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How Organized Is the Informal Sector?

The Role of Business Associations in Microenterprises in West Africa

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Abstract

Although microenterprises are the most prevalent employer in Africa, boosting their productivity remains a development challenge. Theoretically, microenterprise business associations could foster technology, improve access to inputs, pool risk, ensure coordination, and facilitate credit for businesses. However, basic facts about their scope and roles are missing from the literature. This study establishes descriptive results to shed light on the nature of these networks in West Africa. First, fewer than 10 percent of informal business owners are members, although there is large industry variation. Second, members tend to be older and larger incumbent businesses with male owners, potentially stifling competition and entrenching gender gaps. Third, most associations are more aptly described as providers of excludable, industry-specific services than as vehicles for collective action and advocacy. Fourth, membership helps explain performance differences among observably similar businesses. Members are more productive, profitable, and financially included relative to similar non-members, although such premia only materialize in a few industries.

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1. Introduction

In Africa, microenterprises supply most off-farm employment opportunities. These entities are informal businesses or household enterprises and include street vendors, traders, small-scale retailers, construction workers, transport operators, tailors, and hairdressers, for example. On average, microenterprises are very small, unproductive, and stagnant in terms of employment and profit (see, for example, Mead and Liedholm, 1998; Fox and Sohnesen, 2012; Benjamin and Mbaye, 2012; and Nagler, 2017). In addition, most of these businesses are not registered with local or national authorities and, as such, are considered informal. Although efforts to formalize microenterprises have been made, these efforts have often been unsuccessful (Bruhn and McKenzie, 2014). As Africa's labor force undergoes rapid growth, microenterprises will remain a critical source of employment and income in the future for African households, especially those in urban areas and with less education (Beegle and Bundervoet, 2019).

In settings where legal enforcement is weak and financial markets are underdeveloped, microenterprises depend on various forms of networks to succeed. These networks provide information on prices, market conditions, job candidates, client and supplier quality, and technology, which reduce search and screening costs (Kranton, 1996). At a macroeconomic level, Romer (1986) theorizes that knowledge spillovers between enterprises, which networks can facilitate, are a key driver of economic growth. Networks have also been shown to improve access to credit either from formal financial institutions or from family and friends (La Ferrara, 2003; Nagler, 2017). And finally, Fafchamps and Minten (1999) show that relationships beyond the household (i.e., networks) are important for the success of enterprises.

Our study examines the scale and scope of an otherwise understudied form of networks among microenterprises in several West African countries: business associations. Business networks can range from decentralized relationships based on repeated interactions, often linked to kinship or ethnicity, to formal membership in business associations, which are the focus of this study. Fafchamps (2001) theorizes that formal networks like business associations, with open membership and clear and explicit rules, could be more efficient than informal relationships. They also have the potential to aggregate an otherwise intractable sector of informal microenterprises to reduce the cost of delivering government programs such as presumptive taxation (Joshi and Ayee, 2008; Dube and Casale, 2016). Despite the potential benefits of business associations, the literature lacks even basic descriptive evidence on the participation in formal business associations in low-income economies. Drawing on unique cross-country data as well as in-depth urban data for Ghana, we establish several facts regarding the membership and the nature of this type of firm network. We document the participation in business associations across microenterprise

sectors, including the owners' rationale and motivation for joining these organizations, the frequency and content of meetings between members, or the dues paid to participate. Then we examine the extent to which association membership explains differences in financial performance between observably similar firms based on a rich set of covariates capturing business and market characteristics.

The literature is mostly comprised of in-depth descriptive case studies of individual associations (see some examples of logos in Appendix 1 Figure 1). Frequently, business associations are established based on geographic proximity. For example, vendors located in the same market space can be de facto members of a market association led by local market queens who serve to represent the traders and facilitate their communication within the authorities (Scheiterle and Birner, 2023 discuss the role of market queens in Ghana). Alternatively, business associations might be linked by the products sold (e.g., agricultural produce) or the services offered. In some cases, local associations form large national networks and unions that can engage with policymakers and interface with governments to lobby for industry-specific public goods (Brautigam, 1997), make claims and assert rights to urban spaces (Brown, 2018; Resnick, 2019), demand better government performance (Putnam, 1993), bargain for greater concessions in terms of taxation (Resnick, 2021), campaign for allocating a portion of public contracts to informal groups (Wells and Jason, 2010), and facilitate social policy implementation. Some case studies have also looked at internal and external power dynamics (Meagher, 2014) or alliances between formal sector trade unions and informal sector associations (Lindell, 2010; Webster et al., 2021). However, unlike the sizeable literature on agricultural cooperatives (Grashuis and Su, 2019), there is scant systematic empirical information on the scope and nature of business associations among microenterprise owners in Africa or—indeed—throughout the developing world.[1] This study, therefore, seeks to fill these crucial information gaps to help spur further research.

Based on our data, less than 10% of microenterprise owners in West Africa are members of a business association. This average number masks substantial variation across sectors, however. For instance, membership rates can be quite large (more than one-third) in specific combinations of countries and sectors, including among tailors, mechanics and auto dealers, truck drivers, and personal care providers (hairdressers, nail technicians, etc.). Considering this evidence, business associations may only serve as useful "aggregators" or points of contact and delivery partners for programs such as presumptive taxation (Joshi et al., 2014) or social insurance (Guven et al., 2021) if they target specific segments of the informal economy.

[1] As Barringer and Harrison (2000) and Barnett (2009) note, this evidence is also limited for high-income countries.

A second finding is that association members tend to be relatively larger and older microenterprises owned by middle-aged and more educated men. They are more likely to employ skilled labor and to be created with the financial help of a formal loan. This evidence suggests that business associations advance the interests of larger incumbent businesses at the expense of emerging competitors, thereby entrenching existing advantages and stifling competition, as hypothesized by Fafchamps (2001). Studies set in higher income settings uncover similar dynamics (Barnett, 2009). Association membership could also play a role in explaining gender gaps in firm performance as women entrepreneurs are less likely to enjoy the benefits of business association networks (Campos and Gassier, 2017).

Third, most business associations are more aptly described as service providers than as vehicles for collective action and advocacy. These services are very much industry-specific: tailors and healers obtain technical training and access to equipment, traders get assistance with credit and procurement, while transporters rely on associations to settle disputes with competitors and the administration. In contrast, collective action is rarely mentioned as an expected benefit or as a topic of conversation during organization meetings. We document that businesses participate in their respective associations voluntarily; they pay significant dues to join, indicating that they value the services and benefits that the association provides and how these contribute to the success of their microenterprise; and they are not afraid of retribution for leaving their respective associations. Interestingly, programs that facilitate the same services as microenterprise associations exist. Interventions have offered businesses credits or grants, different kinds of training, and mentoring; promoted technology adoption; provided access to bank accounts; and helped with business or tax registration, but the experimental evidence of the effectiveness of these programs is mixed (see, Fafchamps et al., 2014; De Mel, McKenzie, and Woodruff, 2008; Campos et al., 2017; Campos, Goldstein, and McKenzie, 2023; and additional references in Jayachandran, 2020). This limited impact could reflect the fact that the businesses that could profit from such interventions are already able to obtain these same services from the respective associations to which they belong.

