Digitalization, financial Knowledge and . . .

Daniela Marconi, Marco Marinucci, Giovanna Paladino

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Digitalization, Financial Knowledge and Financial Decisions

Daniela Marconi[1], Marco Marinucci[1], Giovanna Paladino[2]

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Outline

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Motivation

Digitalization is rapidly changing the financial landscape:
People are exposed to new instruments, apps etc.

- easier access to financial markets, payments etc.
  $\Rightarrow$ > inclusion
- non-digital people excluded + simplistic approach to
  new techs
  $\Rightarrow$ < inclusion and > risk
- growing attention to digital skill and financial knowledge
  (gender gap)
- !! financial well-being and financial inclusion!!

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Literature

- Fintech improves financial culture/behavior (French et al., 2020; Viviano & Michelangeli (2021) . . . but could also be detrimental to financial well-being (Lee et al., 2022; Lyons & Kass-Hanna 2022)

- Financial culture and risky digital financial products (Panos et al. 2020; Engels et al., 2020)

- Digitalization and financial inclusion (Bianco et al. 2022)

- Financial literacy and gender gap (Bucher-Kœnen et al., 2021; Guiso and Zaccaria, 2021; Paladino 2022)

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- Is the propensity to save and then to invest related to digital skills and financial knowledge?

- Do digital skills and financial knowledge affect people's attitudes towards digital payments and digital financial services?

- Is (still) there a gender gap as digitalization ↑ ↑ ↑?

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Contribution to the literature

First survey-based evidence (Italy)

- . . . on how digital and financial skills correlate with saving, investment decision and the attitudes towards digital payments and finance.
- . . . on the relative importance of these two skills in financial decisions
- . . . of gender gap in moving from saving to investment decisions

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The survey

Two waves of a novel survey on the financial and digital
skills of the Italian population

- aged between 16 and 64 years old
- 1st wave in December 2019 (2,020 obs.)
- 2nd wave in December 2021 (2,001 obs.)
- no panel component but comparable in terms of
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Main variables

- Socio-demographic (gender, age, residence, family type, education etc.)

- Economic situation (life style, independence, profession etc.)

- Digital skills (perceived)

- Financial knowledge (perceived)

- Financial decisions (savings, (non) financial investment, payment means)

- Opinion (Risk/benefits of digital financial services, digital payments)

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Financial behavior

	Propensity to save	Investment (yes/no)
digital skill (self-eval.)	0.040***	0.016
	(0.012)	(0.016)
financial knowledge (base= none)		
low	0.260***	0.481***
	(0.063)	(0.110)
moderate	0.517***	0.915***
	(0.066)	(0.110)
high	0.964***	1.300***
	(0.115)	(0.145)
female	0.058	-0.148***
	(0.039)	(0.050)
age	-0.014***	0.016***
	(0.002)	(0.002)
education (base= primary degree)		
secondary degree	0.089	0.319***
	(0.058)	(0.083)
tertiary degree or +	0.122*	0.509***
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income/life style	yes	yes
family status	yes	yes
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financially independent	yes	yes
profession	yes	yes
N	4021	4021
Pseudo-R2	0.113	0.200

Empirical strategy

- Ordered probit
- Probit (investment decision)

digital skill shows . . .

- positive link with saving behavior
- no link with investment decision

⇒ investment is a complex activity

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other results . . .

gender gap arises only in investment issues

	Would you be in favour of a law to trace payments?
digital skill (self-eval.)	0.046***
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female	-0.071*
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age	-0.003*
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income/life style (base=very low)	
low	0.215**
	(0.097)
average	0.416***
	(0.093)
high	0.465***
	(0.109)
very high	0.825***
	(0.147)
education (base= primary degree)	
secondary degree	0.190***
	(0.056)
tertiary degree or +	0.266***
	(0.064)
family status	yes
location	yes
financially independent	yes
profession	yes
N	4021
Pseudo-R2	0.040

opinion on TP

support of TP ↑↑↑ with
- digital skill
- financial knowledge

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Traceable payments (TP)

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Pseudo-R2	0.040

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support of TP ↑↑↑ with
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	Digital Finance and Financial Inclusion	Digital Finance and financial knowledge
digital skill (self-eval.)	0.071***	0.063***
	(0.013)	(0.013)
financial knowledge (base= none)		
low	0.310***	0.317***
	(0.071)	(0.070)
moderate	0.579***	0.667***
	(0.075)	(0.073)
high	1.019***	1.037***
	(0.122)	(0.117)
female	-0.007	0.049
	(0.039)	(0.038)
age	-0.005***	-0.010***
	(0.002)	(0.002)
income/life style (base=very low)		
low	0.115	0.120
	(0.102)	(0.095)
average	0.303***	0.211**
	(0.099)	(0.091)
high	0.433***	0.336***
	(0.116)	(0.108)
very high	0.843***	0.480**
	(0.187)	(0.190)
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secondary degree	0.104*	-0.041
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Pseudo-R2	0.050	0.047

are DFS useful?

