ACCESS TO FINANCE FOR MSMEs IN BOSNIA AND HERZEGOVINA WITH A FOCUS ON GENDER

A Survey Report

WORLD BANK GROUP
Finance, Competitiveness & Innovation

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Acknowledgements

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Abbreviations and Acronyms

BAM.........Bosnian Convertible Marka (currency of Bosnia and Herzegovina)

BIH...........Bosnia and Herzogovina

CAPI.........Computer-assisted Personal Interview

EEC...........Étude Économique Conseil (EEC Canada)

FOFA ....Firms that are Majority Female-Owned and Female-Managed

FOMA ......Firms that are Majority Female-Owned and Male-Managed or with Male-Influenced Management

GSMA ......GSM Association

MSME......Micro, Small and Medium Enterprise

MOFA.......Firms that are Majority Male-Owned and Female-Managed or with Female-Influenced Management

MOMA.....Firms that are Majority Male-Owned and Male-Managed

PCA..........Principal Component Analysis

WBG.........The World Bank Group

Executive Summary

This report provides a baseline analysis of the status of access to finance for micro, small, and medium-sized enterprises (MSMEs) with a particular focus on women entrepreneurs' ability and constraints in accessing finance in order to develop and grow their businesses. It is based on a nationally representative survey of 542 enterprises conducted in Bosnia and Herzegovina (BiH) between September 2016 and February 2017. The survey is a continuation of the ongoing work on access to finance and builds upon an earlier supply-side study conducted by the World Bank during the 2014 IMF/World Bank Financial Sector Assessment Program (FSAP) Update, as well as on lessons learned from the *BiH Enhancing SME Access to Finance Project.* The objective of the survey is to further analyze the demand side constraints to private sector growth and enterprise performance related to or arising from lack of access to finance. The survey has the specific aim to determine the level of women entrepreneurs' ability and constraints in accessing finance in order to develop and grow their businesses.

Access to finance remains a constraint for enterprise development and more broadly for promotion of economic growth and diversification in BiH. According to the survey results, 19 percent of MSMEs consider access to finance a major or severe obstacle to the development of their enterprise. Entities with female participation in management or ownership were found to be the most constrained. While 17 percent of male-led entities[1] perceive access to finance as a critical obstacle to overcome, this proportion increases for female-managed or owned enterprises (between 19 and 28 percent). Out of the group which identified access to finance as a major or severe obstacle, microenterprises were most concerned with access to finance with 66 percent referring to it as a major or severe obstacle compared to 6 percent of medium-sized enterprises. Similarly, around 36 percent of enterprises believe the cost of finance to be a major or severe obstacle.

Although bank account usage is relatively widespread, more than half of MSMEs do not have any outstanding business loans. Ninety eight percent of MSMEs currently have a bank account but only 40 percent of those surveyed stated that they have an outstanding loan and 21 percent, a line of credit, overdraft or credit card. Most MSMEs – with no significant differences with regard to gender and size – use predominantly internal sources to finance working capital (74 percent) and fixed assets (71 percent) in the last fiscal year, followed by supplier credit (15 percent) and commercial banks (9 percent) to finance working capital, while 2 percent use supplier credit and 23 percent rely on commercial banks to finance fixed assets. Financing needs are particularly high for microenterprises and enterprises in certain sectors, 69 percent of microenterprises, 39 percent of enterprises in the manufacturing sectors, and 46 percent in construction and trade state that they need financing in the next year. This is mirrored by the responses regarding their plans to apply for a bank loan in the next year, which highlights the fact that bank loans remain the main source of external financing for enterprises.

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1 Male-led MSMEs, for the purposes of this note, means enterprises both majority owned and managed by men, while female-led MSMEs means enterprises both majority owned and managed by women. The national survey investigates four categories (majority male-owned-and-male-managed; male-owned-and-female-managed; female-owned-and-female-managed; female-owned-and-male-managed). See Chapter 1 for further information.

Female-led enterprises show lower use of bank accounts and more experience of barriers and obstacles in accessing financial products and services. Whereas 1 percent of male-led enterprises do not use bank accounts, this proportion jumps to 9 percent for female-led enterprises. Female-led entities not using bank accounts or retail payment instruments mentioned high fees and complex procedures as the main deterrents to their access and use, for male-led groups it was primarily because they were deemed unnecessary. Female-led entities displayed significant distrust of banks and found their products difficult to use. Moreover, all rejected credit line requests made by female-led entities were due to unacceptable collateral indicating that female-led enterprises have much less land and assets, all with lower added value than their male counterparts.

This gap is maintained with respect to financing instruments when it comes to gender and enterprise size. Female-led entities are the most underserved in terms of medium- to long-term financing in comparison to their male counterparts: only 25 percent of female-led entities have taken out a bank loan compared to 41 percent of male-led enterprises. Similarly, only 6 percent of the former group have a leasing or hire purchase agreement in place versus 14 percent of the second group. There is not much to say in terms of debt securities as the usage ratio is extremely low, namely 2 percent nationwide. When it comes to enterprise size, as few as 8 and 34 percent of microenterprises have a lease and a bank loan (respectively) compared to 37 and 58 percent for medium enterprises. At the sector level, only 10 and 38 percent of service enterprises obtain these same debt instruments, respectively, as opposed to 51 and 73 percent for construction and trade companies.

Low levels of financial capability appear to be an important impediment to MSME's ability to access finance but do not offer any meaningful explanations for the observed gender gap in access to financial services. In all cases, the analysis showed that access to finance was positively correlated with several financial capability areas, except for firms' risk assessment and their ability to monitor receivables, where correlation was found to be negative. In theory, majority female-led entities achieving higher financial capability scores than their male counterparts should have thus also been better suited to receive external financing. Nevertheless, male-led entities continued to be favored by banks and other loan providers. In fact, for female businesses in BiH higher growth (measured by job growth from inception to current year) and higher financial capability levels (particularly when analyzing high value-added firms) seem not to be positively associated with their ability to access finance. This further reinforces the conclusion of a bias against female-led businesses when it comes to access to commercial financing.

Key Findings

MSME Survey Results

19%
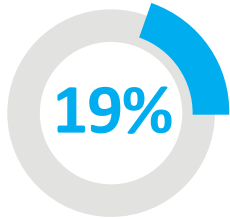
of enterprises believe access to finance to be a major or severe obstacle, and from these 66% are microenterprises

Legend:
- % of firms that have a loan
- % of firms with no need of bank loan
- financing gap

Chart data:

	% of firms that have a loan	% of firms with no need of bank loan	financing gap
Micro	34	18	48
Small	47	32	21
Medium	58	26	16
Male run	42	24	34
Female run	23	20	57
Agriculture	36	43	21
Manufacturing	38	22	40
Construction and Trade	45	21	34
Services and Other	33	28	39

SME's usage of financila institutions:

- **98%** have bank accounts
- **21%** have a line of credit
- **40%** have a bank loan
- **66%** use trade credit
- **5%** use equity capital

Lacking financial capabilities are a part of the problem

- SMEs do not diversify their cash strategy
- do not act with precaution
- do not analyze or develop business opportunities

Low demand for non-loan financial products is an issue of **knowledge and education**:

- leasing
- debt securities
- factoring
- equity capital
- grants

Biggest vs smallest users of formal financing

FOMA
FOFA

Low financing usage

MOFA
MOMA

High financing usage

FOFA		MOMA
23%	Bank loan	42%
12%	Line of credit	22%
14%	Grants	16%
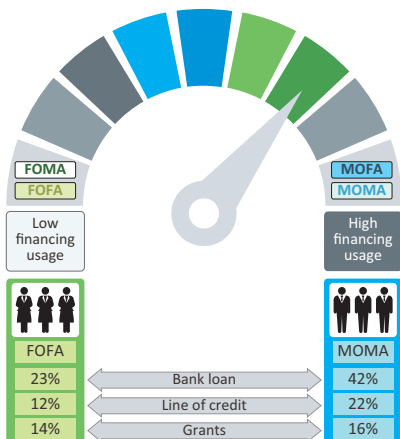
According to responses, MSMEs do not diversify their cash strategies nor do they seek out information and advice

Most MSMEs tend to:
Assess risk
Monitor their receivables and cash
Be aware of all aspects of their business

Most MSMEs tend NOT to:
Analyze and develop business opportunities
Act with precaution

Financial capabilities vs Access to finance

Financial capability

Access to finance

FOFA/FOMA or **MOMA/MOFA** that have access to finance outperformed those without in terms of financial capabilities

Financial capabilities vs Gender and performance

FOFA with **high added value** have higher scores than their male counterparts

FOFA
High Added Value

MOMA
High Added Value

FOFA should be better suited to receive external financing
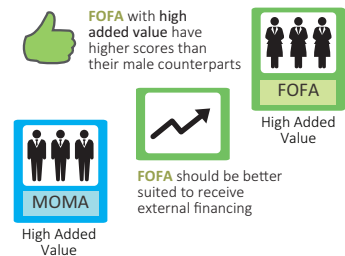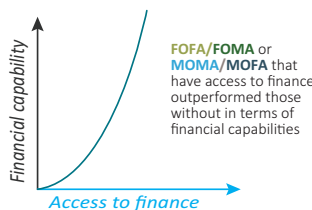
1.   Characteristics of the MSME Sector (Survey Findings)

This report provides a baseline analysis of the status of access to finance for MSMEs with a particular focus on women entrepreneurs' ability and constraints in accessing finance in order to develop and grow their businesses. It is based on a nationally representative survey of 542 enterprises conducted in BiH between September 2016 and February 2017. In order to increase the efficiency of the sample design and ensure that the domains of analysis will have a sufficient number of observations, the sampling frame of enterprises was divided into homogeneous strata defined in terms of geographic regions, major economic sectors, employment size, and gender related aspects. Thereby, size groups have been defined based on the number of employees: microenterprises (less than 10 employees), small enterprises (10-49 employees), and medium enterprises (50-249 employees). Together with four major activity groups (agriculture, manufacturing, construction and trade, and services) as well as four gender categories (see further information below). Additional information about representativeness, sampling, and overall survey methodology is in Annex 1.

The MSME population for which the results of this survey are meant to be extrapolated has the following key characteristics: 68 percent of the MSMEs have less than 9 employees, 25 percent have between 10 and 49 employees and the remaining 7 percent have between 50 and 249 employees (see Figure 1). Most of the firms develop their activities in the service and household sector (85 percent), around 10 percent of firms are in the manufacturing sector, 3 percent in the agriculture sector and the main economic activity for the remaining 2 percent is construction and trade (see Figure 2). In terms of the legal status, 73 percent of MSMEs are owned by a sole proprietor, 26 percent by multiple individuals, companies, or organizations (partnerships including limited liability companies) and about 1 percent are under the legal figures of a cooperative, a limited partnership, a commandite company, or a shareholding company with non-traded shares (see Figure 3). Thirty-four percent of firms have been in operation for 6 years or less, 33 percent between 7 and 15 years, and 33 percent for more than 15 years (see Figure 4). As shown in Figure 6, 30 percent of MSMEs are categorized as male-owned and male-managed (MOMA), 34 as male-owned and female-managed (MOFA), 17 percent as female-owned and male-managed) FOMA and 19 percent as female-owned and female-managed (FOFA) (see further information on gender classification below).

Figure 1. Estimated enterprise breakdown by size

Medium enterprises (50 - 249 employees), n = 37

Small enterprises (10 - 49 employees), n = 138

7%

25%

68%

Micro enterprises (0 - 9 employees), n = 367
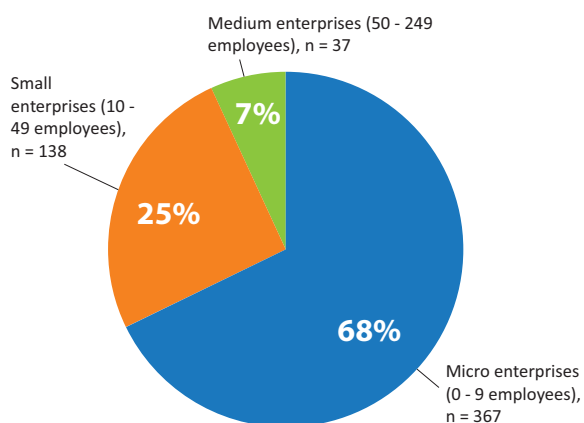
Figure 2. Estimated enterprise breakdown by main economic activity

3% Agriculture, n = 15

Manufacturing, n = 52

2% Construction & Trade, n = 12

10%

85%

Services, Misc Household or Organisational, etc, n = 463
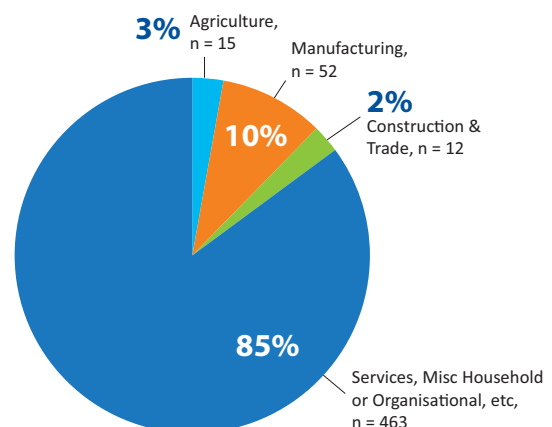
Figure 3. Estimated enterprise breakdown by current legal status

0% Limited partnership, n = 2

0% Cooperative, n = 1

0% Commandite Company, n = 2

1% Shareholding company with non-traded shares or shares traded privately, n = 5

Partnership (including limited liability companies), n = 138

26%

73%

Sole proprietorship, n = 394
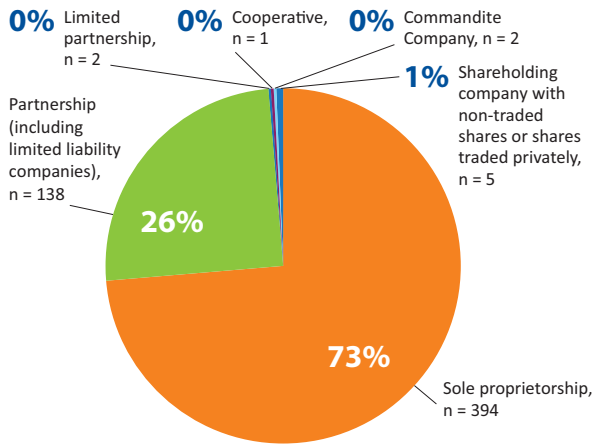
Figure 4. Estimated enterprise breakdown by maturity

Oldest enterprises (more than 15 years), n = 177

Newest enterprises (0 - 6 years), n = 184

33%

34%

33%

Old enterprises (7 - 15 years), n = 181
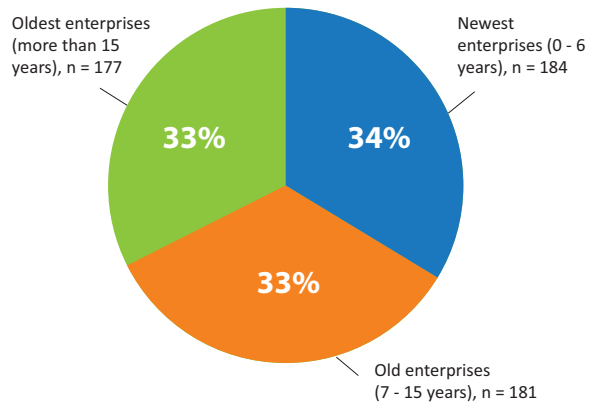
Figure 5. Estimated enterprise breakdown by gender composition

FOFA, n = 102

MOMA, n = 161

19%

30%

FOMA, n = 94

17%

34%

MOFA, n = 185
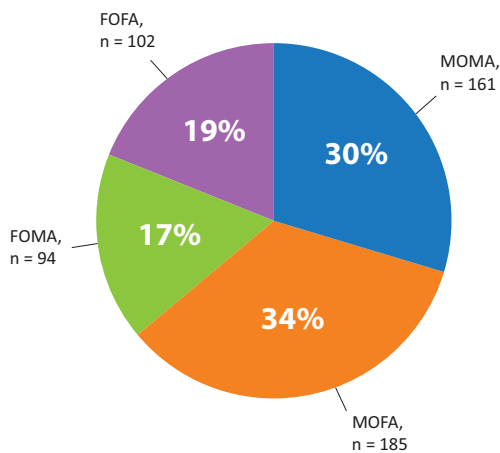
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

In order to obtain the gender perspective, a gender typology of MSMEs was determined by assembling the gender mixes in ownership and management of the firms. This typology contains 4 categories of MMEs as presented in Table 1. 86.3 and 69.2 percent of FOFA and MOFA respondents respectively are micro enterprises compared to only 59.6 and 59 percent for FOMA and MOMA.

Table 1. Typology for gender classification of MSMEs

Category	Abbreviation	Definition
Male-led	**MOMA**	Firms that are **Majority Male-Owned** and **Male-Managed**
Mixed Type 1	**MOFA**	Firms that are **Majority Male-Owned** and **Female-Managed** or with **Female-Influenced** Management
Mixed Type 2	**FOMA**	Firms that are **Majority Female-Owned** and **Male-Managed** or with **Male-Influenced** Management
Female-led	**FOFA**	Firms that are **Majority Female-Owned** and **Female-Managed**

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Majority female-led enterprises are predominantly microenterprises, involved in the services sector and tend to be newly established. Around 92 and 88 percent of FOFA and FOMA entities were found to be involved in the services sector, as opposed to 81 percent for MOFA and 84 percent for MOMA (see Figure 6). In terms of years of operation (see Figure 7), firms with dominant female participation in either the ownership or the management (FOFA, FOMA and MOFA) display the largest proportion of newly-established enterprises (39–40 percent) compared to 29 percent for male-led entities. However, sole proprietorship is more common with female and men led entities (FOFA and MOMA) in 90–91 percent of cases as opposed to 62 percent for the mixed type (MOFA and FOMA). Female-led enterprises.

Table 2. Typology for gender classification of MSMEs

Total Respondents	Micro enterprises (0 - 9 employees)		Small enterprises (10 - 49 employees)		Medium enterprises (50 - 249 employees)		Total	
	#	%	#	%	#	%	#	%
MOMA	95	59.0%	53	32.9%	13	8.1%	161	100%
MOFA	128	69.2%	39	21.1%	18	9.7%	185	100%
FOMA	56	59.6%	34	36.2%	4	4.2%	94	100%
FOFA	88	86.3%	12	11.7%	2	2.0%	102	100%
Total	**367**	**67.7%**	**138**	**25.5%**	**37**	**6.8%**	**542**	**100%**

Source: WBG Access to Finance Survey for MSMEs, BiH 2016.

Figure 6. Estimated enterprise breakdown by gender and main economic activity
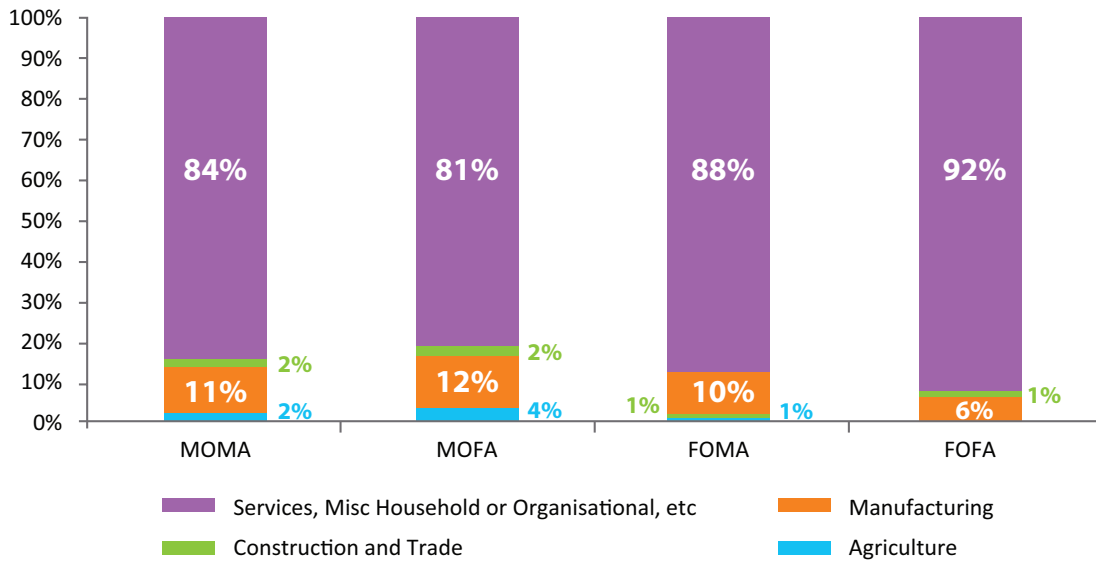
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 7. Estimated enterprise breakdown by gender and maturity
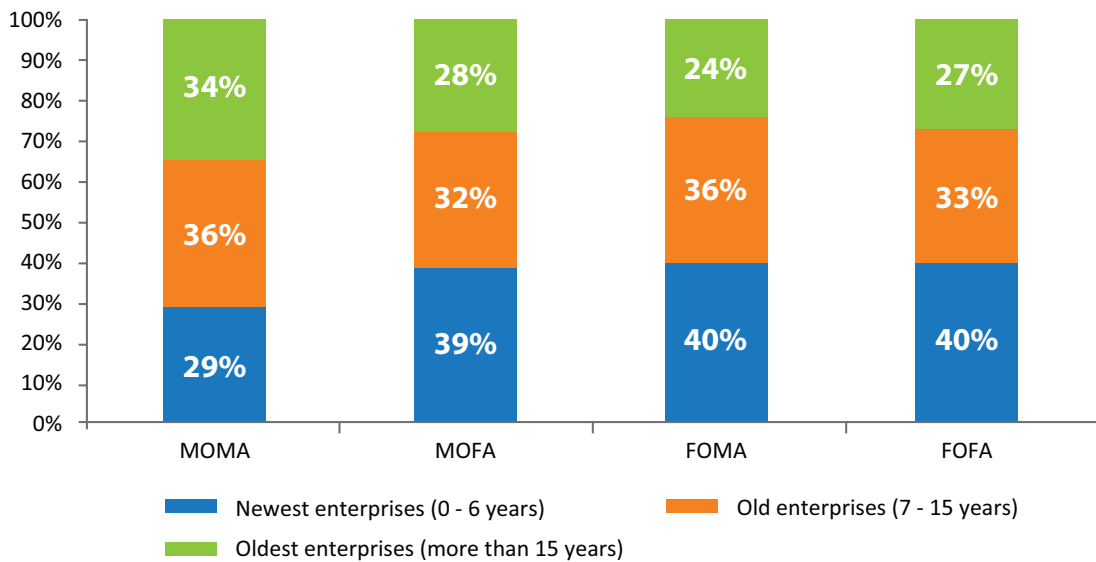
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 8. Estimated enterprise breakdown by gender and legal status
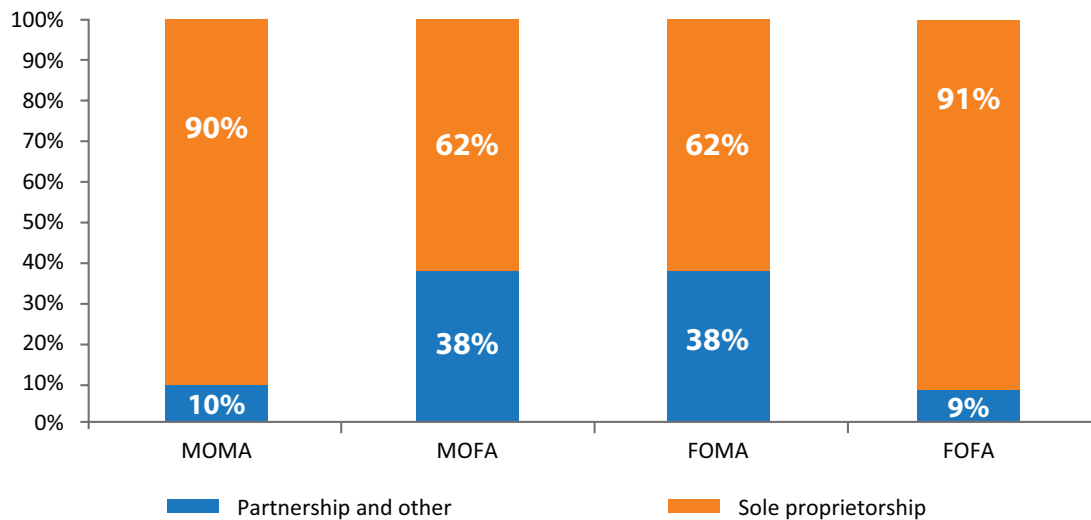
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

2. Sector Financial Performance and Growth Potential

As far as total assets are concerned, the type of enterprises with the highest net worth by far are MOMA ones with BAM 4.6 million, compared to BAM 1.4 million for MOFA and BAM 1.2 million for FOMA, and finally a low BAM 307,700 for FOFA enterprises. It seems that with a very similar amount of sales between MOMA, MOFA, and FOMA enterprises, the important difference lies in the amount of total assets. By far, male-led enterprises are leading with BAM 9.3 million compared to BAM 1.8 and 1.5 million for MOFA and FOMA enterprises and as low as BAM 345 thousand for female-led enterprises.

Furthermore, MOMA enterprises assume more current liabilities, with BAM 4.6 million compared to roughly BAM 150,000 for MOFA and FOMA enterprises, and BAM 21,000 for FOFA enterprises. This could be an indication that while all types of enterprises may have a similar amount of sales, male-led enterprises are clearly favored by banks and lending institutions, offering them better opportunities to grow their business, compared to their MOFA, FOMA, and FOFA counterparts.

Table 3. Financial statement figures (BAM, 2015)

	Sales	Expenses	Added Value	Current Assets	Total Long Term Assets (Equipment & Buildings)	Total Assets	Line of Credit	Payables	Current Liabilities	Long Term Debt	Total Liabilities	Net Worth (Total assets – total liabilities)	Net Worth Ratio
Total (BiH)	1,425,721	661,733	1,150,557	7,881,487	1,111,558	8,993,044	4,428,771	71,584	4,500,356	122,600	4,622,955	4,370,089	49%
Gender composition													
MOMA	1,710,415	799,892	1,321,867	8,018,509	1,262,426	9,280,935	4,498,381	93,173	4,591,554	126,850	4,718,405	4,562,530	49%
MOFA	1,787,684	838,473	1,354,554	465,834	1,297,667	1,763,500	92,993	60,049	153,042	187,279	340,321	1,423,180	81%
FOMA	1,612,982	887,452	1,276,009	254,556	1,198,481	1,453,036	20,473	127,840	148,313	64,060	212,373	1,240,664	85%
FOFA	354,226	209,778	206,749	42,192	302,838	345,030	1,347	19,983	21,330	16,032	37,362	307,669	89%
Return Level													
Low	1,856,933	1,345,233	793,692	352,390	1,119,118	1,471,507	88,776	176,579	265,355	108,932	374,286	1,097,221	75%
Medium	738,508	353,150	558,638	97,084	483,713	580,797	13,041	18,126	31,167	40,508	71,676	509,121	88%
High	1,820,237	512,389	1,925,244	7,040,540	1,628,231	8,668,772	3,849,140	34,868	3,884,008	200,370	4,084,378	4,584,394	53%
Added value level													
Low	46,617	26,403	32,651	5,095	66,465	71,560	1,149	1,200	2,349	2,174	4,523	67,037	94%
Medium	149,669	72,240	120,559	19,280	196,405	215,684	3,270	7,140	10,410	10,326	20,736	194,948	90%
High	4,092,553	1,994,050	3,107,333	7,616,508	2,910,995	10,527,503	4,038,882	204,187	4,243,069	332,313	4,575,381	5,952,122	57%
Enterprise size													
Micro enterprises	236,380	126,815	147,832	25,989	198,227	224,216	3,069	11,809	14,878	15,901	30,779	193,437	86%
Small enterprises	2,103,004	1,104,996	1,495,024	300,229	1,720,610	2,020,839	55,274	99,891	155,164	105,991	261,156	1,759,683	87%
Medium enterprises	11,133,437	5,009,783	9,186,721	37,279,133	7,346,667	44,625,800	20,239,100	567,793	20,806,893	1,172,667	21,979,560	22,646,240	51%

Financial Results and Performance

*Note: (i) Added value = Sales – total expenses + depreciation + labor. (ii) Return = (Sales – Total expenses)/Sales. (iii) Current assets are estimated from accounts receivables from collateral information or calculated receivables ((Sales/4) * Sales postpaid proportion) or line of credit (factor). (iv) Payables = ((Sales*(Cost of Raw Material/Sales))/ 4)*

* Purchases postpaid proportion (more details in Appendix B).

