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Economic crisis, women entrepreneurs and bank loans: some empirical evidence from Italy

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ABSTRACT

This paper presents the main findings from an empirical research project, whose aim was to answer the following research questions: (1) Did men and women entrepreneurs ask for new bank loans during the crisis? (2) Did they obtain required bank loans at the same conditions? (3) Which variables, other than gender, influence access to bank credit? Data show that firms were very cautious in access to finance during the crisis and female-led firms asked for bank loans more rarely than male-led ones. Entrepreneurs' gender, age and education, banking history and industry only slightly affected access to credit during the crisis.

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1. Introduction

In the literature on female entrepreneurship, great attention has been paid to the access to credit, and this issue has been the subject of many studies and empirical investigations. Earlier research provides clear-cut evidence in which female businesses exhibit various peculiar financial patterns. For instance, women entrepreneurs use lower ratios of debt finance (Haines, Orser, & Riding, 1999) and are more likely than men to use personal loans (Coleman & Robb, 2009). Reasons for gender differences within business financing are still unclear. In fact, despite the great amount of available data, there are still no unequivocal or widely accepted explanations, and recent studies present different interpretations to explain the reasons for weaker financial patterns within female-owned businesses and their lower ratios of debt finance.

This issue has gained new interest as a result of the recent crisis involving several countries, including Italy. During the crisis, a slowdown in credit availability was extensively documented, as a result of a mix of supply- and demand-side factors. On one hand, due to a great uncertainty about future economic conditions and a considerable slowdown in sales and production, firms have reduced the demand for loans. On the other hand, banks faced a liquidity shock following a capital shortage.

This paper aims to discuss whether men- and women-owned firms have been affected by the crisis in the same way, or if bank–firm dynamics have followed different trends in the two cases. Moreover, we wonder if variables other than gender have affected access to credit.

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The empirical research is based on a questionnaire survey involving a sample of 300 sole-proprietors (150 men and 150 women) and owners of micro-enterprises located in the Marche region in central Italy. The purpose of the questionnaire was identify the existence of any gender differences in access to credit during the crisis, and to check whether other variables, selected from those emerging from prevailing literature on the subject, could have affected access to credit.

The following of the paper is structured into four sections. In the second section, the main literature on access to credit and female entrepreneurs is presented. After that, the methodology used in the empirical research is described. Finally, key results of the study are discussed and main conclusions are drawn.

2. Women entrepreneurs and access to bank credit. A literature review

Numerous studies show the existence of significant differences between male and female businesses regarding the use of debt capital (Coleman & Robb, 2009; Constantinidis, Cornet, & Asandei, 2006; Fairlie & Robb, 2009; Robb & Walken, 2002). In fact, female entrepreneurs start their firms with a lower level of funding than male entrepreneurs (Alsos, Isaksen, & Ljunggren, 2006), are less likely to raise capital from external sources (Constantinidis et al., 2006; Fairlie & Robb, 2009; Robb & Walken, 2002), even in the subsequent phases of their entrepreneurial life cycle (Coleman & Robb, 2009), and are more likely than men to use personal loans – from family and friends (Coleman & Robb, 2009).

These differences result from a combination of different factors, partially due to the characteristics of women entrepreneurs and their businesses, and in part to criteria adopted by banks for the granting of loans. Gender differences in business financing and access to credit received three main interpretations:

- (1) existence of structural dissimilarities between male- and female-owned businesses (size, age, industry);
- (2) supply-side discriminations;
- (3) demand-side factors relating to women entrepreneurs' choices, preferences and motivations.

According to the first interpretation, female businesses' lower debt ratios stem from structural differences between male and female businesses, with particular reference to industry, size and age.

Countless research, in fact, shows that female businesses primarily operate in the retail trade and service industries (GEM, 2013; Unioncamere, 2014). These sectors on average cause lower financial needs with respect to industrial enterprises, both in the start-up and in the later stages of firms' life cycle. Moreover, female entrepreneurship is a much more recent phenomenon than male entrepreneurship. As a consequence, female firms are typically younger and smaller than male firms (GEM, 2013; Unioncamere, 2014). According to this interpretation, females have lower debt ratios because on average they require less financial resources.

