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Statistics

Methods and Sources:
Methodological Notes

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Surveys on Financial Literacy and Digital Financial Skills in Italy: Small Businesses

In the first half of 2025, Banca d'Italia conducted a sample survey on the financial literacy and digital finance skills of Italian micro-enterprises. This note provides a summary of the main methodological aspects of the survey. It describes the reference population and the characteristics of the sample, the questionnaire administered to respondents and the interview methods; lastly, it presents the analyses carried out to ensure the quality and statistical representativeness of the data collected.

The reference population and the sample

The target population of the survey includes more than 4.5 million non-financial micro-enterprises with registered offices in Italy and up to nine employees. Information on the target population is derived from ISTAT data.

The survey involved a sample of 5,000 micro-entrepreneurs. The sampling design is based on quota sampling that mirrors the proportions (marginal distributions) of the reference population, broken down by sector of economic activity (ATECO sections) [1], number of employees (1 employee, 2–5 employees, 6–9 employees), and geographical location (North-West, North-East, Centre, South and Islands).

The representativeness of the sample is illustrated in Figure 1, which shows the alignment between the distributions of the universe of micro-enterprises and those of the sample with respect to the sampling quotas defined in the sample design.

Figures 1 and 2 provide an overview of the main characteristics of micro-enterprises and their owners.

Micro-enterprises operate mainly in the wholesale and retail trade sector (21 per cent), professional, scientific and technical activities (19 per cent), and construction (11 per cent). Almost half are located in the North of Italy, while 21 per cent are based in the Centre; the remaining 30 per cent are located in the South and Islands.

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[1] Excludes enterprises operating in the financial and insurance sectors, as well as those in the extractive industries and in the utilities sectors, including energy supply, water supply, and sewerage services.

Almost one third of micro-enterprises report turnover below €100,000, while 27 per cent report turnover in excess of €500,000.[2] More than two thirds of the sample consists of one-employee firms; those employing between six and nine workers account for 5 per cent.

Some 10 per cent of micro-enterprises engage in export activities in foreign markets; 17 per cent have been operating for less than ten years.

Women account for almost one third of micro-entrepreneurs; the average age is 52. Some 64 per cent hold an upper secondary school diploma and 30 per cent a university degree. The majority (74 per cent) do not come from families with entrepreneurial experience; 71 per cent have been engaged in entrepreneurial activity for more than ten years, while only 6 per cent report less than five years of experience.

The questionnaire and data collection

In addition to collecting personal information on the owner and the structural characteristics of the micro-enterprise, the questionnaire includes sections aimed at measuring the three dimensions of financial literacy[3] —knowledge, behaviours and attitudes— as well as the use of instruments for payment transactions and financial and insurance services. Specific sections are also devoted to the adoption of digital technologies in business processes, awareness of environmental and social issues, and the strategies adopted to address risks related to climate change.

Preliminary versions of the questionnaire were subjected to pre-testing (expert review and respondent debriefing), and further refinements incorporated the results of a pilot exercise conducted on a sample of 150 micro-entrepreneurs.

Interviews were carried out using a sequential mixed-mode approach, combining online interviews (Computer Assisted Web Interviewing, CAWI) and telephone interviews (Computer Assisted Telephone Interviewing, CATI). This approach entails initially inviting respondents to complete the questionnaire online and, in the event of non-response after at least two reminders, asking them to participate through a telephone interview.

Some 92 per cent of the interviews were conducted by telephone, while the online mode was used in 8 per cent of cases. The average response rate was 16 per cent (17 per cent for telephone interviews and 1 per cent for online interviews[4]). The average interview length was 28 minutes for both data collection modes.

Data quality

Data quality was assessed using several indicators: interview duration; consistency of responses across different sections of the survey; the absence of distortions attributable to the telephone administration mode (the 'interviewer effect'); and the rate of item non-response. In addition, the distribution of responses to each question was examined in order to detect the presence of anomalous concentrations. In cases where the survey allowed

[2] 92 per cent of respondents answered the question relating to the micro-enterprise's turnover.
[3] The questions used to assess the financial literacy of micro-entrepreneurs are presented in Table 1.
[4] Response rates in online surveys are generally low. See Daikeler et al. (2020), 'Web Versus Other Survey Modes: An Updated and Extended Meta-Analysis Comparing Response Rates', *Journal of Survey Statistics and Methodology*.

for open-ended responses as an alternative to closed-ended options, textual analysis was carried out to recode them, making them suitable for statistical analysis.