Sales, expenses, long term assets, line of credit, long term debt information are extracted directly from MSME responses.

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

3. Current Use of Financial Services

3.1. Use of Bank Accounts, Internet Banking, and Electronic Payments

Survey results demonstrate that female-led MSMEs are underserved in terms of bank accounts and retail payment instruments when compared to their male counterparts. As highlighted in Figure 9, 91 percent of female-led entities use bank accounts versus 99 percent for male-led enterprises. Moreover, 28 percent of female-led entities use internet banking compared to 51 and 39 percent for MOFA and MOMA enterprises. Finally, only 7 percent of female-led entities utilize electronic payments as opposed to 20 percent of male-led enterprises. The most underserved MSMEs in terms of internet banking and electronic payments are female-led micro enterprises and those enterprises operating in the services and household sector. As depicted in Figure 10, only 14 percent of micro enterprises utilize electronic payments compared to 41 percent for medium-sized entities. Similarly, 28 percent of micro enterprises utilize electronic payments compared to 76 percent in the case of medium-sized entities. Moreover, 14 percent of firms in the services and household sector make use of electronic payments versus 33 percent in the construction and trade sector.

Figure 9. Usage of bank accounts and retail payments by gender composition
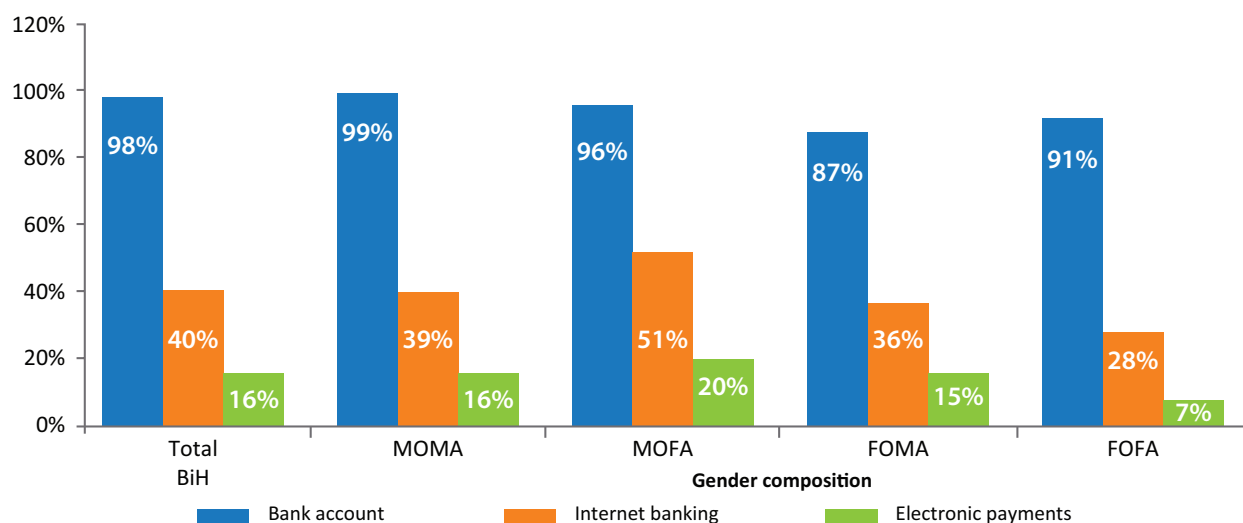
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 10. Usage of bank accounts and retail payments by type of enterprise and main economic activity
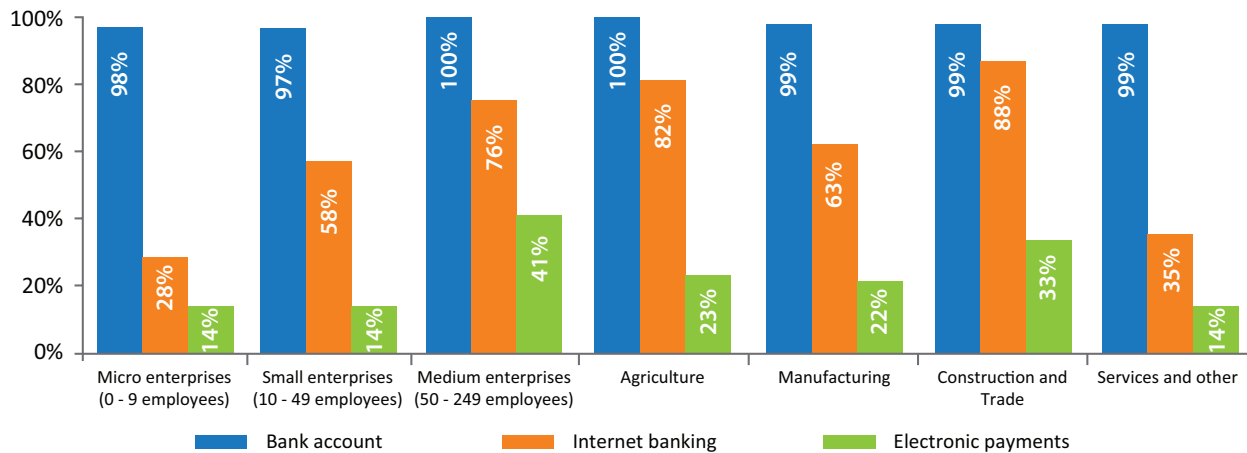
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

The most important reason to use a bank account is to lower transaction costs; in the case of internet banking, it is to reduce transaction time; and for electronic payments, to guarantee consumer request satisfaction. As highlighted in Figure 11, 49 percent of the surveyed enterprises that use bank accounts stated that the main reason they did so was a reduction in financial transaction cost, this was more than two and a half times the second and third reasons given. Furthermore, 64 percent of MSMEs identified the reduction of time spent performing financial transactions as the number one reason for using internet banking, two and a half times that of the second reason recorded. Finally, with respect to electronic payments, the main reason given for its use was to satisfy consumers' requests (40 percent) and a reduction in the time spent performing financial transactions (34 percent).

Figure 11. Three most important reasons for using bank accounts and retail payments (percentage of users) – MSME in BiH
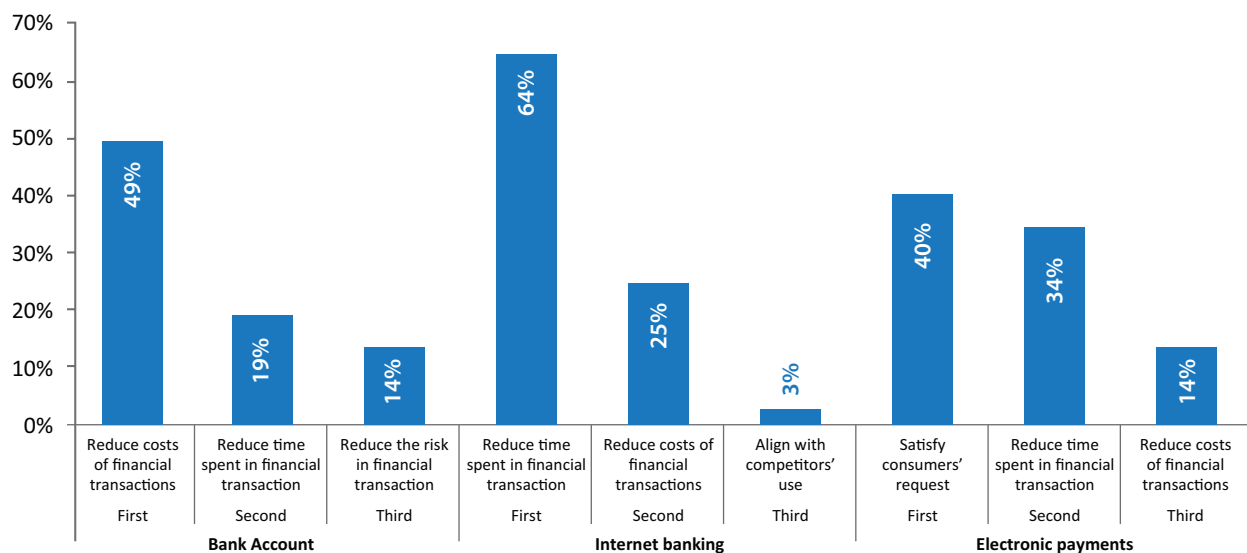
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Of those not utilizing bank accounts, high fees and complex procedures are the main deterrents for female-led enterprises, whereas the majority in all other gender groups claim bank accounts are unnecessary. As depicted in Figure 12, between 74 and 100 percent of MOMA, MOFA and FOMA who do not use bank accounts claim they have no need for them. However, FOFA entities are very different; perceiving that fees are too high (42 percent) and application procedures are too complex (36 percent) to use banks. Further in-depth analysis reveals that this group additionally have the highest distrust in banks and find their products difficult to use.

Figure 12. Reasons for not having a bank account (percentage of unbanked enterprises)
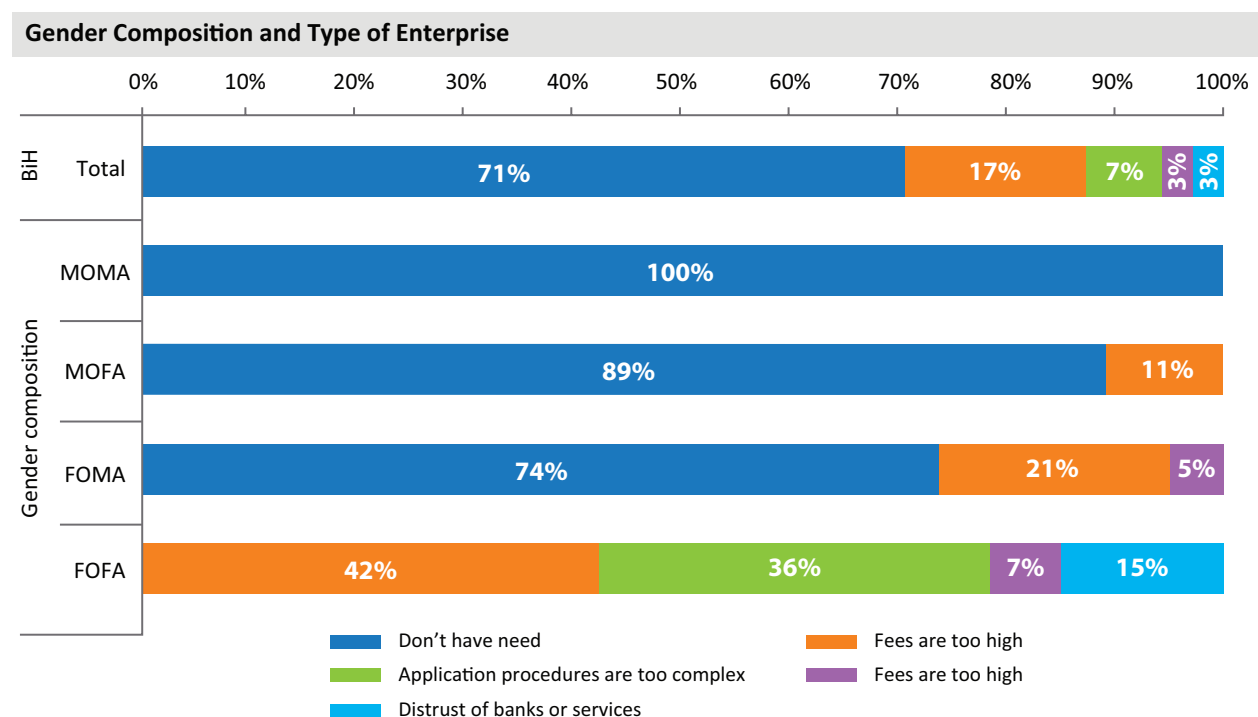
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

3.2. Use of Savings Instruments

Savings instruments are rarely used by MSMEs, except for some medium-sized enterprises. As illustrated in Figure 13, 26 percent of medium-sized enterprises state that they use savings instruments, as opposed to 3-4 percent of micro and small firms. There is little variation in the use of savings instruments among firms based on gender composition. Five percent of male-led firms use certificates or deposits or other short term cash investment instruments, whereas 3 percent of female-led firms use such savings instruments. MSMEs in the construction and trade sector report having the most use for savings instruments with 12 percent, while no firms in the agriculture sector report using savings instruments.

Figure 13. Usage of savings instruments

Bar chart showing usage of savings instruments:

Category	Value
MOMA	5%
MOFA	5%
FOMA	3%
FOFA	3%
Micro enterprises (0 - 9 employees)	3%
Small enterprises (10 - 49 employees)	4%
Medium enterprises (50 -249 employees)	26%
Agriculture	0%
Manufacturing	9%
Construction and Trade	12%
Services and other	5%

Gender composition | Type of Enterprise | Main economic activity
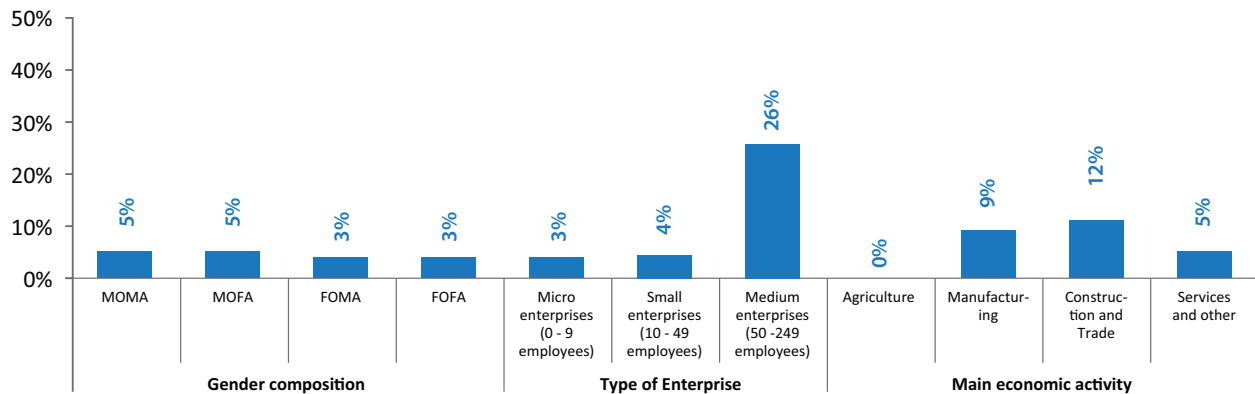
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

3.3. Use of Financing Products

Trade credit, bank loans, and credit lines are the most common forms of debt instruments for MSMEs. The most commonly utilized forms of financing are: trade credit (66 percent); bank loan (40 percent); line of credit (21 percent); support from public sources (16 percent); leasing or hire purchase (13 percent); and loans from family and friends (12 percent).

Some degree of correlation exists between knowledge and usage of financing products. As portrayed in Figure 14, the lower the level of knowledge the lower the usage rate. The more complex financing instruments such as debt securities, factoring, and other financing (participatory and subordinated loans), where levels of knowledge are lowest, are the least used (see Figures 15 and 16).

The next sections dig deeper into sources of financing used by MSMEs in BiH based on the time period for which the money is required. The analysis is organized by short-term as well as medium to long term sources of financing and looks into variations in current usage of a range of financing products. Short-term financing with a duration of up to one year arises from the need to finance current assets of an enterprise like an inventory or raw material, debtors, minimum cash, and bank balance, etc. Medium-term financing means financing for a period of more than one and up to five years, it is often used when long-term financing is not available. Long-term financing means capital requirements for a period of more than five years and helps to fund capital expenditures in fixed assets such as plants and machinery, land, and buildings of a business.

Figure 14. Overview of financing products (usage vs knowledge) – MSME in BiH
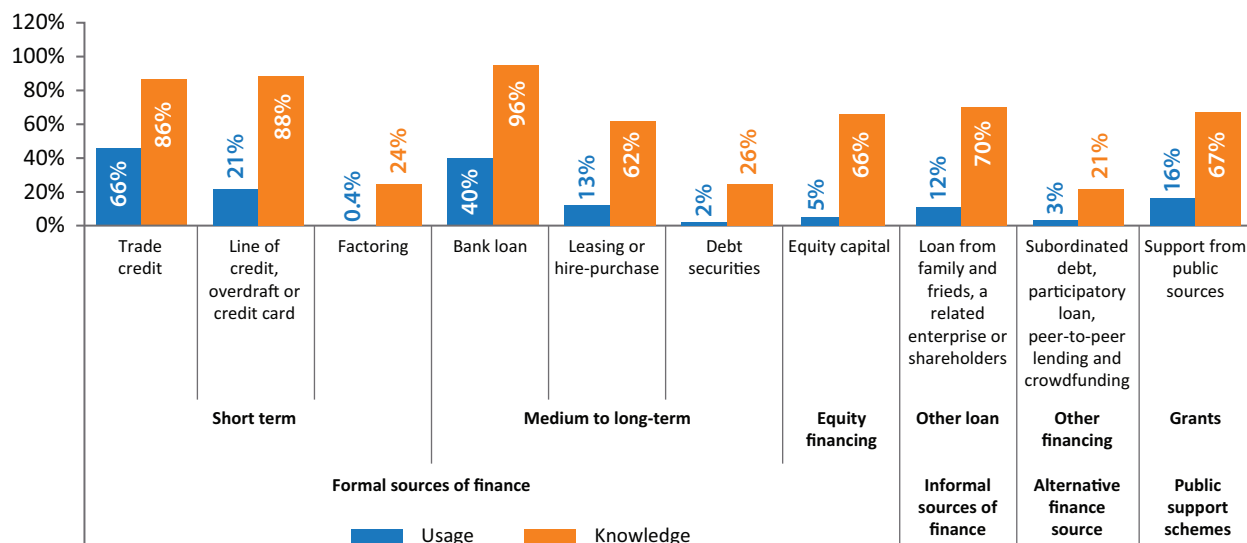
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 15. Overview of financing products (usage vs knowledge) – male-led enterprises
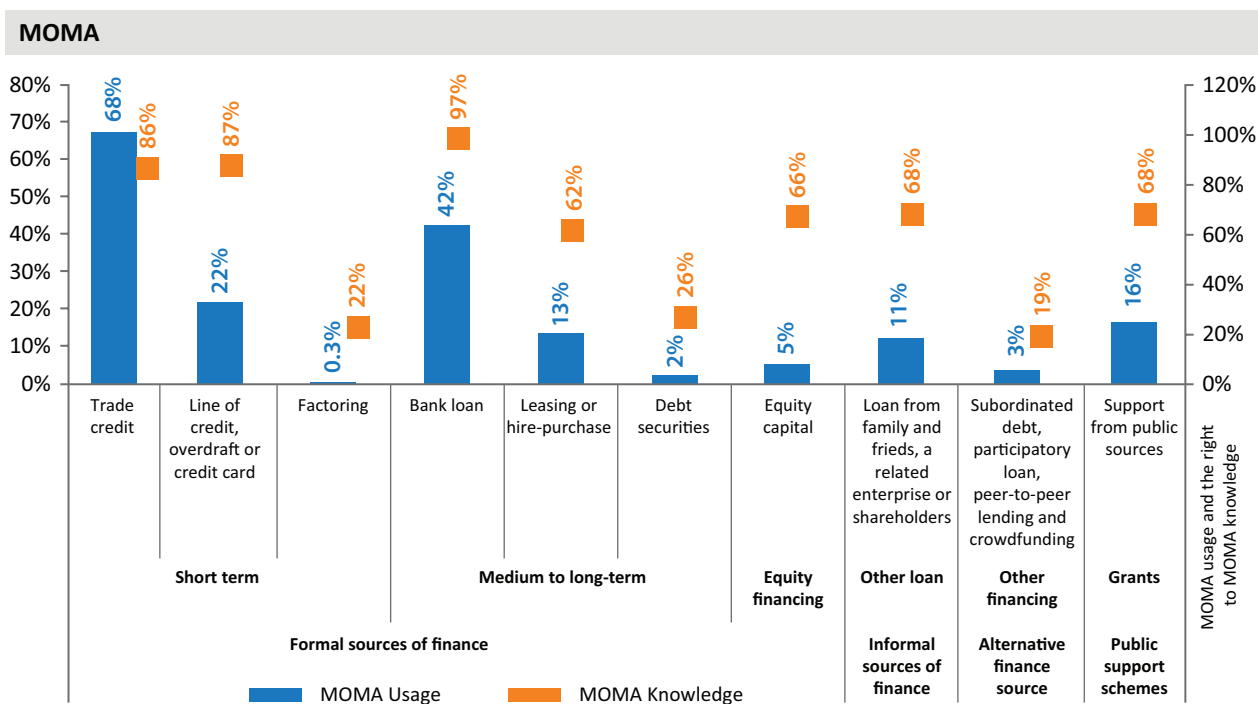
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 16. Overview of financing products (usage vs knowledge) – female-led enterprises
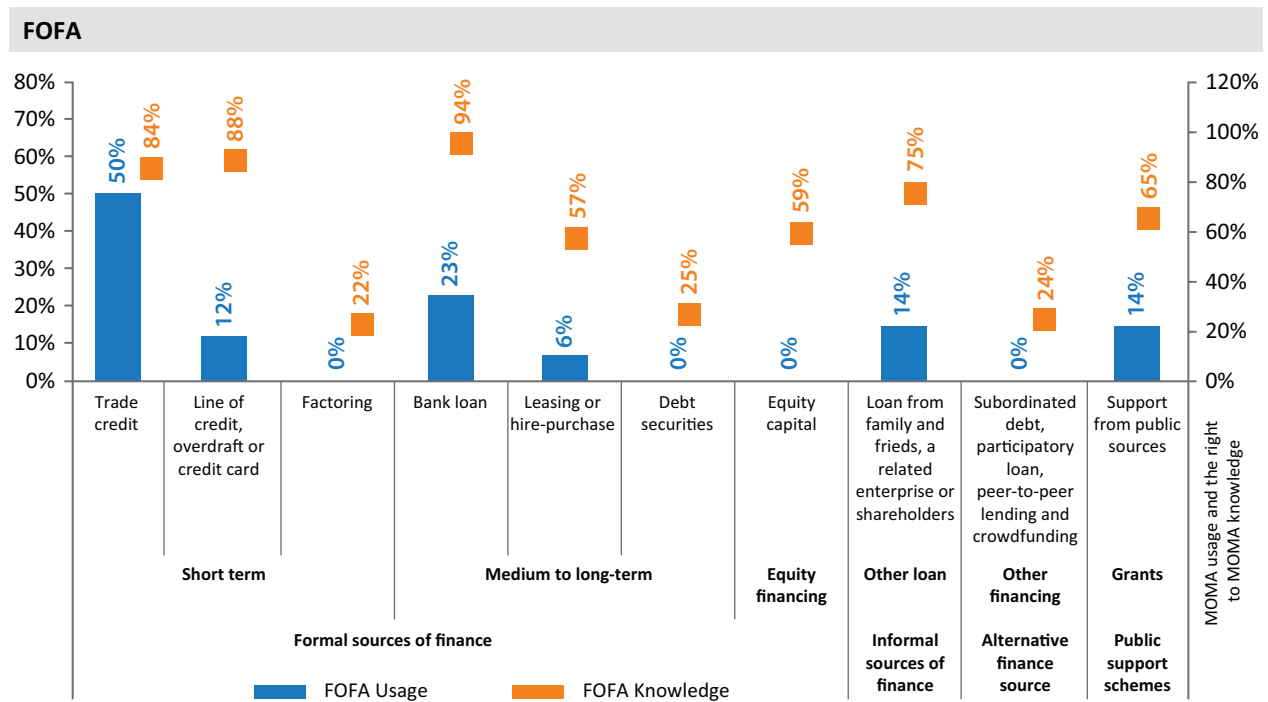
Source: *WBG Gender MSME Access to Finance Survey, BiH 2018.*

3.3.1. Short Term Financing

Only 17 percent of micro enterprises possess credit lines, overdrafts, and credit cards, as opposed to 31 percent for medium enterprises. A deeper exploration into short-term financing options currently used by enterprises in BiH reveals that 64 percent of the former have trade credits compared to 89 percent of the latter. Furthermore, 19 percent of firms in the services and household sector use credit lines, overdrafts, and credit cards, which is 10 percent less than manufacturing companies (29 percent). Finally, 58 percent of agricultural entities have trade credits compared to 80 percent of manufacturing enterprises.

Figure 17. Short term financing by type of enterprise and main economic activity
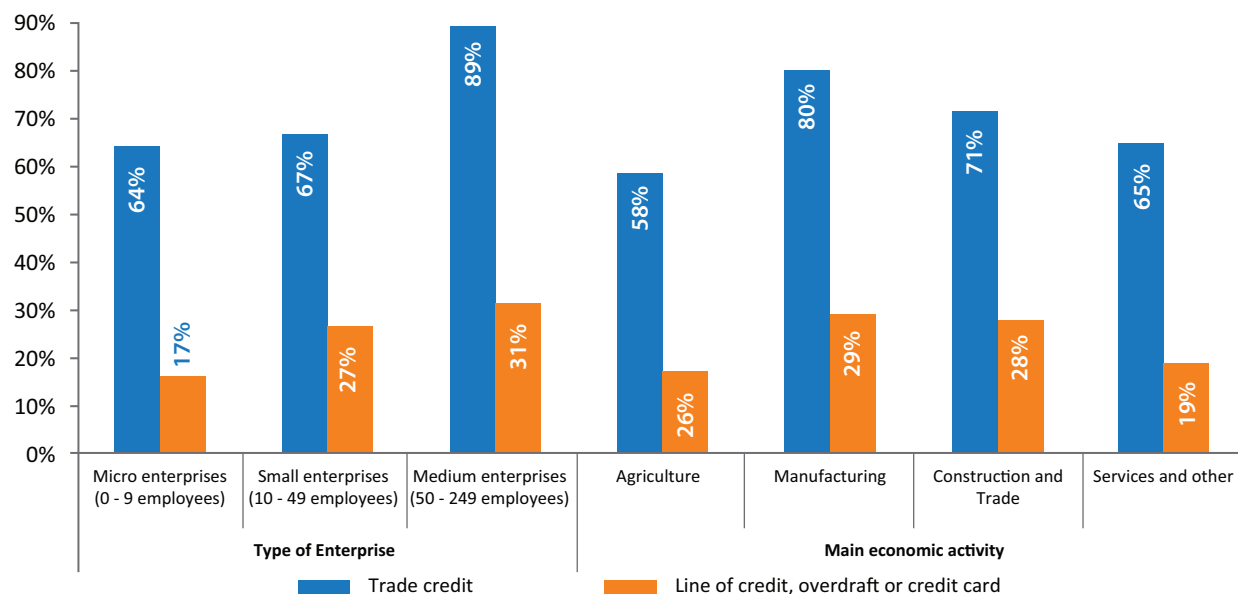
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Majority female-led entities are underserved in terms of short term financing when compared to their male counterparts, particularly micro enterprises and enterprises operating in the agriculture and services and household sectors. As indicated in Figure 18, 12 percent of female-led enterprises have credit lines, overdrafts, and credit cards compared to 22 percent for male-led entities. Similarly, 50 percent of female-led enterprises have trade credits compared to 68 percent for male-led entities. The usage ratio for factoring is extremely low, namely 0.4 percent.

