



Consiglio Nazionale delle Ricerche

IRCR ES

ISTITUTO di RICERCA sulla CRESCITA ECONOMICA SOSTENIBILE
RESEARCH INSTITUTE on SUSTAINABLE ECONOMIC GROWTH

MEASURING INVESTMENT READINESS:

A TOOL FOR THE EVALUATION OF POLICIES FOR SOCIAL FIRMS

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**Disparities in a Digitalising
(Post-Covid) world**

Networks, Entrepreneurship
and Regional Development

 **ersa**
2022
61st Congress

**23–26
August**

**Special session S10:
Counterfactual methods for
regional policy evaluation**

Purpose of this work

This presentation is based on the evaluation activities of a project (SEED 2018) to enhance the ability of social cooperatives to act on modern markets, by enhancing their managerial skills, improving their organization and developing new strategical tools.

We faced two main challenges:

- a) How to represent the objective with variables that might be operationalized and, more in general, how to implement the evaluation;
- b) Applying the methodology to give some insights to the policy maker (Compagnia di San Paolo, a bank foundation), despite the small number of participants in this pilot experimentation.



Social cooperatives (L 8/11/1991 n. 381)

Social cooperatives, that exist just in Italy, Poland and Belgium, have the purpose of pursuing the general interest of the society in human promotion and social integration of citizens, unlike normal cooperatives that have mutualistic aims, that is to satisfy the needs of members (consumption, housing, work).

Social promotion occurs through:

- a) Supply for social and educational services;
- b) Creation of job opportunities for weak work-seekers in whatever economic activity.

Literature highlights, alongside their importance for the economy and the society, that they are undergoing a crisis period , due to:

- Gaps in organizational and managerial aspects
- Problems in adapting to market evolution and changes in social needs
- Difficulty in adopting new technologies

Social cooperatives: **specificities**

Cooperatives vs firms: where is the difference?

Firms' main goal is profit.

Cooperatives' main goal is mutualistic → work together to respond to the needs of the associates (with services, housing, employment). Associates enjoy cheaper prices and better conditions respect to free market.

Social cooperatives vs (normal) cooperatives: where is the difference?

Social cooperatives aim to pursue the general interest of the community in human promotion and social integration of citizens.

This collective purpose is supported through:

- Public procurement
- Tax relief
- Private fundraising and volunteering

The SEED project & the literature

Inducing an organisational and strategic change for social cooperatives is important, because many problems or limit of this business model are highlighted by the literature:

- Participated governance creates difficulties in strategic management (EC, 2015)
- Excessive grant dependency & problem of interaction with the market (Doherty et al., 2014)
- Organizational & managerial gaps (Smith et al., 2012)
 - Communication problems
 - Difficulties in monitoring and control performance
 - Too dispersed decision-making
- Overlapping among customers, workers and beneficiary (Santos et al., 2015)
- Difficulties with new technologies and new financial sources (Buckingham et al., 2012)

The **SEED** project

The **Seed project 2018**, promoted by Compagnia di San Paolo, aims at strengthening the system of social cooperatives in Piedmont.

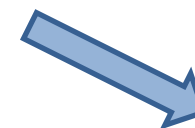
- It wants to remove some of the present and future obstacles to the development of social cooperatives
- through a first step of organizational **check-up** and, afterwards, the implementation of **projects for strategic reorganisation and innovation**. In both steps the cooperative is assisted by a consultant whose cost is covered by the project.

It includes an effectiveness evaluation, to be carried out through non experimental evaluation on the dimensions of organisational and strategic change.

➤ **Strong mandate of exploring a viable methodology to be used in later editions of the call**

The theory of Change of SEED

The
purpose:
is to
enhance
and
improve:

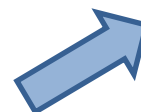


**investment
readiness**

Action:

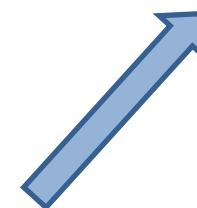
CSP funds the
check-up for 40
cooperatives
with 5.000€

A non-profit expert
runs a check-up &
proposes a
renovation project



CSP funds
consultancy costs for
the most promising
projects.
20 coop. 20.000€

The project is
implemented



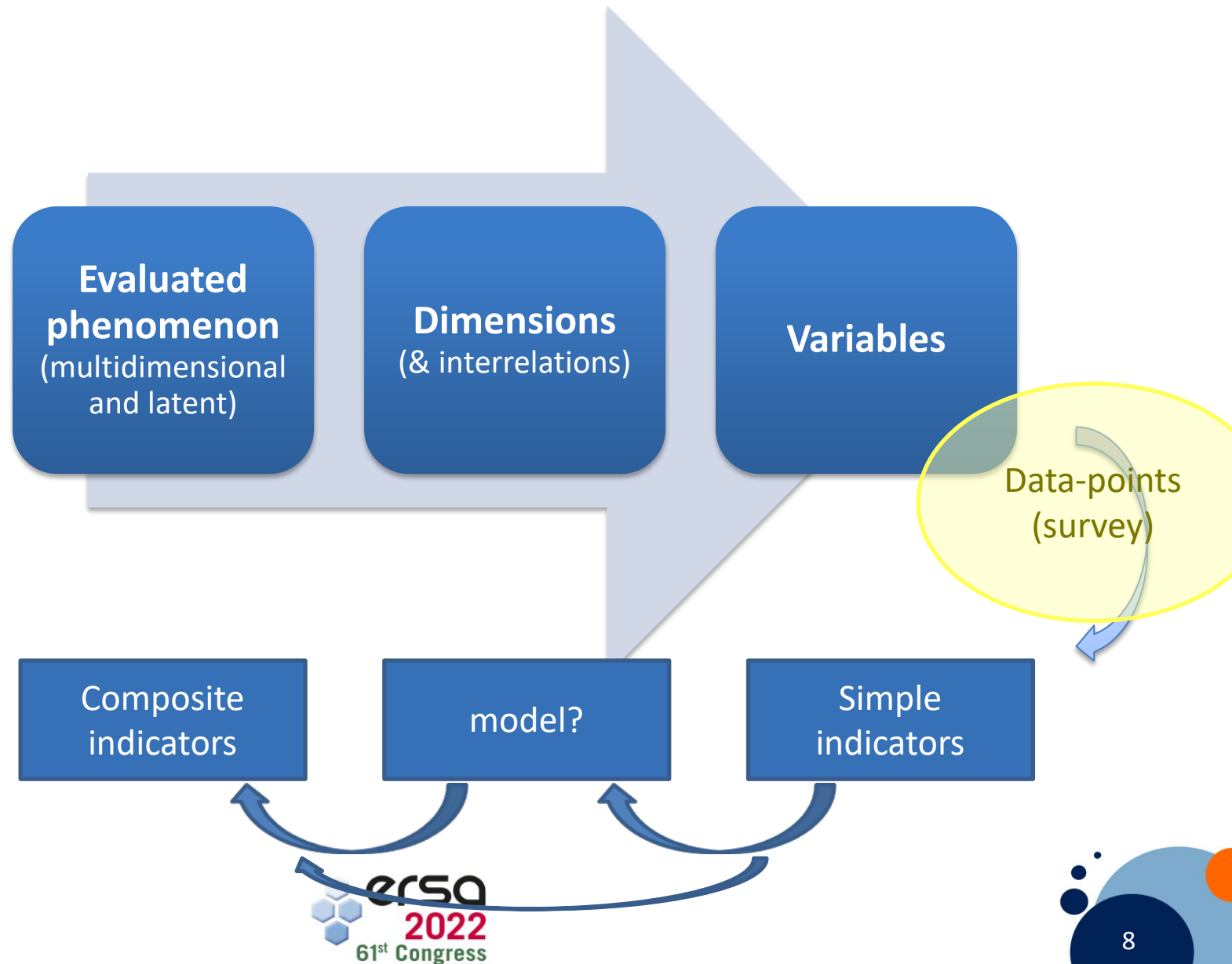
Target

Social cooperatives that perceive the need to change
(self-candidacy!)