Weighting, estimators and sampling variances

The projection of the statistical data collected to the reference population is carried out using post-stratification and statistical raking methods.

Post-stratification improves the alignment of the sample with the population beyond the levels defined by the sampling quotas and reduces potential distortions arising from non-response among the selected units. In this survey, 70 post-strata were defined, enhancing the representativeness of the sample along the joint population distribution—the Cartesian product—by economic sector (ATECO section) and geographical area (five macro-areas). Within each post-stratum, the weights are defined according to the following formula:

$$w_{ij} = \frac{N_i}{N n_i}$$

where w_{ij} denotes the weight assigned to unit *j* in the *i*-th post-stratum; N is the size of the reference population; and n_i and N_i are, respectively, the number of valid interviews and the population size in the *i* -th post-stratum.

The statistical raking technique is subsequently applied to the weights w_{ij} in order to further realign the sample with the population with respect to the distribution by number of employees and by the region in which the micro-enterprise has its registered office.

While improving the alignment of the sample with the target population along the calibration dimensions, post-stratification and raking procedures do not extend the statistical representativeness of the sample beyond the dimensions specified in the sampling design (i.e., the marginal distributions by ATECO section, number of employees, and macro-geographical area).

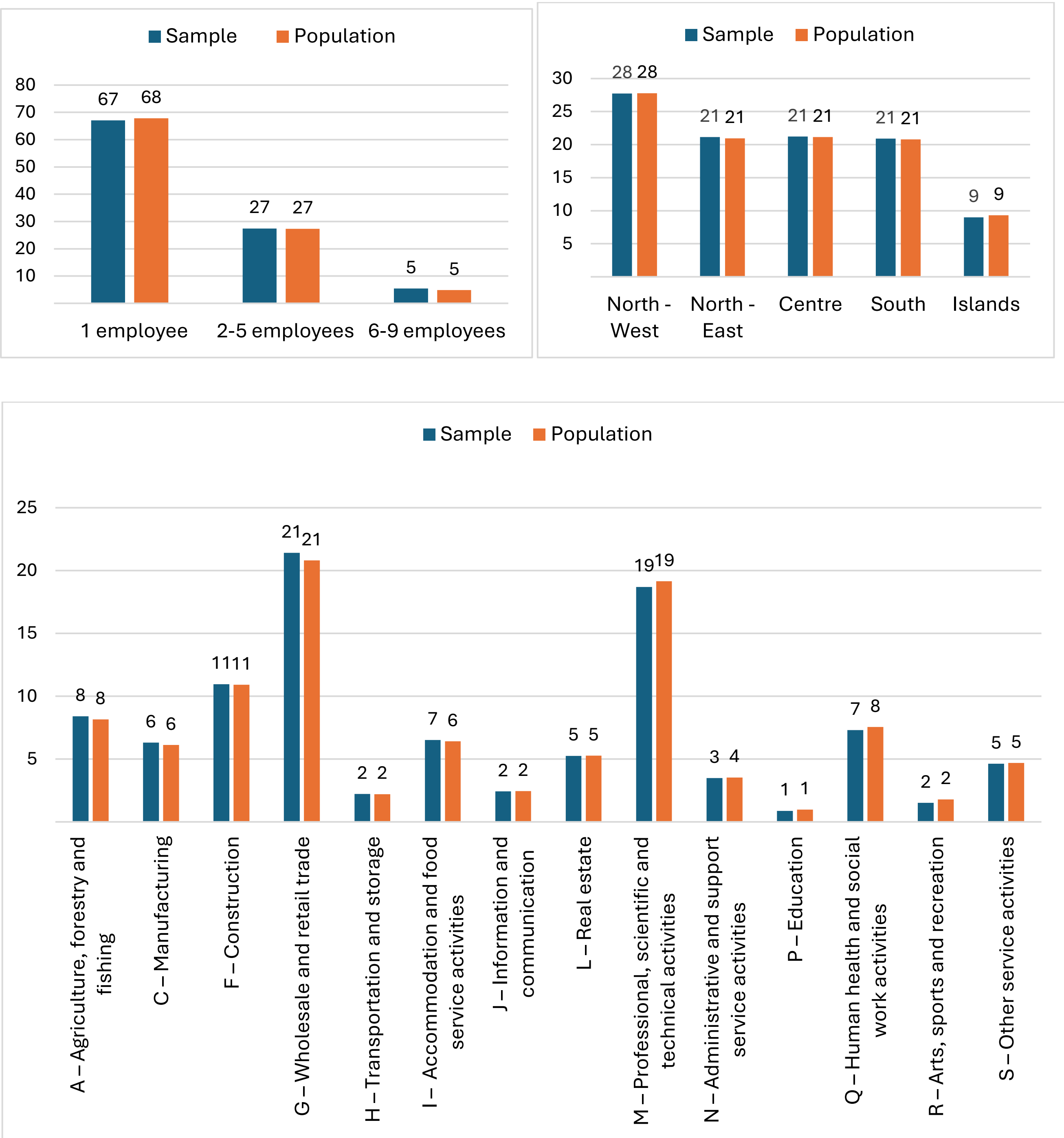
The target variables are computed using the Horvitz–Thompson estimator, which incorporates the weights recalibrated through post-stratification and statistical raking techniques.