Fourth, consistent with existing observational and experimental results in the literature, we measure a performance premium attached to business association membership, but we further uncover considerable heterogeneity across industries. After controlling for a rich set of business characteristics, we find that microenterprise owners who belong to business associations enjoy 14% higher productivity, are 11pp more likely to obtain loans, and make a 3%-15% higher profit per worker depending on the set of covariates. Therefore, association participation can help explain large and persistent differences in performance exhibited by observably similar businesses, a driving puzzle in the literature (Hsieh and

Klenow 2009; Syverson 2011). We remain agnostic regarding the causal interpretation of these correlations. On the one hand, they could reflect the productivity-enhancing effects of the services, resources, and connections that associations provide. On the other hand, they very well could result from collusion among members to actively undermine non-members, or from an unobservable selection of more productive businesses into associations. Regardless of their causal interpretation, these correlations can guide policy makers by characterizing the type of informal sector businesses they could reach through these networks to deliver a variety of policies. In terms of magnitude, we note that the effect is similar to the impacts of experimentally induced business networking in recent studies by Cai and Szeidl (2018) and Fafchamps and Quinn (2018) and with the correlations obtained by Grimm, Knorringa, and Lay (2012), and by Fajnzylber et al. (2009). However, the sample size and representativeness of our survey allow us to consider industry heterogeneity, which turns out to be very large. In fact, the performance premia attached to business association membership mostly materialize for traders. They exhibit the largest premia in terms of productivity, profits, and access to credit, while other industries show little to no effects. Traders that are association members report receiving assistance with obtaining credit, procurement and access to large orders. This is consistent with recent evidence that informational barriers can limit access to markets and significantly hinder firm growth in low- and middle-income countries (Hjort et al. 2024).

This paper is organized as follows: In Section 2, we describe our data sources; in Section 3, we discuss the characteristics of the businesses whose owners are members of associations; in Section 4, we consider the roles that these associations play based on business owner reports; and in Section 5, we explore business outcomes. Section 6 concludes our study.

2. Data Sources

To more accurately quantify the scope and nature of business associations, we leverage the following three data sources: (1) the cross-country Integrated Regional Survey on Employment and the Informal Sector (ERI-ESI), (2) the Ghana Informal Sector Measurement Study (Ghana HHS), and (3) the Informal Sector Enterprise Survey (Ghana IS-ES). We draw mainly from the first data set due to its cross-country coverage and sample size, and we rely on the two Ghana surveys to externally verify of our main findings with respect to sampling methodology and question wording and to document association processes. Even though these studies use different methodologies to sample microenterprises and questions to

identify businesses that belong to associations, they paint a coherent picture of the microenterprise and business association landscape overall.

Integrated Regional Survey on Employment and the Informal Sector (ERI-ESI)

The national statistical institutes of the West African Economic and Monetary Union's (WAEMU) member states carried out the ERI-ESI surveys from 2017 to 2018. We rely on this data for the following six countries: Benin, Burkina Faso, Guinea-Bissau, Niger, Senegal, and Togo. We were not able to use the surveys conducted in Côte d'Ivoire and Mali because the data files are incomplete. The objective of this survey was to collect data on employment and the informal sector at the national level for both urban and rural areas as well as for the first administrative subdivision of each country. Households were selected using a traditional two-stage household survey design. Enumerator areas (EAs) were chosen randomly based on probability, proportionally to population size, and within strata. Within selected EAs, anywhere from 9 to 15 households were randomly surveyed. The survey collected detailed data on all informal non-agricultural enterprises operated by household members. Informal indicates that the enterprise is not registered with the tax authorities (i.e., has no tax identification number) or the business owner does not keep any formal accounting records. The survey also included a limited set of questions regarding membership in a business association for non-farm enterprises, which we analyze in this study.

Ghana Informal Sector Measurement Study (Ghana HHS)

The Ghana HHS is a household survey that the World Bank and the Institute of Statistical Social and Economic Research (ISSER) of the University of Ghana conducted from September to November 2022. The survey's objective was to gain more insight into informality and rural agribusinesses. It contains rich information on household and individual demographics as well as economic, social, and geographic variables. The Ghana HHS was conducted in a purposive selection of districts within the Ashanti and Northern regions of Ghana. Within these districts, 134 EAs were selected based on probability proportional to the population size. All the districts and EAs in Kumasi are urban, while the Northern region covers both urban and rural districts and EAs. Fifteen households were randomly selected in each EA, yielding a sample of 2,000 households.

The survey includes a detailed non-farm enterprise module, which is not restricted to any definition of informality. However, by most standards, the vast majority of the enterprises that were surveyed are informal and small enough to be considered microenterprises. For the purposes of this study, we inserted a short module about non-farm enterprise owners' business association membership. We developed

these questions after conducting fieldwork in Greater Accra in the months prior to the rollout of the survey.

Informal Sector Enterprise Survey (Ghana IS-ES)

The World Bank conducted the Ghana IS-ES in the cities of Accra, Kamasi, and Tamale from August to November 2022 (Aga et al., 2023). Muthengo Development Solutions (MDS) and Esoko Limited implemented the fieldwork. The survey's objectives were to study the demographics of the informal sector and understand the environments in which such businesses operate. Businesses not registered with the Department of the Registrar General and not engaged in any illicit or illegal activity are considered informal.

The survey was administered based on area sampling as well as adaptive cluster sampling. The sample was designed to be representative of the informal businesses for each of the three cities. For the purpose of this study, we also added questions about business association membership into the questionnaire.

We define business association membership as a binary variable based on the following questions in our three data sources:

Ghana ERI-ESI:

- *Do you belong to a professional organization of producers in your field? activity? [Asked of the business owner]*

Ghana HHS:

- *Is this [NON-FARM ENTERPRISE] a member of or part of any organized association such as a market association, a professional association, a trade union, or any other type of organized association? [Enumerator: Such as association/organization of taxi drivers, market women, hairdressers, tailors and dressmakers, mechanics association, hoteliers, mobile money operators.]*

Ghana IS-ES:

- *Is this business or activity a member of or part of any organized association such as a market association, a professional association, a trade union, or any other type of organized association?*

Table 1 lists some basic traits of the sample of microenterprises from the ERI-ESI surveys, our main source of data (with the full set of traits in Appendix Table A1). Appendix Table A2 shows summary statistics for

the Ghana IS-ES and Ghana HHS. As expected, and consistent with other surveys, most of these businesses are very small in terms of revenue, profit, and number of workers.[2] According to the ERI-ESI surveys, four out of five businesses (80%) are owner-operator entities, which means that only the owner works for the business. In the two Ghana surveys, on the other hand, only 40% of microenterprises are owner-operator, and the remaining 60% have household members or hired laborers working in them, perhaps because these two surveys cover areas that are either all or mostly urban.

The surveys did not collect data on complex dimensions such as revenue, expenditure, profits, and employment of household members/hired labor/apprentices in the same way. For example, the Ghana IS-ES asks directly, "In [insert last completed month], did this this business or activity make a profit, a loss, or zero profit" with the amount of the profit or loss collected in the follow-up question. Forty-four percent of microenterprises report zero profit and 20 percent report a loss. Similarly, the Ghana HHS includes the question, "What was the total profit for the [NON-FARM ENTERPRISE] during the last month of operation?" Only 1 percent of microenterprises reported zero profits, and none reported a loss. The ERI-ESI survey includes extensive details on expenditures related to the quantities/services sold in the last month as well as revenue by product type (processed, unprocessed, and services). Profit is calculated by summing these two categories after winsorization, which indicates that 34% of microenterprises incurred a loss.

3. Which Microenterprises Join Business Associations?

Membership patterns are generally consistent across the surveys, despite the slight differences in wording in the surveys. Overall, 7% of microenterprise owners in West Africa belong to a business association. To some extent, membership rates vary by country, ranging from 9%-10% in Benin and Togo to 3%-5% in Guinea-Bissau, Niger, and Senegal, though still low overall.