These structural characteristics also affect firms' ability to obtain bank financing. Precisely because of their businesses' young age, female entrepreneurs have a shorter banking history and shorter financial and administrative experience, whereas banks prefer long-term and well-known customers because they are considered more reliable (Shaw, Carter, & Brierton,

2001). An entrepreneur's young age, his lack of business experiences and a low-level business education can also negatively affect access to credit.

The second interpretation (supply side discriminations) suggests that banks adopt discriminatory behaviours. In fact, *ceteris paribus*, banks would be less willing to grant loans to female businesses (taste-based discrimination). This assumption, however, has been confirmed in only some cases. Muravyev, Talavera, and Schäfer (2009) found that female businesses are less likely than male counterparts to get bank loans and have to pay higher interest rates. In Italy, Alesina, Lotti, and Mistrulli (2013) found that female businesses pay higher interest rates, even if they aren't riskier borrowers. Moreover they find that the interest rate paid by women decreases if they involve a man as a guarantor, whereas their interest rate increases if the guarantor is a woman. According to Bellucci, Borisov, and Zazzaro (2010), banks more frequently ask female businesses to provide collateral. According to Calcagnini, Giombini, and Lenti (2014), banks ask higher collateral from female businesses, and this request can only be partially explained by structural differences between male and female businesses. On the contrary, other studies have not confirmed the existence of gender-based discriminations (Buttner & Rosen, 1989; Carter, Shaw, Lam, & Wilson, 2007).

The third interpretation (demand-side factors) explains female businesses' lower debt ratio as a result of women entrepreneurs' personal choices and motivations (Watson, 2006). It is noted, for example, that women entrepreneurs have a higher risk aversion (Byrnes, Miller, & Schafer, 1999; Croson & Gneezy, 2009; Powell & Ansic, 1997), which may reduce their propensity towards debts (Morris, Miyasaki, Watters, & Coombes, 2006). Other authors (Coleman, 2002) emphasise female entrepreneurs' lack of financial literacy, seeing that women may have more difficulty in dealing with financial partners and in adequately expressing their financing needs. For these reasons they have a lower propensity towards debts (Cesaroni, 2010; Coleman, 2002; Moro & Fink, 2010) and, in the end, they are discouraged from applying for external sources (Sena, Scott, & Roper, 2012). Conclusively, other authors maintain that women suffer from a type of 'preventive fear', which makes them more reluctant than men to turn to banks, because they believe that their requests for funding have little chance of being accepted (Ongena & Popov, 2013; Robb & Walken, 2002).

These three interpretations on the relationship between gender and funding choices are quite dissimilar and have not produced unequivocal results. The onset of the economic crisis has aroused new interest in this subject. In fact, questions on whether the crisis has changed the relationship between business and access to credit, and whether it has produced different effects on male and female businesses, have arisen. Women entrepreneurs may have suffered the effects of the crisis more than their male counterparts, due to supply-side factors. Banks, in fact, may have selected their customers and applied stricter conditions to customers who were considered less attractive, such as female-led firms, seeing that they are younger, smaller and with a shorter banking history. At the same time, the crisis may have emphasised some demand-side factors: in fact, the crisis might have increased women entrepreneurs' risk aversion, their sense of discouragement and fear of receiving a refusal from banks, and thus induced them to give up the demand for more loans.

Analysis carried out in different countries shows mixed results. Cowling, Liu, and Ledger (2012) investigated small-business experiences in the UK during the pre-recession (2007–2008) and recession (from December 2008 to February 2010) periods.

