

GENDER-BASED FINANCIAL ACCESS IN LIBERIA'S FISHING INDUSTRY

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Abstract: *One essential component of the competitive operation of the fishing industry is the availability of finance. Access to finance is an important issue, but women's access to finance is more critical than men's. The study's objective is to emphasize gendered experiences with financial need, access to and selection of financial services, and service providers among Liberian actors in the fish industry. The study collected and analyzed data using a cross-sectional design. The research used primary data collection methods. Workers in Liberia's artisanal fishing value chain, both men and women, were the main population of interest. Respondents were chosen for the study using a two-stage sampling technique. Purposive sample of counties and random sampling of respondents were the two components of the two-stage sampling strategy. For the study, 278 men and women fish actors were selected as respondents using the random sampling technique. This study employed quantitative methodologies for data collection. From the findings, access to financial products is generally limited for fish actors. Nonetheless, some financial services and products are exclusive to either gender. Commercial banks are more accessible to men than to women. Because of their low income and educational attainment, women have limited access to commercial banks.*

Keywords: *women's access to finance; financial needs; choice of financial institution; women's empowerment; credit worthiness*

(JEL code: B54; G21; G23; G53; Q22)

INTRODUCTION

For micro, small, and medium-sized businesses (MSMEs) to operate competitively, especially in developing nations, financing availability is a crucial component (Beck and Demirgüç-Kunt, 2006). There are, nevertheless, barriers for access to finance. Access to financial products is impacted by factors such as poor income and education (Karthikeyan, 2018). In Liberia, agribusinesses continue to face difficulties in obtaining financing, which has been identified as the primary barrier to the establishment and expansion of youth-led agro-MSMEs (Kyerewaa et al., 2022).

Even while access to finance is important, female's access to finance is more crucial as compared to men's (Leitch et al., 2018). According to Leitch et al. (2018), there is a contradicting opinion that female entrepreneurs need more access to venture capital (or business angel financings) despite the assumption that they just need a small amount of cash. Is micro, medium, or macro finance necessary for females? According to Leitch et al. (2018), females are primarily granted access to microcredit since it is assumed that they require microloans. Should this be the case, though? According to De Andrés et al. (2021), females are more credit worthy than men, which could result in females having access to credit even though men are more likely to receive it. One of the agro-MSMEs that need access to financial products is the fishing sector (Pomeroy et al., 2020).

The small-scale fishing industry in Liberia is seasonal. Six times as much can be traded between the rainy and dry seasons (Jueseah et al., 2020). In Liberia, females play an important role in the fishing industry. Does the fact that their incomes differ have an impact on their financial needs and the kind of financial services they want? The majority of fishermen sell directly to their spouses, Korean wholesalers, artisanal fish dealers, small cold store owners, or individual customers during the dry season. According to Jueseah et al. (2020), wives purchase about 60% of the entire catch during the dry season and 88% during the rainy season. This implies that wives should have a steady source of finance so they can buy from their husbands and maintain their standard of living. Additionally, during the rainy season, wives tend to the majority of their family's domestic needs (Jueseah et al., 2020). Then there is the issue of female's financial demands in the fishing sector. Additionally, wives offer unofficial financing to purchase fishing gear like nets and canoes or, on occasion, to pre-finance fishing excursions. The study's objective is to shed insight on the gendered experiences of Liberian fish actors with regard to financial need, service providers, and access to and selection of financial services. For the limitation of the study, while the study design is suitable for capturing a snapshot of gendered financial access, it does not allow for causal inference or examination of changes over time, which may limit the generalizability of the findings.

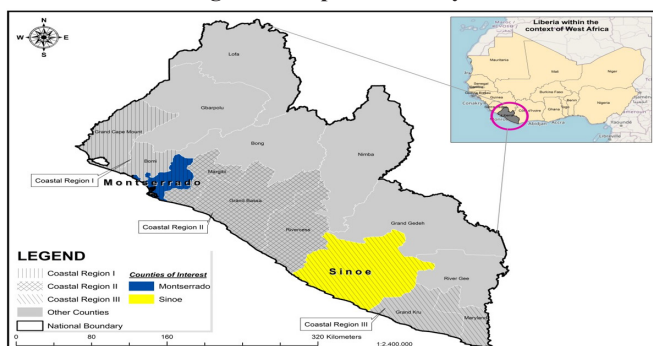
MATERIALS AND METHODS

The study collected and analyzed data using a cross-sectional design; the study used primary data collection method. Females and men employed in Liberia's artisanal fishing value chain were the main population of focus. Liberia is a coastal country, with 9 of its 15 counties located along its 579-kilometer coastline, which includes some of the most prolific fishing areas in the world (Jueseah et al., 2020). The fishing sector is critical to the livelihoods of coastal communities as well as the national economy. The industry is regarded as one of Liberia's primary revenue streams, contributing around 3% of the nation's GDP and 10% of the output of the agricultural sector (Abissa and Dumfour, 2021). An estimated 15,000 fishermen, 25,000 fish processors, and traders—mostly small-scale artisanal fish actors—are employed by the fishing industry, which also provides at least 60% of the country's protein needs (Abissa and Dumfour, 2021).