The estimates of overall membership rates that can be gleaned from a few other surveys in the region are consistent with ours. Many decades back, considering the low prevalence of associations or organizations for microenterprises in Francophone West Africa, Von Gersdorff (1969) described the informal economy as "anarchic". At the turn of the century, Grimm, Knorringa, and Lay (2012) found about 5% prevalence of enterprise association membership among informal enterprises in seven West African countries from earlier years (2001/2002 Enquêtes 1-2-3). More recently, Anyidoho et al. (2025) find membership rates of 7% among informal businesses in Greater Accra. Riisgaard et al. (2021) surveyed 1,462 informal sector

[2] The CFA started 2018 at 545 CFA per USD and ended at 575 CFA per USD. The Ghanaian cedi (GHS) exchange rate from September to November 2022 depreciated rapidly from 10 to 15 GHS per USD.

workers in construction, transport, and micro-trade within the four urban areas of Kenya and they find 14% and 20% membership rates for formal and informal businesses, respectively. Traub-Merz et al. (2022) survey 8,300 households in six African countries (Kenya, Senegal, Benin, Zambia, Côte d'Ivoire, and Ethiopia) about a broad range of informal groups (cooperatives as well as savings, religious, and neighborhood associations) and report membership rates ranging from 0.4% in Kenya to 4.6% in Senegal across all sectors. Chen et al. (2015) draw on the Women in Informal Employment: Globalizing and Organizing (WIEGO) database which contains information on over 800 associations that cover primarily groups affiliated with large transnational networks such as StreetNet International (street vendors), HomeNet (home-based workers), the International Domestic Workers' Network, the Global Network of Waste Pickers, etc. to quantify union membership among informal sector workers. They estimate that the associations included in the database represent approximately 3 million workers. However, Traub-Merz et al. (2022) note that, because most organizations operate at the local level, actual membership rates are likely much higher. We posit that our estimates and others drawn from surveys of household enterprise owners and operators more accurately report the scale of business association membership in the informal economies of West Africa than the data provided by the national offices of these associations.

We leverage the size of the ERI-ESI sample to disaggregate the analysis by industry and country. Table 2 shows business association membership rates by industry and country. Rather than defaulting to typical aggregate categories of manufacturing, trade (retail), and services, we define eight sectoral categories in the ERI-ESI data: food vendors and weavers; tailors; construction workers and carpenters; mechanics and auto dealers; traders (non-vehicle); transporters; personal service providers, which includes hairdressers, barbers, and traditional healers; and other sectors. These eight categories were determined based on the 12 2-digit industries with at least 20 sampled association members. Within the pooled sample, the transport services providers (24%), tailors (20%), mechanics and auto dealers (14%), and personal services (10%) sectors have higher-than-average membership rates. These four sectors account for approximately 13% of all microenterprises surveyed and 30% of association members. In contrast, food vendors, weavers, and non-vehicle traders, which jointly represent 72% of the microenterprises surveyed, exhibit below average membership rates at 5%. However, due to their size, these industries still represent 51% of all surveyed association members.

The two Ghana data sets exhibit similar patterns with overall membership rates of 6%-7% (Appendix Table A2) and similar patterns of industry heterogeneity (Appendix Table A3). We find higher membership rates among tailors; hairdressers and barbers; retailers; food vendors, weavers, and non-vehicle traders;

transporters, and others.[3] These concordant patterns validate the fact that the surveys capture a similar understanding of association, which is not sensitive to the specific wording of the survey questions, as noted in the previous section.

Industry-specific activities might be more dependent on the existence of functional formal networks like business associations. For example, the coordination of individual transporters across routes can enhance overall demand for transportation by improving the regularity and reliability of service, as well as supply by guaranteeing a sufficient volume of activity to recoup high fixed operation costs. The need for highly organized networks to function at all would explain the transport industry's high levels of membership rates. While certain industries tend to be more organized overall, our study finds that membership rates are not systematically associated with specific industries across countries. For example, 31% of tailors belong to associations in Togo, whereas 0% and 2% of tailors in Niger and the Guinea-Bissau, respectively, are business association members. Transporters are highly organized in Benin, Niger, and Togo, as are personal services providers in Benin and Togo. Therefore, while some sectors have a higher propensity to organize, the emergence of business associations also likely results from idiosyncratic historical and cultural processes in countries.

We exploit the ERI-ESI data's sample size and rich information on firm owner traits and industry characteristics to identify which characteristics are associated with belonging to a business association. We then estimate the following logit model of association membership:

$$p(M_i = 1/X_i) = \frac{1}{1 + e^{-X_i'\beta}}$$

where $M_i$is a dummy variable equal to one if the microenterprise owner is a member of an association, and X_i is a vector of owner and firm traits. Figure 1 shows estimated coefficients from the model for the combined set of countries (full results in Appendix Table A4). Association members are more likely to be middle-aged, more-educated males who own older and larger businesses (as measured by their number of workers). Businesses that provide employee training – likely because they operate on more complex technology or processes – and businesses that were started with capital from a formal loan are also more likely to belong to business associations. Business owners who operate from a fixed locale or have a license to operate as well as exporters are also significantly more likely to be members. In contrast, owners

[3] According to the Ghana HHS data, awareness of associations is itself low: when respondents who did not belong to an association were asked whether they knew that a business association for their sector exists, only 6% replied "Yes."

who sell goods and services to households (the vast majority), as opposed to other businesses or government entities, are less likely to be members. After controlling for owner and business characteristics, tailors, transporters, and personal services providers (healers, hairdressers) have significantly higher rates of membership than other sectors. This suggests that the nature of the activity rather than the average business characteristics in the industry drive the differences in membership rates across industries. Country fixed effects still matter after including our rich set of controls: Burkina Faso, Benin, and Togo have significantly higher conditional membership rates than Niger, Guinea-Bissau, or Senegal, indicating the important role that local contexts also play in the emergence of associations. Our industry-specific regressions based on ERI-ESI show that the owner and firm characteristics associated with membership are largely common to all industries (Appendix Table A4). When we use a comparable specification, the Ghana surveys yield a similar profile of members, with the notable exception that men are conditionally less likely to belong to a business association than women (Appendix Table A5).

When we narrow down the set of microenterprises to those with at least two workers, membership rates double for almost all industries, reaching 31% for tailors and 30% for personal service providers (Table 2). If we further restrict our sample to microenterprises in Benin and Togo, then more than half of tailors, auto dealers, and personal service providers are members. Therefore, while associations may not reach the informal sector at large with broad policy agendas, they could serve as useful "aggregators," or delivery partners for programs that target specific sectors of the informal economy with high membership rates, such as tailors.

4. The Nature and Role of Business Associations

The existing literature points to a range of roles that business associations play for their member businesses. Lyon (2003) documents that traders' associations contribute to coordinating bulk purchases of input in Ghana's urban markets, setting output prices, sharing information on input production levels, verifying the reputation or determining the creditworthiness of potential counterparts, lobbying local and national authorities, collecting donations to pay for funeral expenditures, and even settling disputes between members. With regard to the latter, Ashraf, Delfino, and Glaeser (2019) show that, by adjudicating disputes, market chiefs in Lusaka mitigate the risk of expropriation and, thereby, make it possible for female-led businesses to achieve higher sales and cooperate with each other more intensely. Other studies show that business associations organize apprenticeship systems (e.g. Hardy and McCasland, 2023). A 2006 survey in Ghana found that only a quarter of those who had been apprentices got trade association certificates (Breyer 2007). Associations also have been suggested to facilitate access to credit (e.g. Riisgaard et al., 2021).