Figure 18. Short term financing by gender composition
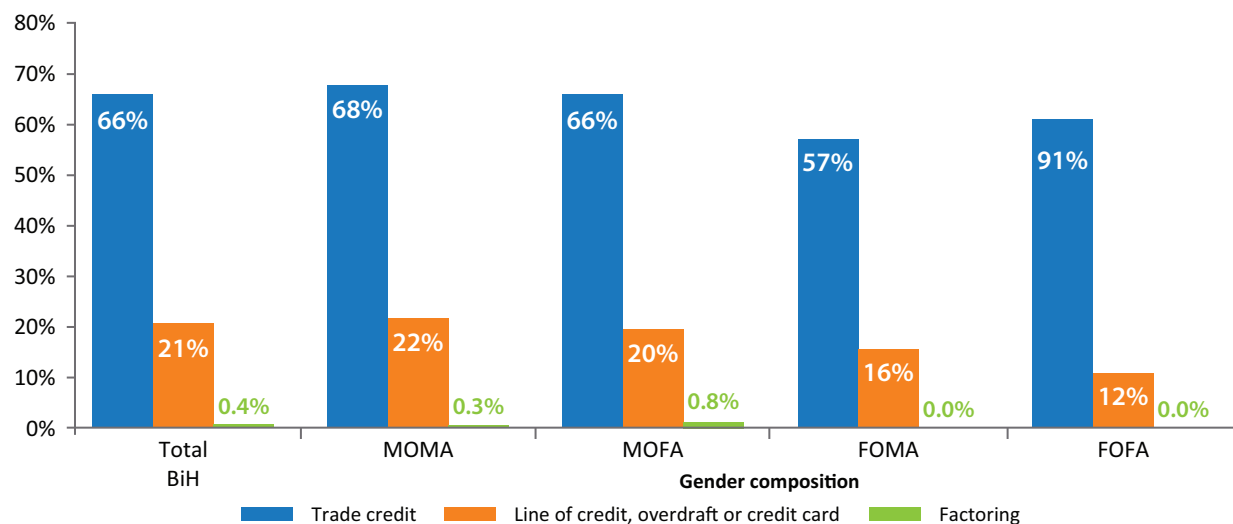
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

The average credit line awarded to majority female-led entities is about forty times smaller than that for majority male-led companies. As shown in Figure 19, among MSMEs using debt instruments, the average credit line of male-led entities is BAM 21.9 million compared to BAM 0.5 million for female-led enterprises.

Figure 19. Line of credit (average debt level, bam) by individuals characteristics (universe of enterprises having lines of credit)
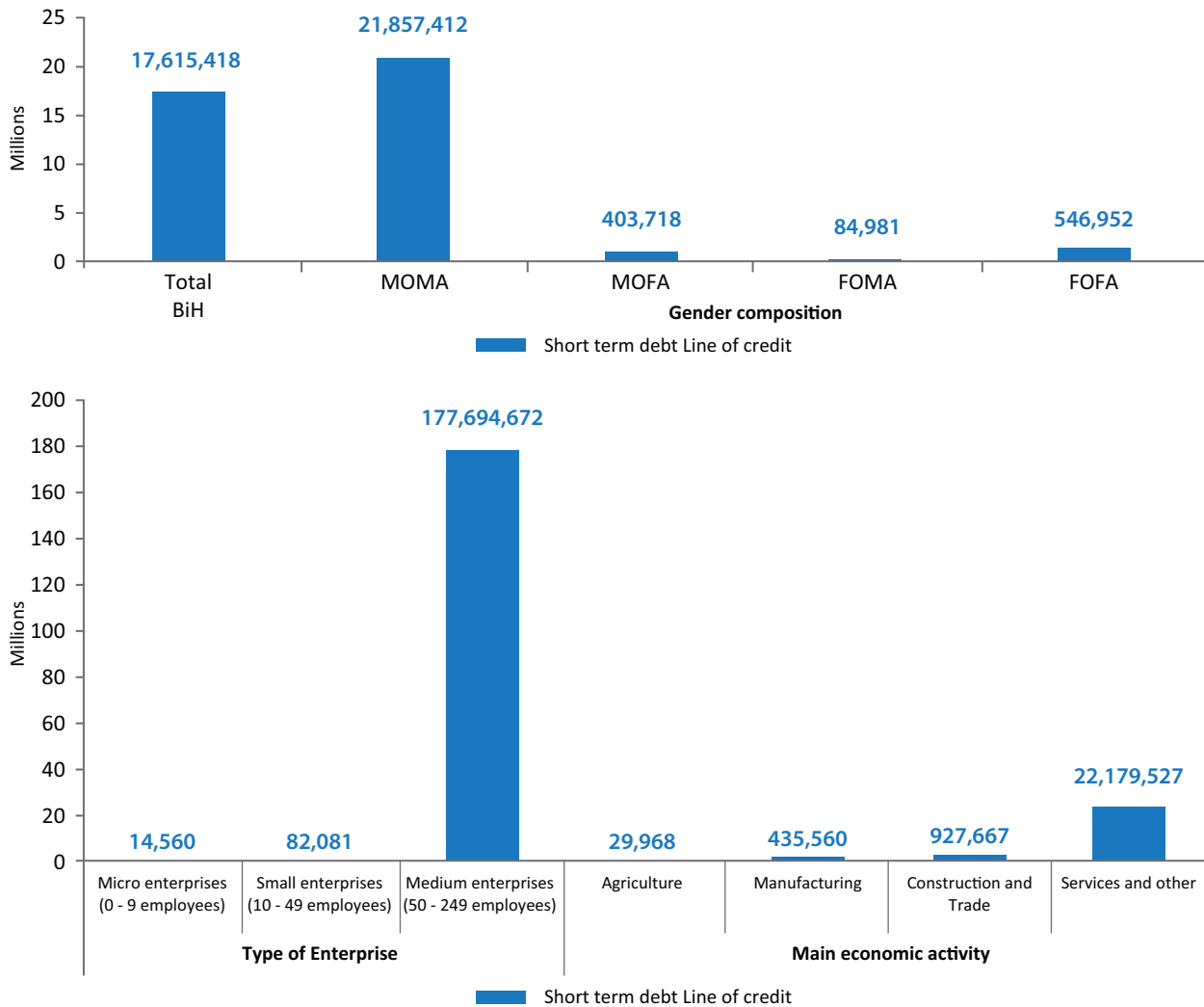
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Credit lines have been used primarily for the purchase of inventory/goods for sale and to a lesser extent, for the payment of salaries and other ongoing expenses. As Figure 20 shows, 58 percent of credit lines were used to purchase inventory/goods for sale and 27 percent for paying salaries and other ongoing expenses. The average maturity at the time of disbursement was 33 months, although firms in construction and trade tend to get loans with a slightly longer maturity period (35 months) as compared to agriculture firms (29 months).

Figure 20. Purpose of lines of credit by individual characteristics (universe of credit line users)

Legend:
- Purchase inventories / goods for sale
- Purchase fixed assets (building, equipment)
- Pay personal / household expenses
- Pay off debts
- Pay salaries or other ongoing expenses
- Other

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Trade credit and lines of credit enjoy high approval ratings and the former is the most popular method of short term financing. Female-led entities have the lowest levels of request and approval ratings for both financing methods. As shown in Table 4, 69 percent of MSMEs requested trade credit but only 19 percent applied for credit lines. The ensuing approval rate for such requests was recorded at 96 percent. Requests made by female-led entities for trade credit (53 percent) and credit lines (12 percent) were the lowest among gender-related groups, especially when compared to male-led entities (71 percent for trade credit and 20 percent for credit lines). Furthermore, these same entities had the lowest approval ratings for lines of credit (89 percent).

Table 4. Financing request and approval rates 2015 - 2016 (short term financing)

	Short Term Financing					
	Trade Credit		Line of credit		Factoring	
	Request	Approval	Request	Approval	Request	Approval
Total (BiH)	69%	96%	19%	96%	1%	30%
MOMA	71%	97%	20%	96%	1%	30%
MOFA	70%	95%	16%	99%	2%	43%
FOMA	67%	85%	14%	100%	0%	N/A
FOFA	53%	94%	12%	89%	2%	0%
Micro enterprises	65%	98%	15%	93%	1%	63%
Small enterprises	75%	90%	26%	99%	0%	N/A
Medium enterprises	89%	100%	23%	99%	10%	0%
Agriculture	58%	100%	22%	100%	0%	N/A
Manufacturing	87%	92%	24%	95%	0%	0%
Construction and Trade	71%	100%	28%	100%	0%	N/A
Services and other	67%	96%	18%	96%	1%	31%

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

All rejected credit line requests made by female-led entities were due to unacceptable collateral. As depicted in Figure 21, 100 percent of female-led entities had their credit line requests refused due to unacceptable collateral or co-signers. This indicates that female-led enterprises have much less land and assets, all with lower added value than their male counterparts. What is interesting though is that women appear to fare better than men with respect to debt management. In fact, all rejected credit line requests made by MOFA entities were a result of the level of debt incurred, and for MOMA enterprises problems with credit history and report were an issue. When looking at enterprises in terms of size, small enterprises' credit applications were refused based on inadequate collateral while medium-sized enterprises were rejected due to concern about debt levels already incurred.

Figure 21. Main reasons for rejection of lines of credit (% of enterprises with rejected requests)[2]
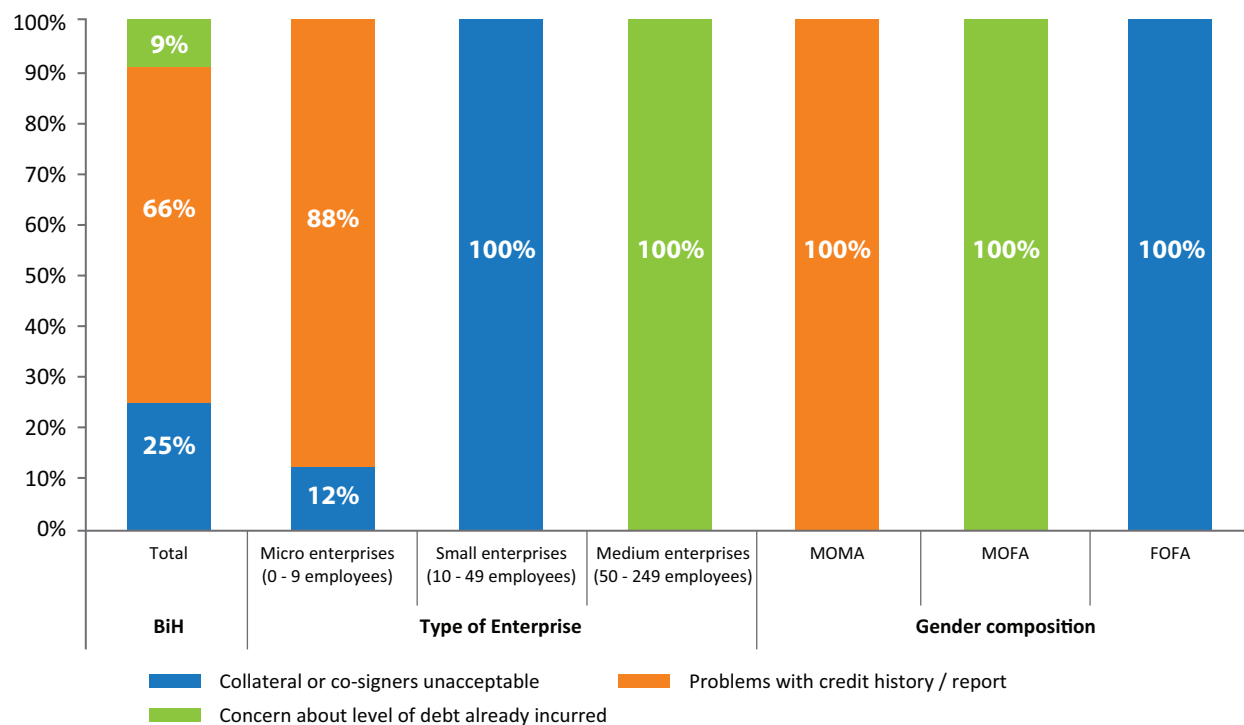
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Female-led entities are significantly more in need of credit lines than majority male-led entities; they complain about application procedures being too complex while the latter criticize the unfavorable credit terms. As illustrated in Figure 22, 54 percent of male-led entities do not request lines of credit because they have sufficient funds and have no need for a loan, compared to only 21 percent of female-led enterprises. It is also interesting to note that female-led entities' main reason for not requesting a credit line is that application procedures are too complex (37 percent), whereas 32 percent of male-led enterprises believe that credit terms are not favorable (interest rate, amount and maturity).

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2 It should be noted that this analysis is based on a small sample of respondents (n<10).

Figure 22. Main reasons for not requesting lines of credit (% of enterprises that requested lines of credit in the previous years) by gender composition

Legend:
- No need for a loan - firm has sufficient funds
- Other
- Amount and maturity were insufficient
- Interest rates were not favorable
- Application procedures were complex
- Did not think it would be approved
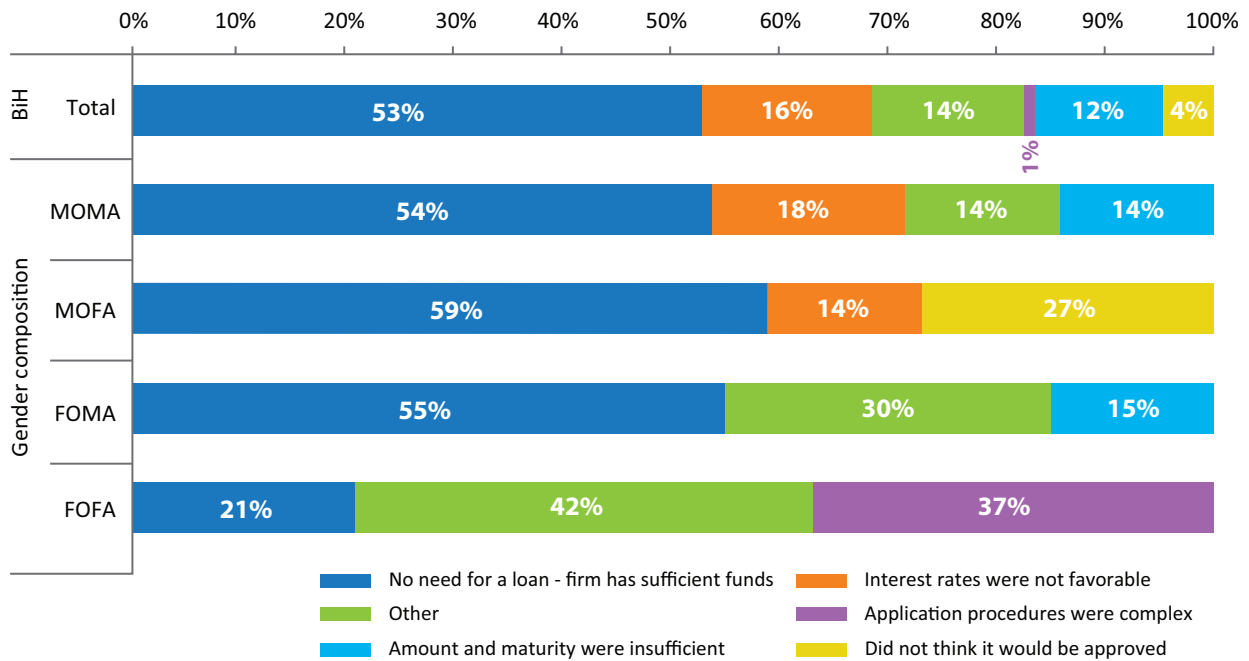
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Access to short-term financing has become more difficult to obtain during the last three years, and more so for female-led entities in comparison to their male counterparts. As highlighted in Figure 23, 37 percent of female-led entities that are familiar with credit lines, overdrafts, or credit cards think that such financing has become harder to obtain in the last 3 years, compared to 23 percent for male-led entities. In addition to this, as much as 62 percent of construction and trade companies and 54 percent of medium-sized enterprises share this view concerning trade credit.

Figure 23. Increased difficulty accessing short term finance over the course of the last 3 years (% of enterprises that are familiar with the type of financing) by individual characteristics

Legend:
- Trade credit
- Line of credit, overdraft or credit card
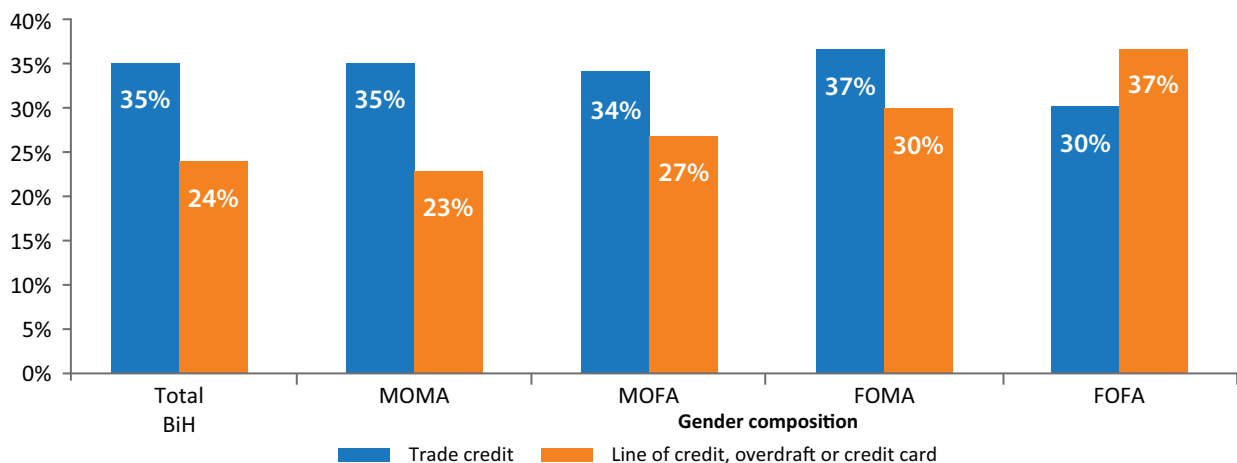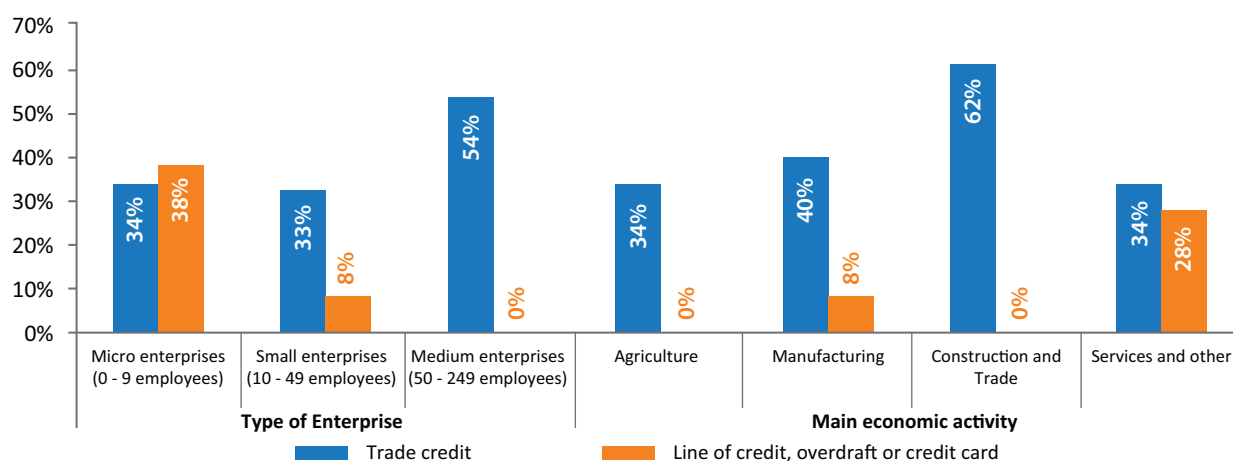
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

3.3.2. Medium to Long-Term Financing

In terms of medium to long-term financing, majority female-led entities, microenterprises, and enterprises operating in the agriculture and services sector appear to be the most underserved. As shown in Figure 24, only 23 percent of female-led entities have a bank loan compared to 42 percent of male-led enterprises. Only 6 percent of the former group have a leasing or hire purchase agreement in place versus 13 percent of the second group. There is not much to say in terms of debt securities[3] as the usage ratio is extremely low, namely 2 percent BiH-wide. The fact that female-led firms are so underserved has a big impact on micro enterprises and the services and household sector given the previously mentioned strong links presented in Chapter 1. In fact, for micro enterprises as few as 8 percent have a lease and 34 percent a bank loan compared to 37 and 58 percent (respectively) for medium enterprises. At the sector level, only 10 percent of enterprises in the service sector have a lease and 38 percent a bank loan, while for construction and trade companies it is 51 and 73 percent respectively (see Figure 25).

Figure 24. Medium to long-term financing by gender composition
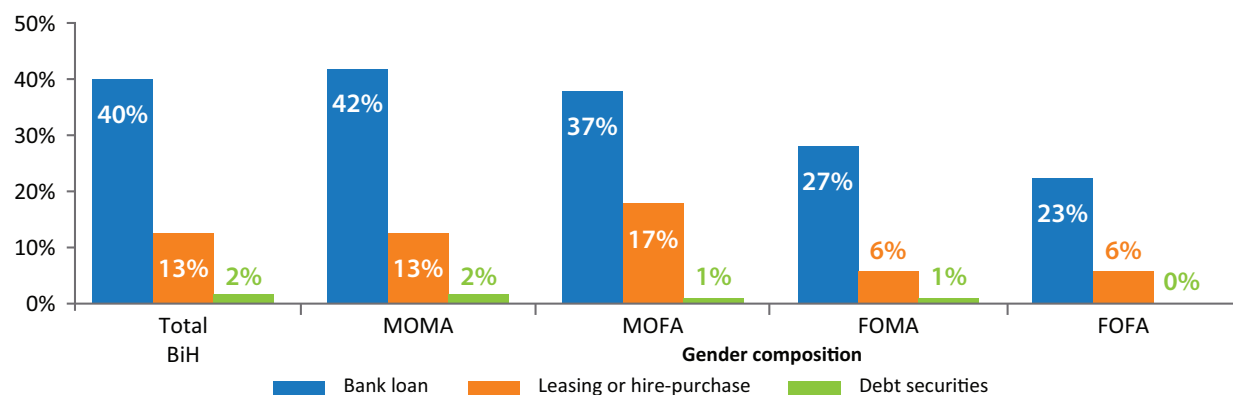
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

3 Debt securities are classified in the survey as both short-term commercial papers as well as longer-term corporate bonds issued by an enterprise.

Figure 25. Medium to long-term financing by type of enterprise and main economic activity
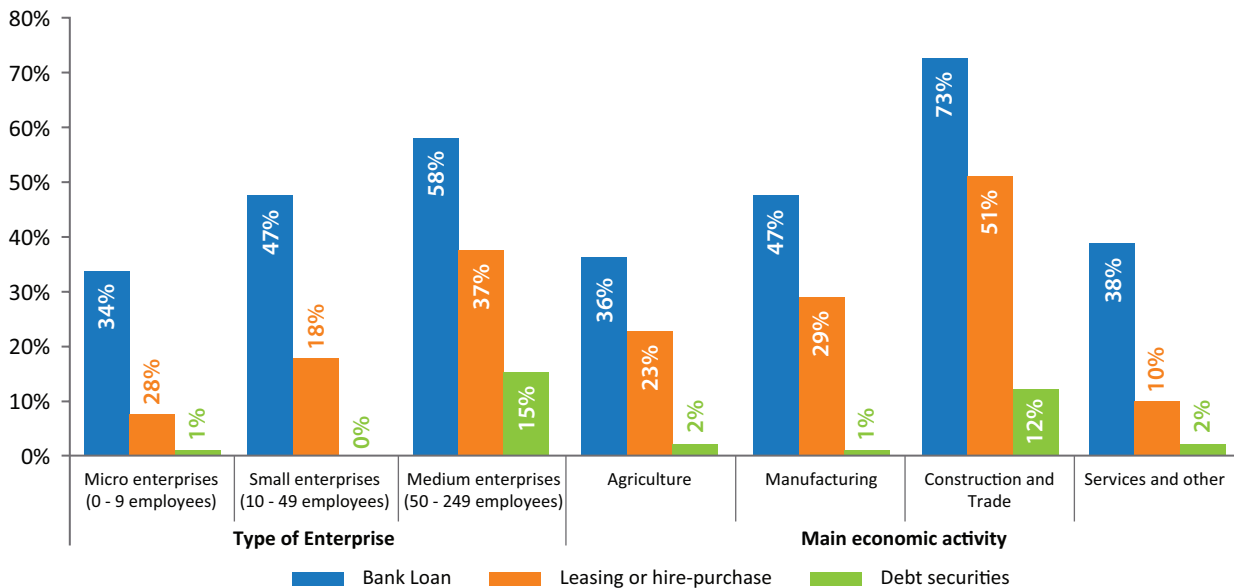
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Among entities that are familiar with bank loans and leasing, more female than male-led stated that access to medium to long-term finance has become more difficult in the last three years. As shown in Figure 26, for 39 percent of female-led entities bank loans have become harder to obtain in the last three years, as opposed to 12 percent for male-led enterprises. Similarly, 35 percent of female-led entities mentioned that leasing or hire purchase has become more difficult to get in the last three years, compared to 28 percent for male-led enterprises. Furthermore, more micro than medium enterprises had the same opinion for bank loans (21 versus 8 percent) and leasing (31 versus 19 percent).

Figure 26. Increased difficulty accessing medium to long-term finance over the course of the last 3 years (% of enterprises that are familiar with the type of financing) by individual characteristics
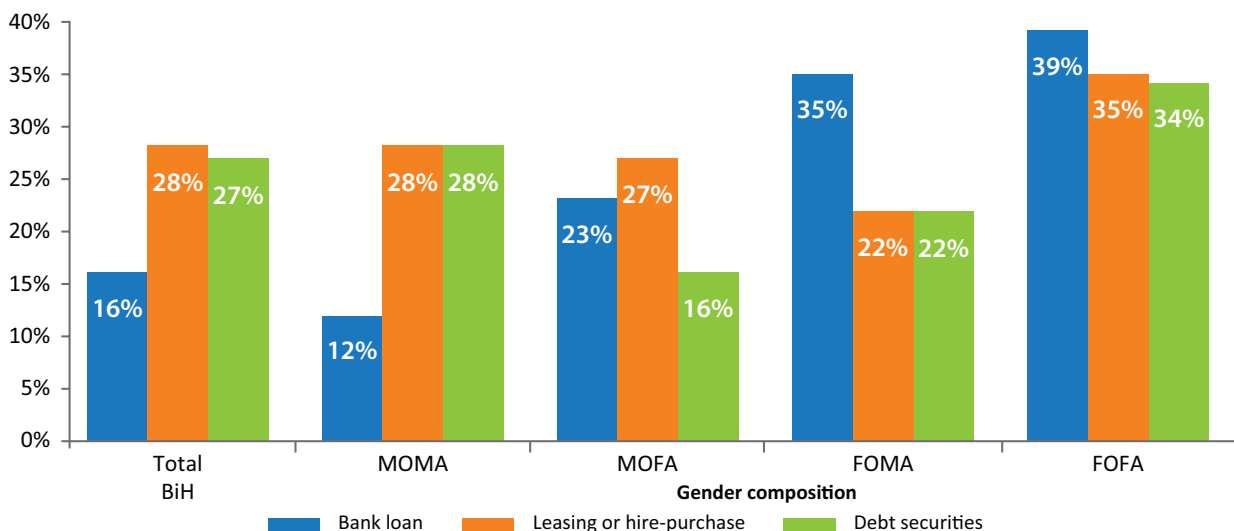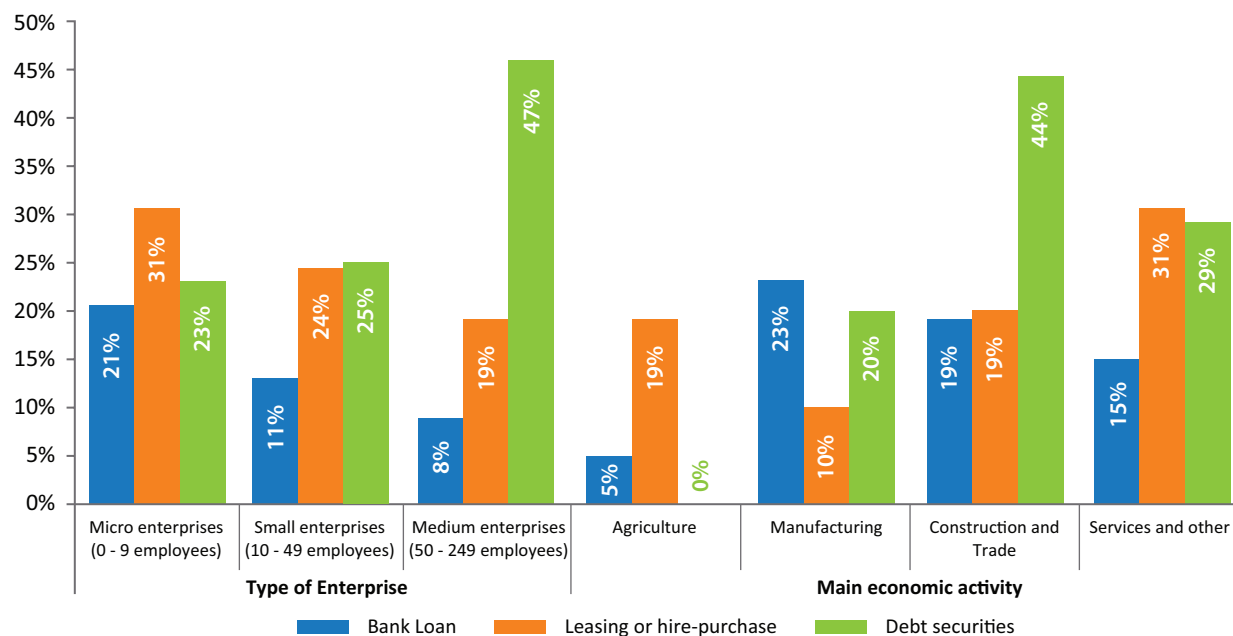
*Source: WBG Gender MSME Access to Finance Survey, BiH 2018.*

Bank Loans

Only 40 percent of surveyed MSMEs have an outstanding loan. Financing needs in the form of bank loans are particularly high for microenterprises and enterprises in the manufacturing, construction, and trade sectors. Sixty-nine percent of microenterprises and enterprises operating in the respective sectors (39 percent in manufacturing and 46 percent in construction and trade) state that they need financing in the next year. This is mirrored by the responses on their plans to apply for a bank loan within the year, which highlights that this type of instrument remains the main source of financing for enterprises.