From multidimensional phenomena to composite indicators

As evaluators,
the first
challenge was
represented by
the
measurement of
achieved results.

How to represent
and measure the
stated
objectives?



Investment readiness: **a way to read managerial change**

Investment readiness, was presented in the Tiresia Social Impact Outlook and is an approach to assess the managerial maturity of the social enterprises. In the context of the SEED project, **the ability to attract ethical finance risk investments**, much more than a target, is the perspective with which to read a possible change. In Chiodo and Gerli, (2017) IR is operationally declined through 3 macro-aspects:

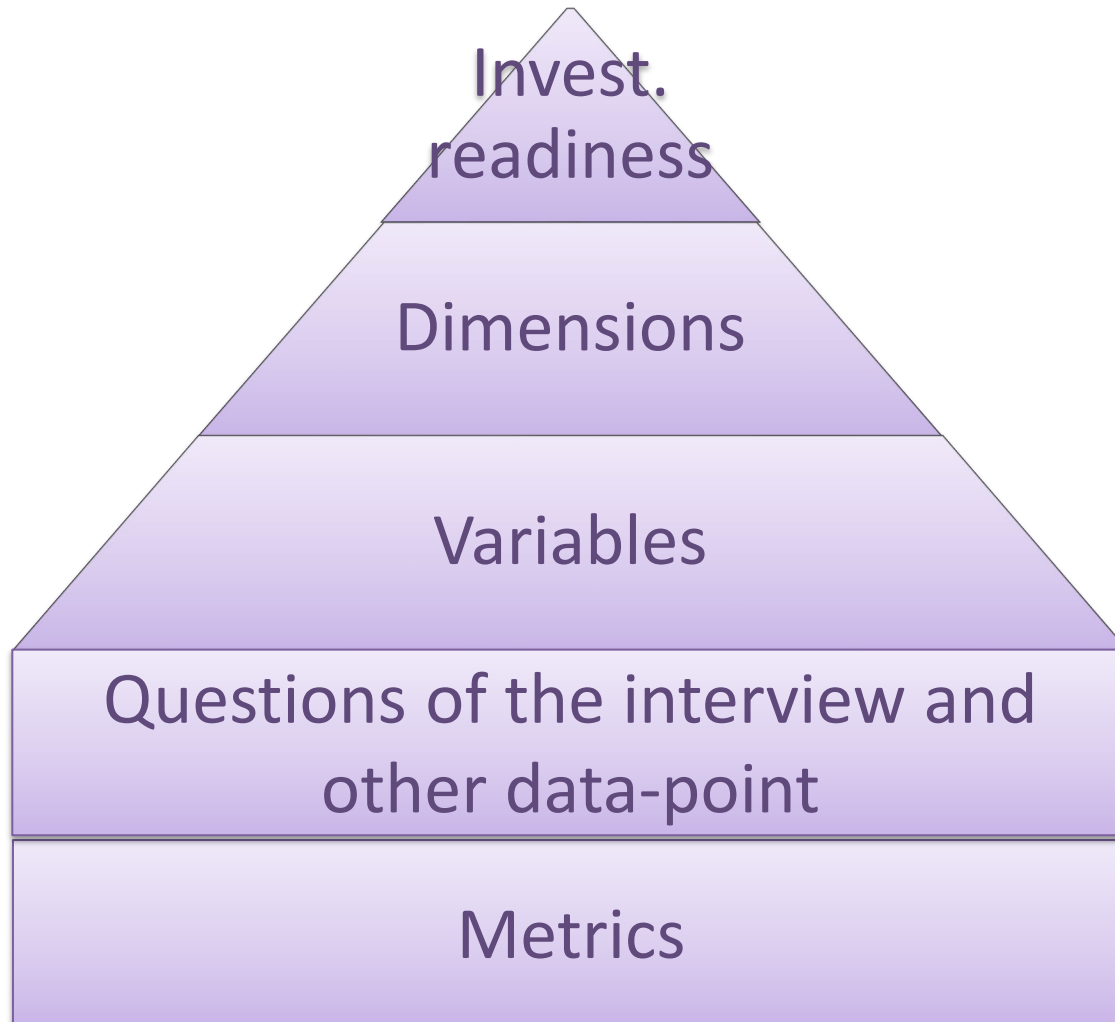
- managerial skills (organisation and strategy)
- technology and intangibles competences
- market orientation

A forth dimension has been added in our evaluation:

- Monitoring and control capacities (accountability).

We analysed IR through a survey, carried out at the beginning, to be repeated with one year lag after the end of the project. **But the timing of the design was upset by the arrival of the pandemic.**

From Inv. Readiness to measurable indicators



- Managerial skills
- Training, technology and *intangibles*
- Market orientation
- Definition and monitoring of targets

Examples:

- Organisational complexity
- Participation into strategy definition
-

Examples:

- D1.1
- D1.2
- Employees

Examples:

- Technological intensity score
- Weighted index of gerarchy
- ...

The IR survey: pre-treatment phase (2019)

A survey to measure the entry level of investment readiness

- survey CAWI, after the deadline for presenting the projects, and before the selection phase (final selection)
- Period: end of March – end of April 2019
- Universe: 56 cooperatives (participant with a valid demand), divided into 3 groups
 - excluded (16)
 - admitted Phase 1 (20)
 - admitted Phase 2 (20)
- Response rate very high, near 95%
 - excluded (13)
 - admitted Phase 1 (20)
 - admitted Phase 2 (20)

The IR survey: after-treatment phase (2022)

A follow-up survey, to measure the final level of investment readiness sent to all the respondents to the entry survey

→ Period: Mid March – end of April 2022 (with some late responses in May, June)

→ Response rate: 100% for Phase 2, 90% for Phase 1, 25% for Excluded

- excluded (4)
- admitted Phase 1 (18)
- admitted Phase 2 (20)

Two cooperatives are merged Stranaidea (Phase 2) and Agridea (Phase 1). Some excluded cooperatives have been funded in later calls.

IMPORTANT NOTE: Due to Covid pandemic, projects have been implemented at very different periods of time. So the lag between implementation and survey is different. This introduces one more source of heterogeneity (among the main: A/B, dimension, sector, impact of the lock-down on the activities). For this (and for the small size of the sample, we expect not to be able to detect an impact).

Questionnaire & specific dimensions & variables

→ Managerial skills
(organisation and strategy)

→ Technology and intangibles

→ Positioning towards the market /Mkt orientation

→ Monitoring and control

Dimensione	Variabile	Data point del questionario	Domanda questionario
Competenze organizzative e strategiche	Grado complessità e maturità organizzativa	Tipo di organizzazione applicata (un indicatore, ordinale, 4 modalità)	D1.1
		Formalizzazione e gerarchizzazione (due indicatori, ordinali, 3 modalità)	D1.2
	Grado di compartecipazione strategica	Soggetti che definiscono le strategie e relativa intensità (6 indicatori, scala Likert)	D1.3
	Grado di influenzabilità delle strategie	Soggetti capaci di influenzare le linee strategiche e relativa intensità (6 indicatori, scala Likert)	D1.6
Formazione, tecnologia e intangibles	Grado di intensità e proattività formativa	Tipologia e consapevolezza dei percorsi frequentati dallo staff (domande dicotomiche combinabili)	D2.12
	Tipologia degli ambiti formativi prescelti	Settori scelti in ambito formativo e ottenimento qualifiche (domande dicotomiche combinabili)	D2.13
	Grado di intensità/maturità tecnologica	Tecnologie adottate e loro intensità di utilizzo effettivo (7 indicatori, scala Likert)	D6.1
Orientamento al mercato	Grado di conoscenza del mercato	Canali di aggiornamento sulla cooperazione e intensità di utilizzo (6 indicatori, scala Likert)	D3.1
	Grado di maturità finanziaria	Utilizzo forme di finanziamento standard (domande dicotomiche combinabili)	D4.12
		Interesse verso forme di finanziamento alternative (domande dicotomiche combinabili)	D4.13
	Grado di interazione con la comunità locale	Tipologia e frequenza organizzazione attività locali (4 indicatori, ordinali, 3 modalità)	D5.3
Definizione e monitoraggio degli obiettivi	Grado di maturità strategica	Presenza di obiettivi strategici (un indicatore, ordinale, 4 modalità)	D3.4
		Utilizzo di strumenti strategici (5 indicatori, scala Likert)	D3.5
	Grado di intensità del monitoraggio	Presenza e tipologia delle verifiche interne (un indicatore, ordinale, 4 modalità)	D3.6
	Grado di maturità nella misurazione d'impatto	Misurazione attuale e futura valore sociale (un indicatore, ordinale, 3 modalità)	D3.8
		Tipologia di misurazione adottata (due indicatori, ordinali, 3 modalità)	D3.9