The Ghana HHS contains a set of questions regarding how associations operate and interact with their members. Of the members, 62% belong to sub-regional associations, while only 13% belong to national associations. The median member has belonged to an association for 8 years. Over the 9 months preceding the survey, they paid dues of 150 GHS, which is less than 2% of median monthly revenue. In the same period, members attended an average of five meetings, and an average of 25 members attended each meeting. Information exchange appears to be a critical benefit of association membership. The meetings cover a broad range of topics, including issues with authorities - local (reported by 44% of association members) and more rarely national (12%), collective action (12%), business environment shocks (41%), ways to improve profitability (50%), and personal issues (50%).

Because of the risk for free-riding, organization theory predicts that associations may only be able to offer excludable private services (information, access to finance), as opposed to industry-wide public goods (advocacy, collective action, dispute resolution) unless they can enforce mandatory membership (Bennett and Robson, 2011). Therefore, a key feature of business associations is whether participation is mandatory or voluntary in an industry. Grossman (2020) and Grossman and Holland (2023) draw on a survey of 1,878 traders in Nigeria affiliated with market associations and describe mechanisms that prevent members from leaving harmful associations. In our nationally representative data, we document that only 27% of members report that association participation is mandatory. Seventy percent of members report that nothing would happen if they stopped participating; only 21% indicate that they would be ostracized if they ceased attending; and 15% respond that they would be denied a location to operate if they left the association. These figures are comparable across industries with the notable exception of the transportation industry: 60% of members in the transport sector report that belonging to an association is required to operate.

The benefits that members report most are: obtaining technical training, gaining access to market information, and resolving disputes with competitors. Around one-third of members report benefiting from help with procurement, access to credit, personal and business security, and support in resolving issues with governmental administrations. Less commonly, members report benefits such as training in business-related skills and organization (e.g. accounting), access to machines, or the ability to place large orders. Figure 2 shows that industries broadly fit in three categories based on the patterns in the types of services provided by associations. Members who are traders report benefiting from access to credit and large orders as well as procurement assistance at higher-than-average rates (mean reporting in Appendix Table A6, and Ghana HHS results in Appendix Table A7). Tailors, personal services providers, and workers in industries requiring technical skills overreport taking advantage of technical training and (to a lesser

extent) access to modern machines. Similarly, members who are transporters and auto dealers overreport seeking help to resolve issues with administrations, competitors, or security.

The literature contains little by way of comparable evidence on the services offered by business associations. And generally, our findings are consistent. Riisgaard et al. (2021) find that associations (broadly defined to include saving groups, work-related associations or religious associations) mostly facilitate access to loans (46%), provide "work-related" benefits (37%), and—least of all--advocacy and representation of their members (5%). Spooner and Mwanika (2018) found that organizing associations for auto, bicycle, and motorcycle taxi drivers in Uganda "has had a dramatic impact: a reduction in police harassment, substantial gains through collective bargaining, reduced internal conflict within the associations, and improvement of visibility and status for informal women transport workers."

Therefore, most business associations fit the description of service providers that cater to a subset of established incumbents, rather than that of vehicles for collective action and industry-wide public good advocacy. The risk is therefore that they favor their business members at the expense of newcoming competitors, thereby stifling competition, a dynamic documented in Britain by Barnett (2009).

5. Association Membership and Business Performance

Next, we consider the correlation between membership and improved business performance. To this end, we estimate the following OLS model:

$$Y_i = \alpha_I M_i + X_i'\beta + \epsilon_i$$

where Y_i corresponds to six outcomes: the logarithm of revenue per worker in the past year, whether the business grew in employment, whether—according to its owner—the business is at risk of failing soon, whether profits grew over the past year, profits per worker in the past year, and whether the business applied for and received a formal loan in the past year. The employment growth outcome is calculated based on monthly reporting on the workforce in the firm over the last 12 months and is the difference between the average number of workers in the firm in the last versus first month. Profit is calculated by summing over expenditures and revenues by product and winsorized, with 34% of microenterprises incurring a loss. The business-at-risk outcome is captured from the question "What is the main difficulty that risks causing your establishment to disappear?" and responses are no risk of disappearance, or a specific risk reported (lack of materials, lack of customers, too much competition, etc.). We examine both

overall conditional correlation between membership and business performance (α_I), as well as industry-specific coefficients on M_i.

In Table 3 the first columns for each outcome shows the correlation between business outcomes and membership after controlling only for the broad context in which the business operates measured by dummies for industry (at the 4-digit ISCO level), country, and setting (urban vs. rural). Association members have higher outcomes, on average, for all outcomes. They are 14% more productive, experienced 23% higher growth in the number of employees over the past year,[4] are 2.4 percentage points less likely to be at risk of failing (from a base of 27%), are 6 percentage points more likely to have grown in terms of profits since the previous year (from a base of 24%), are 15% more profitable (per worker), and 13 percentage points more likely to have obtained a formal loan in the past (from a base of 11%).

The results above complement those on the correlations between business characteristics and membership shown in Figure 1. Taken together, association membership delineates a segment of relatively larger and dynamic incumbent microenterprises that are more financially included, productive, and profitable. These characteristics are important when considering associations in the design of government programs that target informal microenterprises. Our results suggest that association members' tax contribution capacity is likely higher than that of the average informal microenterprise in each industry. At the same time, if associations deliver social protection benefits, then they would likely reach only the relatively better off segments of the informal economy, raising equity concerns.

Controlling for the wide range of covariates, the correlations with revenue and with access to credit diminish but remain sizeable and significant at 9% and 10 percentage points, respectively (not shown).[5] The correlation with profits drops to 3.4% and becomes insignificant. Overall, similar firms within narrow industry categories exhibit sizeable differences in business outcomes by membership status. Our results are on the lower end of the two comparable estimates we could identify in the literature. Grimm, Knorringa, and Lay (2012) draw on earlier data from 1-2-3 surveys from West Africa and find that association membership is associated with a 43.6% higher firm value-added. In the Mexican context, Fajnzylber et al. (2009) show that participation in business associations commands a 7%-35% premium in

[4] The correlation of membership with the growth in number of workers is 0.012 from a base of 0.05 over six months.

[5] The list of controls includes owner characteristics (owner's age, gender, and education level); firm characteristics (whether it operates on professional premises, primary clients are households, primary suppliers are households, has a license to operate, is owner-operated, was started with a formal loan, imports inputs, and trains employees); and industry dummies from the business' 4-digit industry code. Summary statistics are in Appendix Table A1.

profits, depending on the control variables included in the model. The magnitudes of the correlations that we measure are consistent with Cai and Szeidl's (2018) and Fafchamps and Quinn's (2018) estimates of the causal effects of business networking. In Cai and Szeidl's randomized controlled experiment in Nanchang, China, when owners of new service and manufacturing firms were induced to meet monthly for one year, they experienced an 8.1% increase in revenue. This effect operated through networking, which increased the member's numbers of clients and suppliers as well as their access to formal and informal credit. Asiedu et al. (2024) find that online networking opportunities resulted in higher profit, improved business practices, and greater innovation among small female-owned enterprises (not micro) in Ghana. McMillan and Woodruff (1999) along with Khwaja et al. (2011) also document the relationship between business networks and access to credit.

The correlation between business performance and membership is far from homogeneous across industries (even columns in Table 3). The two categories of traders (food vendors and non-vehicle trade) drive virtually all the positive conditional correlation of business outcomes and membership, as those who belong to associations are around 25% more productive and 15 percentage points more likely to obtain formal loans. The correlation between membership and profits is also higher (though insignificant) in trader than in other industries. From the benefits of membership that traders report (i.e., access to financing, large orders, and procurement), we learn that associations mediate, if not cause, these differences. This is consistent with recent evidence that informational barriers that limit access to markets can significantly hinder firm growth in LMIC (Hjort et al. 2024). While membership appears to enable access to loans for some other industries (e.g., tailors, personal services providers), it has no positive effect on productivity or profits. In fact, membership for tailors is significantly negatively associated with revenue and profit per worker. We hypothesize that this negative impact may be because tailors operate within an apprenticeship system, which is run by an association. Consequently, if member tailors employ more relatively unproductive apprentices than non-members hire, then revenue and profit per worker could decline.

