity, and cooperation between financial institutions and regulators.

There is a moderate correlation between the explanatory variables and the degree of branch expansion among private commercial banks, according to the study's multiple linear regression model analysis. The findings imply that branch growth is significantly and favorably influenced by elements like the presence of underserved markets and the uptake of technical innovations. Banks are better positioned to grow effectively and satisfy client expectations when they successfully find unexplored markets and incorporate contemporary technologies. On the other hand, it has been discovered that high operating costs and regulatory restrictions considerably impede growth, indicating areas that need managerial and policy attention. The results of branch development may be more significantly influenced by institutional and operational characteristics than by other factors, such as economic growth and competition, which seem to have only a little or indirect impact.

A dual-pronged and cooperative approach is necessary to promote sustainable branch expansion in Ethiopia's private banking sector, according to the study's conclusions. There are three strategic imperatives for private commercial banks. In order to establish this as a fundamental growth strategy, they must first strategically target underserved markets by giving data-driven location research top priority in order to discover and enter high-potential, unbanked rural and peri-urban locations. Second, it is imperative to accelerate digital integration. Investing in and utilizing technologies like automation, data analytics, and digital banking platforms will improve operational efficiency, lower long-term costs, and produce hybrid

service models that supplement physical branches. Third, the success of new branches depends on the implementation of strict cost-management measures, which call for a concentrated effort on maximizing resource utilization, negotiating advantageous supplier conditions, and utilizing technology to reduce overhead. At the same time, policymakers most notably the National Bank of Ethiopia—play a crucial part in fostering a supportive atmosphere. In order to ensure financial stability while facilitating quicker, more economical expansion, this entails simplifying the regulatory framework by examining and amending banking legislation to cut down on needless bureaucratic obstacles and administrative delays. In order to comprehend operational issues and create supportive policies that encourage expansion into financially prohibited regions, it is also essential to cultivate a collaborative ecosystem through ongoing communication with private banks. Private commercial banks and policymakers can collaborate to achieve balanced, sustainable branch network growth that promotes long-term profitability for the banks and inclusive economic development for Ethiopia by simultaneously seizing these important opportunities and resolutely addressing the main obstacles.

Abbreviations

OLS	Ordinary Least Squares
SSA	Sub-Saharan Africa
ATMs	Automated Teller Machines
NBE	National Bank of Ethiopia
SPSS	Statistical Package for the Social Sciences
VIF	Variance Inflation Factor
ANOVA	Analysis of Variance
HR	Human Resources

Author Contributions

Belete Animaw: Conceptualization, Project administration, Resources, Writing – original draft, Writing – review & editing

Conflicts of Interest

The author declares no conflicts of interest.

Appendix

All Sampled Banks' Branch distribution (No. of Branches)

Table 16. All Sampled Banks' Branch distribution (No. of Branches).

Name of Banks'	No of Branches									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dashen Bank	144	156	220	303	373	413	425	454	582	835
Abyssinia Bank	100	132	185	223	286	337	503	608	748	864
Wegagen Bank	95	116	161	213	277	340	382	390	400	410
United Bank	94	127	161	205	229	274	345	383	423	473
Cooperative Bank of Oromia	71	106	174	256	298	389	420	469	593	738
Oromia International Bank	65	106	151	200	223	248	265	300	316	400
Berhan International Bank	37	72	105	161	182	200	231	361	326	366
Abay Bank	71	88	110	144	162	192	223	286	373	483
Awash International Bank	115	150	202	316	366	410	466	566	725	875
Addis International Bank	18	27	31	40	59	68	75	91	112	132
Total Private Banks	799	1080	1500	2061	2455	2871	3335	3908	4598	5576

Source: Each private Bank and NBE annual report

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