Finally, the variance of the Horvitz–Thompson estimators is computed using the Taylor series linearization approach. Analyses carried out using resampling methods (bootstrapping) yield similar results.

Figure 1

The sample and the reference population: distribution by number of employees, geographical location and sector of economic activity

(percentage values)

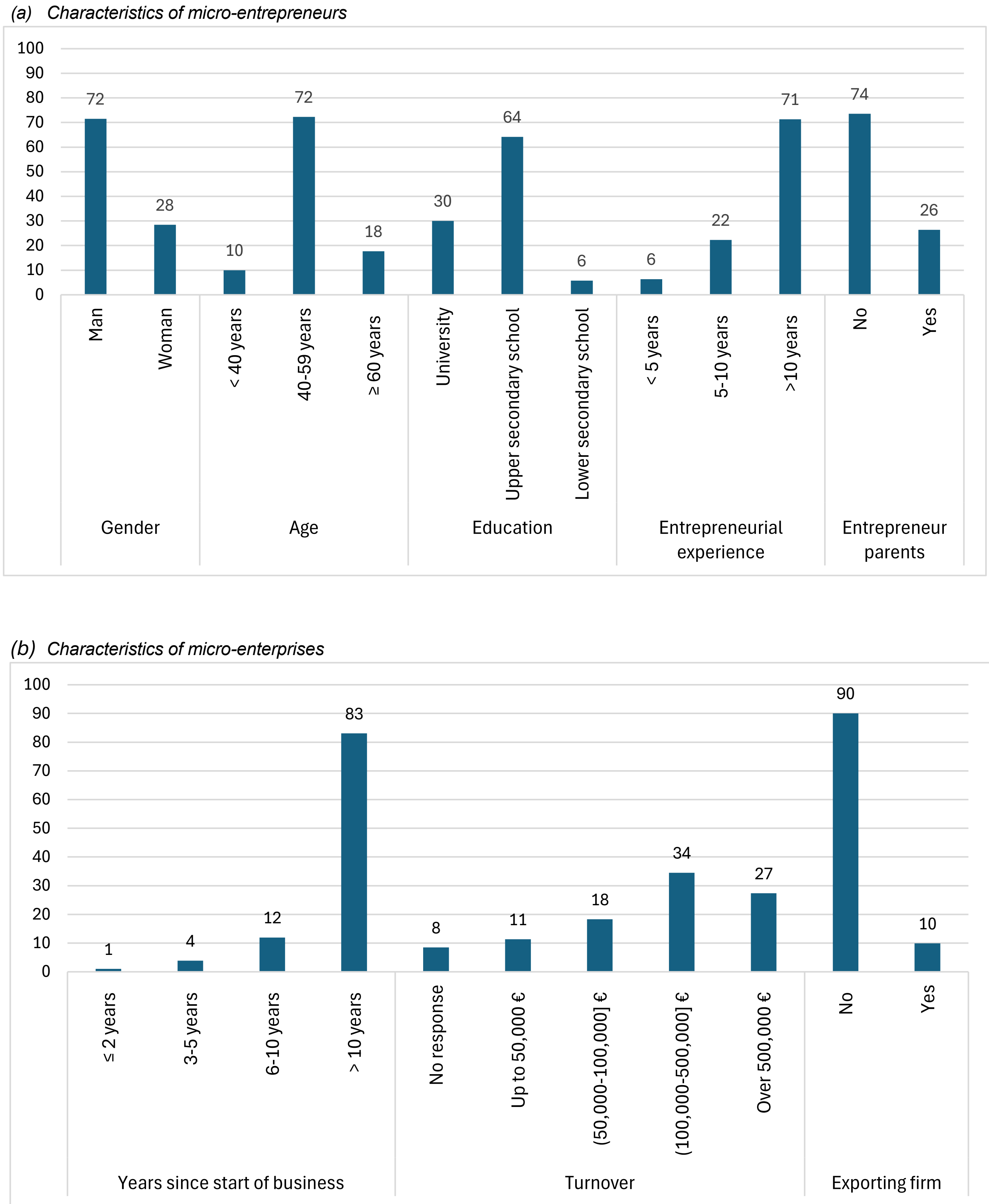


Source: Banca d'Italia. Note: Sample and target population characteristics. Totals may not add up to 100 due to rounding.