Empirical strategy and methodological issues

Main practical issue

→ translating qualitative aspects into measurable /ordinal/cardinal variables

Main methodological issue

→ condense information obtained from the survey, aggregating numerous indicators with different scales. We have to define and test scores starting from simple indicators.

Indicators within scores must be **coherent**, **scores must be sensitive**, that is, able to highlight the differences between cooperatives and over time.

We need a composite indicator for investment readiness, in turn made of 4 composite indicators, one for each dimension of investment readiness.

FIRST STEP: normalization

Turn indicators with different scales into values ranging 0-1

SECOND STEP: aggregation

After normalising each single indicator, we aggregated them in a linear way using the arithmetic mean

- ❖ We excluded other methods, such as multiplicative instruments that are less appropriate for the presence of zeros. We also excluded structural models because samples are too small.

Composite indicators: **normalization of metrics**

We explored 2 different options for the normalization of values of indicators with different scales, both based on the OECD Handbook on Constructing Composite Indicators :

- Min Max transformation

$$I_{qc}^t = \frac{x_{qc}^t - \min_c(x_q^t)}{\max_c(x_q^t) - \min_c(x_q^t)}$$

Where $\min_c(x_q^t)$ and $\max_c(x_q^t)$ are the minimum and the maximum value of x_{qc}^t across all social cooperatives at time t . In this way, the normalised indicators I_{qc} have values lying between 0 (laggard, $x_{qc}^t = \min_c(x_q^t)$), and 1 (leader, if $x_{qc}^t = \max_c(x_q^t)$)

- Percentualization (distance to a reference value, the max of each indicators in our case):

$$I_{qc} = \frac{x_{qc}}{\max(x_{qc})}$$

Where I_{qc} have values lying between 0 and 1 and represent the percentage transformation of each variable in respect to the max of each indicator

How to choose between perc and min-max?

Hypothesis test

Ho: Mean (percentualization) = Mean (min-max)

Ha: Mean (percentualization) > Mean (min-max)

In order to understand which approach to choose, we have performed a Ttest on the mean of IR and on each of its components.

Results suggest that means are different with a significance level of 1%, but, at the same time, we can accept the alternative hypothesis which tests if the mean calculated with percentualization approach is statistically higher than the mean calculated with min-max method.

Percentualization tends to be more optimistic. (Presence of outliers?)

Here we will present results obtained with percentualization. Notwithstanding this, all analyses have been carried on also on indicators calculated with the more conservative min-max approach.

Even though figures are different, the results of the two approaches are the same.

Empirical analysis: **summary**

Analysis	Purpose	Main results
Chronbach index on survey results	Consistency among indicators in each score	It is satisfactory. Worst performer: Management and organization
Sensitiveness (descriptive statistics)	Capacity to vary over cooperatives and time	It is satisfactory. Worst performer: Management and organization
Computation of IR readiness and its components for each firm (for 2019, 2022 and change over time)	Descriptive analysis	We observe changes over time. We do not observe differences among Phase 1 and phase 2 cooperatives

* Answers to both surveys (2019 and 2022):

- 17 phase1 firms
- 20 phase2 firms

* Notice that the organizational structure 2019 has been used for all analyses.

Empirical analysis: **summary** (Cnt)

Analysis	Purpose	Main results
Tests on difference of means of IR readiness index, its components and differences, by phase	Impact evaluation	No difference among Phase 1 and Phase 2 means is statistically significant. Neither for IR, nor for its components
DEA output-oriented, CRS, Wilcoxon ranksum tests	Which cooperatives where more efficient in using the received funding to increase the IR?	11 coop. are on the frontier, but no significant difference among phase 1 and phase 2
Truncated regression	Which variables explain the differences in (in)efficiency of the funding?	Size, market orientation, low-IR&phase2, managerial structure

Cronbach's Alpha

The Cronbach alpha considers the internal consistency of scale variables.

Values equal or bigger than 0.7 represents good results (0.6 in the exploratory phase).

Meaning: the scale used is reliable and it measures the construct in a systematic manner over time.

$$\alpha = \left(\frac{k}{k-1} \right) \frac{2 \sum_{i < j} \sigma_{ij}}{\sum_i \sigma_i^2 + 2 \sum_{i < j} \sigma_{ij}} = \left(\frac{k}{k-1} \right) \frac{\sigma_o^2 - \sum_i \sigma_i^2}{\sigma_o^2}$$

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Source: Cronbach (1951)

Cronbach's Alpha: results

Standardized results	2019	2022
Managerial skills	0.506	0.671
Technology and intangibles	0.780	0.749
Positioning towards the market /Mkt orientation	0.741	0.661
Monitoring and control	0.817	0.791

With the exception of managerial skills (year 2019), all results suggest that items can be grouped together in the same dimension

Results on composite IR index (2019, by phase)

PHASE 1 By organizational structure (mean values)	Managerial skills	Technology and intangibles	Mkt orientation	Monitoring and control	IR
Elementary / no structure	0.547	0.530	0.357	0.435	0.467
Geographical / by services	0.684	0.663	0.706	0.733	0.697
Functional	0.557	0.467	0.515	0.474	0.503
By projects	0.531	0.463	0.608	0.450	0.513
Total	0.589	0.531	0.569	0.541	0.558

PHASE 2 By organizational structure (mean values)	Managerial skills	Technology and intangibles	Mkt orientation	Monitoring and control	IR
Elementary / no structure	0.503	0.437	0.398	0.487	0.456
Geographical / by services	0.596	0.596	0.611	0.594	0.599
Functional	0.616	0.526	0.501	0.569	0.553
By projects					
Total	0.588	0.551	0.546	0.570	0.564

Results on composite IR index (2022, by phase)

PHASE 1 By organizational structure (mean values)	Managerial skills	Technology and intangibles	Mkt orientation	Monitoring and control	IR
Elementary / no structure	0.533	0.659	0.563	0.657	0.603
Geographical / by services	0.482	0.444	0.444	0.550	0.480
Functional	0.611	0.600	0.601	0.688	0.625
By projects	0.694	0.655	0.581	0.704	0.659
Total	0.578	0.571	0.547	0.647	0.586

PHASE 2 By organizational structure (mean values)	Managerial skills	Technology and intangibles	Mkt orientation	Monitoring and control	IR
Elementary / no structure	0.498	0.646	0.532	0.688	0.591
Geographical / by services	0.538	0.553	0.530	0.652	0.568
Functional	0.649	0.582	0.459	0.586	0.569
By projects					
Total	0.565	0.575	0.509	0.638	0.572