Eighty-one percent of MSMEs utilizing bank loans have only one loan. Medium-sized enterprises and female-led entities that reported having more than one loan were seen as having more debt facilities compared to the norm. In fact, 55 percent of medium enterprises have more than one outstanding loan. Furthermore, 38 percent of female-led entities have more than one outstanding loan which is 19 percent more than the average level (see Figure 27).

Figure 27. Number of unpaid loans by individuals characteristics (% of enterprises having loans)
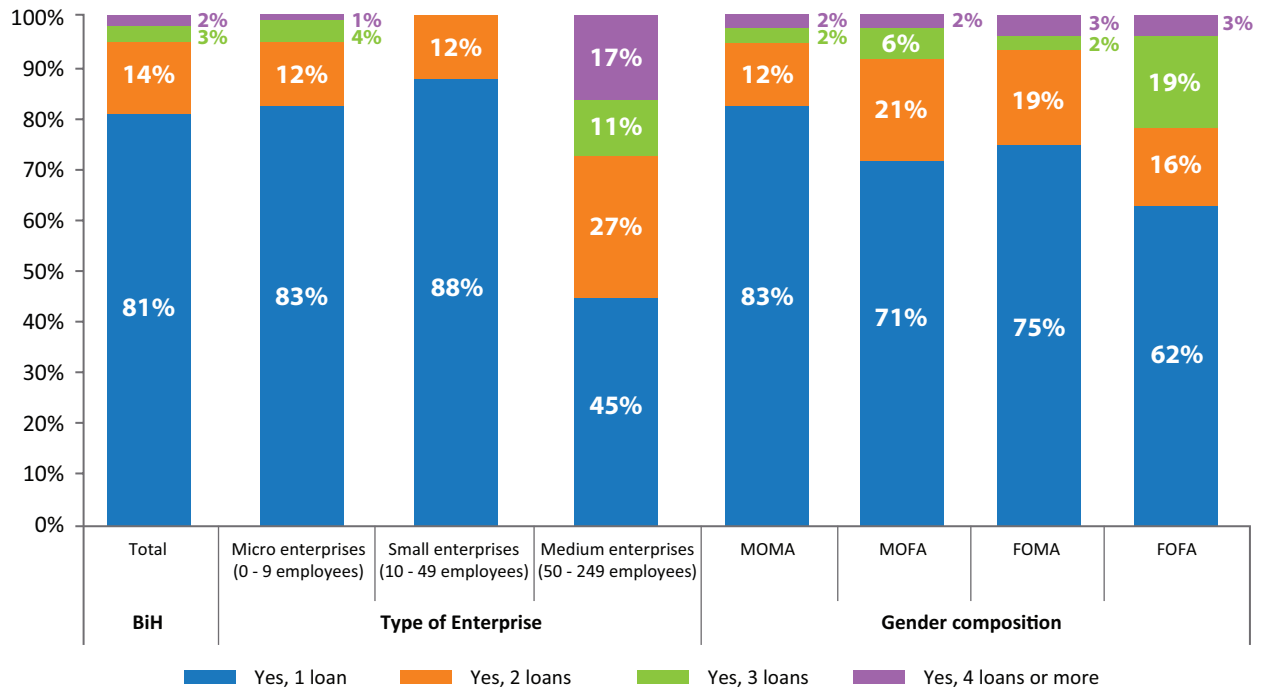
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Among MSMEs with loans, the average bank loan to female-led entities is about two and a half times smaller than those to male-led companies. As shown in Figure 28, among MSMEs with bank loans, the average bank loan of MOMA and MOFA entities is BAM 296,244 compared to BAM 119,238 for FOFA and FOMA enterprises, a factor of 2.48 times. For obvious reasons, medium enterprises have the highest average debt level (BAM 1.72 million) because of their larger added value and better access to collateral.

Figure 28. Bank loan (average debt level, BAM) by individuals characteristics (universe of enterprises having loans)
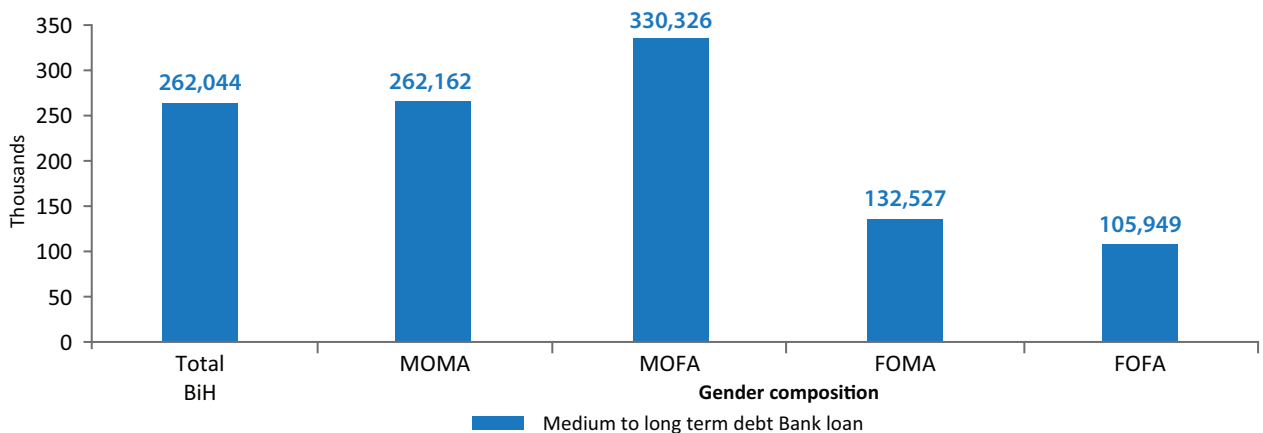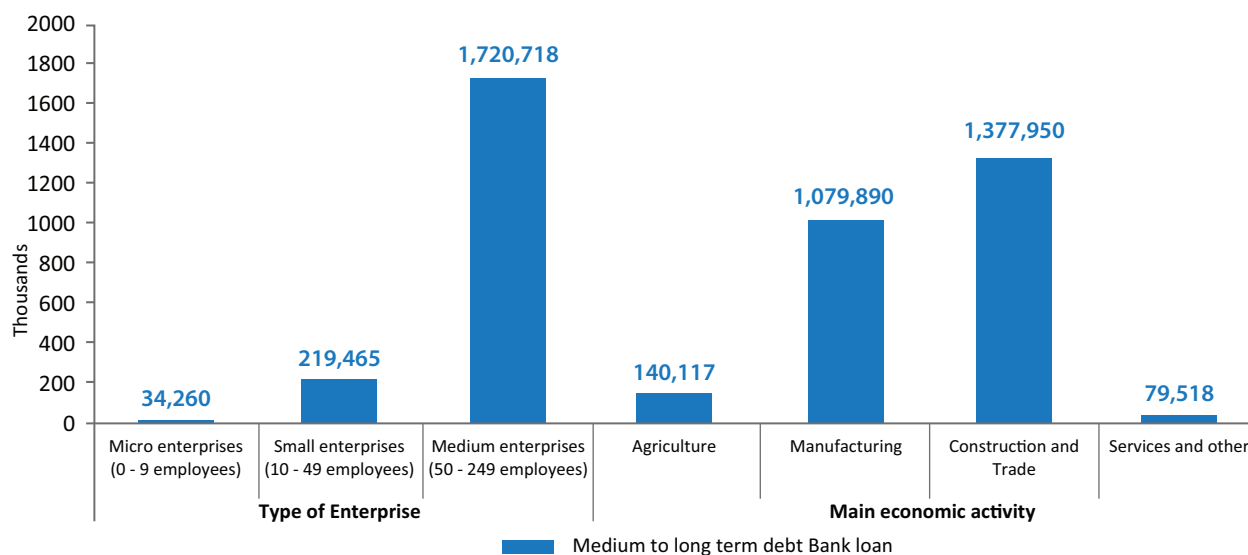
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Majority female-led entities primarily use bank loans for the purchase of short-term assets, as opposed to majority male-led entities where a majority of loans purchase long-term assets. As shown in Figure 29 and Figure 30, 61 percent of female-led entities used bank loan proceeds to finance short-term assets such as inventories and goods for sale, more than twice the amount they used to purchase long term assets such as buildings and equipment (30 percent). For male-led entities, it is the opposite: 51 percent of proceeds are used for acquiring long-term assets. This is reflected in the average maturity period of loans at the time of disbursement, male-owned (MOMA and MOFA) firms are able to get credit lines with an average maturity period of 57 months while female-owned (FOMA and FOFA) report an average maturity of 44 months.

Figure 29. Purpose of bank loan by gender composition (universe of enterprises having loans)
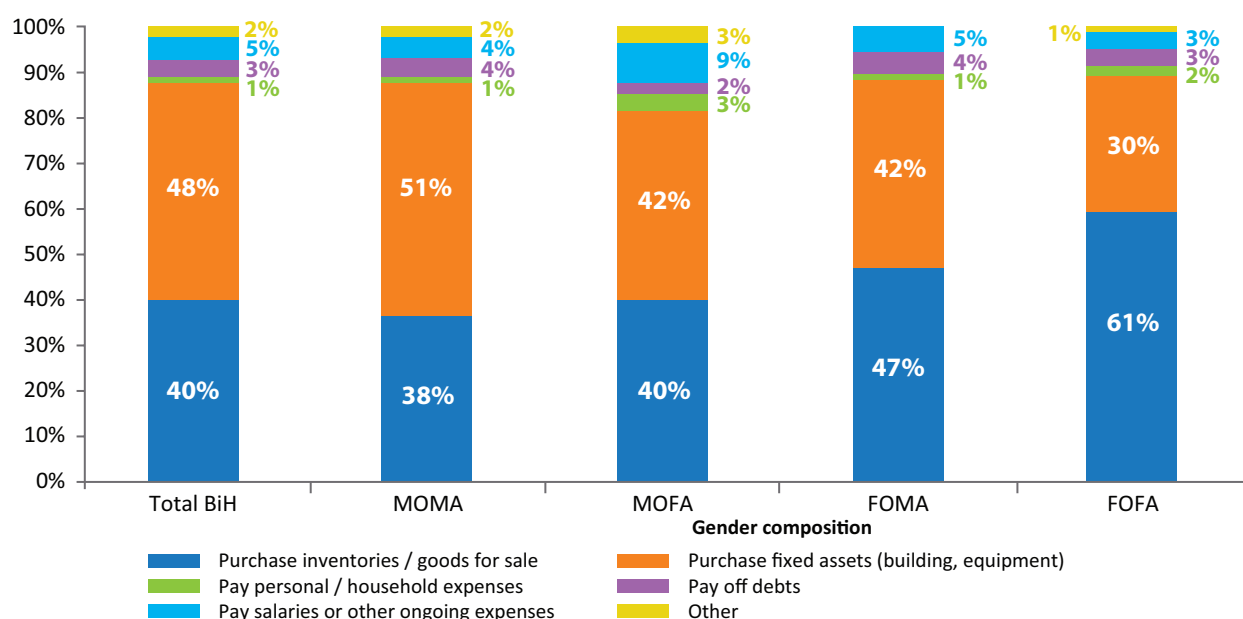
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 30. Purpose of bank loan by type of enterprise and main economic activity (universe of enterprises having loans)
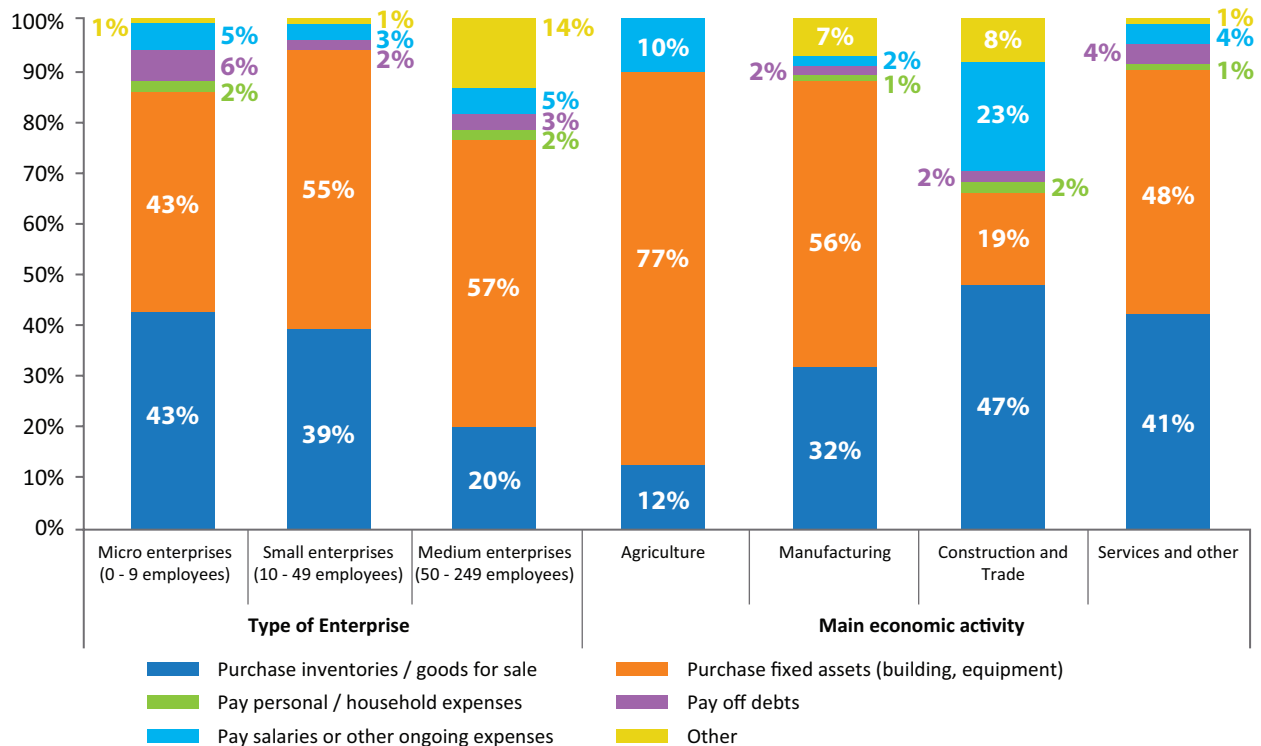
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Requests and approvals of medium to long-term debt are lower for majority female-led entities, micro enterprises, and enterprises operating in the services and household sector. As shown in Table 5, 19 percent of male-led enterprises requested bank loans compared to only 11 percent of female-led firms. Similarly, 18 percent of male-led enterprises applied for leasing or hire purchase compared to only 12 percent of female-led entities. Only 18 percent of micro enterprises requested bank loans and 13 percent leasing products as opposed to 28 and 37 percent respectively for medium-sized enterprises; moreover, approval rates for the former are lower than for the latter particularly with respect to leasing (58 versus 100 percent). The services sector has much lower request levels (15 percent for leasing and 18 percent for bank loans) compared to construction and trade sectors (51 and 56 percent) as well as the worst approval ratings for leasing (65 versus 100 percent). As debt securities instruments represent such a miniscule share of the aggregate, no relevant data emerged. When it comes to reasons for rejection, microenterprises, and male-led enterprises point to the issue of lack of collateral, while female-led as well as small and medium-sized enterprises state lack of profitability as the main reason (see Figure 31).

Table 5. Financing request and approval rates 2015 - 2016 (medium to long-term financing)

	Bank Loan		Leasing or hire purchase		Debt securities	
	Request	Approval	Request	Approval	Request	Approval
Total	18%	91%	17%	74%	3%	66%
MOMA	19%	92%	18%	74%	3%	71%
MOFA	22%	86%	21%	82%	2%	55%
FOMA	14%	93%	7%	79%	2%	32%
FOFA	11%	91%	12%	54%	1%	0%
Micro enterprises	18%	87%	13%	58%	2%	44%
Small enterprises	18%	97%	21%	86%	0%	100%
Medium enterprises	28%	93%	37%	100%	16%	94%
Agriculture	4%	100%	23%	100%	2%	100%
Manufacturing	20%	89%	29%	99%	1%	56%
Construction and Trade	56%	100%	51%	100%	12%	100%
Services and other	18%	90%	15%	65%	3%	62%

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 31. Main reasons for rejection, bank loan (% of enterprises with rejected requests)
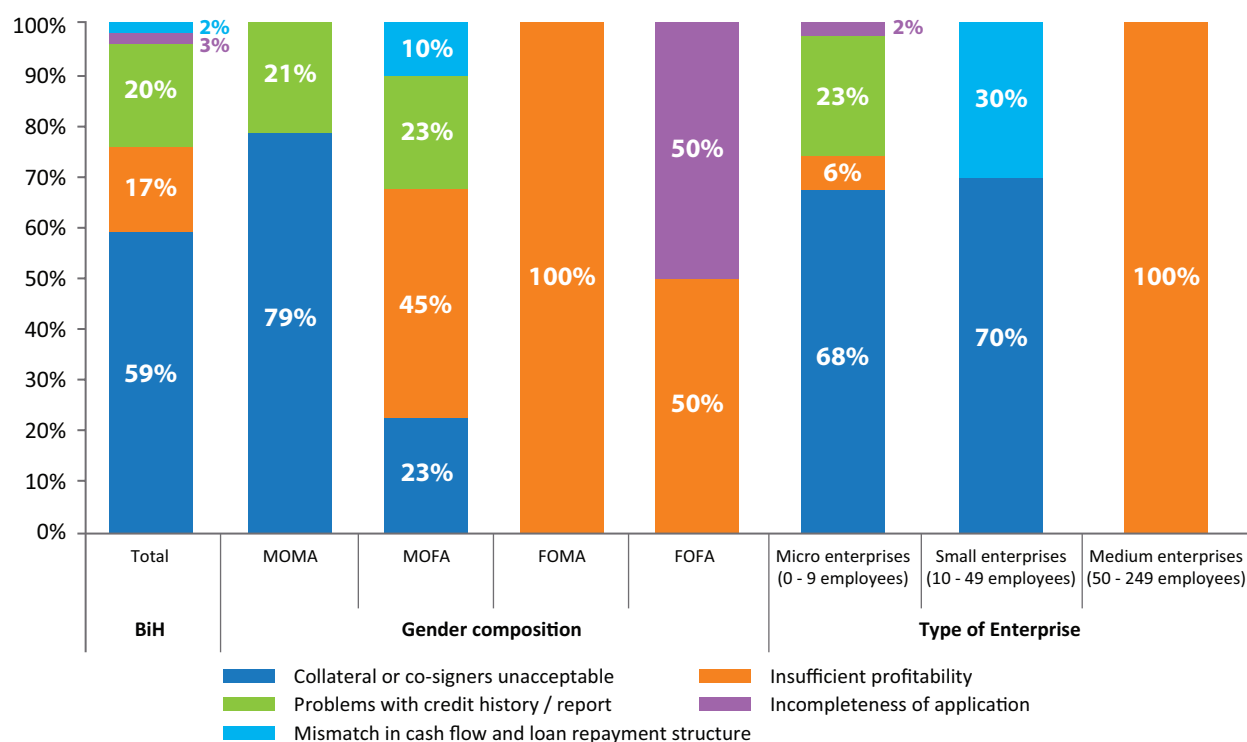
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

With no significant differences related to gender and size, MSMEs use predominantly internal sources to finance working capital and fixed assets. 72 percent state that they did not seek external financing as they had no need for a bank loan. Other reasons include unfavorable interest rates, stringent collateral requirements and unsatisfactory loan terms and complex application procedures (see Figure 32).

Figure 32. Main reasons for not requesting bank loans (% of enterprises that requested bank financing in the previous years) by gender composition
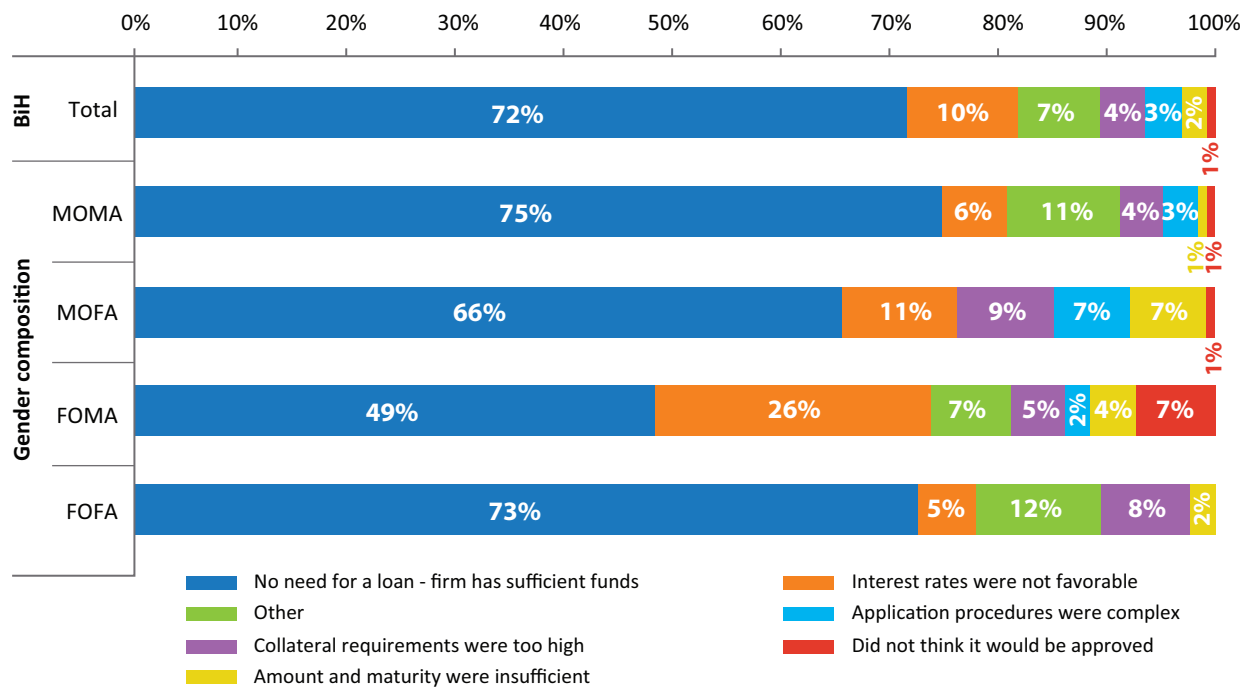
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Collateral requirements were reported to be particularly high for male-led entities as well as for agribusinesses. As exhibited in Figure 33, 78 percent of male-led entities were requested to provide collateral for bank loans compared to only 50 percent of female-led enterprises. Furthermore, the average ratio of collateral to incurred debt for the former is 3.9 compared to 1.9 for the latter.

Figure 33. Request for collateral – bank loan (% of enterprises that have had bank loan) by individuals characteristics
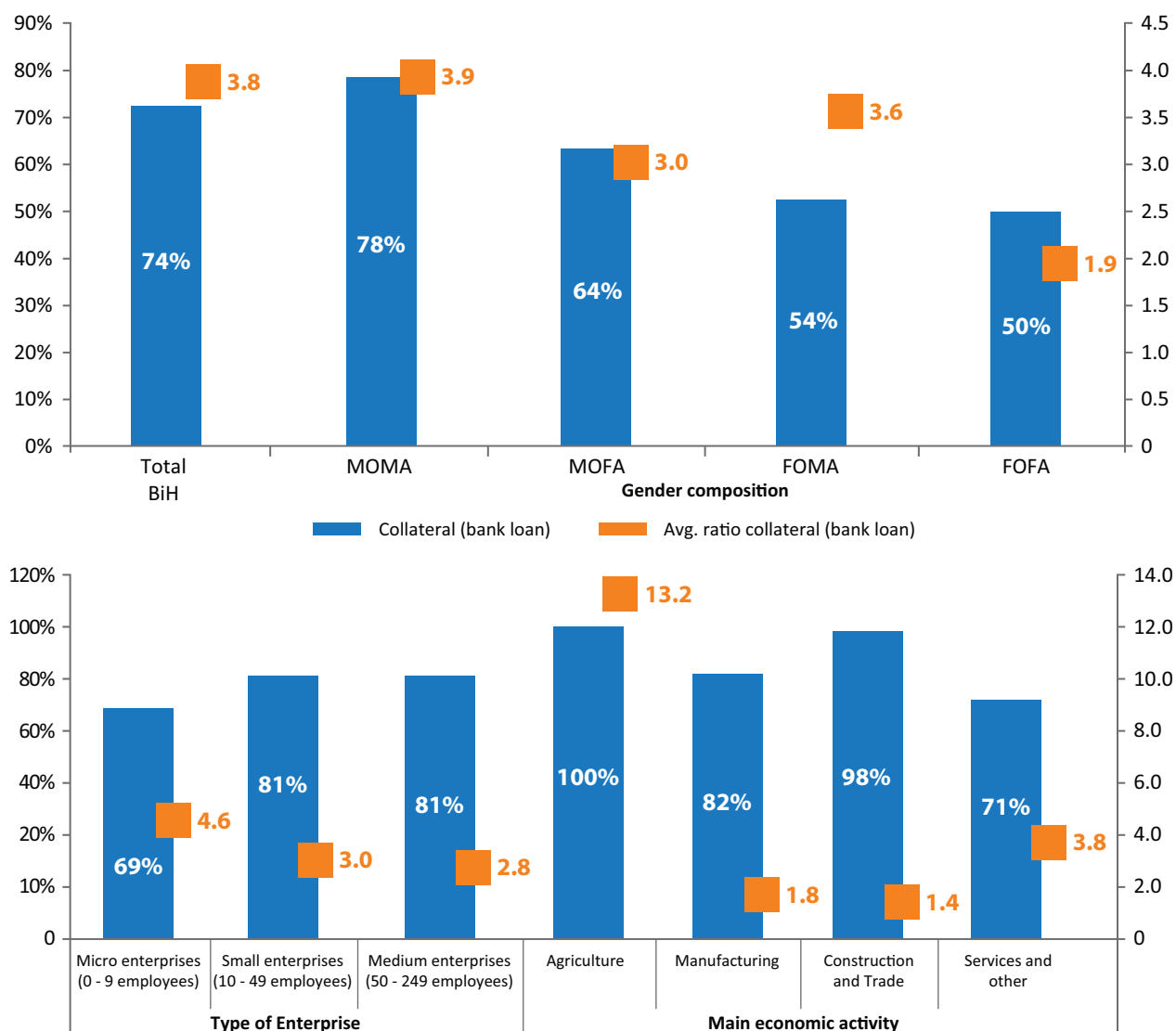
Note: Request for collateral is on the left scale while avg. ratio of the collateral is shown on right scale.