6. Conclusion

Although existing literature provides examples of the various benefits that business associations offer informal household enterprises, including access to information, credit, labor, and government services, it surprisingly lacks descriptive evidence on the scale and nature of these networks in Sub-Saharan Africa, where microenterprises are the main source of employment outside farmwork. This study seeks to

address this gap, drawing on three survey sources, a program of nationally representative surveys of six countries and two survey efforts on Ghana.

The descriptive patterns we uncover have direct implications for policy. While overall business association membership rates are low, specific industries are quite highly organized, including tailoring, metal product manufacturing, transport services, and personal services (such as hairdressing and beauticians). The role of business associations as delivery partners of social protection or productivity-boosting interventions is therefore limited to these few segments of the microenterprise fabric.

The next policy question is whether these networks are helping businesses succeed and should be encouraged. There is not much evidence that these associations serve as a means of collective action to advocate for public goods that benefit an industry as a whole. Rather, they are service providers that cater to their members, who tend to be larger incumbent businesses. Consistent with this, we find that microenterprise outcomes are higher for those who are members of an association, after controlling for a rich set of characteristics. These correlations are consistent with emerging causal evidence from randomized controlled trials that exogenously induce business owners to participate in networks. Future research will need to establish whether these gains are welfare-improving or come at the expense of smaller and younger businesses.

Our descriptive approach based on a large multi-country data set allows us to uncover considerable heterogeneity across countries and industries. For example, the overall correlation of membership with business outcomes is mostly driven by traders. This is not surprising given that we find that associations deliver different services to a tailor, a trader, or a taxi. The description of these sectoral differences provides necessary context within which to interpret past and future results from experimental interventions to boost microenterprise productivity. In addition to the notable heterogeneity across sectors, there is also country variation within sectors. Although investigating the conditions that enabled some sectors to organize business associations within each country lies beyond the scope of this study, we mention it here as a worthwhile avenue for future research.

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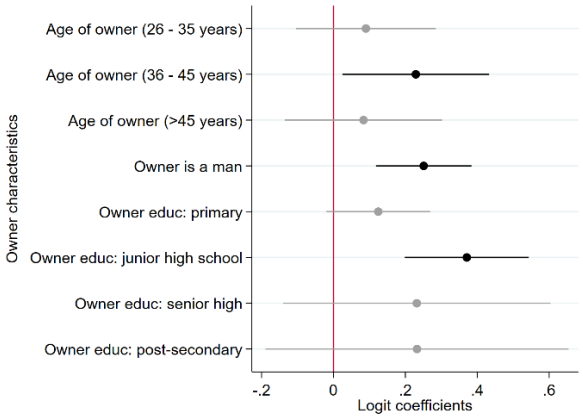
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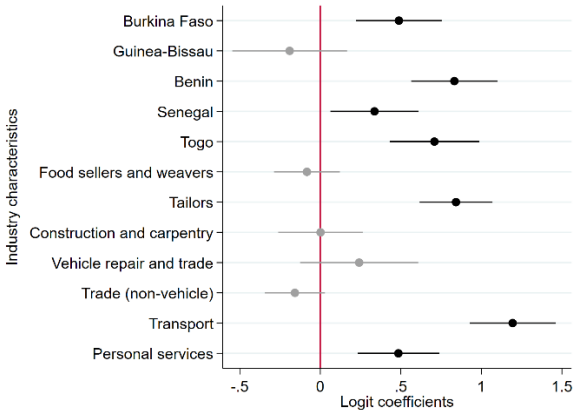
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Figure 1: Determinants of Business Association Membership (ERI-ESI)

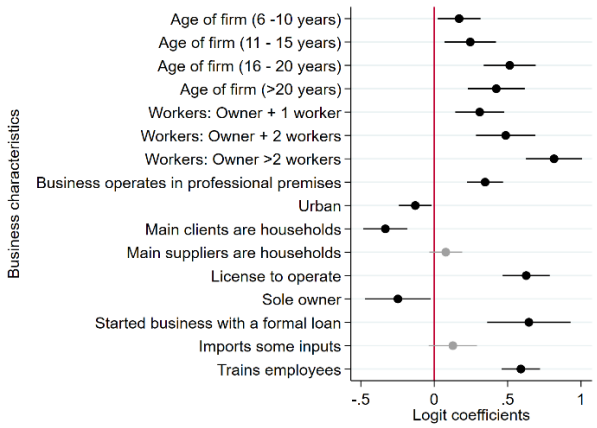
a) Owner characteristics



b) Industry characteristics

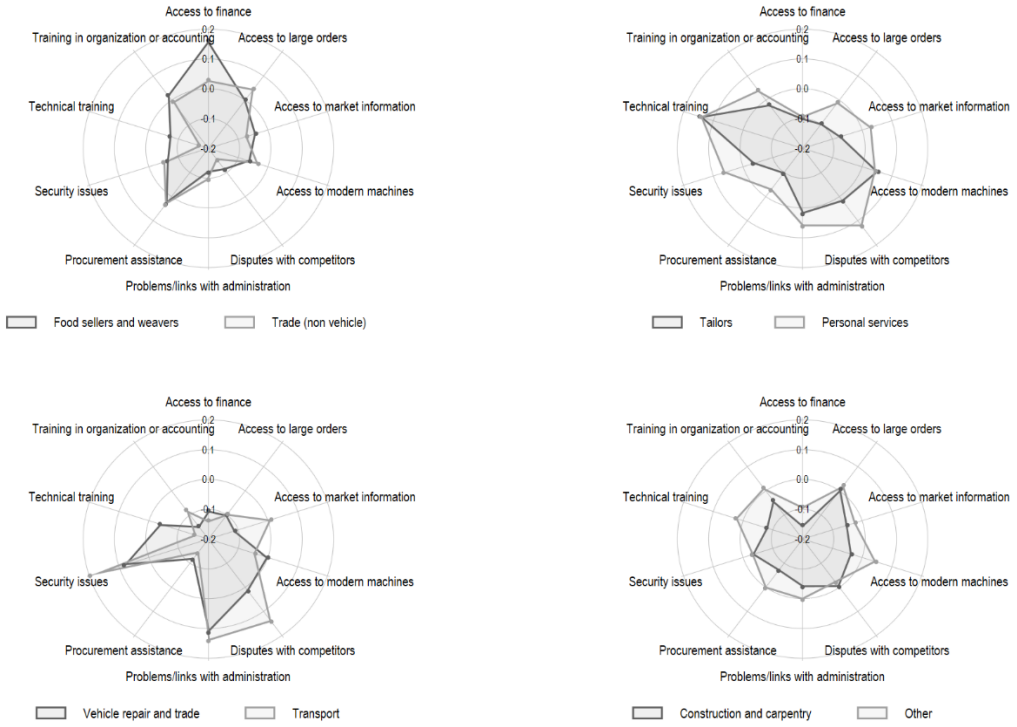


c) Business characteristics



Note: The figures depict coefficients estimated using a logit model where the dependent variable is membership in a business association. The estimation results are reported in Appendix Table A4. Light grey markers denote coefficients that are not significantly different from 0 at the 5% level.

Figure 2: Member-Reported Benefits of Business Associations by Industry, Relative to the overall mean (ERI-ESI)



Note: Each point corresponds to the percent of association members in a given industry that cite a specific association benefit, relative to the mean level of reporting over all industries. Zero denotes that the association members of the given industry are reporting the benefit at the overall average level.