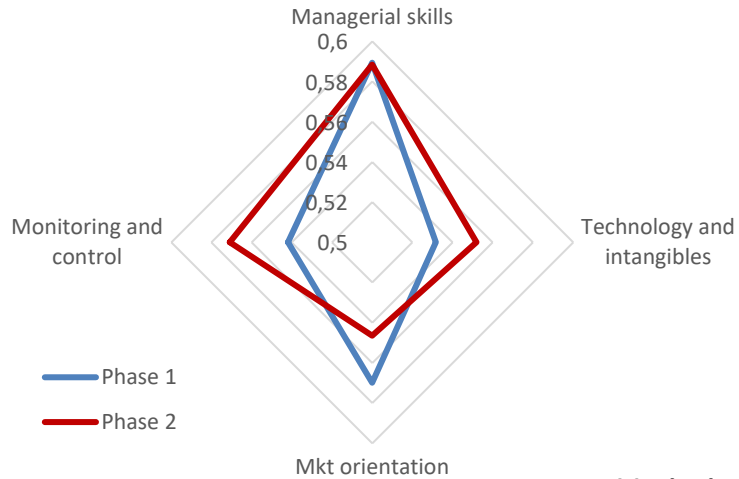
Results on composite Δ IR index (by phase)

PHASE 1 By organizational structure (mean values)	Managerial skills	Technology and intangibles	Mkt orientation	Monitoring and control	IR
Elementary / no structure	-0.015	0.128	0.205	0.222	0.135
Geographical / by services	-0.202	-0.219	-0.263	-0.183	-0.217
Functional	0.053	0.133	0.085	0.213	0.121
By projects	0.163	0.192	-0.028	0.253	0.145
Total	-0.011	0.039	-0.023	0.105	0.028

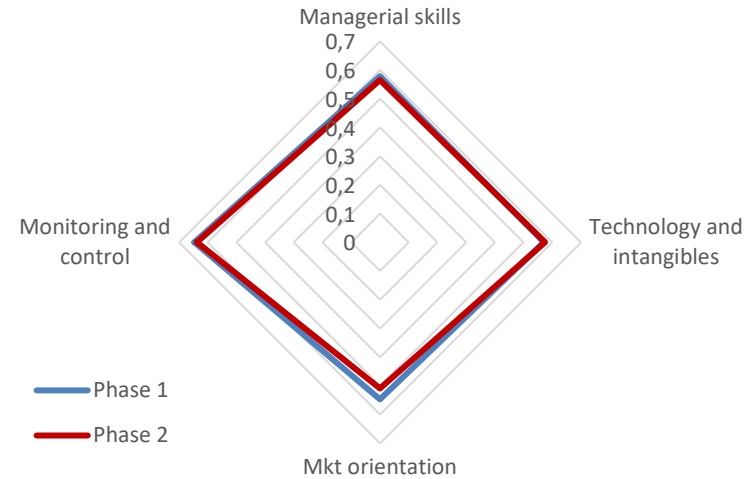
PHASE 2 By organizational structure (mean values)	Managerial skills	Technology and intangibles	Mkt orientation	Monitoring and control	IR
Elementary / no structure	-0.006	0.209	0.134	0.201	0.134
Geographical / by services	-0.058	-0.044	-0.081	0.058	-0.031
Functional	0.033	0.055	-0.042	0.017	0.016
By projects					
Total	-0.023	0.024	-0.037	0.067	0.008

Descriptive results - IR by phase

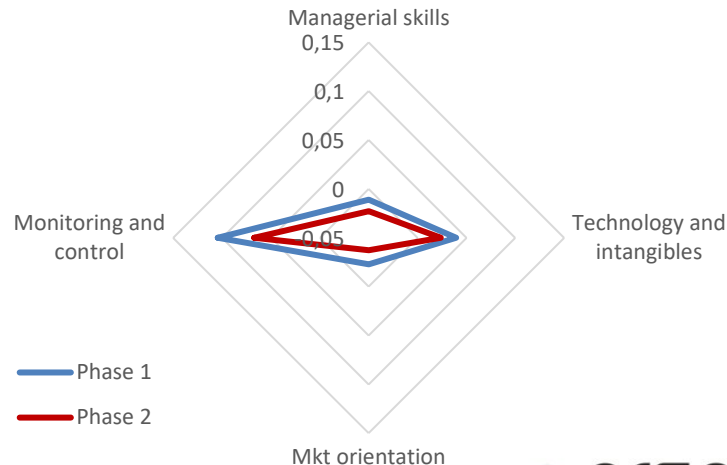
Year 2019



Year 2022

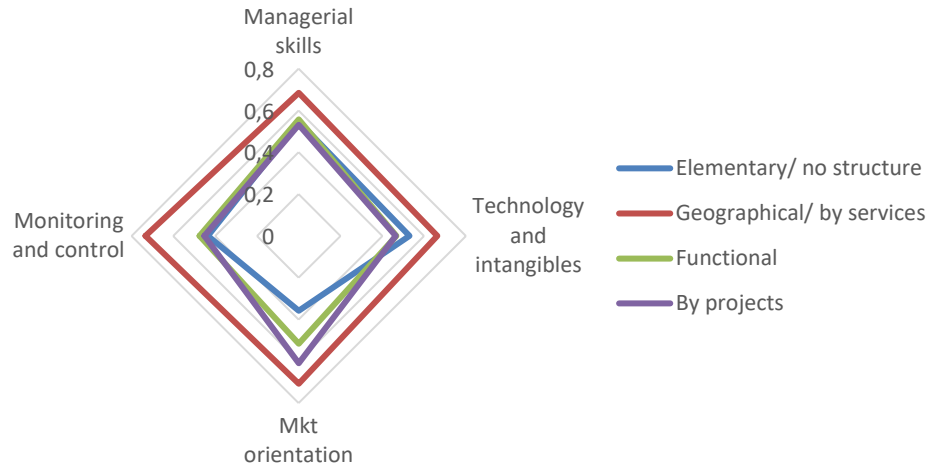


Variation 2019-2022

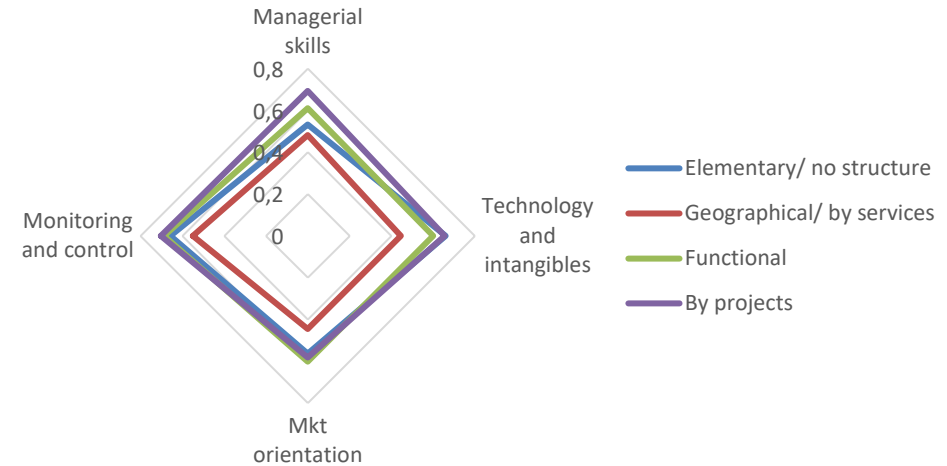


Descriptive results - by org. Structure (1)