They found that female-led firms maintained a lower demand for external finance also during the economic recession, probably because of their higher risk aversion. No difference was found in lenders' behaviour towards them. Tabuenca, Martí, and Romero (2015) analysed the dynamics and evolution of entrepreneurial activity of women in Spain in the period 2003–2013. They found that women-owned companies present a lower degree of indebtedness than men-owned businesses, both before and after the emergence of the crisis. In fact, they did not observe any changes in this pattern caused by the economic crisis. Robb, Marin Consulting, and LLC (2013) investigated women-owned firms and how the economic crisis has affected their access to credit in the United States during the period 2007–2010. Women were less likely to apply for new loans than their male counterparts for fear of having their loan application denied during the years of the economic crisis. Moreover, data showed women-owned businesses faced greater credit constraints than did similar start-ups owned by men during the years of the financial crisis. Stefani and Vacca (2013), using European Central Bank survey data for the period 2009–2011, showed that female-owned firms faced greater difficulties in obtaining credit with respect to their male counterparts. The main reasons are demand-side factors – as women more often than men anticipate a rejection – and supply-side factors – female-owned firms experienced a higher rejection rate as they are structurally different from male firms. They also found some differences across European countries. Women-led firms in Italy are more likely to have their loan request rejected. With regard to the Italian context, Cesaroni, Lotti, and Mistrulli (2013), using data from the Credit Register at the Bank of Italy for the period 2007–2009, also found that women-owned firms faced a more pronounced credit contraction with respect to other firms. In particular, from their analysis, it emerged that the growth rate of total and short-term loans was consistently negative in that period and sometimes it was so low as to push firms' loans below the Central Credit Register threshold. However, the authors affirm that the results do not allow one to clearly explain the reasons for the greater credit contraction shown by women-owned firms and neither do they explain this result as the consequence of bank's behaviour.

Research on entrepreneurs' gender and access to credit during the economic crisis have not produced unequivocal results. In addition, investigations carried out in Italy focused only on the first phase of the crisis. In this context, it is therefore useful to further investigate male and female entrepreneurs in order to understand how they relate to the banking system during all the periods of the economic crisis.

3. Methodology. Survey data collection and data analysis

To achieve these goals a questionnaire survey was carried out. The survey involved a sample of 300 men and women sole-proprietors (hereafter M and W) and owners of Italian micro-enterprises located in the Marche Region.

A non-proportional stratified sample, with the same number of M and W, was selected using the list of members from one of the main regional business associations. Starting from a list of 1,627 sole-proprietors (429 W and 1,198 M), a sample of 300 sole-proprietors (150 M and 150 W) was randomly extracted.

The decision to involve only sole-proprietors in the survey was motivated by several reasons:

- (1) in companies with members of both genders, it is not easy to determine whether financial decisions are in fact taken by a man or a woman;
- (2) in Italy, sole proprietorships represent a very high percentage of the total number of female enterprises (61% in 2010);
- (3) in the case of companies or partnerships, information on the gender of shareholders, partners and directors is not always available.

Entrepreneurs selected in this manner took part in a telephone questionnaire between October and November 2013, and the questions refer to the previous 5 years (Autumn 2008 – Autumn 2013).

The purpose of the questionnaire was to answer the following research questions. (1) Did men and women entrepreneurs ask for new bank loans during the crisis or did they prefer to give up? (2) Did men and women entrepreneurs obtain the required bank loans? If so, did they get bank loans under the same conditions? (3) Which variables, other than gender, may have influenced access to bank credit?

Variables considered in the research include some entrepreneurs' personal characteristics (gender, age, entrepreneurial experience, education) and some firms' structural characteristics (industry, age). They are described in Table 1. We haven't considered firms' size, since only sole proprietors are included in the sample. Moreover, start-ups have been excluded. In the sample, only firms formed before the beginning of the crisis (Autumn 2008) are included, seeing that our aim is to understand how the onset of the recession has affected access to credit.

Table 1. Variables.

Variables	Description
<i>Gender</i>	Man
Muravyev, Talavera and Schaefer (2009)	Woman
Alesina, Lotti and Mistrulli (2013)	
Stefani and Vacca (2013)	
Cesaroni, Lotti and Mistrulli (2013)	
<i>Entrepreneur's age</i>	Young: no more than 35 years
(Cole and Mehran, 2011)	Adult: more than 35 years
<i>Education</i>	Basic: primary or secondary school
(Coleman, 2002)	Advanced: high school or university
Banking history	Entrepreneurial experience:
(Shaw, Carter and Brierton, 2001)	-New entrepreneur: no more than 5 years experience
	-Mature: 5 to 10 years experience
	-Senior: more than 10 years experience
	Firm's age:
	-6 to 10 years
	-More than 10 years
<i>Industry</i>	Manufacturing
(Cole and Mehran, 2011; Stefani and Vacca, 2013)	Service e trade

Source: Authors' elaboration.