Table 1: Summary Statistics, selected variables (ERI-ESI)

	(1) Benin mean	(2) Burkina mean	(3) GNB mean	(4) Niger mean	(5) Senegal mean	(6) Togo mean
Business Association Member	0.09	0.07	0.03	0.05	0.05	0.08
Previous month revenue (CFA), per worke	120831	248469	407392	220186	354107	148311
Previous month profit (CFA), per worker	12916	36054	66761	20539	97799	24674
Workers: Owner only	0.85	0.74	0.84	0.70	0.82	0.88
Workers: Owner + 1 Employee	0.07	0.14	0.10	0.17	0.09	0.07
Workers: Owner + 2 Employees	0.05	0.06	0.03	0.09	0.04	0.03
Workers: Owner +>2 Employees	0.04	0.06	0.03	0.05	0.05	0.03
Workers: Any Apprentices	0.07	0.09	0.06	0.05	0.06	0.05
Industry: Food Vendors and Weavers	0.30	0.29	0.14	0.30	0.21	0.29
Industry: Tailors	0.07	0.03	0.02	0.03	0.04	0.08
Industry: Construction and Carpentry	0.05	0.04	0.03	0.08	0.03	0.06
Industry: Mechanics and Auto Dealers	0.02	0.02	0.01	0.01	0.01	0.01
Industry: Traders (Non-vehicle)	0.36	0.42	0.61	0.32	0.56	0.39
Industry: Transporters	0.06	0.01	0.01	0.02	0.02	0.04
Industry: Personal Services Providers	0.06	0.04	0.02	0.08	0.03	0.06
Industry: Other	0.09	0.16	0.15	0.15	0.09	0.07
Observations	4419	5408	1931	1383	6303	4022

Note: Weights are applied, except for Senegal due to missing weight data. Profit per worker is trimmed at p10 and p90.

Table 2: Business Association Membership as a percentage of Microenterprises, by Country and Industry

	All	Benin	Burkina Faso	GNB	Niger	Senegal	Togo	All countries, Owner only	All countries, 2+ Workers	Benin & Togo, 2+ Workers
Food Vendors and Weavers	5.3	3.5	8.0	1.6	2.3	4.1	3.6	4.5	12.2	9.8
Tailors	17.3	18.5	12.6	1.8	0.0	7.8	30.6	13.8	31.5	53.5
Construction and Carpentry	10.0	14.8	5.1	3.6	1.0	7.0	9.1	7.3	14.4	26.8
Mechanics and Auto Dealers	13.3	25.3	10.0	9.7	2.8	7.0	8.5	8.4	24.7	54.3
Traders (Non-vehicle)	4.7	4.3	6.5	2.8	6.5	4.5	2.8	4.1	11.5	13.0
Transporters	20.4	24.5	2.3	12.4	31.4	9.0	24.6	20.8	15.2	29.9
Personal Services Providers	11.3	16.0	3.8	0.0	3.1	6.2	22.2	7.0	29.9	52.8
Other	8.1	16.7	6.0	4.4	6.3	5.2	9.2	6.2	15.1	37.5

Note: Weights are applied except for Senegal and "All" columns.

Table 3: Association membership and business performance (ERI-ESI)

	Log revenue/worker		Employment growth		Business at risk	
Business Association Member	0.140***		0.012*		-0.0243**	
Membership						
Food Vendors and Weavers		0.222***		0.017		0.020
Tailors		-0.305***		0.019		0.008
Construction and Carpentry		0.081		-0.071***		-0.108**
Mechanics and Auto Dealers		-0.028		-0.014		-0.064
Traders (Non-vehicle)		0.256***		0.011		0.017
Transporters		0.022		-0.017		-0.139***
Personal Services Providers		-0.138		-0.002		-0.084*
Others		-0.051		0.061***		-0.030
Mean of outcome	11.33	11.33	.05	.05	.73	.73
Owner characteristics	No	Yes	No	Yes	No	Yes
Firm characteristics	No	Yes	No	Yes	No	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23359	23332	23421	23394	23255	23228

Note: Coefficients obtained from an OLS linear probability model. Combines data from Burkina Faso, Guinea-Bissau, Benin, Senegal, and Togo. Weights are not applied. Owner characteristics include owner's age, gender, and education level. Firm characteristics include operates on professional premises, primary clients are households, primary suppliers are households, license to operate, sole owner, started business with a formal loan, imports inputs, and trains employees. Industry dummies come from the business' 4-digit industry code. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3, continued: Association membership and business performance (ERI-ESI)

	Profits increased		Profit/worker		Access to credit	
Business Association Member	0.0601***		7088***		0.131***	
Membership						
Food Vendors and Weavers		0.036		9187*		0.151***
Tailors		0.007		-8855		0.047**
Construction and Carpentry		-0.017		3478		0.010
Mechanics and Auto Dealers		0.125*		5298		0.054
Traders (Non-vehicle)		0.077***		8630*		0.142***
Transporters		0.038		13011		0.001
Personal Services Providers		-0.065		-8411		0.067**
Others		0.074**		10622		0.083***
Mean of outcome	.24	.24	45190	45190	.11	.11
Owner characteristics	No	Yes	No	Yes	No	Yes
Firm characteristics	No	Yes	No	Yes	No	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	22272	22247	18717	18702	23421	23394

Appendix

Figure A1: Examples of Business Associations Logos









Table A1: Summary Statistics (ERI-ESI)