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

About forty percent of MSMEs provide land and buildings as collateral for bank loans. Other main types of collateral include machinery and equipment, as well as owners' personal assets. As highlighted in Figure 34, 41 percent of surveyed MSMEs utilize land and buildings as collateral for their bank loans. The other types of collateral used are: machinery and equipment including movables (18 percent), owners' personal assets such as their house (15 percent), accounts receivable and inventories (13 percent), and third party guarantees (11 percent). Variances among gender-related groups are negligible. When compared to the average, a bigger proportion of medium-sized, agricultural, and manufacturing firms provided land and building as collateral (70-74 percent).

Figure 34. Type of collateral (% of enterprises that have had a bank loan) by individuals characteristics

Legend:
- Land, building under ownership of firm
- Personal assets or owner (house, etc.)
- Machinery & equipment including movables
- Third party guarantees
- Accounts receivables & inventories
- Other
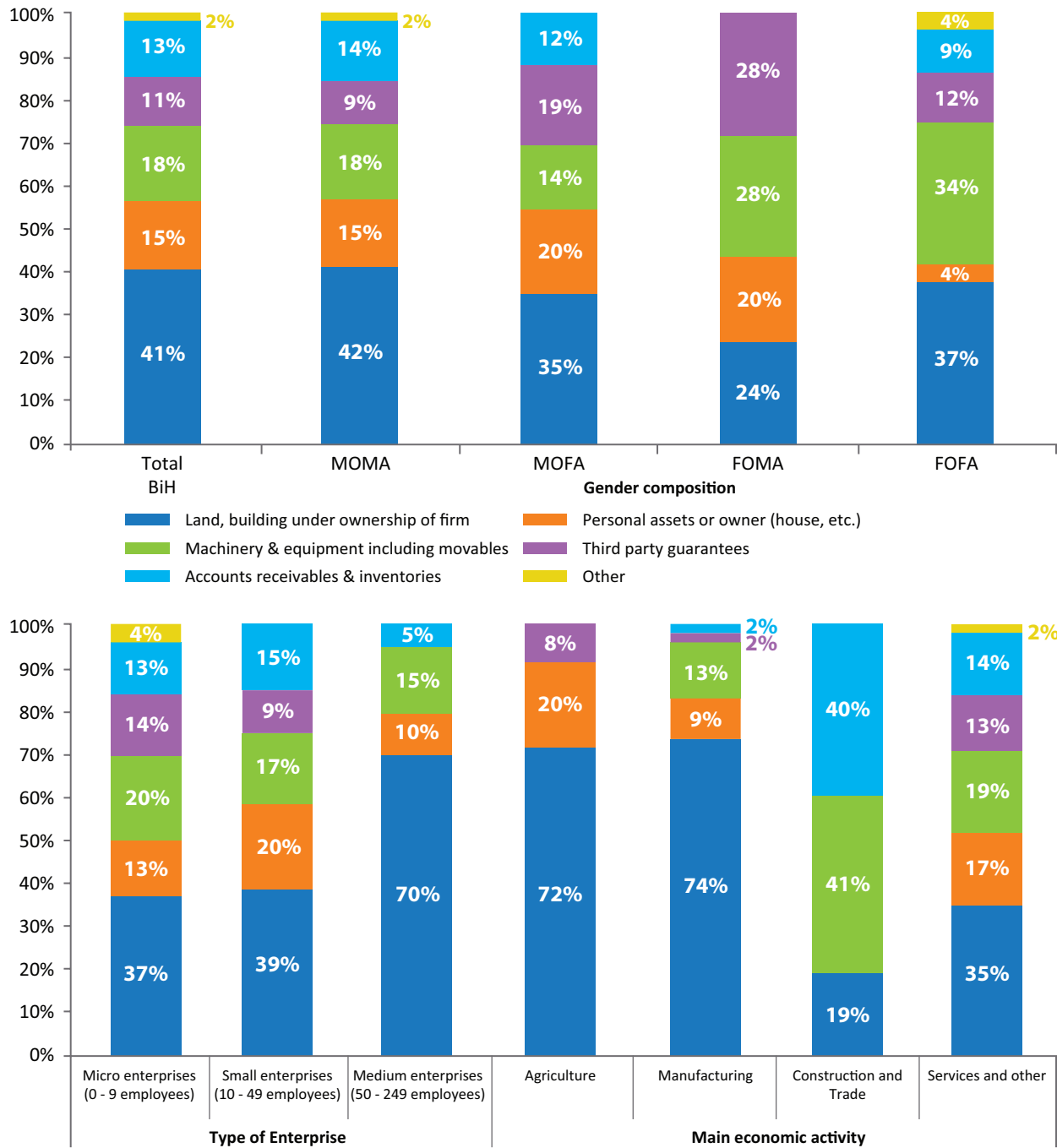
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

3.3.3. Equity Financing and Other Types of Financing

The lowest recipients of equity capital are predominantly micro enterprises and female-led enterprises.
As illustrated in Figure 35, not one single female-led entity obtained equity financing compared to majority male-led enterprises (MOMA) who had the largest proportion of recipients (5 percent). Moreover, only 1 percent of micro enterprises used equity financing instruments as opposed to 19 percent of medium enterprises.

Figure 35. Equity capital by individual characteristics
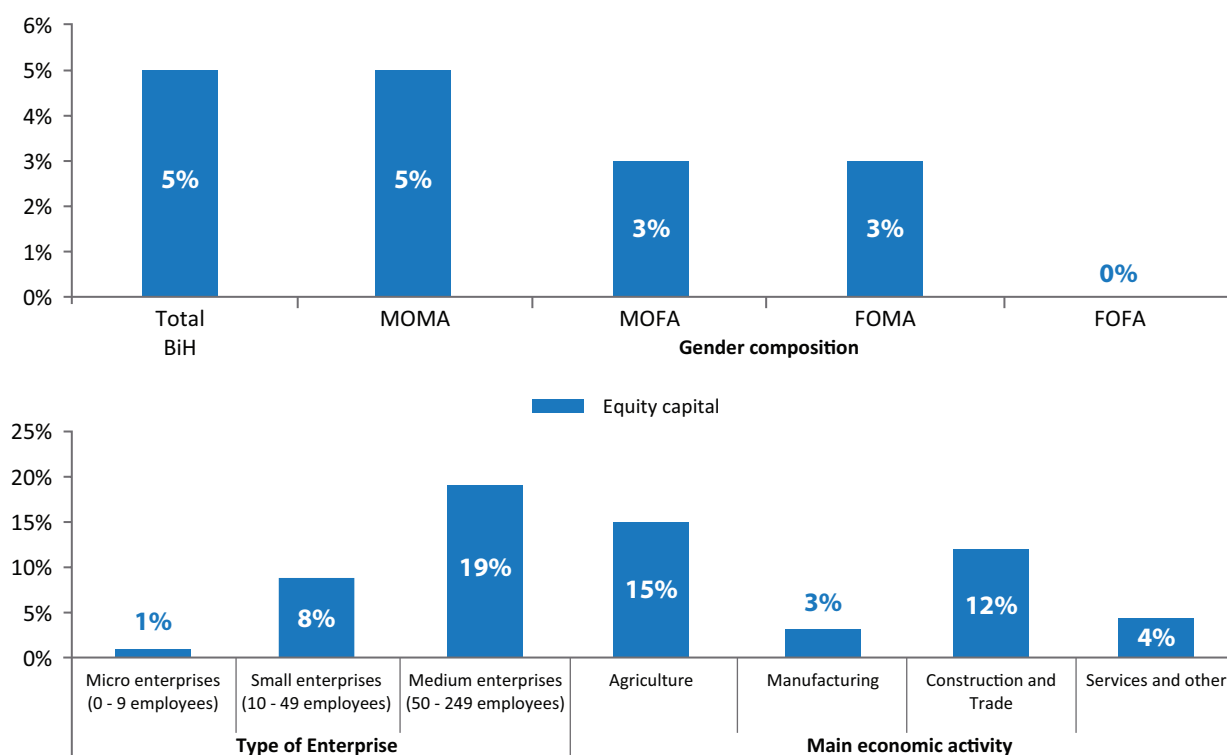
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Medium-sized manufacturing enterprises are the largest users of other sources of financing. As presented in Figures 36 and 37, an average of 3 percent of MSMEs have alternative financing in the form of subordinated debt, participatory loans, peer-to-peer lending, or crowdfunding. However, none of the female-led enterprises utilizes any such instruments. Medium-sized enterprises are the most frequent users of this type of financing (11 percent), particularly in the manufacturing sector (8 percent).

Figure 36. Alternative financing by gender composition
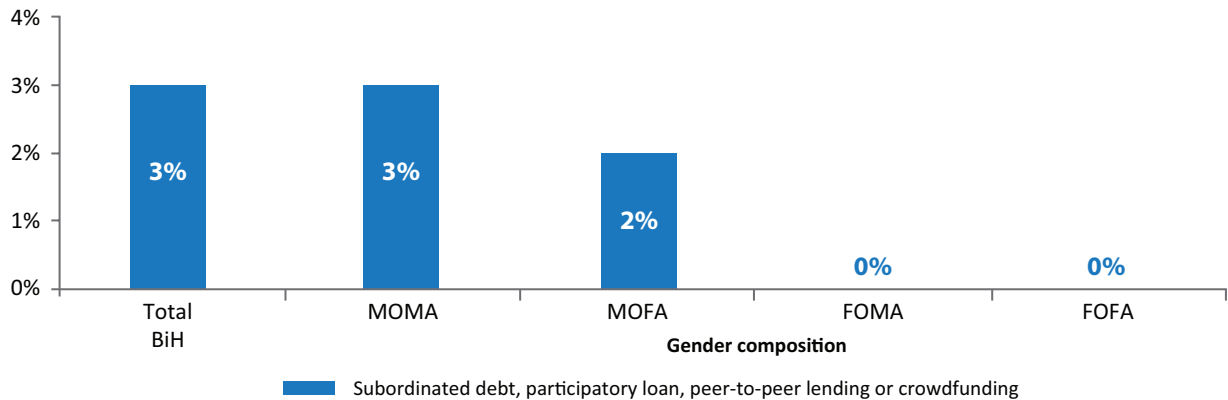
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 37. Alternative financing by type of enterprise and main economic activity
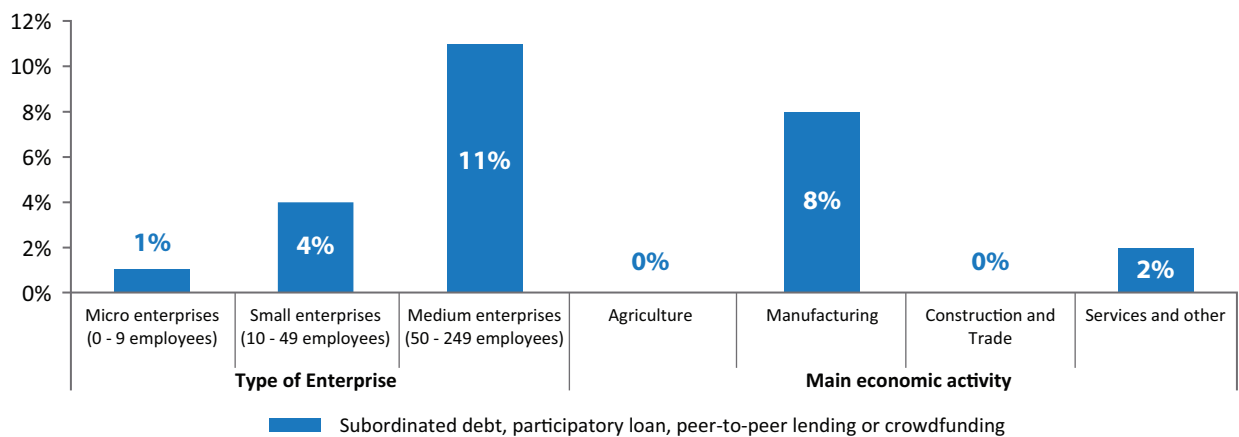
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

3.3.4. Public Support Schemes

Micro enterprises and firms in the services sector are less likely to receive public support. As evidenced by Figure 38, only 14 percent of micro enterprises took advantage of such benefits compared to 29 percent of medium-sized firms. 13 percent of service companies were beneficiaries of such schemes versus 40 percent for agriculture and 38 percent for construction and trade.

Figure 38. Grants by individual characteristics
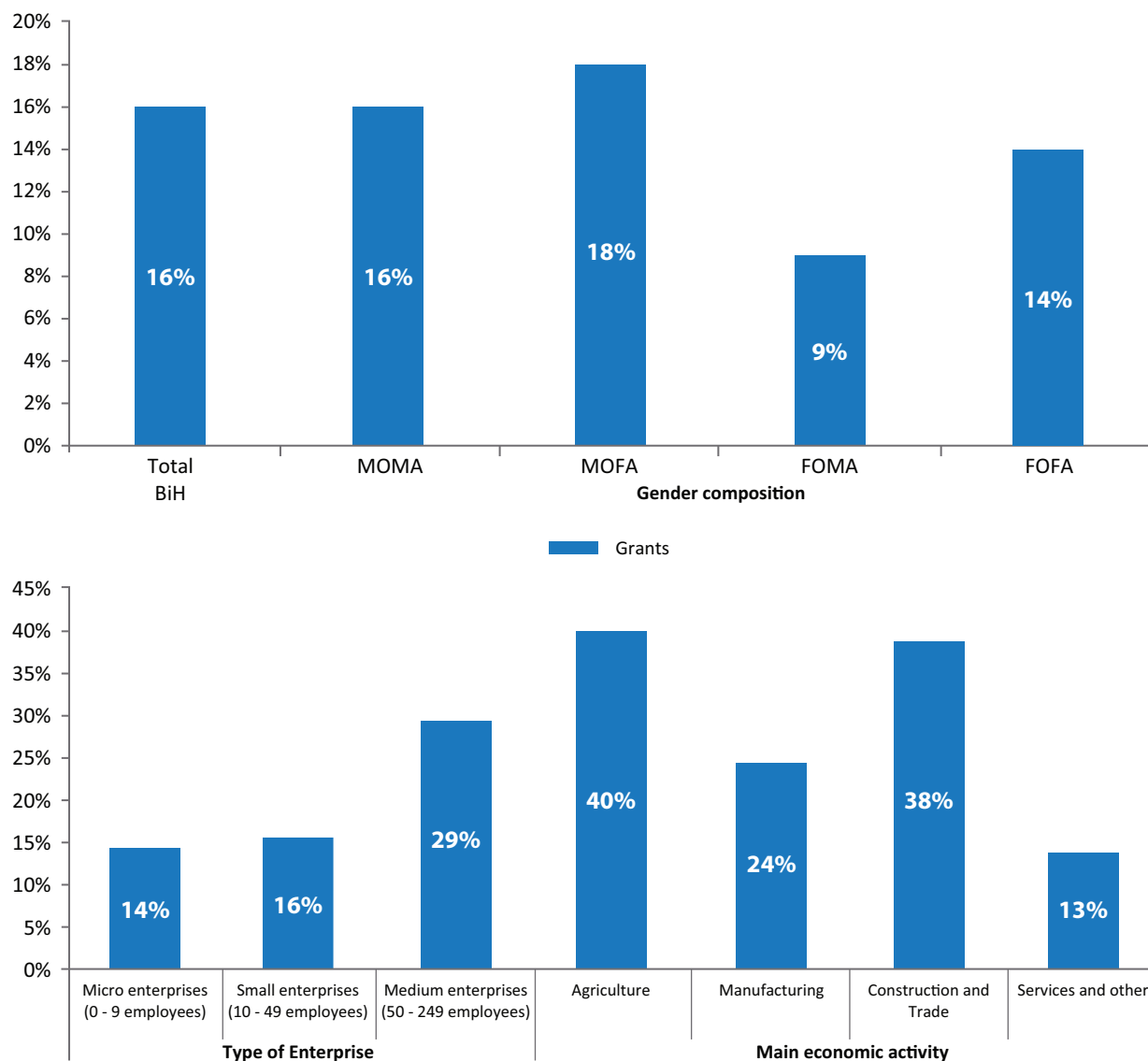
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

4. Demand for Finance

Nearly one in four MSMEs need financing, especially small-sized female-led entities and enterprises operating in the manufacturing as well as in the construction and trade sectors. As seen in Figures 39 and 40, 22 percent of MSMEs need additional financing. In terms of gender composition, female-led entities have the highest need (28 percent). By enterprise, small-sized ones are most in need (28 percent). By sector, manufacturing (34 percent) and construction and trade (33 percent) have the greatest need for capital.

Figure 39. Demand for Financing by Gender Composition
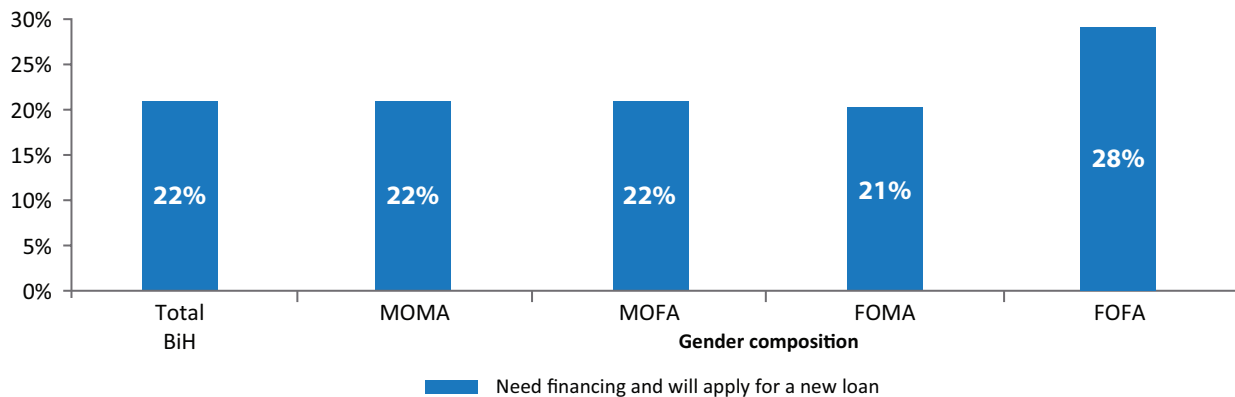
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 40. Demand for Financing by Type of Enterprise and Main Economic Activity
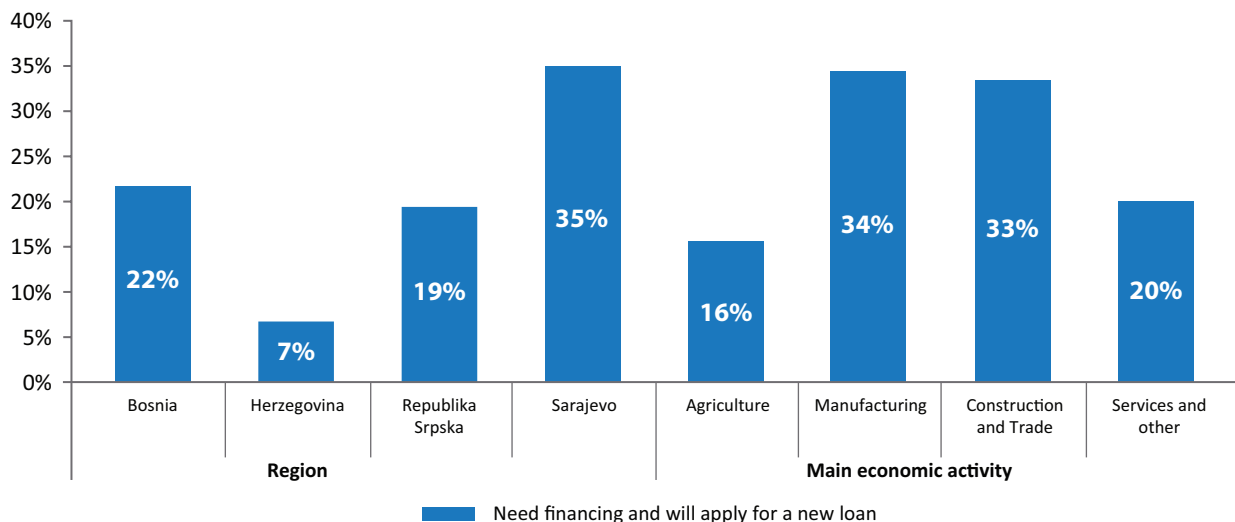
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

MSMEs most popular source to seek future financing from is commercial banks. As shown in Figure 41, 84 percent plan to apply for a commercial bank loan to cover their financing needs compared to only 8 percent who will seek funding from a government body, 7 percent from a microfinance institution, 5 percent from venture capital funds, 3 percent from leasing companies and 6 percent from other financing sources.

Figure 41. Top six sources for financing needs (% of enterprises that plan to apply for a new loan)
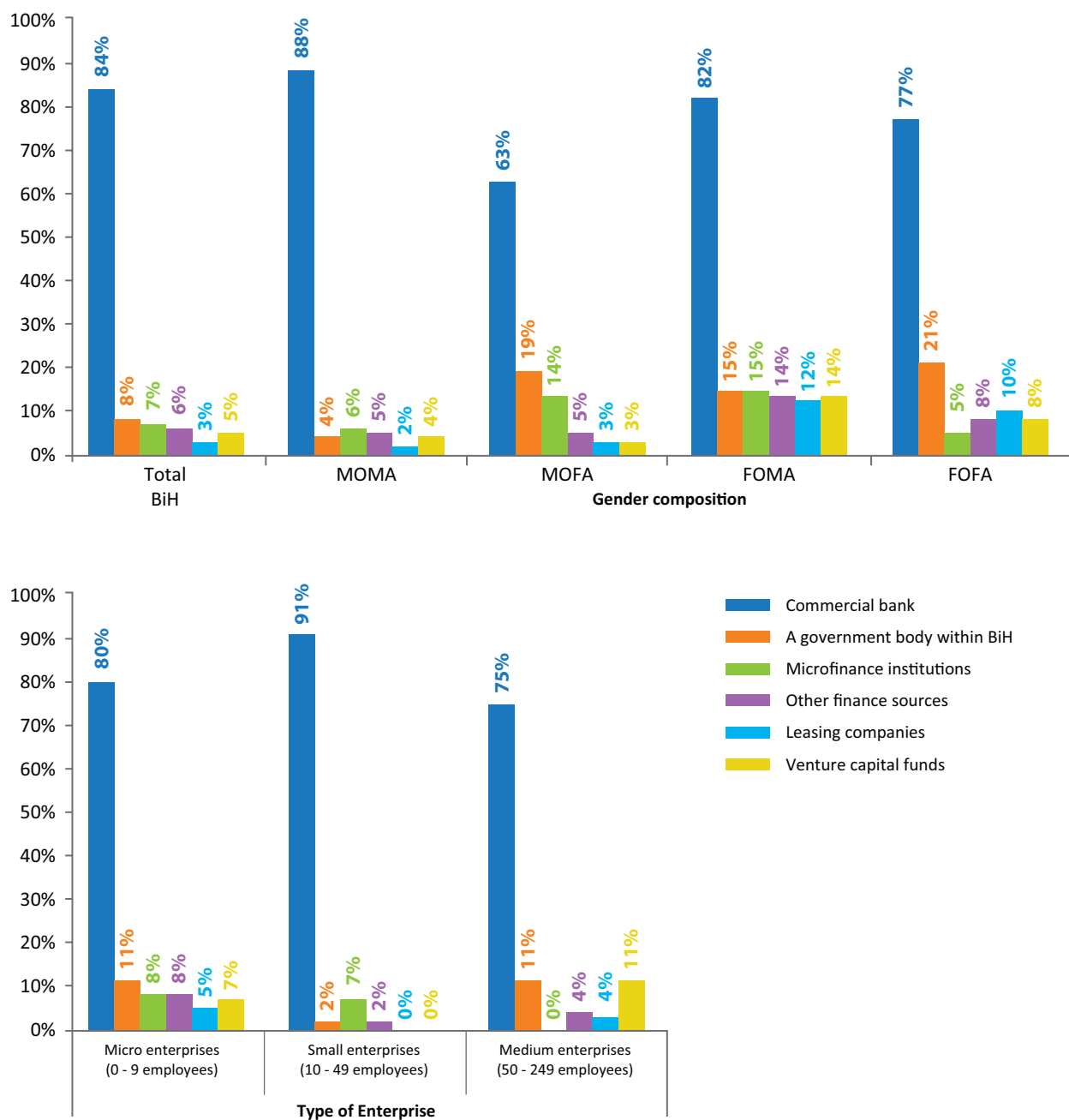
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

MSMEs are mostly in need of both working capital and loans for fixed assets. As illustrated in Figure 42, 10 percent of surveyed enterprises need a new loan to increase their working capital, 8 percent for their fixed assets, and 6 percent for both. Groups that exceed this proportion in terms of working capital needs are small-sized enterprises (16 percent). However, female-led entities registered a different hierarchy of needs with fixed assets on top (11 percent), then working capital (9 percent), and finally both (6 percent). Similarly, micro enterprises recorded 11 percent for fixed assets, 8 percent for working capital and 5 percent for both.

Figure 42. Financing need for working capital and fixed assets
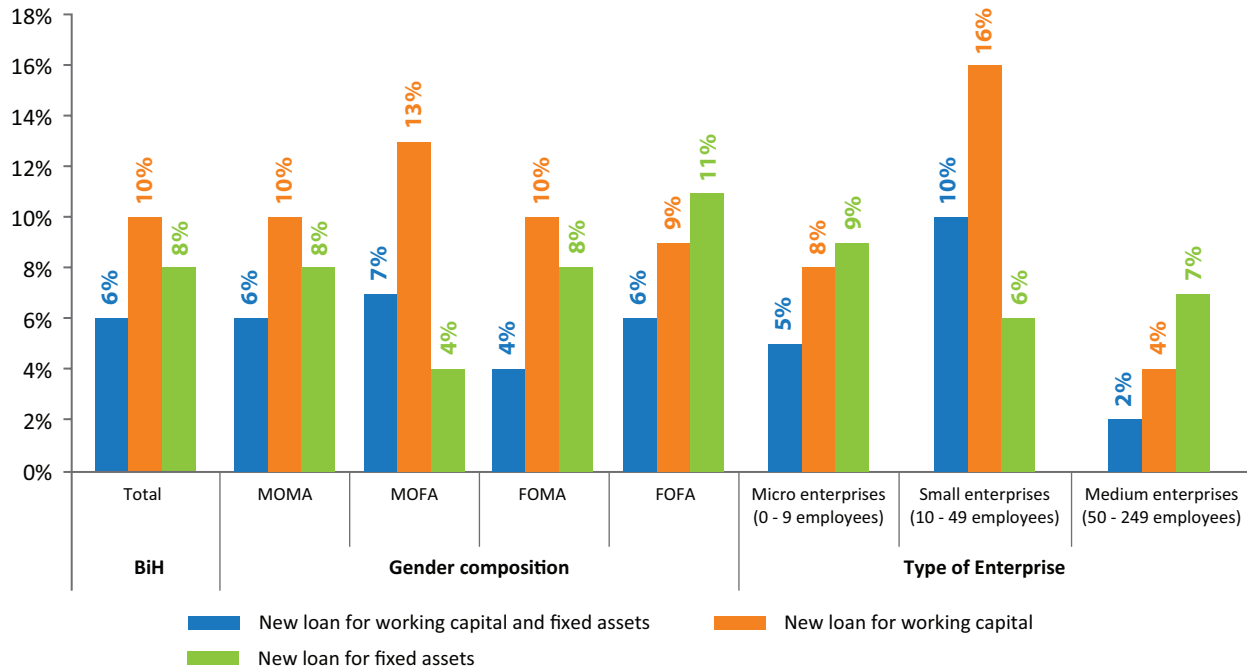
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

5. Constraints Affecting Firms' Operations

5.1. Key Constraints

MSMEs view the government situation as the major business obstacle, especially when it comes to tax rates, tax administration, and corruption. Other issues were raised about cost of finance and crime, theft, and disorder. As illustrated in Figures 43 and 44, 43–61 percent of surveyed enterprises complained about tax rates, followed by 37–59 percent about tax administration, and 31–54 percent about corruption. A second tier of other governmental issues were assessed in terms of political environment (31–41 percent), labor regulations (29–37 percent), and customs and trade regulations (23–38 percent). Regarding financing, cost of finance was seen as the strongest impediment (27–46 percent) and for the external environment, crime, theft, and disorder were at the forefront with 28–46 percent, followed by macroeconomic with 31–44 percent.