Figure 2

The sample: other characteristics

(percentage values)



Source: Banca d'Italia. Notes: characteristics of micro-entrepreneurs (panel a) and of micro-enterprises (panel b). The total may differ from 100 due to rounding. The data are weighted through post-stratification.

The measurement of micro-entrepreneurs' financial literacy: the questions used

	Questions	Survey 2021	Survey 2025	Used for the 2021–2025 comparison	Score awarded if
	Knowledge (concepts)				
Dividends	Dividends are part of what a business pays to a bank to repay a loan	X	X	X	False
Equity capital	When a company obtains equity from an investor it gives the investor part of the ownership of the company	X	X	X	True
Risk-return relationship	If a financial investment offers the chance to make a lot of money it is likely that there is also a chance to lose a lot of money	X	X	X	True
Inflation	High inflation means that the cost of living is increasing rapidly	X	X	X	True
Loan cost and maturity	A 15-year loan typically requires higher monthly payments than a 30-year loan, but the total interest paid over the life of the loan will be less	X	X	X	True
Interest rate	Imagine that someone put €100 into a tax-free savings account with a guaranteed interest rate of 2% per year. They don't make any further payments into this account, and they don't withdraw any money. How much would be in the account at the end of five years?		X		More than 102 euro
Inflation and purchasing power	Suppose a person receives €1,000 today and must wait one year before spending it. Assume that the annual inflation rate is 2%. In one year, with that amount, the person will be able to buy…		X		Less than today
Risk diversification	It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares.		X		True
	Behaviours				
Separation of accounts	I use the same account for both my household and business finances	X	X	X	I manage strictly separate accounts for my household and for my business
Comparison of financial and insurance offers	Which of the following statements best describes how you made your most recent choice about a financial product or service for the business	X	X	X	I considered several options from different financial providers before making my decision. I looked around but there were no other options to consider.
Keeping track of financial records	How do you keep track of the financial records of the business?	X	X	X	In paper form. Using simple spreadsheets. Using software or an app for business financial management. Someone else does it for me.
Thought about retirement	Have you thought about how you will fund your own retirement or maintain yourself when you will no longer work due to old age?	X	X	X	Yes
Strategies to cope with theft	Imagine that tomorrow you discover that most of the equipment that you need to operate the business has been stolen (it could be computers, vehicles or other equipment). Which one of these statements best represents what you would do?	X	X	X	I would use money that my business has set aside for emergencies. I would claim insurance on all or part of the equipment
Securing data and information	Thinking about your business, would you agree or disagree with the following statements? *I keep secure data and information about the business*	X			Agree/strongly agree
Comparison of financing costs	Thinking about your business, would you agree or disagree with the following statements? *I compare the cost of different sources of finance for the business*	X	X	X	Agree/strongly agree
Profitability forecasting	Thinking about your business, would you agree or disagree with the following statements? *I forecast the profitability of the business regularly*	X	X	X	Agree/strongly agree
Adjustment of plans to the economic outlook	Thinking about your business, would you agree or disagree with the following statements? *I adjust my planning according to the changes in economic factors*	X	X	X	Agree/strongly agree
	Attitudes				
Pursuit of long-term objectives	I set long term financial goals for the business and strive to achieve them	X	X	X	Agree/strongly agree
Preference for detailed plans over instinct	I prefer to follow my instinct rather than to make detailed financial plans for my business	X	X	X	Disagree/strongly disagree
No acceptance of 'turnkey' solutions in bank relationships	When interacting with a representative of my main bank, I usually accept the advice without negotiating, preferring a "turnkey" approach.		X	X	Disagree/strongly disagree
	I am confident to approach banks and external investors to obtain business finance	X			Agree/strongly agree

Note: The table reports the questions used to assess the financial literacy of micro-entrepreneurs (financial knowledge, financial behaviours, and financial attitudes). An 'X' indicates that the question was included in the financial literacy score in the 2021 and 2025 surveys; the rightmost column shows the response option that is assigned a positive score.