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Investigating the entrepreneurial innovation performance of italian provinces

A focus on the equity crowdfunding sector

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Contents

Introduction

The Local Innovation System (LIS) topic addresses a central issue both for practitioners and economic policymakers, by focusing on how local economic communities can survive and improve their performance/ profitability in a global economy.
The key point is the role played by innovation in products, services and processes in promoting economic growth and competitive advantage at local level. On the one hand, governments around the world, as well as institutions devoted to economic development, are interested in creating and supporting local environments that are attractive for innovation; on the other hand, firms recognize that their innovation performance is affected by their location.

The Local Innovation System (LIS) topic addresses a central issue both for practitioners and economic policymakers, by focusing on how local economic communities can survive and improve their performance/profitability in a global economy.

Most economists believe that economic development is not driven by capital accumulation, as said by neoclassic economists (Dosi, Nelson, & Winter, 2000), but by innovative capacity, policies allowing for entrepreneurship, and ISs that encourage innovative environments (Antonelli, 2003; Johnson, 2008; Pekkarinen, & Harmaakorpi, 2006). In order to be competitive, the pressure on firms to continuously innovate has increased as well as market globalization (Edquist, Eriksson, & Sjögren, 2002).

Introduction

Although many authors (Breschi, 1995; Cooke, Uranga, & Etxebarria, 1997; Howells, 1999) extended the conceptual tools and the perspective of National Innovation systems (NISs) (i.e. the presence of networks among enterprises, appropriate financial institutions, technical agencies, R&D public infrastructure, education and training systems capable of to up-grading and re-shaping skills and competences, and appropriate and effective innovation policies) to a regional and even local level, the national and sub-national environments, be it regional or local, are conceptually different: actors, institutions and linkages of NISs operate and are governed at a national scale and, as a consequence, they cannot be applied tout court to a local context (Evangelista et al. 2002).

Starting from some main structural features of LIS (specifically we refer to the criteria of geographical proximity and the heterogeneity of the actors), our research aims to map and measure the innovative performance of Italian provinces, by showing their evolution pattern in most recent years (from 2017 to 2018). In our study, innovation performance is a latent variable, indirectly measured by a number of indicators, each capturing a different feature linked to innovation. We recognize that a basic feature of LIS models is that the presence and the interactions among actors create a favourable setting for the development of knowledge and innovation, which, in turn, can be exploited by firms to create and improve new products and/or processes (Cooke, Uranga, & Etxebarria, 1997; Doloreux, 2002); according to this, we build up a set of indicators at provincial level in order to measure the degree of innovation of that geographical area.

More specifically, we consider the following indicators as proxies of local innovation performance, each capturing a relevant feature of the innovation performance of a specific geographical area.: granted patents and registered trademarks, public research institutes, graduates aged 25-39, big enterprises with at least 250 persons employed, start-ups and innovative small and medium enterprises (SMEs) and crowdfunding campaigns.

Through a factor analysis we build up a synthetic measure of innovation performance, which summarizes all the previous indicators.

Following previous studies focusing on the identification of Regional Innovation Systems' components and on the measurement of their performance, our contribution falls within the assessment approach to research on Local Innovation Systems (Pino, & Ortega, 2018).

The contribution of our research to the existing literature on the topic is twofold. Our paper adds value to the assessment approach because it is the first study to investigate the performance of the Italian LISs at provincial level. In this regard, our database is unique and original. Previous studies analysing the Italian context through quantitative approaches (Evangelista et al., 2002; De Marchi, & Grandinetti, 2016) employ microdata from the Community Innovation Survey (CIS) at the NUTS 2 level (second level of the Nomenclature of Territorial Units for Statistics) that corresponds to the Italian regions, while our paper relies on a combination of several databases, such as Geowebstarter (Istituto Tagliacarne), National Institute of Statistics (ISTAT), Ministry of University and Research (MIUR), Ministry of Economic Development (MISE) and the platforms' websites of the projects posted by the enterprises for the crowdfunding campaigns. All the information refers to the NUTS 3 level (the Italian provinces).

Moreover, to our knowledge, this is the first paper to employ the number of crowdfunding campaigns to capture a specific dimension of the innovation performance of the LISs. The rationale behind this assumption is based on the recent stream of literature linking crowdfunding with innovation in entrepreneurial firms (i.e. Priem, 2007; Agrawal, Catalini, & Goldfarb, 2015; Colombo, & Shafi, 2016; Stanko, & Henard, 2017; Chan, & Parhankangas, 2017). Hervè & Schwienbacher (2018) point out that crowdfunding has the potential to promote innovation by providing new sources of capital to innovation-driven firms and thereby narrow the funding gap for innovative startups. Moreover, they underline that crowdfunding provides a way for the crowd to participate in the innovation process by offering a helpful feedback to the entrepreneur. This feedback can assume various forms, including providing ideas on the development of the product during and after the campaign, and providing valuable information on the future demand for the new product.