Figure 43. Overview of obstacles (major or very severe) by gender composition (%) – Part I
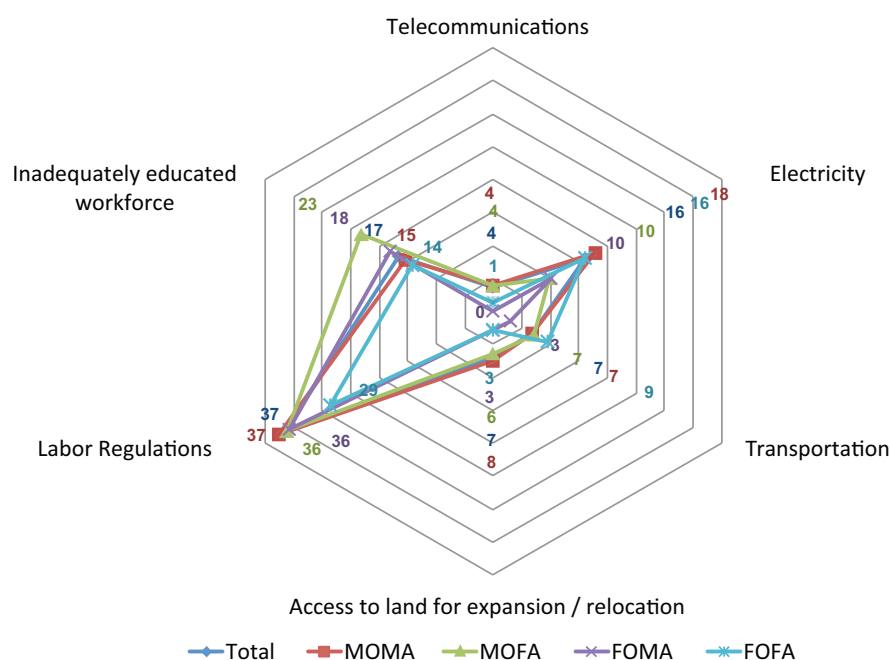
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 44. Overview of obstacles (major or very severe) by gender composition (%) – Part II

Regulation and Finance

Tax rates, Tax administration, Customs and Trade Regulations, Business licensing and Permits, Access to finance, Cost of finance

Total — MOMA — MOFA — FOMA — FOFA

Business Environment

Political environment, Macroeconomic environment, Corruption, Crime, theft and disorder, Manager difficulty balancing work and family responsibilities, Employees find it difficult to balance work and family responsibilities, Practices of competitors in the informal sector

Total — MOMA — MOFA — FOMA — FOFA

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Around 19 percent of MSMEs consider access to finance a major or severe obstacle. Entities with female participation in management or ownership were found to be the most critical. While 17 percent of male-led entities perceive access to finance a critical obstacle, this proportion increases for female-led enterprises to 19 percent.

Lowering taxes is seen as the best government action able to help MSMEs in the current economic situation. In second place comes simplification of regulations, stipulated mostly by small-sized enterprises. As depicted in Figure 45, 55 percent of surveyed enterprises were convinced that lowering taxes would greatly benefit them in the current economic condition. At the top of the range were FOMA entities (70 percent) and medium-sized enterprises (60 percent). The second most mentioned government action (with an average 28 percent share) is the simplification of existing regulation.

Figure 45. Government action that would help enterprises most during the current economic situation
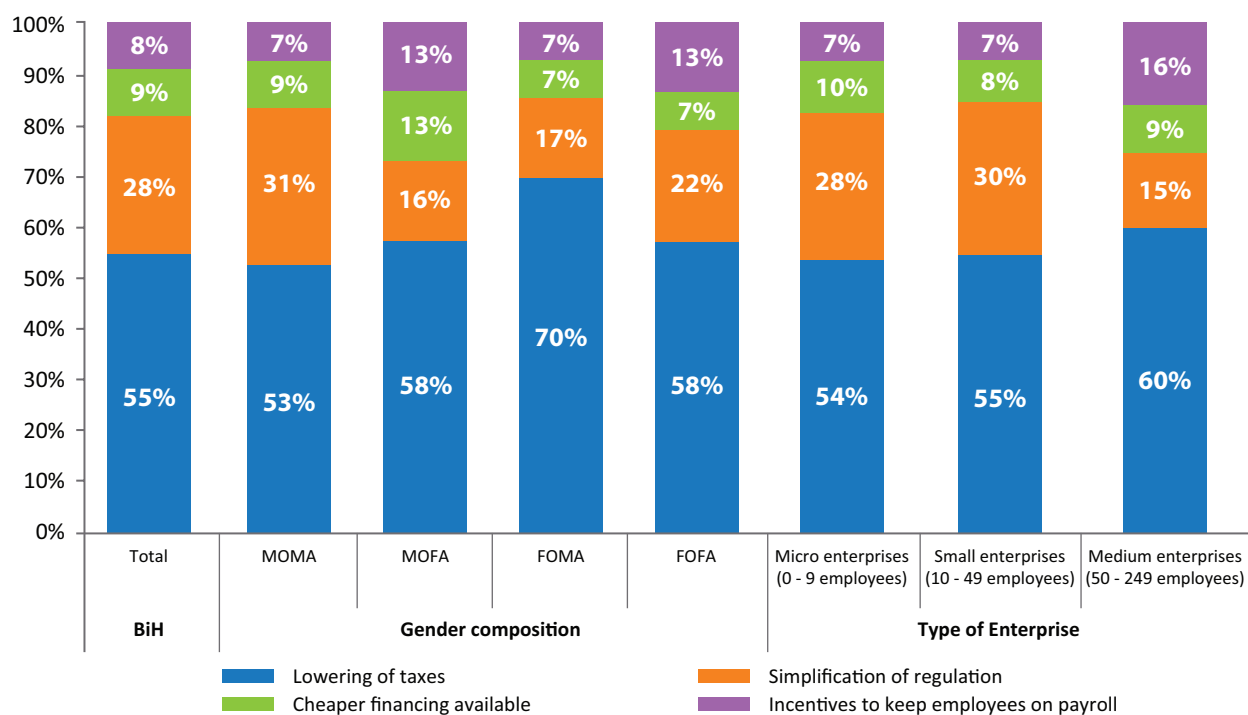
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

5.2. Impediments to women entrepreneurs establishing a firm

The most cited reason impeding women entrepreneurs from establishing a firm, is that entrepreneurship is stereotyped as a "masculine task". As highlighted in Figure 46, 33–35 percent of FOFA and FOMA entities believe that entrepreneurship is stereotyped as a "masculine task", this stereotype persists with 19 percent of MOFA and 29 percent of MOMA. However, 24–28 percent of the latter believe there are no more obstacles for a woman than for a man in establishing a small or medium enterprise, only 14 percent of female-led entities concur. 15–20 percent of MSMEs view women as still largely responsible for family and children. To a lesser extent, 4–11 percent believe that women may be disadvantaged in raising the initial capital to start a new firm.

Figure 46. Overview of most dominant problems that limit women entrepreneurs in establishing a firm (%)
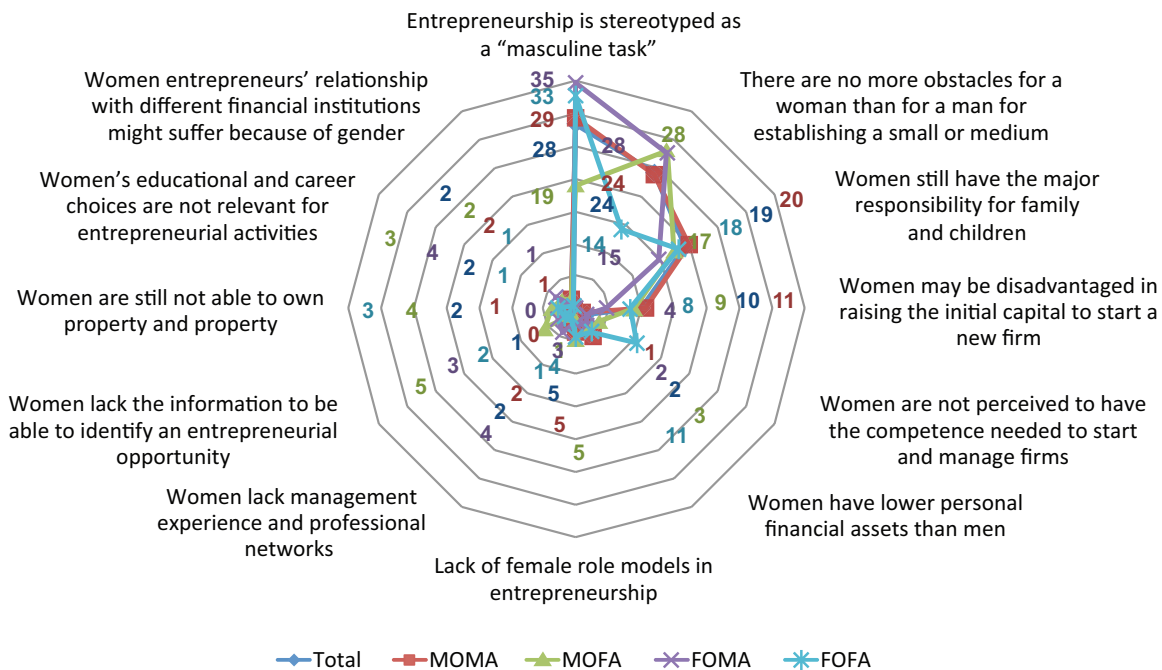
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 47. Perspectives on six limits on women entrepreneurs establishing a firm (%)
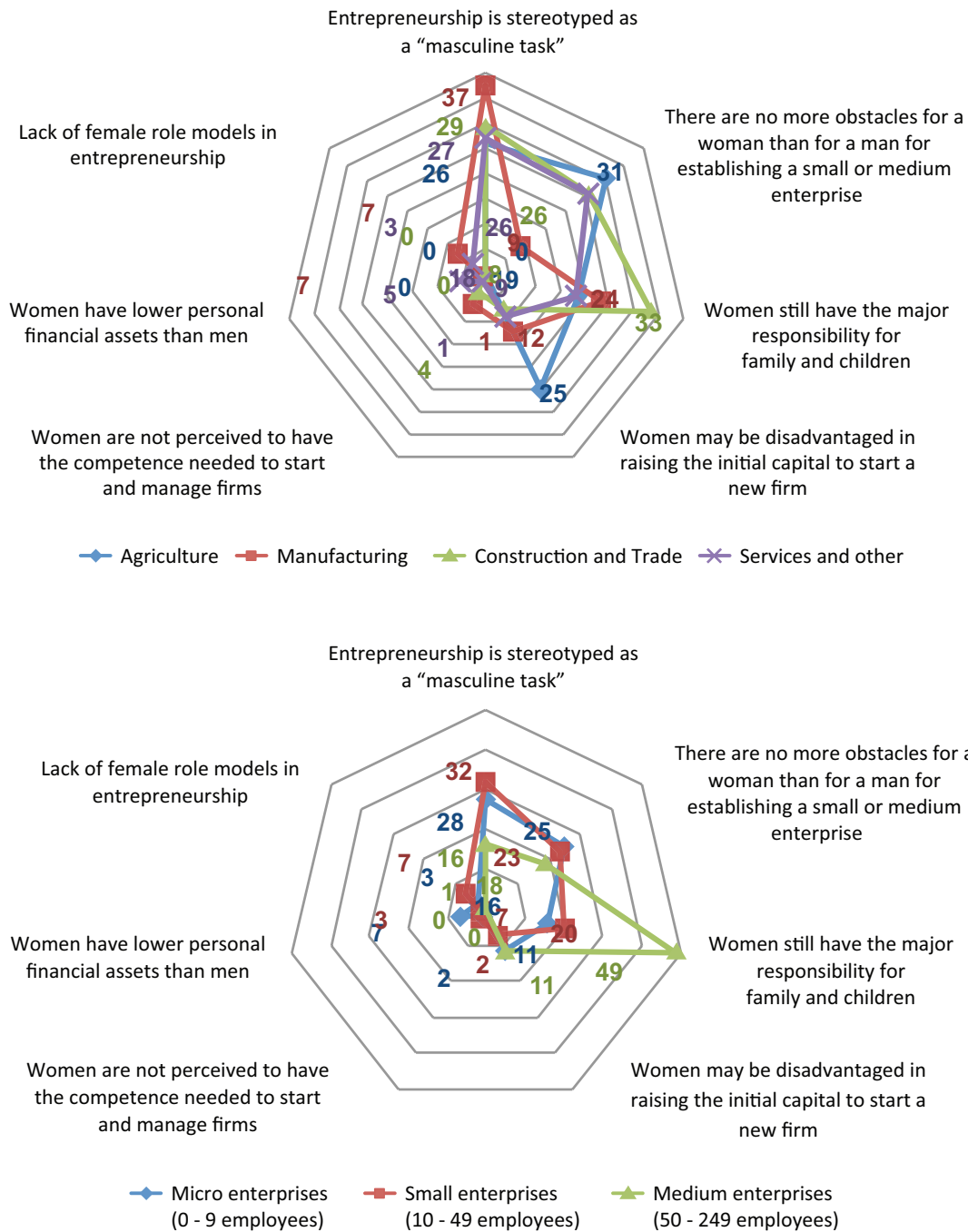
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

6. Financial Capabilities as a Key Constraint to MSMEs' Access to Finance

6.1. MSMEs' Financial Capabilities

In the BiH data set, 9 main components of financial capability can be identified, some of which refer to behaviors and others to attitudes or motivations. The MSMEs Access to Finance Survey in BiH recorded different financial attitudes, motivations, and behaviors through diverse qualitative questions with various measurement levels (nominal and ordinal). To identify the main components of financial capability in BiH, a statistical procedure was applied to simultaneously quantify categorical variables while reducing the dimensionality of the data. This procedure, known as Principal Components Analysis (PCA), reduces the original set of variables to a smaller uncorrelated set of variables (principal components) which aim to account for as much of the variance in the data as possible. The PCA method gets a single indicator (or score) for each component. The scores range between 0 (lowest score) and 100 (highest score). Table 6 presents the relevant attitudes that define each dimension.[4]

Table 6. Main Identified Financial Components from PCA Analysis

	Component or dimension	Topic
1	Analyzing and developing business opportunities	Expand scope of business and research new technology Expand scope of business and create business plan Expand scope of business and marketing analysis Expand scope of business and budget sales and cost Expand scope of business and analyse new alternatives
2	Being aware of all aspects of the business	Financial management understanding Marketing aspect understanding Business strategy aspect understanding
3	Setting and reviewing financial goals	Set or review specific financial goals Revise goals periodically Like to reflect, play with ideas Learning from mistakes Good at dealing with financial matters Opportunities to improve
4	Getting information and advice	Getting information and advice (frequency) Getting information and advice (circumstances) Getting information and advice (team of experts)

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4 The PCA analysis performed in BiH has focused on 9 main components (or dimensions) that account for 65 percent of the total variance. Other dimensions were ignored because of their lower contribution to total variance. Principal components having eigenvalues greater than one were also prioritized.

Component or dimension		Topic
5	Assessing the risk	Do not play Play for high stakes, beyond the limit Play, stake everything
6	Monitoring of receivables and cash	Use records to see how much cash Use records to know about sales
7	Acting with precaution	Gamble for low stakes Play but never beyond the limit Hate to lose
8	Increasing profitability of the firm	Minimize spending Increase sales
9	Diversifying cash strategies	Offering discounts and low prices Access to owners' personal funds

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

The main financial capabilities of MSMEs are found to be risk assessment, followed by monitoring of receivables and cash, and being aware of all business aspects. Areas of weakness are identified in cash diversification strategies and getting information and advice. According to the PCA analysis (see Figure 48), surveyed entities are most capable in the area of assessing the risk of the business where they achieve the highest score (79), followed by monitoring of receivables and cash (76) and being aware of all aspects of the business (74). Conversely, MSME participants score relatively low (31 points) in diversifying cash strategies and getting information and advice (38 points).

Figure 48. Average Score of Financial Capabilities
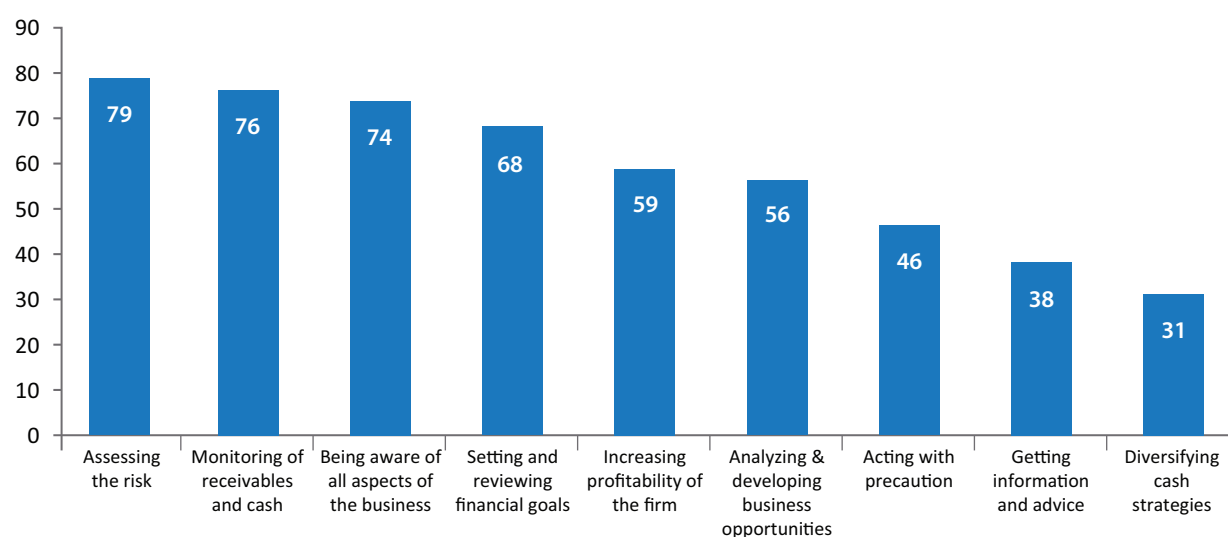
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Male-led medium-sized enterprises display the best financial capability scores on most attributes, however majority female-led entities fare better with regard to their cash diversification strategies and acting with precaution. As shown in Figure 49, male-led entities have the best score at 7 out of 9 financial capabilities (39–80 points); these entities fall behind female-led enterprises on cash diversification strategies. Also, medium-sized enterprises come out on top in 7 out of 9 criteria (52–78 points); micro enterprises fare better for increasing profitability of the firm and small enterprises for acting with precaution.

Figure 49. Average financial capabilities score by gender composition and size
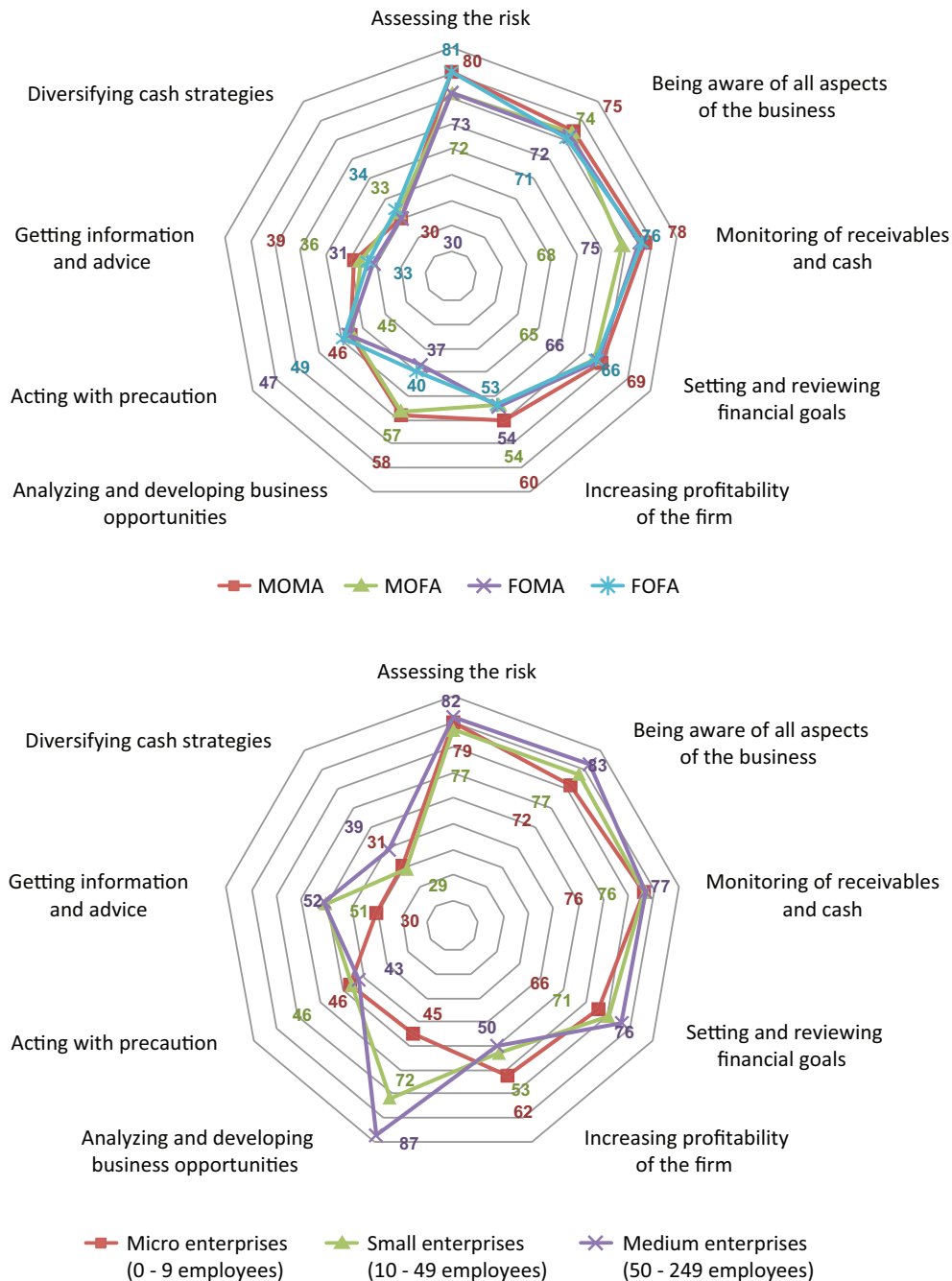
Figure 50. Average score of financial capabilities by main economic activity
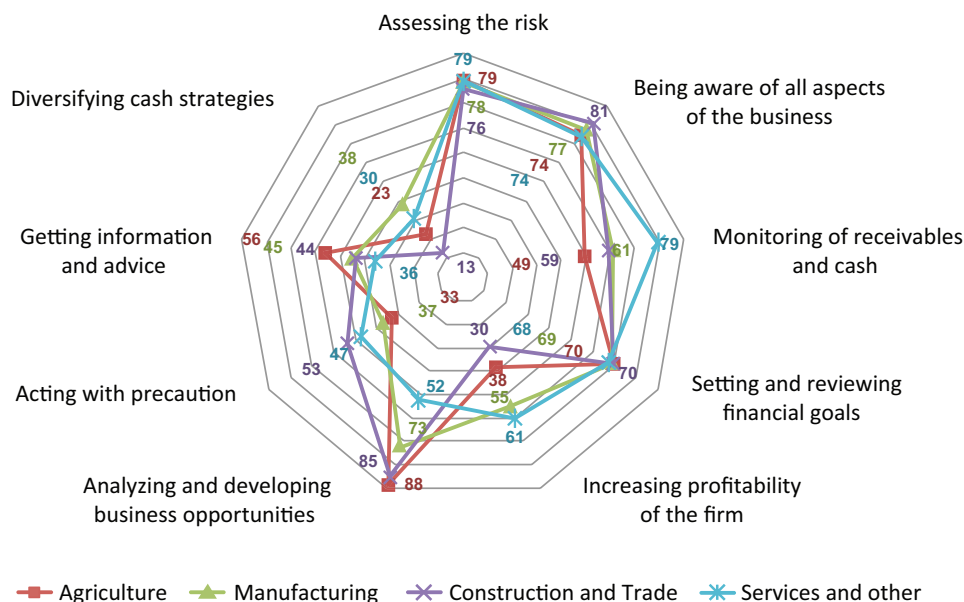
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

6.2. Financial Capabilities and its Link to Finance Access

Whether the firm is female or male-led, access to finance is positively correlated with financial capability scores in several areas. As illustrated in Figure 52, the following financial capabilities scores are found to be positively correlated with firms' access to finance: diversifying cash strategies (access: 36 vs. no access: 24), getting information and advice (access: 41 vs. no access: 34), acting with precaution (access: 48 vs. no access: 43), analyzing and developing business opportunities (access: 60 vs. no access: 51) and being aware of all aspects of the business (access: 75 vs. no access: 73).

However, no correlation is found with respect to the enterprises' ability to increasing profitability as well as setting and reviewing financial goals, since the respective financial capability scores remain constant whether the firm had access to finance or not. Finally, the following two financial capabilities scores are negatively correlated: assessing the risk (access: 74 vs. no access: 84) and monitoring of receivables and cash (access: 70 vs. no access: 84). As shown in Figure 51, no differences exist in the above-mentioned correlations when comparing MOMA, MOFA, FOMA and FOFA enterprises.

Figure 51. Financial capabilities and access to finance
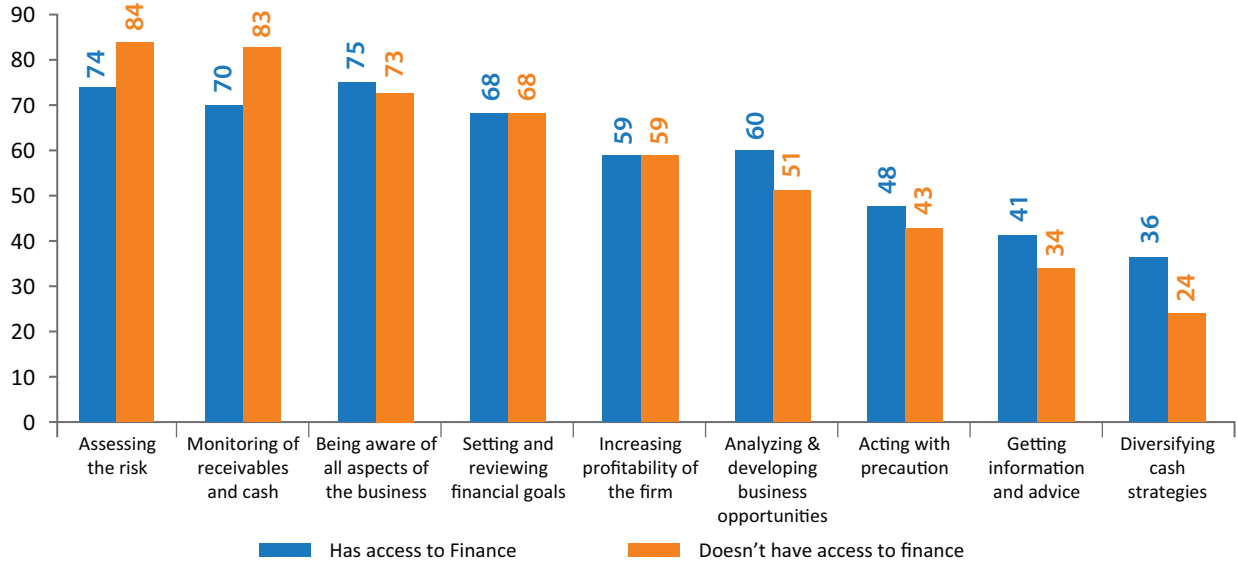
Legend: Has access to Finance | Doesn't have access to finance

Note: "access to finance" includes firms that currently have lines of credit, bank overdraft, credit card overdraft, bank loans or grants.