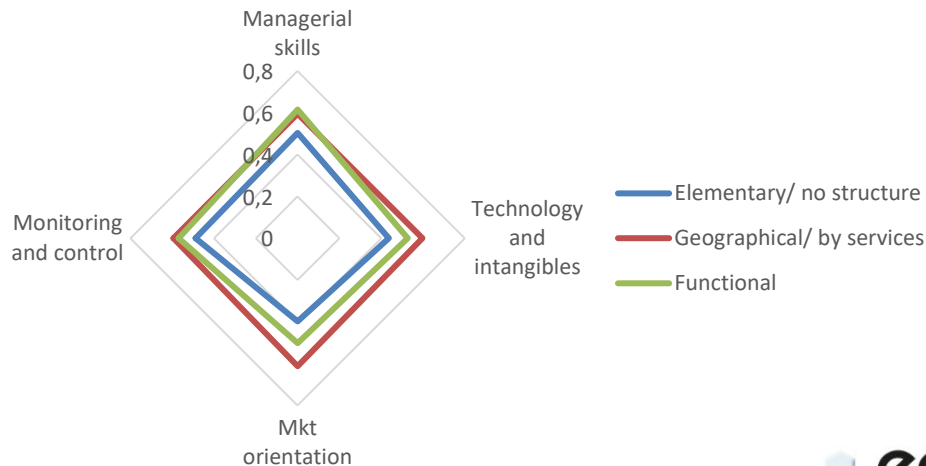
2019 – Phase 1



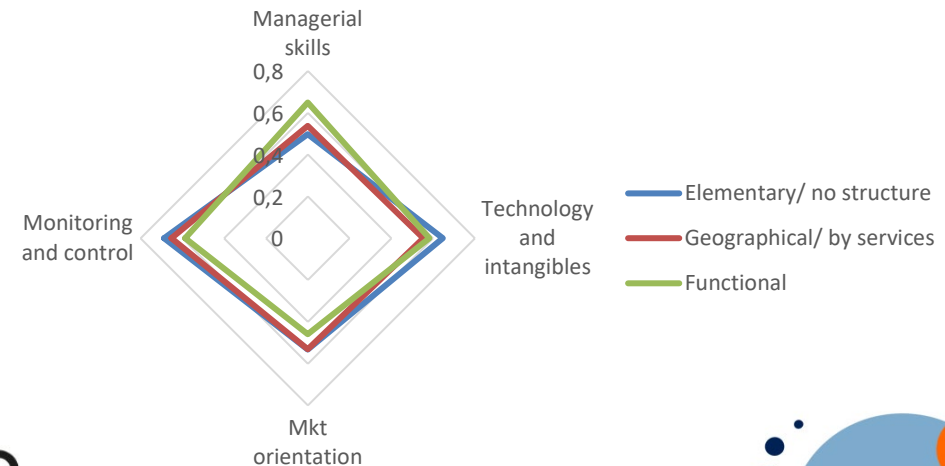
2022 – Phase 1



2019 – Phase 2

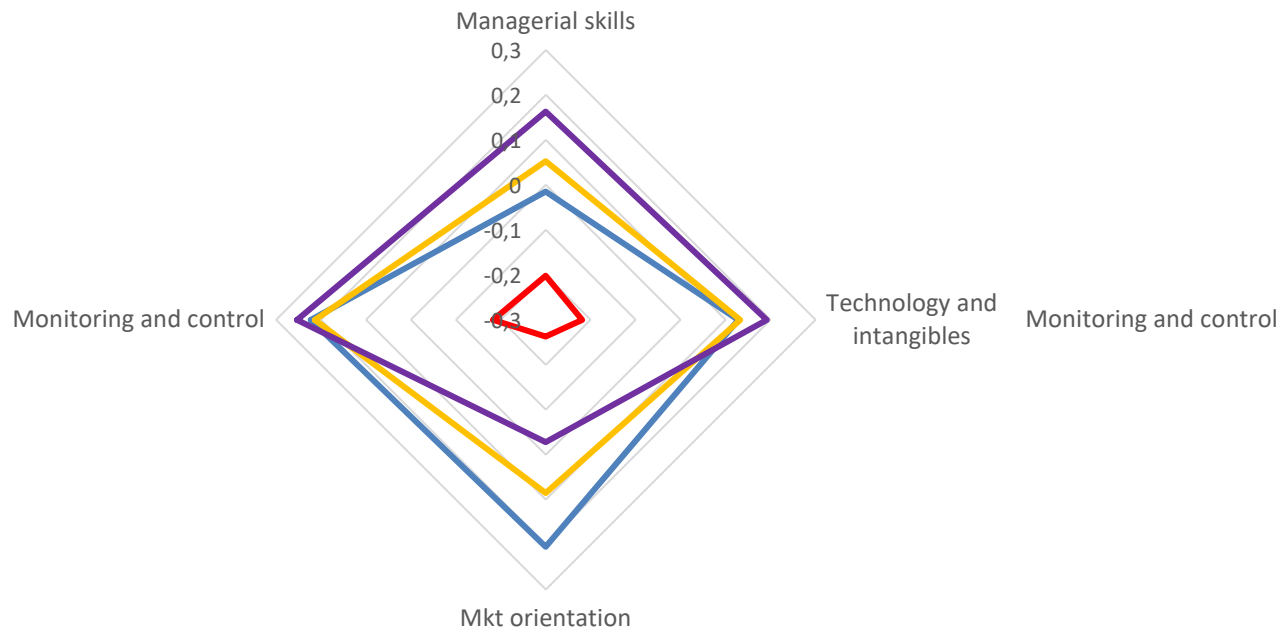


2022 – Phase 2



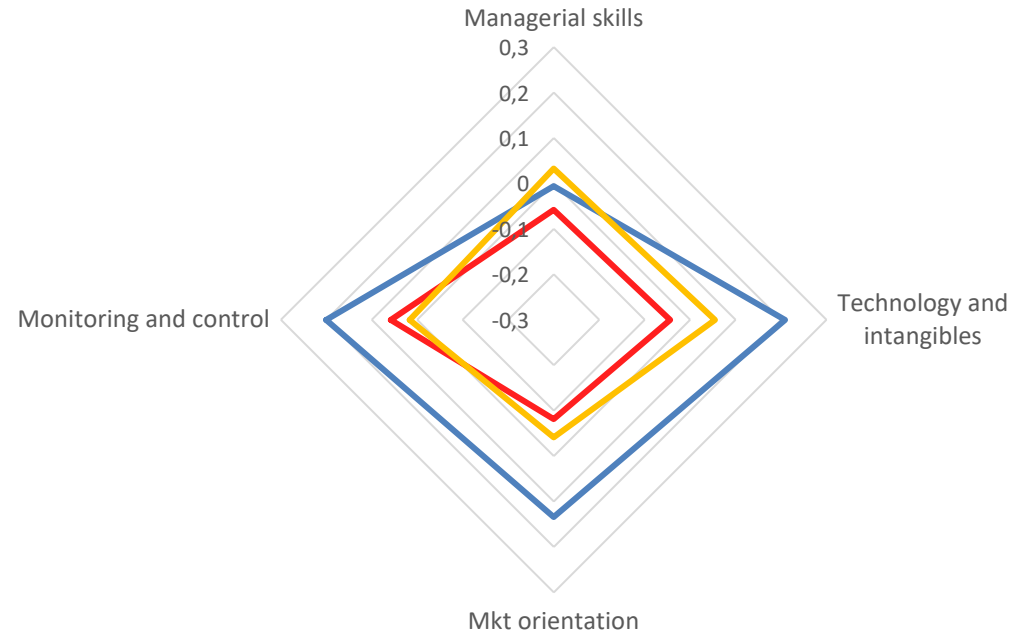
Descriptive results - by org. Structure (2)

Variation 2019-2022 – Phase 1



— Elementary/ no structure — Geographical/ by services — Functional — By projects