opinion of "conducive" DFS increasing with
- digital skill
- financial knowledge

Digital finance: financial inclusion and financial knowledge

Digitalization,
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	Digital Finance and Financial Inclusion	Digital Finance and financial knowledge
digital skill (self-eval.)	0.071***	0.063***
	(0.013)	(0.013)
financial knowledge (base= none)		
low	0.310***	0.317***
	(0.071)	(0.070)
moderate	0.579***	0.667***
	(0.075)	(0.073)
high	1.019***	1.037***
	(0.122)	(0.117)
female	-0.007	0.049
	(0.039)	(0.038)
age	-0.005***	-0.010***
	(0.002)	(0.002)
income/life style (base=very low)		
low	0.115	0.120
	(0.102)	(0.095)
average	0.303***	0.211**
	(0.099)	(0.091)
high	0.433***	0.336***
	(0.116)	(0.108)
very high	0.843***	0.480**
	(0.187)	(0.190)
education (base= primary degree)		
secondary degree	0.104*	-0.041
	(0.059)	(0.056)
tertiary degree or +	0.048	-0.118*
	(0.067)	(0.064)
family status	yes	yes
location	yes	yes
financially independent	yes	yes
profession	yes	yes
N	4021	4021
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Key takeaways

- Digital skills and financial knowledge are both important in shaping financial behavior and attitudes towards digital financial services
- Digital skills are
  - useful complement to manage saving money
  - not related with investment decisions ⇒ financial knowledge still matters
- Women have a lower propensity to invest than men, even controlling for digital skills and financial knowledge

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Policy implications

- Improve educational attainment from young ages to upgrade financial behaviors and attitudes towards DFSs
  - \> active participation to financial markets ⇔ digital transition accompanied by raising the general level of financial literacy

Policy implications

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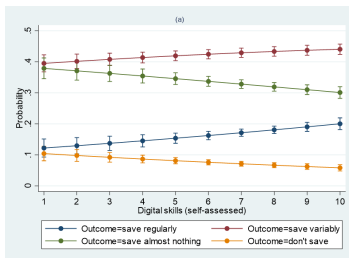- $>$ active participation to financial markets $\Leftrightarrow$ digital transition accompanied by raising the general level of financial literacy

Digital skills, saving and investment
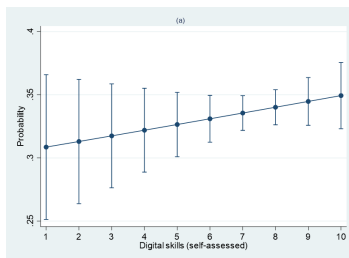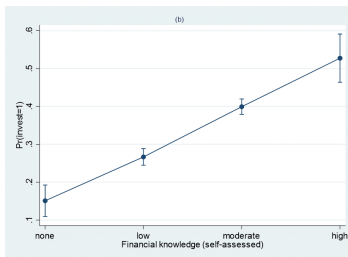

Note: Predictive margins with 95% confidence intervals based on probit regressions.
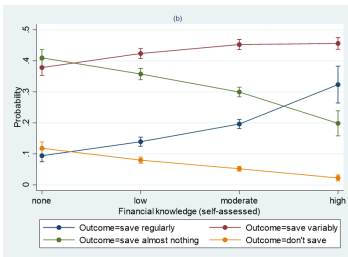
Financial knowledge, saving and investment

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Changes between the two waves

- The opinions towards the use of digital technologies in finance did not change
  - 70% in favor of the use of digital payment technologies. (Same share of opinion that (DFSs) will improve the access to finance)
  - 60% of the respondents agree that DFSs will increase the knowledge of the mechanism behind finance and economics
- The self-assessment of digital skills/financial knowledge significantly lower in the second wave
  - respondents declared no financial knowledge at all = 15.7% after the pandemic (4.2% before the pandemic)

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Pandemic and self confidence towards digital skills and financial knowledge

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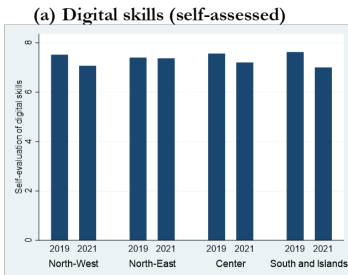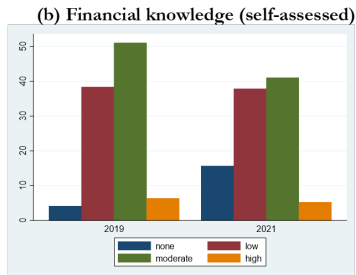Marco
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Digital skills and financial knowledge before and after the pandemic

(a) Digital skills (self-assessed)

(b) Financial knowledge (self-assessed)

Note: the scale is from 1 to 10

Note: the level of financial knowledge is assessed on a likert scale form 1 (no knowledge) to 4 (high knowledge)

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	Financial knowledge	Digital skill
Digital skill	+***	
Financial knowledge (self assessed)		+***
female	-***	-***
age	-	-***
income	+***	+**
education	+***	+***
family status	yes	yes
location	yes	yes
financially independent	yes	yes
profession	yes	yes
sources of information	yes	no
N	4021	4021