The survey enabled us to obtain 218 fully completed questionnaires: 110 from women and 108 from men. The response rate was particularly high, standing at 73% and substantially similar for entrepreneurs of both genders (M: 72%; W: 73.3%).

The first results of the analysis are presented below. These are to be considered merely descriptive results, to deepen with further analysis.

4. Research findings

4.1. Access to bank credit. A comparison between men and women entrepreneurs

Of the 218 respondents, only 48 (22% of the sample, with 26 men and 22 women) asked for new bank loans during the period 2008–2013 (Table 2). Therefore, this figure shows the general trend to contain debt level and to avoid new loans during the crisis years. The percentage of women who asked for new loans is also slightly lower than that of men (20% versus 24%). This is consistent with previous research indicating that female firms maintained a lower demand for external finance also during the economic recession (Cowling et al., 2012).

This figure expresses the tendency of micro-entrepreneurs to minimise new investment

Table 2. Bank loans application during the crisis.

	Total		Men		Women	
	No.	%	No.	%	No.	%
Yes	48	22%	26	24%	22	20%
No	170	78%	82	76%	88	80%
Total	218	100%	108	100%	110	100%

Source: Research results.

Table 3. Reasons for not apply for new bank funding.

	Total		Men		Women	
	No.	%	No.	%	No.	%
Little chance of obtaining bank loans	8	4.7%	6	7.3%	2	2.3%
Banking conditions are too onerous	3	1.8%	2	2.4%	1	1.1%
Better not to have new debts	32	18.8%	17	20.7%	15	17.1%
I didn't need new financing	127	74.7%	57	69.6%	70	79.5%
Total	170	100%	82	100%	88	100%

Source: Research results.

and to face the crisis with great prudence and a defensive attitude. Other research shows that during the crisis the vast majority of entrepreneurs adopted defensive strategies, based on cutting and downsizing actions (Cesaroni & Sentuti, 2014; Del Giovane, Eramo, & Nobili, 2011). As a consequence, financing needs were very low and firms did not require new loans.

This interpretation is confirmed by the responses from the questionnaire. As shown in Table 3, 75% of entrepreneurs said they didn't ask for new loans because they did not need them. The same result also stems from the tendency to prefer more cautious funding choices and to limit firms' debt exposure, thus preferring other sources, such as personal capital or funds from family members (approximately 19% of entrepreneurs refrained from applying

Table 4. Reasons for new bank loans application.

	Total		Men		Women	
	No.	%	No.	%	No.	%
New investments	23	47.9%	12	46.1%	11	50%
Cash flow problems	19	39.6%	12	46.1%	7	31.8%
Inventory replenishment	3	6.2%	1	3.8%	2	9.1%
Pay employees	3	6.2%	1	3.8%	2	9.1%
Other	–	–	–	–	–	–
Total	48	100%	26	100%	22	100%

Source: Research results.

for bank funding because they thought it was better not to get into debt). A low percentage of entrepreneurs (4.7%) didn't rely on the banking system and were convinced that they had little chance of getting a loan. From this point of view, the survey doesn't reveal significant differences between M and W. This result is different from Robb and Marin Consulting & LLC (2013), who reported that female entrepreneurs were less likely to apply for new loans than male entrepreneurs for fear of having their loan application denied. However, a higher percentage of female entrepreneurs (79.5% versus 69.5% of men) mentioned that they didn't request a new bank loan because it was unnecessary. The reason for this difference comes from the strategies that male and female entrepreneurs adopted in facing the crisis. In opposition to a general attitude of prudence, women adopted defensive strategies more than men. Therefore, they decided not to make new investments or launch new initiatives, and as a consequence they didn't require new funding (Cesaroni & Sentuti, 2014).

In contrast, the necessity to finance new investments is the main reason given by those who applied for new bank loans (22% of the sample) (Table 4). A significant percentage of firms faced cash flow problems caused by both sales decreasing and the growing difficulties to collect receivables. The need to apply for new loans to solve cash flow problems was most felt by men (46%) compared with women entrepreneurs (32%).