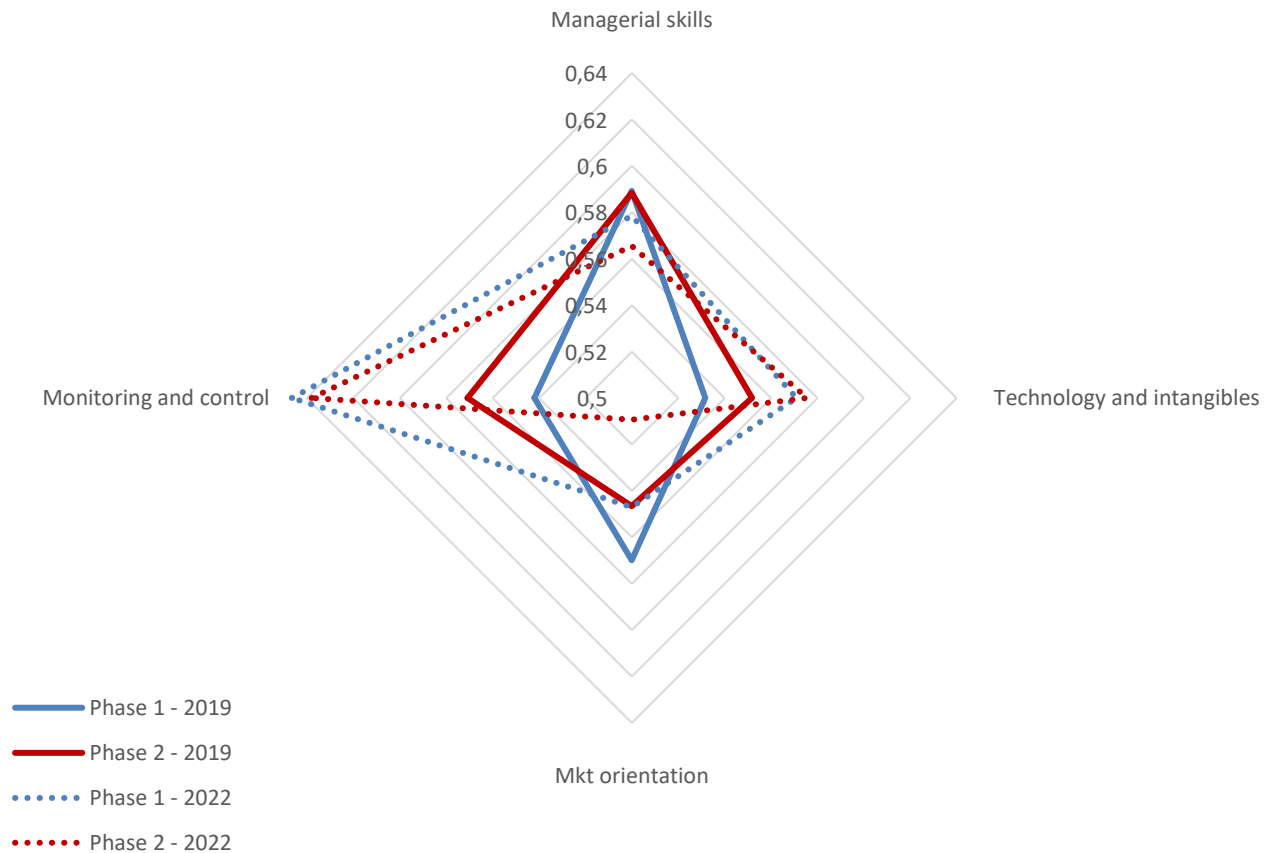
Variation 2019-2022 – Phase 2



— Elementary/ no structure — Geographical/ by services — Functional

Descriptive results both years - by Phase – Percentualization

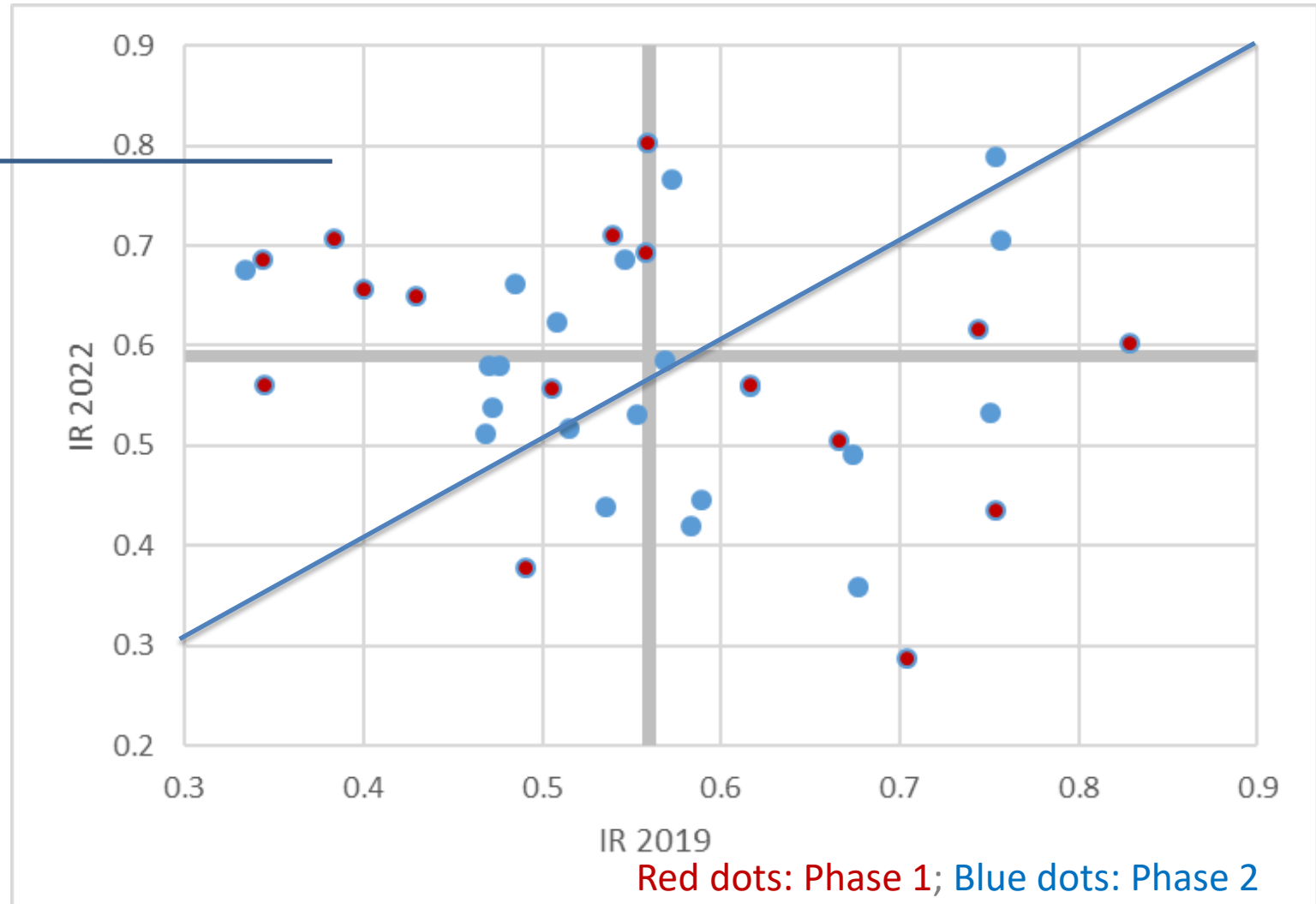
Phase 1 and Phase 2 in the Years 2019 and 2022