Study area

The study area is Montserado and Sinoe counties. These fall within two (2) of Liberia's three (3) coastal regions – Region I (Grand Cape Mount, Bomi and Montserado counties), Region II (Margibi, Grand Bassa and Rivercess counties) and Region III (Sinoe, Grand Kru and Maryland counties) (Figure 1).

Figure 1. Map of the Study Area



Source: Map prepared by Author

Sampling approach

A two-stage sampling technique was employed in the study to choose respondents. Purposive sampling of counties and random sampling of respondents were both components of the two-stage sampling technique. A total of 278 male and female fish actors were chosen as research participants from the chosen fishing communities using the random selection approach. In all, 132 fish actors were chosen from Kru Town West Point and 54 from Fanti Town West Point in Montserado County, while 32 and 60 were chosen from Sinoe County's Greenville Down Town Beach and Greenville Fish Town Beach, respectively.

Data collection

This study used primary data employing quantitative methodologies for data collecting. Questionnaire was mostly made up of single choice questions. Using the KoboCollect

platform, a structured questionnaire was used to collect primary data. The data collection was carried out by enumerators who were trained. The opinions and experiences of the fish actors were crucial to the study, since both men and females fish actors are classified as demand-side players in Liberia's agricultural finance sector.

Data analysis and reporting

Cross-tabulation analysis was conducted to examine the relationships between key categorical variables relevant to the financial behavior of fish actors, including their type of activity, access to financial services, preferred financial providers, financial needs, and barriers to accessing finance. After cleaning and coding the data in Excel and Stata, cross-tabulations were generated using Excel Pivot Tables for descriptive summaries and Stata's tabulate command for more advanced statistical outputs. Each cross-tabulation produced frequencies, percentages, and a contingency table structure that allowed for comparison across different categories of fish actors and financial characteristics. To determine whether the patterns observed in the tables reflected true associations rather than random variation, Chi-square tests of independence were applied to all cross-tabulations. For each comparison, a Chi-square statistic and corresponding p-value were generated automatically in Stata. The Chi-square test evaluated the null hypothesis that the two variables under consideration were independent of one another. When the test results produced a p-value less than the threshold of 0.001, the null hypothesis was rejected, indicating a statistically significant relationship between the variables. Using a stringent significance level of $p < 0.001$ strengthened the reliability of the findings by minimizing the likelihood of Type I errors (false positives). This ensured that the associations observed—such as differences in financial access across fish actor categories or variations in preferred financial services—were not due to chance. Tables, charts, and graphs were then used to visually present these findings in the results section. The fact that all cross-tabulations were significant at $p < 0.001$ demonstrated strong and consistent relationships among the variables examined, supporting the robustness of the study's conclusions.

RESULTS AND DISCUSSION

The gender roles observed among fisherfolk align strongly with insights from Gender and Development (GAD) theory, which argues that economic activities in natural-resource sectors are structured along socially constructed gender divisions. The study found that females primarily occupy fish processing roles (86.66% of females), while males dominate fishing activities (95.36% of males). This division is not merely occupational—it reflects broader socioeconomic norms that shape resource access, labour responsibilities, and financial decision-making.

The needs of fisherfolk are different between males and females which is consistent with the Sustainable Livelihoods Framework, which emphasizes that livelihood strategies differ according to asset access. The most pressing business financial

need of females in the fishery industry (71 out of 127 females) is usually short-term in the form of working capital while that of males (104 out of 151 males) is usually long-term in the form of buying assets and expanding their businesses as shown in Table 1. The needs of men are related to buying assets and expanding business/operation. Females on the other hand are concerned with short-term business needs like paying labours and buying raw materials. Short-term loans required by females may mean that females are hard-pressed with finances. This finding is consistent with that of EJF (2025) findings that females' major barrier in the fishery industry is finance.