4.2. Access to bank credit. Banks' response and credit conditions

To apply for funding, men and women entrepreneurs turned to their reference bank and most of them (79%) obtained the entire required amount. However, the percentage of women who got the entire funding is lower (72.7% against 84.6% of men) (Table 5). These data seem consistent with Cesaroni et al. (2013) and Stefani and Vacca (2013), who showed that Italian female firms faced more difficulties in obtaining credit with respect to their male counterparts during the economic crisis.

In about half of the considered cases (irrespective of gender), the involvement of a third person, as guarantor, was required to get bank funding. The guarantor provided a real (e.g., a mortgage) or a personal guarantee to hedge the risk of credit (Table 6).

In most cases, the entrepreneur's spouse was involved as a guarantor (67%), and occasionally his/her father (17%) or brother. From this point of view there were no significant differences between men and women, and this is in line with the results from other investigations, which show that it isn't a prerogative for only female entrepreneurs to request the involvement of a spouse or family member (Cesaroni, 2010). This result may be due to the fact that in recent years banks have reduced their risk tolerance and have consequently strengthened security measures, generalising the demand for guarantees, in order

Table 5. New bank loans application: banks' response.

	Total		Men		Women	
	No.	%	No.	%	No.	%
I obtained the entire amount	38	79.2%	22	84.6%	16	72.7%
I only got a part of the amount	6	12.5%	2	7.7%	4	18.2%
I didn't accept bank conditions	3	6.2%	2	7.7%	1	4.5%
My application was rejected	1	2.1%	–	–	1	4.5%
Total	48	100%	26	100%	22	100%

Source: Research results.

Table 6. Guarantors' involvement for grant funding.

	Total		Men		Women	
	No.	%	No.	%	No.	%
Yes	24	50%	13	50%	11	50%
No	24	50%	13	50%	11	50%
Total	48	100%	26	100%	22	100%

Source: Research results.

Table 7. Guarantee consortium's involvement.

	Total		Men		Women	
	No.	%	No.	%	No.	%
Yes	24	50%	12	46.2%	12	54.5%
No	24	50%	14	53.8%	10	45.5%
Total	48	100%	26	100%	22	100%

Source: Research results.

to minimise the risks associated with loans. Credit guarantee consortia also played an important role, given their institutional aim to facilitate access to credit by providing collateral to firms that require bank financing. The practice of involving consortia has been rather widespread for both genders. In fact, 50% of entrepreneurs who took a bank loan turned to a guarantee consortium, with no distinction between men and women (Table 7).

Furthermore, it's interesting to observe that all women entrepreneurs consider the involvement of the consortium useful. Thanks to consortia they obtained significant benefits (Table 8), especially because it was easier for them to obtain the entire funding requested (83.3%) and they paid a lower interest rate (83.3%).

In conclusion, the guarantee consortia have played a very important role in enabling entrepreneurs to obtain bank loans. Consortia, in fact, provide businesses with a guarantee for the bank loan. Moreover, they reassure banks that the creditworthiness of entrepreneur applicants is sound, so they can obtain financing with a reduced amount of onerous conditions. For this reason, benefits typically associated with the involvement of a consortium concern greater ease of obtaining the loan and lower interest rates.

4.3. Other variables influencing access to bank credit

In addition to gender, other variables – described in Table 1, with specific literature references – have been analysed to understand if they affected access to credit during the crisis. In particular, we tried to understand if, with respect to these variables, entrepreneurs' answers



Table 9. Other variables affecting access to bank credit.