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Figure 52. Financial capabilities and access to finance by gender composition

MOMA / MOFA

Legend: MOMA - Has access to Finance | MOMA - Doesn't have access to finance | MOFA - Has access to Finance | MOFA - Doesn't have access to finance

FOFA / FOMA

Legend:
- FOFA - Has access to Finance
- FOFA - Doesn't have access to finance
- FOMA - Has access to Finance
- FOMA - Doesn't have access to finance

Category	FOFA - Has access	FOFA - Doesn't have	FOMA - Has access	FOMA - Doesn't have
Assessing the risk	78	82	69	75
Monitoring of receivables and cash	76	77	76	75
Being aware of all aspects of the business	69	72	72	73
Setting and reviewing financial goals	67	65	68	65
Increasing profitability of the firm	50	56	62	50
Analyzing & developing business opportunities	51	33	59	23
Acting with precaution	47	50	50	45
Getting information and advice	46	26	32	30
Diversifying cash strategies	33	35	24	34

MOMA (Yes) vs FOFA (No) / MOFA (Yes) vs FOMA (No)

Legend:
- MOMA - Has access to Finance
- FOFA - Doesn't have access to finance
- MOFA - Has access to Finance
- FOMA - Doesn't have access to finance

Category	MOMA - Has access	FOFA - Doesn't have	MOFA - Has access	FOMA - Doesn't have
Assessing the risk	75	82	67	75
Monitoring of receivables and cash	71	77	62	75
Being aware of all aspects of the business	76	72	73	73
Setting and reviewing financial goals	68	65	66	65
Increasing profitability of the firm	60	56	56	50
Analyzing & developing business opportunities	60	33	63	23
Acting with precaution	49	50	45	45
Getting information and advice	41	26	39	30
Diversifying cash strategies	37	35	38	34

Note: "access to finance" includes firms that currently have lines of credit, bank overdraft, credit card overdraft, bank loans or grants.

Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

6.3. Financial Capabilities and the Link to Gender/Performance

Majority female-led entities with high added value have higher financial capability scores than their male counterparts and should therefore, at least in theory, be better suited to receive external financing. As shown in Figures 53 and 54, there are material differences in financial capabilities scores favoring high over low added value enterprises, particularly in the case of analyzing and developing business opportunities (42 points), being aware of all aspects of the business (9 points), setting and reviewing financial goals (9 points) and getting information and advice (24 points). Furthermore, majority female-led entities with high added value (FOFA) outperform their male counterparts (MOMA) by up to 12 points for monitoring of receivables and cash, being aware of all aspects of the business, increasing profitability of the firm, setting and reviewing financial goals, assessing the risk and diversifying cash strategies.

Figure 53. Best and Worst Financed and Financial Capabilities - MOMA / FOFA (High / Low)
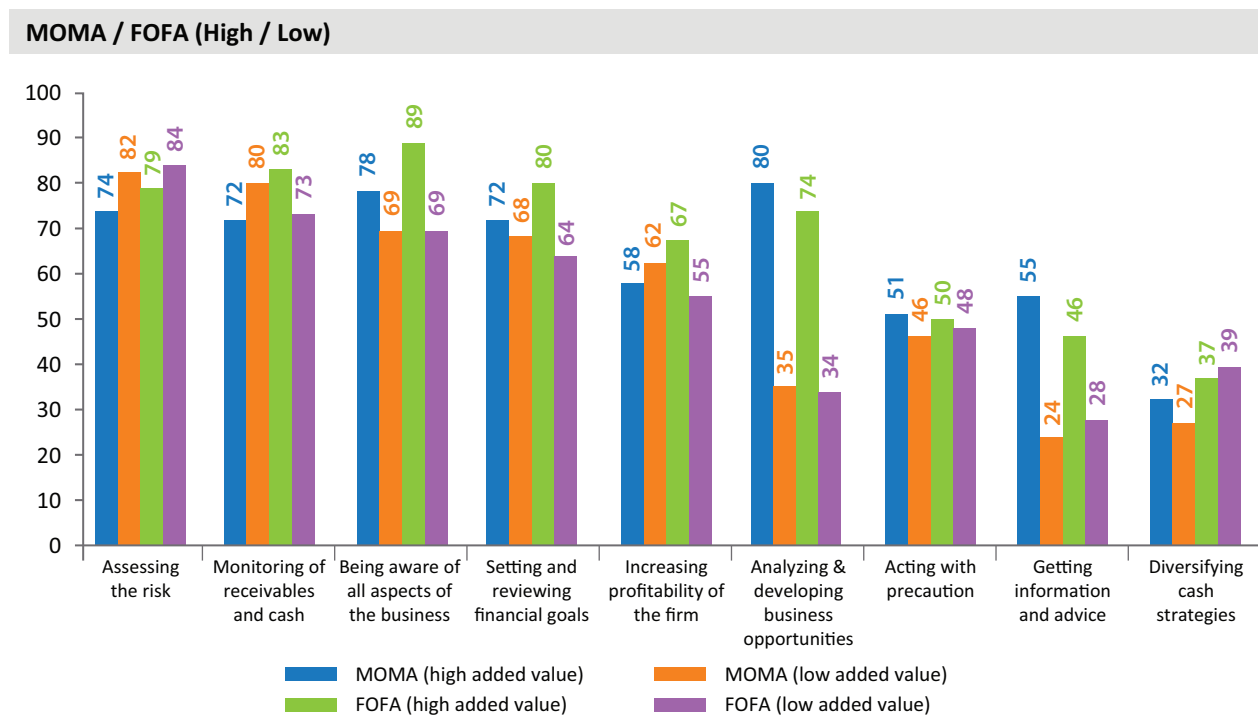
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

However, this survey reveals that for female businesses in BiH, higher financial capability levels (particularly when analyzing high value added firms) in fact do not seem to be positively associated with their ability to access finance. Male-led entities continue to be favored by banks and other loan providers. This further reinforces the conclusion of a bias against female-led businesses when it comes to accessing commercial financing.

Figure 54. Best and worst financed and financial capabilities - MOFA / FOMA (High / Low)
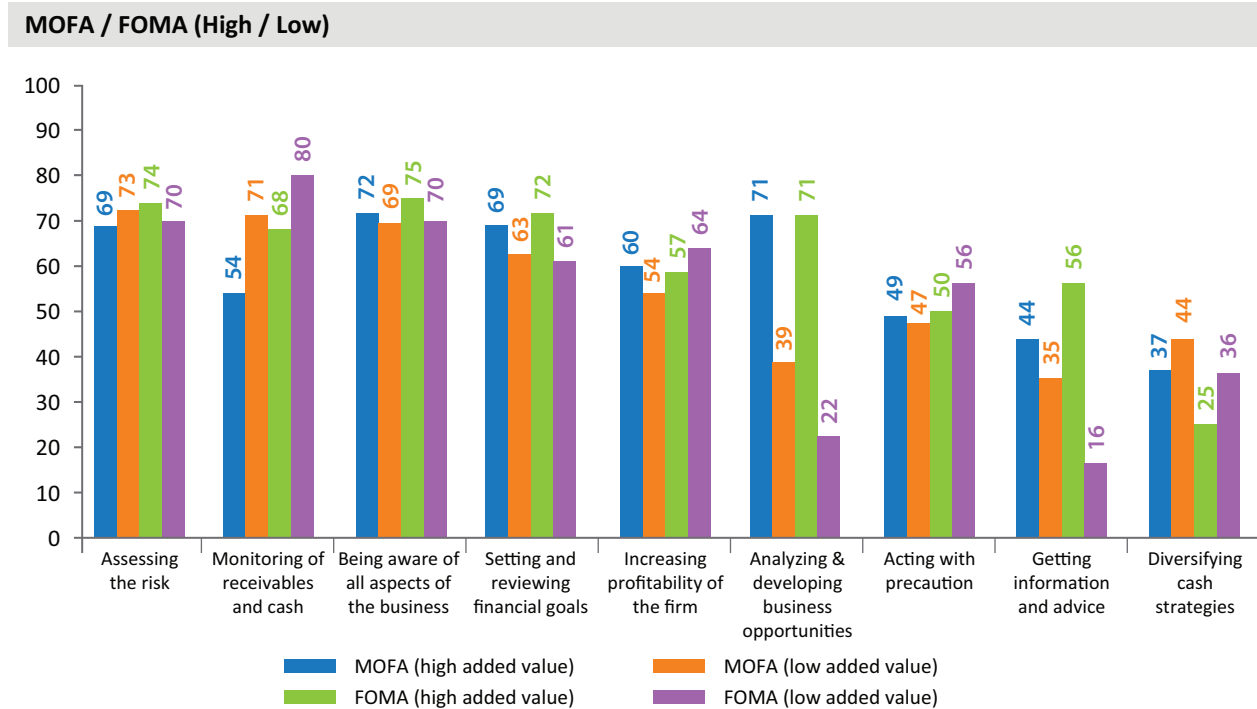
Source: WBG Gender MSME Access to Finance Survey, BiH 2018.

Annex 1. Statistical Methodology

Survey Methodology

Survey and Study Description

The survey was intended to be a nationally representative survey conducted from a sample of 460 MSMEs, stratified by size, location, and gender type. Specifically, the survey was intended to be representative of the following regions (Sarajevo, the Bosnia region, the Herzegovina region and Republika Srpska), size of companies (micro having between 1 and 9 employees, small having between 10 and 49 employees, and medium having between 50 and 249 employees) and gender (four categories of gender firms were identified as various combinations of gender mixes in ownership and management – in this survey, these different entities are referred to as MOMA, MOFA, FOMA, and FOFA).

The sample frame being used for this survey was provided by the World Bank Group (WBG) to EEC Canada. It was originally generated by the Agency for Statistics of Bosnia and Herzegovina. It contained names of firms, location, contact information, sector of activity, and number of employees, but it did not contain any information on gender mixes in ownership and management. As a result, once the sampling strategy was set, the survey was implemented in two distinct phases: a screener phase and a survey phase. The screener phase had multiple purposes: as always, it served to determine the 'eligibility' of drawn entities by confirming the information on size and location as obtained originally from the sample frame. This then contributed to the determination of the gender category of each drawn entity, and finally it was used to obtain consent for the survey or, whenever possible, to clarify the participant's unwillingness to take part in the survey.

Based on previous survey experience in BiH that yielded non-response rates varying between 10% and 30%, depending on the size and gender makeup of the enterprise, and considering also the fairly low level of relative frequency of female-led firms in previous surveys, the target sample of entities to be screened was set at 3,691 enterprises, all randomly drawn from the sample frame of 25,241 entities.

Sampling structure and sampling strategy

For the Gender MSME Access to Finance Survey to produce the desired outcome, the sample was first designed based on a stratification by number of employees and location, but also took into consideration the entities' various gender compositions and their estimated occurrences in the population.
The sampling structure and stratification aimed to achieve an appropriate balance between accuracy, scope, and depth of coverage, and the meaningfulness of the sample size of each stratum, considering time and budget constraints. The stratification was conceived to ensure a high degree of homogeneity within the strata and the clearest heterogeneity possible between strata.

Stratification and Sample Structure

One of the most critical components of the pilot was the identification of categories of enterprises, and corresponding levels of coverage for each, in order to determine with some confidence, the representativeness of the survey.

Enterprises were first categorized according to the number of employees and then regrouped into 4 geographical domains: Sarajevo, the Bosnia region, the Herzegovina region, and Republika Srpska. This sampling structure yielded 12 strata and is represented in the table below.

Table 1.1. Distributions of Strata

	Micro enterprises (0 - 9 employees	Small enterprises (10 - 49 employees)	Medium enterprises (50 - 249 employees)
Bosnia region	1	2	3
Sarajevo	4	5	6
Herzegovina region	7	8	9
Republika Srpska	10	11	12

The frequency in terms of enterprises of each stratum is shown in the next table.

Table 1.2. Number of Establishments per Stratum

	Micro enterprises (0 - 9 employees)	Small enterprises (10 - 49 employees)	Medium enterprises (50 - 249 employees)	Total
Bosnia region	7,620	1,607	351	9,578
Sarajevo	4,870	863	190	5,923
Herzegovina region	3,128	586	104	3,818
Republika Srpska	4,129	1,441	352	5,922
Total	**19,747**	**4,497**	**997**	**25,241**

Note: Distrikt Brcko was excluded

The 460 enterprises that needed to be drawn were finally distributed between geographic and size strata according to Table 1.2.

Table 1.2. Number of Establishments to Draw from (without Replacements)

	Micro enterprises (0 - 9 employees)	Small enterprises (10 - 49 employees)	Medium enterprises (50 - 249 employees)	Total
Bosnia region	75	30	10	115
Sarajevo	75	30	10	115
Herzegovina region	75	30	10	115
Republika Srpska	75	30	10	115
Total	**300**	**120**	**40**	**460**

The *Gender MSME Access to Finance Survey* also had the specific aim to determine the level of women entrepreneurs' ability and constraints in accessing finance to develop and grow their businesses. In order to obtain this gender perspective, a gender typology of MSMEs was determined by assembling the gender mixes in ownership and management of the firms. This typology contained 4 categories of MSMEs: (1) *MOMA (or male-led) entities;* (2) *MOFA (or mixed type 1) entities;* (3) *FOMA (or mixed type 2) entities;* an*d (4) FOFA (or female-led) entities.* This typology captured 25 combinations of gender mixes in ownership and management (combining ownership and management gender mixes as (1) all men, (2) predominantly men, (3) equally men and women, (4) predominantly women, (5) all women) and they are presented in the Table 1.4.

Table 1.3. Combinations of gender mixes in ownership and management

Gender Mix of Management	Gender Mix Ownership				
	All Men	Predominantly Men	Equally Men and Women	Predominantly Women	All Women
All Men	1	2	16	20	23
Predominantly Men	3	4	17	21	24
Equally Men and Women	10	11	9	22	25
Predominantly Women	12	13	18	5	6
All Women	14	15	19	7	8

The four types of MSMEs were as follows:

(1)   MOMA MSMEs represent combinations 1, 2, 3 and 4 in the Table above (cases where ownership and management are composed of only men or predominantly men);

(2)   MOFA MSMEs represent combinations 9, 10, 11, 12, 13, 14, 15, 16 and 17;

(3)   FOMA MSMEs represent combinations 18, 19, 20, 21, 22, 23, 24 and 25;

(4)   FOFA MSMEs represent combinations, 5, 6, 7 and 8 (cases where ownership and management are composed of only women or predominantly women).

Essentially the 4 types of MSMEs can also be better understood by examining the summary combinations of gender mixes in ownership and management in the following Table:

(1)   MOMA MSMEs represent combination 1 (cases where ownership and management are male-led);

(2)   MOFA MSMEs represent combinations 3, 4, 5 and 7;

(3)   FOMA MSMEs represent combinations 6, 8 and 9;

(4)   FOFA MSMEs represent combination 2, (cases where ownership and management are female-led)

Table 1.4. Summary representation of gender mixes in ownership and management

Gender Mix of Management	Gender Mix Ownership		
	Male Dominated	Equally Men and Women	Female Dominated
Male Dominated	1	7	8
Equally Men and Women	4	3	9
Female Dominated	5	6	2

As the final survey sample size was meant to consist of 460 MSMEs broken down into 4 gender categories: (1) MOMA entities; (2) MOFA entities; (3) FOMA entities; (4) FOFA entities, MOMA and FOFA gender categories initially targeted 92 units for interview and MOFA and FOMA gender categories initially targeted 138 units for interview.

Taking expected non-response into account

MOMA entities had an estimated occurrence rate of 45 percent in the population and had a typical non-response rate of 30 percent; thus, the screener needed to draw approximately 291 MSMEs in this category. MOFA entities had an estimated occurrence rate of 35 percent in the population and had a typical non-response rate of 30 percent; thus, the screener needed to draw approximately 563 MSMEs in this category. FOMA and FOFA entities both had an estimated occurrence rate of 10 percent in the population and had a typical non-response rate of 10 percent; thus, the screener needed to draw approximately 1,530 MSMEs for FOMA entities and 1,020 MSMEs for FOFA entities. A total of approximately 1,530 MSMEs needed to be screened, corresponding to the percentage of the lowest occurrence in the population. The following table outlines this and the following sections explain this principle in more detail.

Table 1.5. Number of establishments to screen

	Target Final Sample	Expected Non-response	Entities deliverd by screener	Occurrence in the population	Drawing from the population to screen
MOMA	92	30%	131	45%	291
MOFA	138	30%	197	35%	563
FOMA	138	10%	153	10%	1530
FOFA	92	10%	102	10%	1020

The previous gender categorization would have then resulted in the following distribution in each of the four geographical domains targeted: Sarajevo, the Bosnia region, the Herzegovina region, and Republika Srpska. As can be seen from this table, the total targeted sample across the country was expected to contain 300 micro establishments, 120 small, and 40 medium enterprises.

Table 1.6. Gender distribution of establishments for each geographical domain

	Micro enterprises (0 - 9 employees)	Small enterprises (10 - 49 employees)	Medium enterprises (50 - 249 employees)	Total
MOMA	15	6	2	23
MOFA	23	9	3	35
FOMA	22	9	3	34
FOFA	15	6	2	23
Total per geographical domain	75	30	10	115
Total for all geographical domains	300	120	40	460

Description of the survey tool

An enterprise questionnaire was prepared and used as the tool for the pilot. The questionnaire was written in English and was translated into local language. CAPI tools were also developed to match the English and local language versions of the questionnaire.

The Enterprise Questionnaire

The Enterprise questionnaire contained six modules:

MODULE 1: GENERAL INFORMATION
This section covers basic information about the company e.g. year of establishment, number of employees, gender makeup of top management and owners etc.

MODULE 2: SALES AND FOREIGN TRADE
This section covers the origin of sales and whether sales and goods are usually paid for before, at, or after delivery.

MODULE 3: FINANCING
This section covers payment methods, types of financial products used, types of loans requested and additional information and sources of financing.

MODULE 4: PERFORMANCE
This section covers the annual sales and various types of costs.

MODULE 5: FINANCIAL CAPABILITY / ATTITUDES
This section covers questions on accounting, cash management for emergencies, and business plans.

MODULE 6: BUSINESS ENVIRONMENT
This section covers information on various obstacles that can affect the firm's current operations as well as those specific to female entrepreneurs.

The Preliminary Pre-Test

EEC Canada first implemented a pre-test of the Access to Finance Survey Questionnaire for MSMEs in 3 different countries, notably the Philippines, Kenya, and Canada, with a total of 30 respondents (10 top decision-takers of small or medium firms in each country) in order to validate the wording and the order of the questions. This preliminary testing flagged some elements in the questionnaire that needed to be addressed and the recommendations with a view towards:

1. Reducing the impression of repetitive questions (that often create confusion and reduce quality of data)
2. Clarifying financial products for all respondents – and later researchers
3. Rewording of certain questions to clarify certain portions of the survey
4. Improving the overall flow of the interview

The BiH Pilot

Objectives of the Pilot Survey

Following the preliminary round of pre-testing described in the section above, a pilot was carried out in BiH which aimed to identify if any of the following adjustments needed to be introduced:

- Changes to the questionnaires.
- Modifications in enumerators' training / instructions material.
- Modifications to the data-entry and data-control procedures in order to address country-specific issues.
- Changes to the survey plan (based on duration of interview and/or quality of enumerators, or any other factors).
- Adaptation of the sampling technique.
- Any other changes to improve the delivery of the survey in general.

Conducting the Pilot Survey

The pilot was launched in Sarajevo and Mostar between September 30 and October 7, 2016. The pilot began following intensive training sessions of enumerators that were held face-to-face with EEC Canada team members in Sarajevo. These lasted 2 days. The training sessions covered general study objectives, the specifics regarding each question, the procedure for filling out questionnaires, data capture issues, behavioral considerations, logistics and quality control.

The components for training included:

- An interview guide, presenting the universe targeted by the survey, the general principles of efficient interviewing in the context of a follow-up survey, and the basic enumeration issues regarding the filling and verification of the questionnaires;

- A training questionnaire identifying the most common difficulties expected during interviewing, giving the appropriate clarifications, comments, examples, and detailed explanations on some crucial concepts. The Country Manager for the survey went over the questionnaire with all participants, making sure that each question was clearly understood, that skip patterns and basic consistency issues were understood, and in general that each enumerator was fully qualified to implement the survey.

- The presentation and correct utilization of CAPI tools, the explanation of data-entry protocols and procedures, and the procedure for correctly exporting and sending completed data.

Simulated interviews allowed the survey's Country Manager to anticipate problems that may be encountered and take steps to prepare the enumerators for handling such situations.

Once the enumerators had a thorough understanding of the questionnaires, they were first asked to undergo a written assessment in order to ensure all notions were properly understood. They were then asked to conduct a field test by carrying out one interview. The survey's Country Manager then went over each questionnaire with the enumerators to clarify any problems and ensure that all questions were well understood. Twelve pilot establishments were selected non-randomly (3% of targeted sample) to verify the usability of the questionnaire. Enterprises were selected in both Sarajevo and Mostar from three sectors (manufacturing, wholesale and retail trade, and food service sectors). Given that micro sized enterprises represent the overwhelming majority of establishments drawn, the selected enterprises for piloting were mostly micro sized enterprises (between 2 and 9 employees).

Seven micro enterprises were selected in Sarajevo, 3 of which belonged to the manufacturing sector, 3 to the wholesale and retail trade sector, and 1 to the food service sector. Four further micro enterprises were selected in Mostar, 1 of which belonged to the manufacturing sector and 3 to the wholesale and retail trade sector. In addition, one small sized enterprise (10 employees) belonging to the food service sector was selected in Mostar to further assess the usability of the questionnaire for this size category. No gender stratification was considered for the chosen pilot enterprises because the frame did not contain information on the gender composition of ownership or management of establishments. The effective gender composition of the ownership of all piloted establishments was MOMA.

After the interviews were conducted, debriefing meetings took place in the evenings and experiences were shared. In addition, questionnaires were collected and data-entry programs, as well as quality control routines, were implemented. In all instances, this phase generated the need to return to respondents for clarification or additional explanation of their answers. Enumerators were exposed to EEC's approach of having a fairly short turnaround time between interviews and returns to respondents. They were also shown how this could be done efficiently and without annoying respondents. As a matter of fact, the collaboration of respondents increased with requests for clarification as very short additional visits demonstrated interest on behalf of the surveying team – and hence illustrated the importance of the information provided by respondents.

Pilot Results

Results in Terms of Questions Asked

In general, respondents clearly grasped the purpose of the survey, and many respondents were very confident their participation was useful. They expressed hope that this survey would produce positive results both in terms of policy and improved access to quality resources.

The bulk of the survey questions were well understood even if some questions required longer clarifications, particularly when respondents did not use the specific financial products to which the questions referred. As a result, no changes were required nor were made to the questionnaire following the pilot.

Results in Terms of Training Material

As a result of the pilot and taking into consideration the clarifications required by some of the questions, instructions were clarified, and enumerators were encouraged to facilitate the communication of added information about financial products by respondents.

Over the course of debriefing meetings held with the team, after test interviews were conducted, best practices were shared amongst team members and enumerators in order to improve success rates. An idea started to circulate among team members that it would be interesting to conduct a variety of 'workshops' destined to target certain groups of respondents. These would have the benefit of contributing to the awareness of the survey, as well as reducing non-response.

Key Aspects of the Distribution of Screener and Strata

As the following illustration shows, during a screener exercise, when a population is known and the composition per stratum is known as well, the screener exercise becomes quite simple and straight forward. Elements from the population are divided into their respective stratum and targeted sample and number of replacements are then randomly selected and placed in order.

Population known – Composition per stratum known

STEP 1:
SEPARATE ALL ELEMENTS OF EACH STRATUM

STEP 2:

SELECT RANDOMLY THE NUMBER OF TARGETED SAMPLE AND REPLACEMENT AND PLACE IN ORDER
➔ 25,241 population MSMEs
➔ 92 target effective respondents for MOMA and FOFA, 138 for MOFA and FOMA
➔ Refusal rates between 10% and 30%
➔ Ex. 92 / (1-30%) = 131 potential respondents to draw

131	197	153	102
MOMA MSMEs	MOFA MSMEs	FOMA MSMEs	FOFA MSMEs
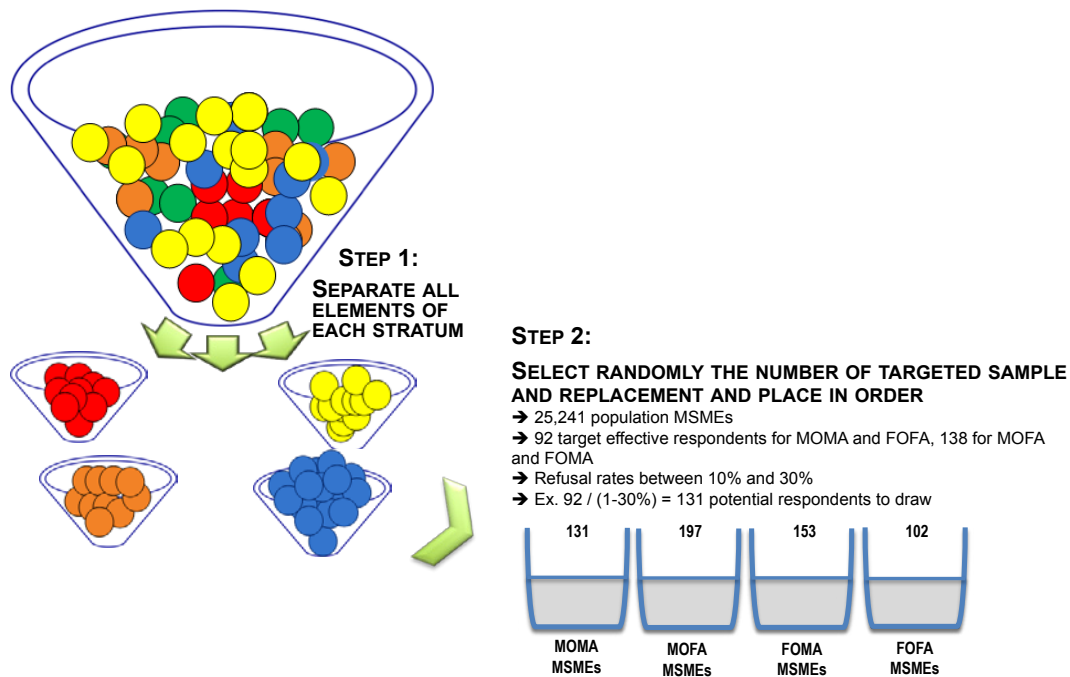
This, however, was not the case in BiH where the population was known but the composition per stratum was unknown, as is shown in the following illustration.