Table 1: Cross-tabulation between the most pressing business financial needs of fisherfolk in relation to gender

Gender	Long term	Short term	Total
Female	56 (44.09%)	71(55.91%)	127 (45.68%)
Male	104 (68.87%)	47(31.13%)	151 (54.32%)
Total	160	118	278

Source: Field Survey

Access to financial products and services remains generally low among fisherfolk in Liberia, consistent with Pomeroy et al. (2020), who note structural exclusion of fishing communities from formal finance. About 12% of males have requested for credit before while 16% of females have requested for credit before. There is less access to credit for fisherfolk even though they desire various types of credit. Females (31 out of 127 females) mostly desire microloans while males (50 out of 151 males) mostly desire macro loans as shown in Table 2. Even though slightly more females than men have ever requested credit, gender differences in the type of credit desired illustrate further how financial needs reflect position within the value chain: females predominantly request microloans, while males request macro loans. Financial Inclusion Theory helps explain this pattern—short-term needs, smaller incomes, and limited collateral push females toward microfinance, whereas men's capital-intensive fishing activities require larger financing packages.

Table 2: Cross-tabulation between loan size that will be desired in meeting your financial needs and gender

Gender	Macro loans	Medium Loans	Microloans	Total
Female	21(16.54%)	75(59.06%)	31(24.40%)	127(45.68%)
Male	50(33.11%)	79(52.32%)	22(14.57%)	151(54.32%)
Total	71(25.54%)	154(55.40%)	53(19.06%)	278(100%)

Source: Field Survey

Savings behaviour also reflects theoretical expectations regarding gendered access to assets. Almost all fisherfolk save (257 out of 278 fisherfolk save), contradicting assumptions that low-income fishing communities rarely save. Out of the 151 men interviewed, 137 men save their income while 120 out of 127 females save their income. Yet the location of savings differs significantly: females predominantly save at home or through VSLAs and susu groups, whereas men more frequently save in commercial banks. Social Relations Theory explains this by showing how institutional structures—such as banks

requiring documentation, literacy, and collateral—advantage men and disadvantage females who face structural barriers such as lower education and income. Fisherfolk saves at home, banks, VSLA/ susu groups and other avenues. More than half of fisherfolk (50.97%) save at home as shown in Table 3. Proportionally, more females (53.33%) save at home than males (48.91%) do. The proportion of fisherfolk who save in formal financial institutions like the commercial bank is about one-fifth (22%). Men (13.87%) save more in the bank than females (2.50%) do. On the other hand, more females (30.00%) save at VSLA/ Susu groups than men (19.7%) do.

Table 3: Cross tabulation of where money is saved by gender

Gender	At home	Commercial Bank	VSLA/ Susu group	Others	Total
Female	64 (53.33%)	3 (2.50%)	36 (30.00%)	17 (14.17%)	120 (46.69%)
Male	67 (48.91%)	19 (13.87%)	27 (19.71%)	24 (17.52%)	137 (53.31%)
Total	131 (50.97%)	22 (8.56%)	63 (24.51%)	41 (15.95%)	257 (100%)

Source: Field Survey

Access to formal financial institutions, including bank accounts, is similarly gendered. A large proportion of fisherfolk lack bank accounts (91.44), significantly higher than Liberia's national unbanked rate (71.40%) (the Global Economy.com,2025) . However, men (71.43%) are far more likely to have bank accounts than females (25%) as shown in Table 4. Development finance theory suggests that female's exclusion from formal finance is often rooted in limited human capital—such as literacy and numeracy skills—and restricted access to social and economic resources. The findings reflect this, with female having far lower education levels, making it difficult for them to meet documentation requirements for bank accounts or loans. This aligns with Pomeroy et al. (2020) and Letouze et al. (2021), who both emphasize education as a central barrier to financial inclusion.

Table 4: Cross-tabulation between fisherfolk who have saved in a commercial bank entity before and gender

Gender	No	Yes	Total
Female	6(75.00%)	2(25.00%)	8(36.36%)
Male	4(28.57%)	10(71.43%)	14(63.64%)
Total	10(45.45%)	12(54.55%)	22(100%)

Source: Field Survey

On the contrary, more females (87.50%) than males (42.86%) receive credit from commercial banks as shown in Table 5. The high accessibility of loans by females as compared to males may be due to provisions made by the gov-

ernment and donors in improving financial access to females. For instance, the Ministry of Finance and Development Planning has trained female-owned start-up businesses on access to financial products and services (ITC, 2021). Also, females are more credit worthy compared to males (De Andrés et al., 2021). This may lead to more females been likely to receive credit from commercial banks as compared to males. On the other hand, the reason why less males have received credit from the commercial bank may be because they are able to access interest free loans from informal sources like their wives and traders. Jueseah et al. (2020) mentioned that fishermen prefer to borrow interest free loans from their wives and other traders than to borrow from commercial banks.