	(1) Benin mean	(2) Burkina mean	(3) GNB mean	(4) Niger mean	(5) Senegal mean	(6) Togo mean
Business Association Member	0.09	0.07	0.03	0.05	0.05	0.08
Revenue: (0-5000)	0.45	0.35	0.22	0.46	0.22	0.49
Revenue: (>5000-100000)	0.21	0.16	0.17	0.15	0.16	0.18
Revenue: (>100000-200000)	0.16	0.16	0.17	0.11	0.18	0.13
Revenue: (>200000)	0.19	0.31	0.44	0.28	0.43	0.20
Previous month revenue (CFA), per worker	120831	248469	407392	220186	354107	148311
Negative Profit (Loss)	0.49	0.23	0.17	0.40	0.21	0.35
Profit: 0	0.03	0.02	0.04	0.02	0.00	0.03
Profit: (>0-50000)	0.31	0.40	0.31	0.35	0.19	0.37
Profit: (>50000-100000)	0.07	0.10	0.13	0.07	0.12	0.08
Profit: (>100000-200000)	0.05	0.08	0.13	0.06	0.13	0.05
Profit: (>200000)	0.06	0.16	0.21	0.10	0.35	0.12
Previous month profit (CFA), per worker	12916	36054	66761	20539	97799	24674
Credit: Granted	0.12	0.07	0.01	0.02	0.16	0.18
Credit: Denied	0.08	0.02	0.01	0.03	0.01	0.02
Credit: Never Accessed	0.80	0.91	0.98	0.95	0.83	0.81
Employment growth (# workers lst 6 mths)	0.01	0.18	0.04	0.01	-0.03	0.04
Business at risk	0.68	0.82	0.50	0.80	0.79	0.65
Profits increased since previous year	0.12	0.32	0.14	0.21	0.33	0.17
Owner is a Male	0.31	0.39	0.38	0.58	0.34	0.28
Owner's Age: <26 years	0.13	0.14	0.15	0.13	0.10	0.12
Owner's Age: 26-35 years	0.33	0.34	0.31	0.28	0.27	0.35
Owner's Age: 36-45 years	0.27	0.28	0.31	0.27	0.26	0.28
Owner's Age: >45 years	0.26	0.25	0.23	0.33	0.36	0.25
Owner's Educ: < Primary	0.61	0.73	0.45	0.80	0.14	0.33
Owner's Educ: Primary	0.17	0.16	0.37	0.13	0.04	0.35
Owner's Educ: Junior High School	0.10	0.07	0.05	0.05	0.01	0.25
Owner's Educ: Senior High School	0.04	0.01	0.00	0.00	0.00	0.04
Owner's Educ: Post-Secondary	0.02	0.01	0.01	0.01	0.00	0.02
Workers: Owner only	0.85	0.74	0.84	0.70	0.82	0.88
Workers: Owner + 1 Employee	0.07	0.14	0.10	0.17	0.09	0.07
Workers: Owner + 2 Employees	0.05	0.06	0.03	0.09	0.04	0.03
Workers: Owner +>2 Employees	0.04	0.06	0.03	0.05	0.05	0.03
Workers: Household Members	1.11	1.22	1.13	1.37	1.16	1.08
Workers: Hired	0.21	0.29	0.15	0.17	0.23	0.16
Workers: Apprentices	0.16	0.18	0.10	0.09	0.17	0.11
Workers: Any Apprentices	0.07	0.09	0.06	0.05	0.06	0.05
Trains Employees	0.03	0.12	0.05	0.12	0.04	0.06
Business' Age: 0-5 years	0.37	0.47	0.44	0.30	0.44	0.42
Business' Age: 6-10 years	0.24	0.26	0.23	0.22	0.20	0.21
Business' Age: 11-15 years	0.12	0.09	0.13	0.17	0.14	0.14
Business' Age: 16-20 years	0.15	0.10	0.12	0.11	0.11	0.09
Business' Age: >20 years	0.12	0.08	0.08	0.20	0.11	0.14
Sole Owner	0.97	0.96	0.96	0.95	0.96	0.97
Business Operates from premise	0.34	0.35	0.25	0.37	0.30	0.33
License to Operate	0.07	0.04	0.13	0.06	0.02	0.09
Started Business with a Formal Loan	0.02	0.01	0.00	0.01	0.02	0.04
export part of the outputs	0.01	0.01	0.00	0.01	0.01	0.01
Imports Inputs	0.16	0.09	0.20	0.13	0.04	0.06
Primary Clients: Households	0.89	0.83	0.78	0.89	0.89	0.93
Primary Suppliers: Households	0.50	0.34	0.46	0.39	0.46	0.61
Industry: Food Vendors and Weavers	0.30	0.29	0.14	0.30	0.21	0.29
Industry: Tailors	0.07	0.03	0.02	0.03	0.04	0.08
Industry: Construction and Carpentry	0.05	0.04	0.03	0.08	0.03	0.06

	(1) Benin mean	(2) Burkina mean	(3) GNB mean	(4) Niger mean	(5) Senegal mean	(6) Togo mean
Industry: Mechanics and Auto Dealers	0.02	0.02	0.01	0.01	0.01	0.01
Industry: Traders (Non-vehicle)	0.36	0.42	0.61	0.32	0.56	0.39
Industry: Transporters	0.06	0.01	0.01	0.02	0.02	0.04
Industry: Personal Services Providers	0.06	0.04	0.02	0.08	0.03	0.06
Industry: Other	0.09	0.16	0.15	0.15	0.09	0.07
Urban	0.39	0.34	0.60	0.30	0.51	0.49
Observations	4419	5408	1931	1383	6303	4022

Note: Weights are applied, except for Senegal due to missing weight data. Profit per worker is trimmed at p10 and p90

Table A2: Summary Statistics, Ghana

	Ghana IS-ES		Ghana HHS	
	N	Mean	N	Mean
Business Association Member	3311	0.06	1187	0.07
Any Sales Reported (to account for missing values)	3311	0.69	-	.
Revenue last month (GHS)	3311	2080	1187	2761
log revenue	3311	4.99	1187	7.24
Revenue: (1-1000)	3311	0.32	1187	0.44
Revenue: (1001-2000)	3311	0.13	1187	0.21
Revenue: (2001-4000)	3311	0.09	1187	0.15
Revenue: (>4000)	3311	0.15	1187	0.19
Log Profit	3311	2.28	1171	6.33
Previous Month Profit	3311	1199	1187	1203
Profit (1 -100)	3311	0.07	1187	0.09
Profit (>100 -500)	3311	0.16	1187	0.40
Profit (>500 -1000)	3311	0.06	1187	0.26
Profit (above 1000)	3311	0.09	1187	0.25
Profit: 0	3311	0.36	1187	0.01
Negative Profit (Loss)	3311	0.17	1187	0.00
Credit: Granted	3311	0.07	1187	0.02
Credit: Denied	3311	0.08	1187	0.03
Credit: Never Accessed	3311	0.84	1187	0.95
Business' Size (Owner Only)	3311	0.56	1187	0.39
Business' Size (Owner + 1 Employee)	3311	0.24	1187	0.40
Business' Size (Owner + 2 Employees)	3311	0.07	1187	0.08
Business' Size (Owner + >2 Employees)	3311	0.13	1187	0.13
Number of Paid Employees	-	.	1187	0.62
Number of Family workers (Besides Owner)	-	.	1187	0.45
Number of Paid and Unpaid Apprentices	3311	0.43	-	.
Any Apprentice	3311	0.21	-	.
Business' Age: 0-5 years	3311	0.55	1187	0.42
Business' Age: 6-10 years	3311	0.27	1187	0.27
Business' Age: 11-15 years	3311	0.10	1187	0.12
Business' Age: 16-20 years	3311	0.03	1187	0.10
Business' Age: >20	3311	0.05	1187	0.09
Business Operates on Professional Premises	3311	0.30	1187	0.16
Owner's Age: <26 years	3311	0.03	1187	0.07
Owner's Age: 26-35 years	3311	0.33	1187	0.26
Owner's Age: 36-45 years	3311	0.38	1187	0.32
Owner's Age: >45 years	3311	0.26	1187	0.35
Owner is Male	3311	0.34	1187	1.65
Owner's Educ: <Primary	3288	0.21	745	0.11
Owner's Educ: Primary	3288	0.08	745	0.09
Owner's Educ: Junior High School	3288	0.31	745	0.47
Owner's Educ: Senior High School	3288	0.24	745	0.24
Owner's Educ: Post Secondary	3288	0.16	745	0.08
Industry: Tailors	3311	0.10	1187	0.08
Industry: Hairdressers and Barbers	3311	0.10	-	.
Industry: Retailers	3311	0.48	-	.
Industry: Food Vendors, Weavers, and Traders (Non-vehicle)	-	.	1187	0.64

	Ghana IS-ES		Ghana HHS	
	N	Mean	N	Mean
Industry: Transporters	-	.	1187	0.04
Industry: Others	3311	0.32	1187	0.25
Accra	3311	0.50	-	.
Kumasi	3311	0.37	-	.
Tamale	3311	0.12	-	.
Ashanti	-	.	1187	0.52
Northern	-	.	1187	0.48
Savannah	-	.	1187	0.01
Urban	-	.	1187	0.89
Observations	3311	3311	1187	1187

Note: Weights are applied.

Table A3: Professional Association Membership in Ghana, by Industry

	Ghana IS-ES	Ghana IHHS
Tailors	25.4	28.9
Hairdressers and Barbers	13.1	
Retailers	1.4	
Food Vendors, Weavers, and Traders (Non-vehicle)		2.9
Transporters		19.8
Other	5.4	9.5

Note: Weights are applied.