Population known –
Composition per stratum unknown

| MOMA MSMEs | MOFA MSMEs | FOMA MSMEs | FOFA MSMEs |
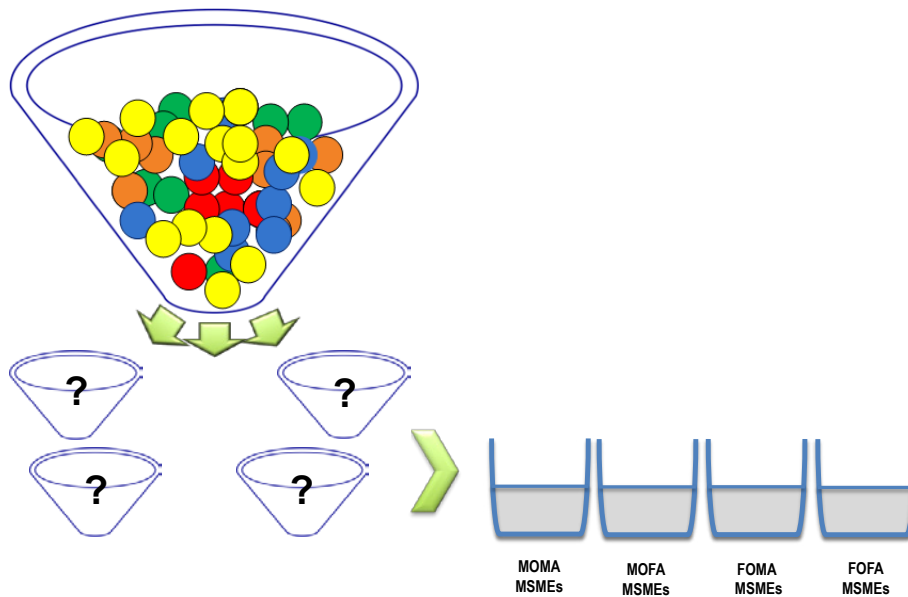
In this case, the screener exercise takes on a different shape, as is shown in the following illustration. First, the probable relative frequencies of each stratum are identified from previous research. Then the smallest frequency among the 4 strata is selected, in the case of BiH it is 10%. Finally, the total number of random cases to draw and screen is determined in order to obtain the target sample and replacements for each stratum.

Population known –
Composition per stratum unknown

STEP 1: IDENTIFY THE PROBABLE RELATIVE FREQUENCY OF EACH STRATUM FROM PREVIOUS RESEARCH
45% - 25% - 20% - 10%

STEP 2:
SELECT THE SMALLEST FREQUENCY AMONG THE 4 STRATA

STEP 3:
DETERMINE THE TOTAL NUMBER OF RANDOM CASES TO DRAW AND SCREEN TO OBTAIN THE TARGET SAMPLE AND REPLACEMENTS FOR THE STRATUM WITH THE LOWEST RELATIVE FREQUENCY

➔ 92 target effective respondent
➔ Refusal rates between 10% and 30%
➔ 92/(1-10%) = 102 potential respondents to draw (for stratum 1)
➔ 131/10%= 1,020 (for stratum 4, with 10% of occurrence in population – the lowest occurrence in population)

SCREENING PROCESS

1,020 MSMEs

To ensure the random draw delivers 153 of the lowest frequency category, 1,530 elements needed to be drawn.

Verification: 1,530 * 10% = 153

153 * (1-10%) = 138

For the other strata, the first 92 (or 138) drawn elements were to be the targeted sample and for each one, the expected non-response created the expected number of replacements (30%, 30%, 10%, 10%). All other cases were simply deemed redundant. If the required number of elements plus replacements were attained for each stratum (either 138 or 92) prior to screening the entire 1,530 cases, the remaining elements did not need to be screened. This is depicted in the following illustration.
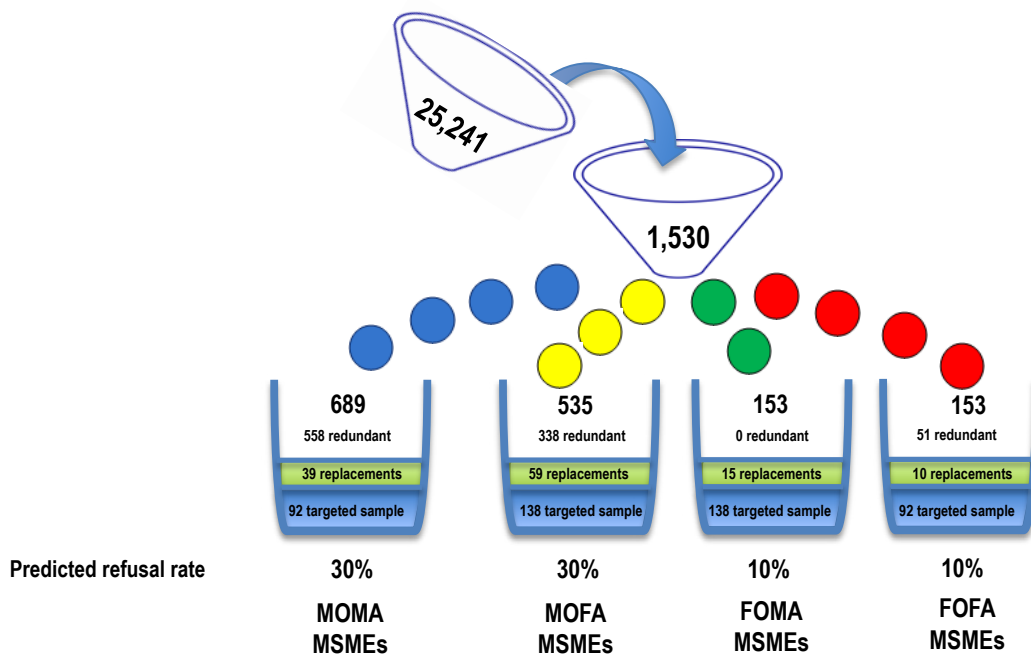
Screener Results

In BiH, the population was not only divided into 5 gender categories, as described previously, but it was also divided into 4 regions and 3 sizes (Micro, Small and Medium) resulting in a maximum of 60 different strata (or buckets as per the previous representations). In addition, the sample needed to allow the comparison of businesses by size, regions, and gender categories. This required that the screening process deliver a sufficient representation for each of these breakdowns.

The initial estimation was that at least 1,530 cases needed to be screened to be able to obtain the targeted sample structure and size. During the screening process, however, a higher prevalence of MOMA and MOFA MSMEs were found, and the occurrence of FOFA and FOMA MSMEs in the population was much lower than estimated. This meant that either a bigger number of cases to screen needed to be extracted, or that an alternative approach needed to be found. This modification would increase the likelihood of finding the targeted cases for female-led and matriarchal categories of businesses (EEC Canada's preferred path).

In addition, the sample frame being used proved challenging with a fairly high number of cases that did not seem to exist or that required site visits, as phone numbers turned out to be unreliable (either no answer, disconnected, or simply wrong numbers). This compounded the difficulty and duration of the screening phase. In view of these developments, and in order to expedite the process, women's associations, NGOs targeting women, and women-targeted projects were approached for their list of members, beneficiaries, or applicants. Furthermore, the size of the field team both from headquarters and on the field, was increased (the top tier team was increased to 3 experienced survey managers from headquarters and 30–35 enumerators/supervisors, as opposed to the 14 that were planned for in the budget and technical proposal).

As women's associations, NGOs targeting women, and women targeted projects were approached these enterprises were added to the population and resulted in there being a higher amount of enterprises to be screened, as described in the table below.

Table 1.7. Final distribution of screened cases and gender categorization

	Sarajevo	Bosnia	Herzegovina	Rep Srpska	Total
MOMA	242	596	448	412	1698
MOFA	104	70	68	41	283
FOMA	11	13	35	53	112
FOFA	31	33	9	30	103
Total	388	712	560	536	2196

This final distribution of screened cases gave the following estimated gender distribution by region.

Table 1.8. Gender distribution by region (based on screener results)

	Sarajevo	Bosnia	Herzegovina	Rep Srpska	Total
MOMA	62.3%	83.8%	80.0%	76.9%	77.3%
MOFA	26.8%	9.8%	12.1%	7.7%	12.9%
FOMA	3.0%	1.8%	6.2%	9.9%	5.1%
FOFA	7.9%	4.6%	1.7%	5.5%	4.7%

Final Overview of Cases Mobilized and Weights

At the end of the MSME Survey in BiH, a total of 542 cases were effectively mobilized from a universe of 25,241 MSMEs, instead of the initial 460 cases planned. Their distribution is represented in the following table.

Table 1.9. Completed cases and gender categorization per region and enterprise size

Cases Interviewed	Sarajevo			Bosnia			Herzegovina			Rep Srpska			Grand Total
	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	
MOMA	12	9	3	29	15	0	22	18	5	32	11	5	161
MOFA	67	7	4	40	6	2	10	23	9	11	3	3	185
FOMA	17	1	1	7	1	1	14	15	1	18	17	1	94
FOFA	46	3	2	22	1	0	6	2	0	14	6	0	102
Total	142	20	10	98	23	3	52	58	15	75	37	9	542

Annex 2. Financial Product Definition

#	Product	Definitions
1	Electronic payment instruments	Payment instructions or receipt of payments that enter a payment system via the internet or other telecommunication network. The device used to initiate the payment could be a computer, mobile phone, POS device, or any other suitable device. The payment instrument used could be a debit/credit card payment, a direct credit/debit transfer, or other innovative payment products such as E-money
2	Internet banking	Banking or other type of formal financial institution service that customers may access via the internet through a computer, mobile phone, or any other suitable device
3	Line of credit	A credit line is a pre-arranged loan that can be used, in full or in part, at discretion and with limited advanced warning. The difference between a bank loan and a credit line is that in the case of the former, the precise amount of the loan and the dates of repayments are usually fixed, while in the case of a credit line, the borrower can draw only part of the money at discretion up to an agreed maximum balance, and interest is charged only on money actually withdrawn
4	Bank Over-draft	A bank overdraft is the negative balance on a bank account with or without specific penalties
5	Credit Card Overdraft	A credit card overdraft is a negative balance on a credit card
6	Grants	Support from public sources in the form of guarantees or other direct financial subsidies directly paid
7	Bank Loan	Includes both long and short-term
8	Trade Credit	This means paying your suppliers at a later agreed date, usually 30, 60, or 90 days after the delivery of the purchased goods or services
9	Other Loan	Loan from family and friends, a related enterprise, or shareholders
10	Leasing or Hire Purchase	Obtaining the use of a fixed asset (for example, cars or machinery) in exchange for regular payments, but without the immediate ownership of the asset
11	Debt Securities	Short-term commercial paper or longer-term corporate bonds issued by your enterprise
12	Equity Capital	Equity capital refers to raising capital through the sale of shares in your enterprise. It is usually associated with the financing of companies listed on an exchange via public offerings. It can also involve a private sale, in which the transaction between investors and the enterprise takes place directly. Equity capital includes quoted and unquoted shares or other forms of equity provided by the owners themselves or by external investors, including venture capital or business angels. Venture capital enterprises or business angels are individual investors providing capital or know-how to young innovative enterprises
13	Factoring	Selling your invoices to a factoring company; this company gets your debt and has to collect it; it will make a profit by paying you less cash than the face value of the invoice
14	Subordinated Debt	Subordinated debt is repayable only after other debts have been paid in full
15	Participatory Loan	A participating loan gives the lender the right to convert the loan into an ownership or equity interest in the company under specified clauses and conditions
16	Peer- to-Peer Lending	This refers to lending money to an unrelated individual or enterprise without a traditional financial intermediary, usually via dedicated online lending portals
17	Crowdfunding	This involves raising monetary contributions from a large number of people, typically via the internet

Annex 3. Regression Tables[5]

Access and Usage of Bank Accounts, Retail Payment Instruments, and Extra Liquidity/Profits

Probability of having a bank account by individual factors

Variables in the Equation	Bank Account Coefficient	
MOMA entities as the baseline		
MOFA entities	-0.8380	**
	(0.3838)	
FOMA entities	-1.4438	***
	(0.3823)	
FOFA entities	-1.3499	***
	(0.394)	
Micro enterprises (0–9 employees) as the baseline		
Small enterprises (10–49 employees)	0.5468	***
	(0.1456)	
Medium enterprises (50–249 employees)	1.1079	***
	(0.2844)	
	(0.1919)	
Agriculture and Services as the baseline		
Manufacturing and construction and Trade	0.4537	
	(0.3601)	
Newest enterprises (0–6 years) as the baseline		
Old enterprises (7–15 years)	0.1710	
	(0.1411)	
Oldest enterprises (more than 15 years)	0.2729	*
	(0.1522)	
Constant	-0.1750	
	(0.4142)	

*Estimates of probit model. Standard error in parentheses *** p<0.01, ** p<0.05, * p<0.1*

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5 The following tables have been truncated and only the most significant variables are displayed. The full tables are available upon request.

Probability of using internet banking and e-money by individual factors

Variables in the Equation	Internet Banking Usage Coefficient		E-Money Account Usage Coefficient	
MOMA entities as the baseline				
MOFA entities	0.3156	**	0.0712	
	(0.1493)		(0.1825)	
FOMA entities	-0.1093		-0.2903	
	(0.1763)		(0.2129)	
FOFA entities	-0.2668		-0.4055	*
	(0.1818)		(0.2393)	
Micro enterprises (0–9 employees) as the baseline				
Small enterprises (10–49 employees)	0.5468	***	-0.0275	
	(0.1456)		(0.1767)	
Medium enterprises (50–249 employees)	1.1079	***	0.7248	**
	(0.2844)		(0.2889)	
Agriculture as the baseline				
Manufacturing	-0.4872		0.0588	
	(0.4174)		(0.4579)	
Construction and Trade	0.6546		-0.3241	
	(0.7117)		(0.5963)	
Services, Misc. Household or organizational, etc.	-0.6349	*	0.1945	
	(0.3828)		(0.4026)	
Newest enterprises (0–6 years) as the baseline				
Old enterprises (7–15 years)	0.1710		0.3838	**
	(0.1411)		(0.1885)	
Oldest enterprises (more than 15 years)	0.2729	*	0.4908	**
	(0.1522)		(0.1934)	
Constant	-0.1750		-2.5866	***
	(0.4142)		(0.5126)	

Estimates of the regression model.

*Standard error in parentheses *** p<0.01, ** p<0.05, * p<0.1*

Financing Activity

Probability of having financing products by individual factors (I)

Variables in the Equation	Bank loan Coefficient		Line of credit Coefficient		Leasing or Hire purchase Coefficient		Grants Coefficient	
MOMA entities as the baseline								
MOFA entities	-0.4415	***	-0.0687		0.1936		-0.2609	
	(0.1471)		(0.1592)		(0.1872)		(0.1731)	
FOMA entities	-0.5673	***	-0.3870	**	-0.2026		-0.5614	**
	(0.1767)		(0.1959)		(0.2611)		(0.2283)	
FOFA entities	-0.7171	***	-0.3731	*	-0.2126		-0.1810	
	(0.1828)		(0.2054)		(0.2678)		(0.2107)	
Micro enterprises (0–9 employees) as the baseline								
Small enterprises (10–49 employees)	0.0505		-0.0241		0.3038		-0.0350	
	(0.1468)		(0.1597)		(0.1991)		(0.1773)	
Medium enterprises (50–249 employees)	0.3408		0.3626		1.0861	***	0.0837	
	(0.2549)		(0.2614)		(0.3001)		(0.2816)	
Agriculture as the baseline								
Manufacturing	0.1122		-0.1793		-0.3481		-0.7782	**
	(0.3808)		(0.3853)		(0.4394)		(0.3916)	
Construction and Trade	0.7324		-0.4164		0.6525		-0.8148	
	(0.5351)		(0.508)		(0.5856)		(0.5252)	
Services, Misc. Household or organizational, etc.	-0.1982		-0.4772		-0.4969		-1.2507	***
	(0.3828)		(0.4026)					
	(0.3483)		(0.3478)		(0.4023)		(0.3573)	
Newest enterprises (0–6 years) as the baseline								
Old enterprises (7–15 years)	0.0057		0.3659	**	0.3465	*	0.0582	
	(0.1409)		(0.1618)		(0.2014)		(0.1711)	
Oldest enterprises (more than 15 years)	-0.0982		0.2143		0.2575		-0.0978	
	(0.1546)		(0.1753)		(0.2131)		(0.1886)	
Constant	-0.1540		-0.6382		-0.9324	**	0.1486	
	(0.3843)		(0.3958)		(0.4572)		(0.4054)	

Estimates of the regression model.

*Standard error in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$*

Probability of having financing products by individual factors (II)

Variables in the Equation	Trade credit Coefficient	
MOMA entities as the baseline		
MOFA entities	-0.0462	
	(0.1488)	
FOMA entities	-0.1049	
	(0.1728)	
FOFA entities	-0.3970	**
	(0.1709)	
Micro enterprises (0–9 employees) as the baseline		
Small enterprises (10–49 employees)	-0.1406	
	(0.1436)	
Medium enterprises (50–249 employees)	0.3619	
	(0.2826)	
Agriculture as the baseline		
Manufacturing	0.3145	
	(0.4053)	
Construction and Trade	0.4352	
	(0.5744)	
Services, Misc. Household or organizational, etc.	-0.0890	
	(0.3623)	
Newest enterprises (0–6 years) as the baseline		
Old enterprises (7–15 years)	0.1840	
	(0.1362)	
Oldest enterprises (more than 15 years)	0.3731	**
	(0.149)	
Constant	0.4120	

Estimates of the regression model.

*Standard error in parentheses *** p<0.01, ** p<0.05, * p<0.1*

Constraints Affecting Firms' Operations

Probability of encountering major or very severe obstacles (access to finance, cost of finance and tax rates)

Variables in the Equation	Access to finance Coefficient		Cost of finance Coefficient		Tax rates Coefficient	
MOMA entities as the baseline						
MOFA entities	0.0496		0.0496		0.0237	
	(0.1664)		(0.1664)		(0.1474)	
FOMA entities	0.1618		0.1618		-0.0305	
	(0.1993)		(0.1993)		(0.1746)	
FOFA entities	0.0550		0.0550		-0.3298	*
	(0.2024)		(0.2024)		(0.1703)	
Micro enterprises (0–9 employees) as the baseline						
Small enterprises (10–49 employees)	0.2324		0.2324		0.5173	***
	(0.1655)		(0.1655)		(0.1484)	
Medium enterprises (50–249 employees)	0.3456		0.3456		0.2439	
	(0.2779)		(0.2779)		(0.2573)	
Agriculture as the baseline						
Manufacturing	-0.2984		-0.2984		0.6745	*
	(0.4066)		(0.4066)		(0.3875)	
Construction and Trade	0.4713		0.4713		0.7231	
	(0.5349)		(0.5349)		(0.5264)	
Services, Misc. Household or organizational, etc.	-0.2573		-0.2573		0.6165	*
	(0.3828)		(0.4026)			
	(0.3652)		(0.3652)		(0.3522)	
Newest enterprises (0–6 years) as the baseline						
Old enterprises (7–15 years)	-0.3217	**	-0.3217	**	0.1091	
	(0.1564)		(0.1564)		(0.1362)	
Oldest enterprises (more than 15 years)	-0.3792	**	-0.3792	**	0.1636	
	(0.1697)		(0.1697)		(0.1488)	
Constant	-0.8567	**	-0.8567	**	-0.6557	*
	(0.4094)		(0.4094)		(0.3864)	

Estimates of the regression model.

*Standard error in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$*

Financial capabilities by individual factors (I)

Variables in the Equation	Analyzing and developing business opportunities Coefficient		Being aware of all aspects of the business Coefficient		Setting and reviewing financial goals Coefficient		Getting information and advice Coefficient	
MOMA entities as the baseline								
MOFA entities	-1.0127		-0.0687		-3.4813	*	-7.2667	**
	(4.9536)		(0.1592)		(1.772)		(3.665)	
FOMA entities	-14.7985	**	-0.3870	**	-2.2301		-2.0816	
	(5.8308)		(0.1959)		(2.0858)		(4.314)	
FOFA entities	-10.7559	*	-0.3731	*	-0.8625		-2.3989	
	(5.8441)		(0.2054)		(2.0905)		(4.3239)	
Micro enterprises (0–9 employees) as the baseline								
Small enterprises (10–49 employees)	13.0626	***	-0.0241		3.7477	**	8.7308	**
	(4.8652)		(0.1597)		(1.7404)		(3.5996)	
Medium enterprises (50–249 employees)	23.4548	***	0.3626		8.5392	***	5.8913	
	(8.6098)		(0.2614)		(3.0799)		(6.3701)	
Agriculture as the baseline								
Manufacturing	0.8390		-0.1793		-0.1768		7.3550	
	(13.1087)		(0.3853)		(4.6892)		(9.6987)	
Construction and Trade	3.9547		-0.4164		1.1163		-4.8808	
	(17.3337)		(0.508)		(6.2006)		(12.8246)	
Services, Misc. Household or organizational, etc.	-15.0752		-0.4772		-0.8394		1.0574	
	(0.3828)		(0.4026)					
	(11.9694)		(0.3478)		(4.2817)		(8.8558)	
Newest enterprises (0–6 years) as the baseline								
Old enterprises (7–15 years)	8.4439	*	0.3659	**	-3.7322	**	-1.8641	
	(4.6811)		(0.1618)		(1.6745)		(3.4634)	
Oldest enterprises (more than 15 years)	13.2776	***	0.2143		-2.8842		-3.2720	
	(5.0595)		(0.1753)		(1.8099)		(3.7434)	
Constant	64.6727	***	-0.6382		69.1804	***	39.7388	***
	(13.0998)		(0.3958)		(4.686)		(9.6921)	

Estimates of the regression model.

Standard error in parentheses *** p<0.01, ** p<0.05, * p<0.1

Financial capabilities by individual factors (II)

Variables in the Equation	Assessing the risk Coefficient		Monitoring of receivables and cash Coefficient		Acting with precaution Coefficient		Increasing profitability of the firm Coefficient	
MOMA entities as the baseline								
MOFA entities	-5.5691	**	-4.9526		0.5897		-3.4807	
	(2.1783)		(4.2003)		(2.7215)		(4.0367)	
FOMA entities	-7.2060	***	-1.5371		1.8904		-3.2506	
	(2.5641)		(4.944)		(3.2034)		(4.7515)	
FOFA entities	1.5210		-3.1524		4.4368		-4.1624	
	(2.5699)		(4.9554)		(3.2107)		(4.7624)	
Micro enterprises (0–9 employees) as the baseline								
Small enterprises (10–49 employees)	-1.1538		12.8367	***	-1.0884		0.5382	
	(2.1394)		(4.1253)		(2.6729)		(3.9646)	
Medium enterprises (50–249 employees)	1.6382		15.3540	**	-1.6788		-7.5251	
	(3.7861)		(7.3004)		(4.7302)		(7.0161)	
Agriculture as the baseline								
Manufacturing	-3.7021		-6.3703		0.9172		-0.4637	
	(5.7645)		(11.1151)		(7.2019)		(10.6823)	
Construction and Trade	-0.4389		5.1321		8.4524		-13.6943	
	(7.6224)		(14.6976)		(9.5231)		(14.1252)	
Services, Misc. Household or organizational, etc.	-1.1971		7.0854		5.2724		3.7832	
	(5.2635)		(10.1491)		(6.576)		(9.7539)	
Newest enterprises (0–6 years) as the baseline								
Old enterprises (7–15 years)	0.2863		-7.8150	**	3.5386		-5.6978	
	(2.0585)		(3.9692)		(2.5718)		(3.8146)	
Oldest enterprises (more than 15 years)	0.6353		-4.2141		0.9468		-4.6900	
	(2.2249)		(4.29)		(2.7797)		(4.123)	
Constant	81.5334	***	83.1420	***	42.0205	***	68.9269	***
	(5.7606)		(11.1075)		(7.197)		(10.675)	

Estimates of the regression model.

*Standard error in parentheses *** p<0.01, ** p<0.05, * p<0.1*

Financial capabilities by individual factors (III)

Variables in the Equation	Diversifying cash strategies Coefficient	
MOMA entities as the baseline		
MOFA entities	1.8760	
	(3.9117)	
FOMA entities	-3.0535	
	(4.6043)	
FOFA entities	5.3516	
	(4.6149)	
Micro enterprises (0–9 employees) as the baseline		
Small enterprises (10–49 employees)	-0.0772	
	(3.8418)	
Medium enterprises (50–249 employees)	0.2100	
	(6.7988)	
Agriculture as the baseline		
Manufacturing	5.0029	
	(10.3514)	
Construction and Trade	-19.2896	
	(13.6878)	
Services, Misc. Household or organizational, etc.	1.7334	
	(9.4518)	
Newest enterprises (0–6 years) as the baseline		
Old enterprises (7–15 years)	1.6329	
	(3.6965)	
Oldest enterprises (more than 15 years)	-1.6288	
	(3.9953)	
Constant	22.3969	**
	(10.3444)	

Estimates of the regression model.

*Standard error in parentheses *** p<0.01, ** p<0.05, * p<0.1*

Probability of having access to bank or government financing

Variables in the Equation	Access to bank financing (current) Coefficient		Access to bank financing (historical) Coefficient		Access to government financing (current) Coefficient	
Analyzing and developing business opportunities	0.0059	***	0.0048	***	0.0024	
	(0.0015)		(0.0014)		(0.0017)	
Being aware of all aspects of the business	-0.0067	*	-0.0080	**	0.0031	
	(0.0039)		(0.0039)		(0.0049)	
Setting and reviewing financial goals	0.0129	***	0.0117	**	-0.0072	
	(0.0049)		(0.0048)		(0.0055)	
Getting information and advice	0.0017		0.0024		0.0029	
	(0.0019)		(0.0019)		(0.0022)	
Assessing the risk	-0.0235	***	-0.0212	***	0.0015	
	(0.0037)		(0.0036)		(0.0042)	
Monitoring of receivables and cash	-0.0011		-0.0009		-0.0015	
	(0.0018)		(0.0018)		(0.0019)	
Acting with precaution	-0.0002		0.0027		0.0044	
	(0.0026)		(0.0025)		(0.0031)	
Increasing profitability of the firm	-0.0007		0.0014		0.0016	
	(0.0017)		(0.0017)		(0.002)	
Diversifying cash strategies	0.0038	**	0.0025		-0.0005	
	(0.0018)		(0.0018)		(0.0021)	
MOMA entities as the baseline						
MOFA entities	-0.6817	***	-0.5126	***	-0.2551	
	(0.1543)		(0.1588)		(0.1774)	
FOMA entities	-0.9088	***	-0.5435	***	-0.5478	**
	(0.185)		(0.1866)		(0.2327)	
FOFA entities	-0.8598	***	-0.7279	***	-0.1671	
	(0.1873)		(0.1837)		(0.2161)	
Micro enterprises (0–9 employees) as the baseline						
Small enterprises (10–49 employees)	-0.1430		-0.1180		-0.0555	
	(0.1516)		(0.1541)		(0.1824)	
Medium enterprises (50–249 employees)	0.3014		0.3934		0.0972	
	(0.2742)		(0.2985)		(0.2885)	

Variables in the Equation	Access to bank financing (current) Coefficient		Access to bank financing (historical) Coefficient		Access to government financing (current) Coefficient	
Agriculture as the baseline						
Manufacturing	-0.1838		-0.5277		-0.8085	**
	(0.3874)		(0.4583)		(0.392)	
Construction and Trade	0.3569		-0.3402		-0.8426	
	(0.5583)		(0.6259)		(0.53)	
Services, Misc. Household or organizational, etc.	-0.2720		-0.5450		-1.2561	***
	(0.3528)		(0.4276)		(0.3581)	
Newest enterprises (0–6 years) as the baseline						
Old enterprises (7–15 years)	0.0814		0.2997	**	-0.0034	
	(0.147)		(0.1448)		(0.1757)	
Oldest enterprises (more than 15 years)	-0.0932		0.1611		-0.1637	
	(0.1617)		(0.1599)		(0.1935)	
Constant	1.3505	**	1.5404	**	-0.1295	
	(0.5493)		(0.5948)		(0.5997)	

Estimates of the regression model.

*Standard error in parentheses *** p<0.01, ** p<0.05, * p<0.1*