Table 5: Cross-tabulation between fisherfolk who have received credit (loans) from commercial banks and gender

Gender	No	Yes	Total
Female	1 (12.50%)	7 (87.50%)	8(36.36%)
Male	8 (57.14%)	6 (42.86%)	14(63.64%)
Total	9(40.91%)	13(59.09%)	22(100%)

Source: Field Survey

Pomeroy et al. (2020) mentioned that low education affect access to financial products. In 2020, World Bank calculated gender equality in Liberia in terms of gross enrollment in primary and secondary levels to be 0.33%. Low education of females makes it difficult for them to have access to credit as they will need to present a business plan, insurance documents, income statement and profit strategy. More females (55%) than men (26.32%) emphasised that education was a major barrier to people not having access to financial products like credit as shown in Table 6.

Table 6: Cross-tabulation of access to financial products and services and gender

Gender	No	Yes	Total
Female	119 (93.70)	8(0.063)	127(45.68%)
Male	130(86.09)	21(13.91)	151(54.32%)
Total	249 (89.57)	29 (10.43)	278(100%)

Source: Field Survey

In addition to the low level of education among fisherfolk, low income is a major reason for low access to formal financial institutions' products. During the lean season, most males earn between L\$3001 to L\$16000 while females earn less than L\$3000. This might explain why more men are likely to save than females.

Table 7: Cross-tabulation of low income as a constraint to savings and gender

Gender	No	Yes	Total
Female	14(12.39%)	113(87.61%)	127(45.68%)
Male	39(25.83%)	112(74.17%)	151(54.32%)
Total	53 (19.06%)	225(80.94%)	278(100%)

Source: Field Survey

CONCLUSION

The study reveals clear gender-differentiated financial needs and access patterns among fisherfolk. Males typically face long-term business demands that require larger and more flexible financing, making them more likely to seek macro loans. In contrast, females confront more immediate and short-term business needs, which align with a preference for microloans. Overall, fisherfolk—regardless of gender—experience limited access to formal financial products and services. Yet important gender-specific differences persist within this general constraint. Males demonstrate greater access to commercial banks, reflected in higher rates of account ownership and savings. This suggests that males may be better positioned to navigate formal financial systems, possibly because of higher literacy levels, mobility, or control over financial resources. Females, however, continue to face barriers such as lower education levels and limited or unstable income, which reduce their inclusion in the formal banking sector. Despite these challenges, females report higher access to commercial bank credit. This apparent paradox may result from two dynamics: (1) males often rely on informal credit networks—including spouses, traders, and community lenders—which reduces their need to pursue bank loans; and (2) many development initiatives specifically promote female's financial inclusion, improving their access to credit even when broader structural barriers remain. Taken together, the findings highlight that gender is a critical factor shaping financial behavior and access. Policies and financial services that fail to account for these differences risk reinforcing existing inequalities. Addressing the distinct needs of both male and female fisherfolk is essential for improving financial inclusion and supporting sustainable livelihoods within the fisheries sector.

Recommendation

Financial institutions should tailor their products and outreach strategies to the distinct financial behaviors and needs of male and female fisherfolk. Commercial banks are well-suited to target male clients, who generally possess greater capacity to save and demand larger loan products aligned with long-term business goals. Conversely, females would benefit more from services provided by VSLAs and susu groups, which offer smaller, flexible, and community-based microloans that match their short-term financial needs and lower income levels.

Additionally, interventions should not only match financial products to gendered needs but also work to reduce the structural barriers—such as education gaps and income instability—that limit female's access to formal banking. Complementary financial literacy programs, targeted loan products, and gender-responsive outreach strategies would further strengthen financial inclusion and promote a more equitable and resilient fisheries sector. Efforts to reduce structural barriers for females—such as low literacy, limited income, and restricted access to formal banking—should include financial education, simplified banking procedures, and mobile banking options. Coordinated action among government institutions,

financial organizations, NGOs, and community groups is essential to create inclusive financial access points, incentivize lending to females, and strengthen support for men's use of formal credit. These measures collectively promote equitable financial access and strengthen the resilience of the fisheries sector.

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STATEMENTS

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Disclosure statement

The authors report there are no competing interests to declare.

Consent statement

Authors confirm that all study respondents consented to publish the research paper titled "Gender-based financial access in Liberia's fishing industry in Gender, Technology and Development".

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