Table A4: Owner and Business Characteristics Associated with Membership, by Industry (ERI-ESI)

	All Industries	Food Vendors	Tailors	Construction Workers	Auto Dealers	Other Traders	Transporters	Personal Service Providers
Owner is a Male	0.264***	0.005	0.039	-0.011	0.097	0.008	-0.796**	0.054**
Owner's Age: 26-35 years	0.095	-0.014	0.052	0.007	0.117	0.014	-0.003	-0.001
Owner's Age: 36-45 years	0.227*	-0.008	0.087*	0.014	0.072	0.021**	-0.005	0.076*
Owner's Age: >45 years	0.075	-0.016	-0.010	0.061	0.077	0.011	-0.036	-0.004
Owner's Educ: Primary	0.122	0.002	0.011	0.030	0.097*	0.004	0.007	-0.016
Owner's Educ: Junior High School	0.368***	-0.014	0.047	0.043	0.074	0.012	0.115*	0.007
Owner's Educ: High School	0.227	-0.031	0.027	-0.082	-0.145	0.006	0.031	-0.043
Owner's Educ: Post-Secondary	0.214	0.007	-0.213*	0.091	-0.062	-0.002	0.362**	-0.040
Employees: Owner + 1 Employee	0.054	-0.026*	-0.101	-0.088*	0.019	0.008	-0.098	0.063
Employees: Owner + 2 Employees	0.193	0.043**	-0.007	-0.020	0.067	0.037**	0.028	0.025
Employees: Owner +>2 Employees	0.493***	0.010	0.064	0.007	0.374***	0.059***	0.264	0.155*
Employees: Any Apprentices	0.308**	0.095***	-0.099	0.047	0.022	0.020	-0.073	0.119*
Trains employees	0.469***	0.004	0.322***	0.093*	-0.044	0.029*	0.042	0.137*
Business' Age: 6-10 years	0.179*	0.031***	-0.039	0.006	0.057	0.012*	-0.015	-0.009
Business' Age: 11-15 years	0.247**	0.011	-0.048	0.004	0.026	0.016*	-0.064	-0.007
Business' Age: 16-20 years	0.519***	0.025*	0.057	0.026	0.042	0.019*	0.054	0.010
Business' Age: >20 years	0.425***	0.054***	0.023	-0.002	0.047	0.034***	0.060	0.054
Sole Owner	-0.311**	-0.040*	-0.128	-0.067	0.036	-0.004	-0.047	-0.001
Business Operates from premise	0.310***	0.010	0.047*	0.003	-0.039	0.004	0.488***	0.033
License to Operate	0.705***	0.048***	0.079*	0.073*	0.086	0.048***	0.247***	0.184***
Started Business with a Formal Loan	0.624***	0.079***	0.281*	-0.055	-0.032	0.010	0.015	0.106
Export Part of the Outputs	0.298	0.010	-0.200	0.442***	0.016	0.046*	0.051	0.011
Imports Inputs	0.129	-0.004	0.026	0.071	0.068	-0.004	0.109*	0.012
Primary Clients: Households	-0.334***	-0.045***	0.020	0.016	0.055	-0.060***	0.146*	-0.030
Primary Suppliers: Households	0.080	-0.004	0.042	-0.023	0.068	0.018***	-0.004	0.002
Food Vendors and Weavers	-0.082							
Tailors	0.859***							
Construction and Carpentry	0.014							
Mechanics and Auto Dealers	0.218							
Traders (Non-vehicle)	-0.162							
Transporters	1.202***							
Personal Services Providers	0.482***							
Urban	-0.127*	-0.011	-0.038	-0.014	-0.018	-0.007	0.004	-0.004
Benin	0.649***	0.016	0.185***	0.110***	0.166*	-0.008	-0.077	0.142***
Burkina Faso	0.512***	0.063***	0.128**	-0.004	0.036	0.012	-0.208*	0.035
Guinea-Bissau	-0.340	-0.004	0.016	-0.068	-0.044	-0.029	-0.364	-0.057
Senegal	0.286*	0.030	0.122	0.038	0.095	-0.001	-0.206	0.044
Togo	0.671***	0.023*	0.310***	0.056	0.069	-0.021*	-0.092	0.171***
Constant	-3.396***	0.087***	-0.032	0.034	-0.357	0.066***	0.943**	-0.057
Observations	23442	6260	1195	1008	324	10507	594	1048

Note: Coefficients obtained from estimating a logit model of the probability of being member of an association. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A5: Business Characteristics Correlated with Business Association Membership, Ghana

	Ghana IS-ES	Ghana HHS
Owner's Age: 26-35 years	-0.05	-0.04
Owner's Age: 36-45 years	-0.05*	0.00
Owner's Age: >45 years	-0.02	-0.01
Owner is Male	-0.03***	-0.05
Owner's Educ: Primary	0.00	-0.01
Owner's Educ: Junior High School	-0.00	-0.03
Owner's Educ: Senior High School	0.01	-0.02
Owner's Educ: Post Secondary	0.04**	-0.03
Business' Age: 6-10 years	0.03**	0.02
Business' Age: 11-15 years	0.10***	0.10**
Business' Age: 16-20 years	0.06*	0.03
Business' Age: >20	0.05**	0.08
Business' Size (Owner + 1 Employee)	0.01	0.02
Business' Size (Owner + 2 Employee)	-0.01	0.03
Business' Size (Owner + Employee)	0.07***	0.11***
Industry: Tailors	0.17***	0.22***
Industry: Hairdressers and Barbers	0.08***	
Industry: Retailers	-0.04***	
Industry: Food Vendors, Weavers, and Traders (Non-vehicle)		-0.04
Industry: Transporters		0.10
Kumasi	0.04***	
Tamale	0.08***	
Northern		-0.02
Savannah		-0.15
Urban		-0.12*
Constant	0.04	0.27***
Observations	3288	745

Note: Coefficients obtained from estimating a logit model of being an association member. Weights are applied.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A6: Business Association Membership Benefits, by Industry (ERI-ESI)

	All industries	Food Vendors	Tailors	Construction Workers	Auto Dealers	Other Traders	Transporters	Personal Services Providers
Technical Training	39.6	36.9	58.9	37.6	41.9	28.6	28.9	58.5
Training in Organization or Accounting	16.3	18.9	15.9	13.0	2.3	16.3	9.1	21.2
Procurement Assistance	15.6	11.2	21.7	14.0	16.3	13.4	12.4	21.2
Access to Modern Machines	28.6	45.9	19.8	14.9	19.0	32.7	15.7	20.3
Access to Finance	39.9	39.8	36.9	39.6	34.9	37.5	45.5	47.5
Access to Market Information	19.1	19.5	9.7	19.8	11.6	24.5	9.9	18.6
Access to Large Orders	26.7	32.0	18.8	21.2	16.7	31.4	14.0	25.4
Problems/Connections with Administration	32.9	24.4	38.2	32.0	48.8	27.1	50.4	42.4
Disputes with Competitors	38.7	32.9	45.4	43.0	46.5	28.3	57.9	55.9
Security Issues	25.8	21.0	23.9	24.0	34.9	22.5	47.1	33.9
Other Benefits	5.5	4.9	4.9	5.1	14.3	5.0	3.3	6.8

Note: Combines data from Burkina Faso, Guinea-Bissau, Benin, Senegal, and Togo. Weights are not applied.

Table A7: Benefits of Business Association Membership, by Industry (Ghana HHS)

	Traders	Tailors	Transporters	Others
Training	27.4	94.6	59.4	51.8
Access to Finance	52.7	26.3	40.9	12.3
Admin Issues	12.9	35	77.4	49.2
Financial Insurance	56.9	50.8	79.7	38.5
Issue Apprentice Certificates	4.1	90.8	15.2	41.2

Note: Weights are applied.