Efficacy of Seed 2018

Low initial IR
and high final
IR

Note: None of the
cooperatives were
admitted to Seed-II



Results on composite IR index: ttest

The test performs the equality of means for 2019, 2022 and difference

Hypothesis test

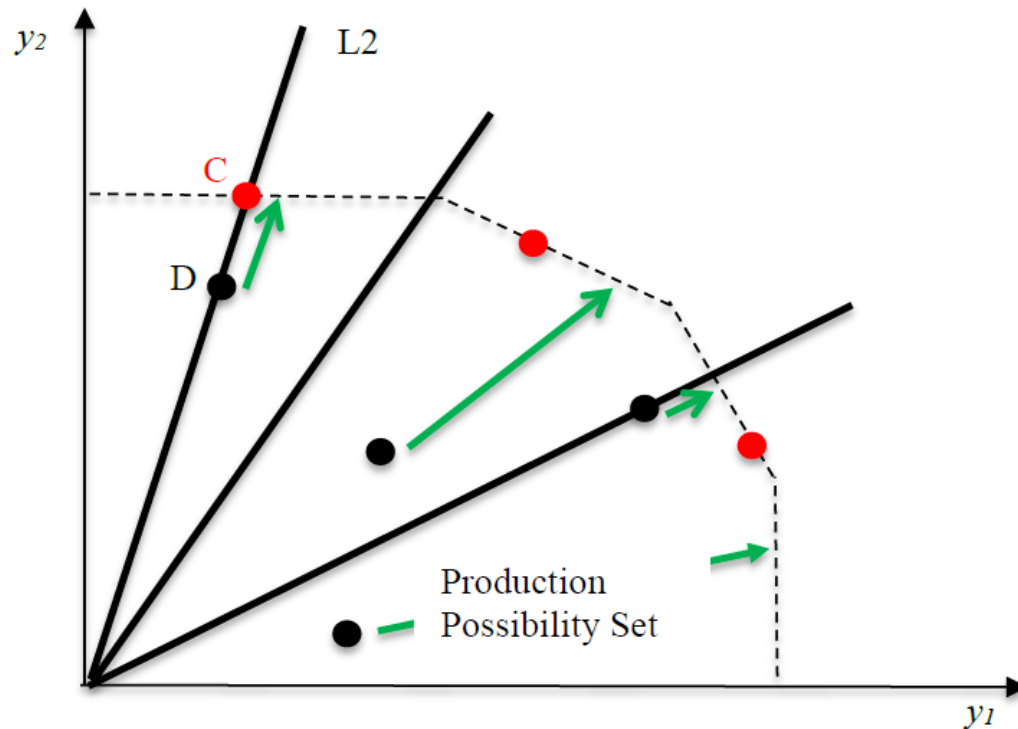
Ho: Mean (non-treated==Phase 1) = Mean (treated==Phase 2)

P-value	Mean 2019	Mean 2022	Mean of Δ
Managerial skills	0.978	0.732	0.819
Technology and intangibles	0.734	0.935	0.849
Positioning towards the market /Mkt orientation	0.680	0.439	0.853
Monitoring and control	0.677	0.890	0.712
Investment Readiness	0.886	0.732	0.761

Results suggest that means of both values and differences are not statistically different at a 0.05 significance level.

DEA model (in general)

Output-oriented: the mathematical problem is defined in order to identify scores on the base of the ability of firms to maximize the production, taking inputs equal.



Dotted line always represents the maximum combination of the two outputs that can be produced taking inputs equal. Firms on the frontier are more efficient because they produce the maximum quantity of output, using the same inputs of other firms.

Let us consider now the black line L2, firms C and D use the same amount of materials and employees but, company C is able to produce more output than firm D. In this case, the production possibility set, is represented by the area under the frontier: all observations in this area are inefficient (black dots), while companies on the dotted line are efficient (red dots).

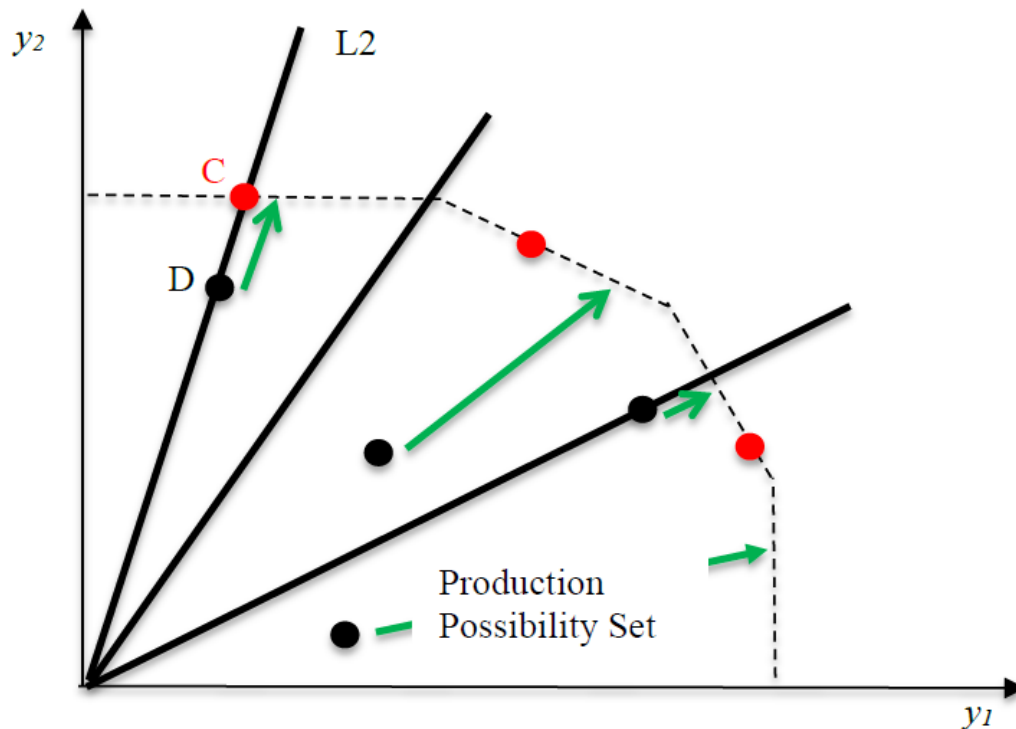
DEA model: evaluation of SEED

Input (2019): contribution/sales 2019 (contribution=€5000 for Phase1; €25000 for Phase2); IR c.i. 2019

Output (2022): IR c.i. 2022

Two frontiers: Phase1 and Phase2

Costant-returns-to-scale (CSR).



$$\max_{\theta, \lambda} \theta$$

Subject to: $X\lambda \leq \mathbf{x}_o$

$$\theta \mathbf{y}_o \leq Y\lambda$$

$$\lambda \geq \mathbf{0}$$

$$\sum_{j=1}^n \lambda_j = 1 \text{ [only if VRS]}$$

Results:

$$1 \leq \theta < +\infty$$

$\theta = 1 \rightarrow$ Efficient cooperative (red bullets)

For better readability TE scores $= 1/\theta$

DEA model: the meaning

The idea is to use a technique used in the production field in order to evaluate the ability of co-operative to improve their investment readiness considering the initial situation and the contribution obtained from Seed project.

The scores (from now Investment readiness efficiency - **IRE Scores**) answer to the question:

Starting from an initial level of investment readiness (IR c.i. 2019) and of contribution from Seed (weighted by sales, contrib/sales 2019), which cooperatives were able to maximize their investment readiness in 2022 (IR c.i. 2022)?

Phase 1	Variable	Obs	Mean	Std. Dev.	Min	Max
Input	Contrib/Sales 2019	17	0.004	0.003	0.000	0.008
	IR c.i. 2019	17	0.558	0.149	0.344	0.829
Output	IR c.i. 2022	17	0.586	0.131	0.287	0.802
Phase 2	Variable	Obs	Mean	Std. Dev.	Min	Max
Input	Contrib/Sales 2019	20	0.022	0.020	0.000	0.077
	IR c.i. 2019	20	0.564	0.111	0.334	0.756
Output	IR c.i. 2022	20	0.572	0.117	0.359	0.789

Test and results

CRS vs VRS

Considering Kneip et al. (2016) and Simar and Wilson (2020), we perform a test on returns to scale considering the whole sample (phase1+phase2)

Hypothesis test

Ho: CRS

Ha: VRS

The statistic presents a p-value equal to 0.869, so we cannot reject the null-hypothesis of CRS

RESULTS	IRE - CRS (mean values)	N° IRE=1
Phase 1	0.423	5
Phase 2	0.280	6
Total	0.843	11