We specify that referring to the equity crowdfunding context, we explore all the Italian authorized equity crowdfunding platforms from the CONSOB registry, for which data are available, by analyzing both successful and unsuccessful campaigns.

The rest of the paper is structured as follows. In Section 2 we describe our data and the variables we employ in the factor analysis and we present our descriptive analysis. Section 3 reports and discusses the results of the exploratory factor analysis. Conclusions are drawn in Section 4.

1. Variables, data sources, and descriptive analysis

Variables and data sources

In our analysis, the original variables are seven indicators at the NUTS 3 level corresponding to the Italian provinces. Table 1 lists the indicators, how they have been derived and the corresponding source.

Table 1 - Variables

Name	Indicator	Description	Source
patent	Patent intensity	Granted patents per 1 million inhabitants	Geowebstarter, Istituto Tagliacarne
trademark	Trademark intensity	Registered trademarks per 1,000 inhabitants	Geowebstarter, Istituto Tagliacarne
research	Intensity of public research institutes	Public research institutes per 1 million inhabitants	Ministry of University and Research (MIUR)
big_enterp	Large enterprises (250 employees or more)	Per100,000 active enterprises	Istat
univ_degree	Individuals 25 to 39 years old with a university degree	Share amongst 25-39 years old	Istat
innov_startups	Innovative start-ups or small and medium-sized enterprises (SMEs)	Per 100,000 enterprises	Ministry of Economic Development (MISE)/Movimprese
crowdfund	Crowdfunding intensity	Crowdfunding campaigns per 1 million inhabitants	Platforms' websites

Note: The list of the Italian investigated equity crowdfunding platforms is from the CONSOB registry. Specifically, we analyse Action Crowd, BackToWork 24 (ex Equinvest), Cofyp, CrowdFundMe, Idea Crowdfunding, Investi-RE, Leonardo Equity, Mamacrowd, Muum Lab, Next Equity, StarsUp, Two-Hundred Crowd, We Are Starting.

The indicators refer to some characteristics of the main operating components of an innovation system, namely firms, research institutes and financial supporters. They include patent and trademark intensity, intensity of research institutes, share of large enterprises and innovative start-ups, share of graduates and crowdfunding intensity.

Previous contributions investigating regional innovation systems in Italy through quantitative approaches (Evangelista et al., 2002; De Marchi, & Grandinetti, 2016) use microdata from Community Innovation Survey (CIS) at the NUTS 2 (regional) level. CIS is a harmonized survey conducted in some EU member states with the aim to provide subjective information on, among others, the kind of innovation introduced, the expenditures incurred, the public support for innovation and the formal co-operation agreements with other actors. The subjective approach entails that the collected information comes from statements from the enterprises themselves. Nevertheless, since 2010 the Italian microdata are no longer available as scientific-use files, hence we have chosen to exploit different sources that rely on objective data allowing a deeper investigation at provincial level.

This choice has prevented us from investigating context-specific indicators, linked for example to institutional components that can create synergy between the different actors to foster innovation. Since this information, that makes up the systemic component of innovation, is not directly available in the investigated data sources at provincial level, we assume that the concentration of Universities, public research institutes and big enterprises in a specific geographical area (i.e. province) can ensure intensive and fruitful interactions among local actors.

Each indicator measures a specific dimension of the innovation performance, that we aim to investigate. In other words, we assume that each indicator is a proxy of the innovation performance. As such proxies are likely to be even strongly correlated, factor analysis is a particularly suitable technique for summarizing the different dimensions into a lower number of latent factors while retaining most of the original information. Specifically, if just one factor is found to be relevant and meaningful to account for the correlation structure of the indicators, the factor score estimated for each unit (province) can be thought of as a synthetic index of the innovation performance in a specific province.

Descriptive analysis

The main descriptive statistics of the investigated variables are reported in Tables 2 and 3, for 2017 and 2018, respectively.

In both years, some provinces record null values for granted patents, as well as for research institutes, large enterprises and crowdfunding campaigns, resulting in zero values for the corresponding indicators. In particular, the median value of the crowdfunding intensity is equal to zero: this means that the crowdfunding campaigns were concentrated in less than half of the Italian provinces. Nevertheless, the spread of the crowdfunding campaigns is reflected by the increase of the mean value from 0.8 in 2017 to 1.3 campaigns per 1 million inhabitants in 2018.