Variable	Sample N	Funding						Guarantor						Credit guarantee consortium								
		Yes, the entire amount		Yes, only a part		No		Yes		No		Total		Yes		No		Total				
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
<i>Entrepreneur's age</i>																						
Young (≤ 35 years)	4	8	3	75	0	0	1	25	4	100	2	50	2	50	2	50	2	50	4	100		
Adult (> 35)	44	92	35	80	6	14	3	7	44	100	22	50	22	50	22	50	22	50	44	100		
Total	48	100	38	6	6	4	4	48	48	100	24	24	24	24	24	24	24	24	48	48		
<i>Education</i>																						
Primary or secondary school	27	56	22	81	3	11	2	7	27	100	11	41	16	59	27	100	13	48	14	52	27	100
High school or university	21	44	16	76	3	14	2	10	21	100	13	62	8	38	21	100	11	52	10	48	21	100
Total	48	100	38	6	6	4	4	48	48	100	24	24	24	24	48	100	24	24	24	24	48	48
<i>Entrepreneur's experience</i>																						
New entrepreneur	4	9	3	75	1	25	0	0	4	100	2	50	2	50	4	100	3	75	1	2	4	100
Mature	5	10	4	80	0	0	1	20	5	100	3	60	2	40	5	100	0	0	5	100	5	100
Senior	39	81	31	79	5	13	3	8	39	100	19	49	20	51	39	100	21	54	18	46	39	100
Total	48	100	38	6	6	4	4	48	48	100	24	24	24	24	48	100	24	24	24	24	48	48
<i>Firm's age</i>																						
6 to 10 years	13	27	10	77	2	15	1	8	13	100	7	54	6	46	13	100	4	31	9	69	13	100
More than 10 years	35	73	28	80	4	11	3	9	35	100	17	49	18	51	35	100	20	57	15	43	35	100
Total	48	100	38	6	6	4	4	48	48	100	24	24	24	24	48	100	24	24	24	24	48	48
<i>Industry</i>																						
Manufacturing	18	38	14	78	2	11	2	11	18	100	8	44	10	56	18	100	11	61	7	39	18	100
Service / Trade	30	63	24	80	4	13	2	7	30	100	16	53	14	47	30	100	13	43	17	57	30	100
Total	48	100	38	6	6	4	4	48	48	100	24	24	24	24	48	100	24	24	24	24	48	48

Source: Research results.

show significant differences with regard to three issues: (1) requested funding was obtained; (2) banks asked for a guarantor; (3) consortia were involved in the funding application. Our hypothesis is that firms with younger owners, a lower education and a shorter banking history have had more difficulties in access to bank credit during the crisis. As previous research shows, these variables outline an entrepreneur profile, which is less appreciated by banks. We have also considered the industry because the crisis may have had different impacts within different industries. Results are briefly summarised in Table 9. Data reveal no special differences. In some cases, clear similarities emerge without a doubt. In regard to entrepreneur's age, for example, the sample is perfectly divided with respect to both the involvement of guarantors and consortia. Entrepreneurs who are owners of manufacturing firms (61% versus 43% of services) and with a shorter experience involved more frequently a consortium (75% versus 0% of mature employers and 54% of seniors). Entrepreneurs' answers were subjected to the chi-square test in order to check for a statistically significant difference. However, the results don't show a statistically significant difference.

5. Conclusion

The survey shows that only a few firms (about 20%) applied for new loans during the crisis. Between these, almost 92% received their funding entirely (79.2%) or partially (12.5%). We can say, then, that the crisis has not resulted in a severe contraction of credit by banks. For the most part, firms didn't ask for a new loan because it was deemed unnecessary, while the majority of companies that requested new loans received them. Consistent with Cowling et al. (2012), data confirm that female entrepreneurs preferred to maintain a lower demand for loans during the economic crisis. Nevertheless, the analysis hasn't revealed significant differences between genders. With regard to fear of having a bank loan application denied, for instance, and contrary to Robb and Marin Consulting & LLC (2013) we didn't find significant differences between male and female entrepreneurs. Some small differences, however, remain, given that women have had greater difficulties in receiving the requested funding entirely. This result is consistent with previous research (Cesaroni et al., 2013; Stefani & Vacca, 2013), who showed that Italian female-owned firms faced more difficulties in obtaining credit with respect to their male counterparts.

The analysis of the other variables – entrepreneurs' age and education, firms' banking history and industry – showed small differences, mostly in relation to the involvement of consortia. Therefore, these variables do not appear to have significantly impacted access to credit during the crisis.

This study has important limitations given that we analysed only individual firms, located in a limited geographic area and members from a single association. Moreover, the number of companies is limited and does not allow us to obtain generalizable results. Further research should examine a larger sample involving a wider geographic area and different legal forms. It also would be interesting to expand this analysis to other countries, in a comparative fashion, in order to better identify gender discrepancies regarding access to credit during the economic recession in each country and among countries.

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