WILCOXON RANK-SUM TEST

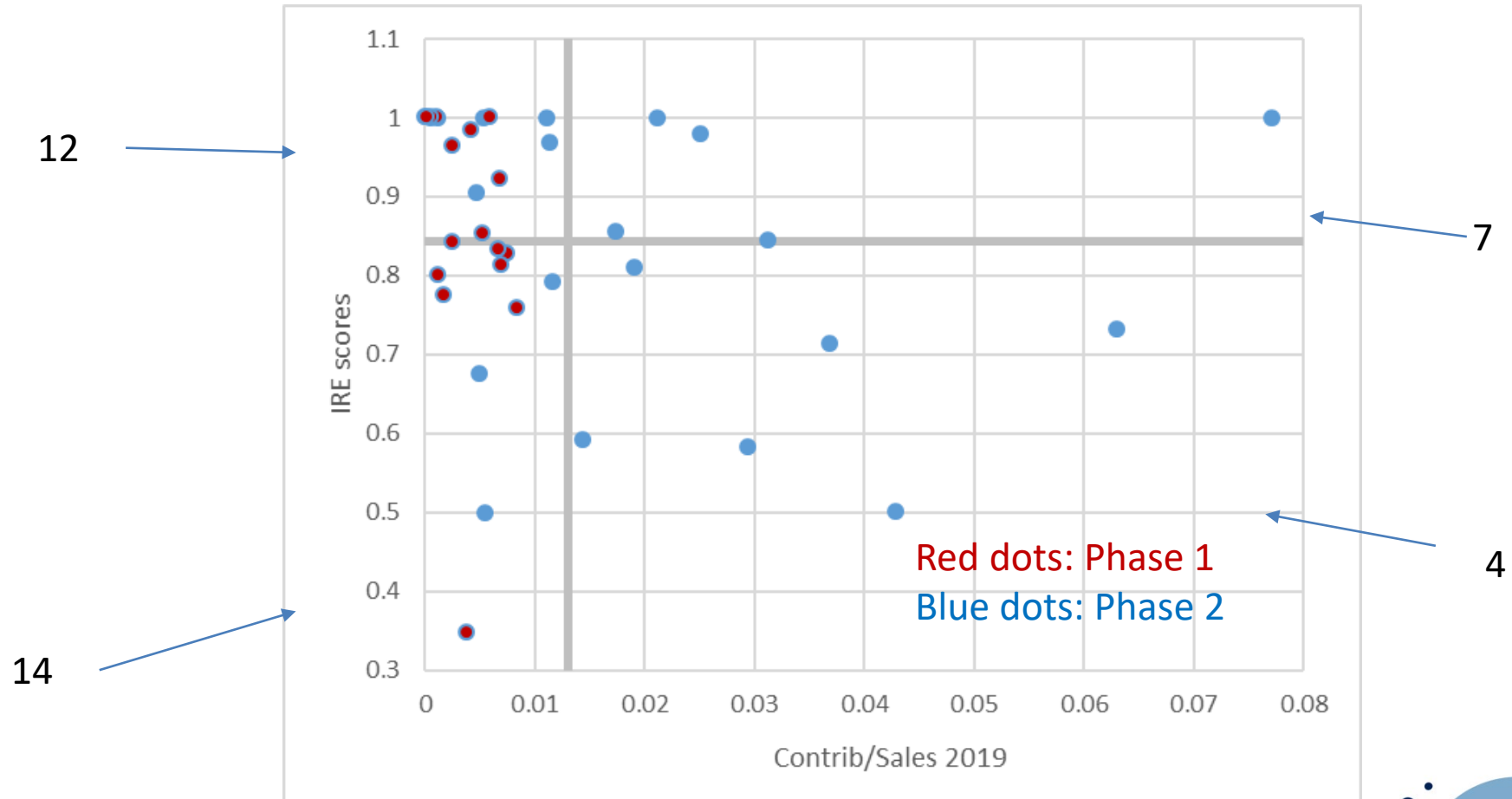
It tests the hypothesis that two independent samples (i.e., unmatched data) are from populations with the same distribution

Hypothesis test

Ho: IRE(non-treated==Phase 1) = IRE(treated==Phase 2)

The statistic presents a p-value equal to 0.4463 so we cannot reject that the distributions are not statistically different at a 0.05 significance level.

Contribution and IR Efficiency scores (IRE)



Determinants of Social efficiency: model

Truncated ML regression on IRE scores, upper level equal to 1 (26 observtions)

Variable	Obs	Mean	Std. Dev.	Min	Max
IRE score	26	0.776	0.161	0.348	0.984
Managerial skills*	26	-0.003	0.275	-0.567	0.616
Technology and intangibles*	26	0.154	0.572	-0.673	1.847
Market orientation*	26	0.070	0.451	-0.586	1.267
Monitoring and control*	26	0.405	0.805	-0.745	2.037
Size (1° quartile)	26	0.308	0.471	0	1
Size (2° quartile)	26	0.231	0.430	0	1
Size (3° quartile)	26	0.346	0.485	0	1
Size (4° quartile)	26	0.115	0.326	0	1
Phase2	26	0.538	0.508	0	1
Low IR 2019	26	0.615	0.496	0	1
Elementary	26	0.115	0.326	0	1
Geographical	26	0.231	0.430	0	1
Functional	26	0.538	0.508	0	1
By project	26	0.115	0.326	0	1

* Variables are the percentage variation of composite indicators between 2019 and 2022

Size variables are binary and they have been computed using quartile distribution of sales 2019 (in the reg small cooperatives are in the constant)

Low contrib. 2019 is a binary variable equal to 1 if IR c.i. 2019 was below or equal the mean, 0 otherwise

The effect of firms with organizational structure by project is in the constant

Results

VARIABLES	IRE score
Managerial skills*	0.209 (0.188)
Technology and intangibles*	-0.00693 (0.100)
Market orientation*	0.234* (0.136)
Monitoring and control*	0.156*** (0.0445)
Size (2° quartile)	0.177* (0.0994)
Size (3° quartile)	0.201*** (0.0718)
Size (4° quartile)	0.272*** (0.0895)
Phase 2	0.0164 (0.0737)
Low IR 2019	-0.0910 (0.0768)
Phase 2 # Low IR 2019	0.170** (0.0832)
Elementary	0.204 (0.180)
Geographical	0.297*** (0.109)
Functional	0.237*** (0.0789)
Constant	0.355*** (0.126)

Co-operatives that showed a percentage increase in the mkt orientation and in the monitoring composite indicators improved their IR efficiency

With respect to small co-operatives, growing the size, growing the IR efficiency

Co-operatives with low IR c.i. in 2019 and that gained access to phase 2 showed higher levels of IR efficiency

Co-operatives with geographical and functional organization structures presents higher IRE scores, compared with those with by project organizational management

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Conclusions: the policy

The impact on Investment readiness of passing to phase 2 and being funded for the project renewal is not significant. This is an expected result (confirming insights from qualitative evaluation of the measure). It is linked to many problems:

- Small size of the samples
- We had not the possibility to test the impact over a control group of non participant firms (excluded, matching...)
- Great heterogeneity among participant cooperatives
- **Implementation during the pandemic**

The response of cooperatives to funding is affected by some variables, namely:

- Size (+)
- market orientation (+),
- low-IR&phase2, (+)
- managerial structure (more complex +)

These results are relevant for the policy maker for the fine tuning of the policy.

Conclusions: the approach

The methodology to identify and measure the objectives of the policy maker was effective.

- The cooperatives were able to fill the survey in a complete way. It is not short neither easy, so it requires a strong commitment to the respondent. (not realistic to design a survey including cooperatives not involved in the project)
- The composite indicators proved consistent within them and able to show changes over time and over types of cooperatives
- The scores may be fruitfully used both for impact evaluation and for further analysis
- Sample size hampers more sophisticated methods to calculate composite indicators and to analyse them.
- Increasing sample size is fundamental to run impact evaluation. This might be obtained by pooling different calls, but the policy maker should not change the features of the policy or its target.

If you are interested to further discuss:

Grazie per l'attenzione

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