From 2017 to 2018 the trademark intensity and the share of innovative start-ups show a large increase in the mean value and the variability across provinces, whereas the share of graduates exhibits just a slight increase. Patent intensity is the only indicator that undergoes a decline in the mean, as well as in the standard deviation

Table 2 - Descriptive statistics - 2017

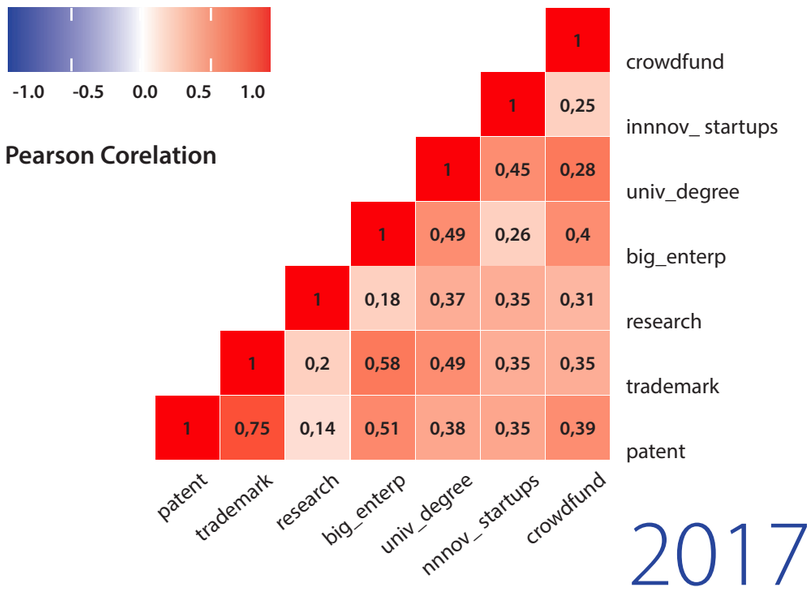
variable	mean	median	standard deviation	min	max	N
patent	298.8	25	1006.6	0.0	7809.6	107
trademark	644.2	498.5	529.0	107.1	3993.2	107
research	2.2	0.9	3.7	0.0	23.9	107
big_enterp	6.4	5.7	4.4	0.0	23.5	107
univ_degree	24.8	24.5	5.7	12.0	41.2	107
innov_startups	92.4	85.8	60.5	7.5	331.6	107
crowdfund	0.8	0.0	1.8	0.0	11.0	107

Table 3 - Descriptive statistics - 2018

variable	mean	median	standard deviation	min	max	N
patent	220.8	23.8	680.5	0.0	5225.3	107
trademark	978.7	768.7	758.1	284.4	5951.5	107
research	2.2	0.9	3.7	0.0	23.9	107
big_enterp	6.6	5.5	4.5	0.0	23.8	107
univ_degree	25.7	25.3	6.0	12.0	43.8	107
innov_startups	142.6	128.4	86.1	17.9	498.5	107
crowdfund	1.3	0.0	2.3	0.0	12.7	107

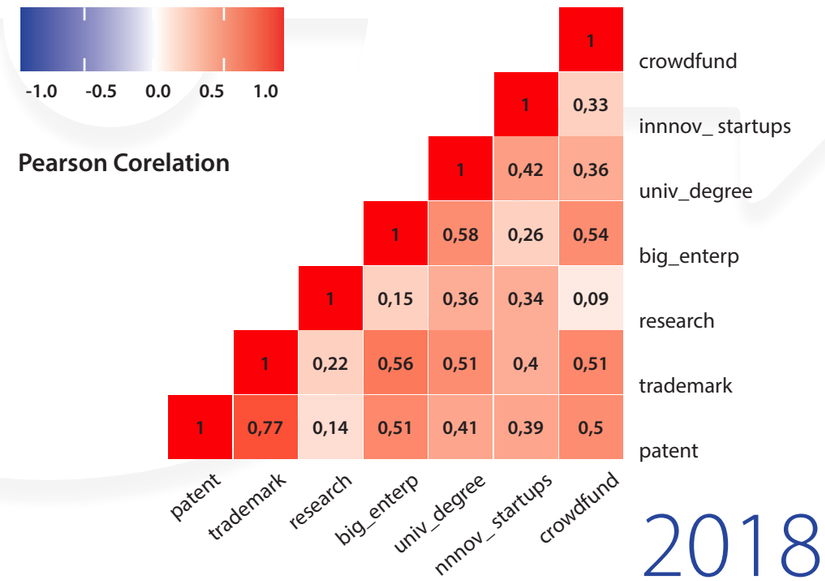
The heatmap of the correlation matrices of these indicators for years 2017 and 2018 is displayed in Figures 1 and 2, respectively.

Figure 1 - Heatmap of the correlations - 2017



1.
Variables, data sources, and descriptive analysis

Figure 2 - Heatmap of the correlations - 2018



Every pair of variables shows a positive association. The strongest correlation is observed between patent intensity and trademark intensity (0.75 and 0.77 in 2017 and 2018, respectively). The intensity of research institutes displays the weakest associations with every other variable: they range from 0.14 to 0.37 in 2017 and from 0.09 to 0.36 in 2018.

2. Empirical analysis and results

We perform an exploratory factor analysis with the aim to obtain a comprehensive measure of the innovation performance on the basis of the observed indicators.
Generally speaking, the exploratory factor analysis exploits the correlations among a large number of original variables to identify a set of a lower number of underlying latent constructs (known as factors) that contain most of the original information or, in other words, explain the largest amount of the variability of the original dataset (Adachi, 2016). In this sense, it represents a data reduction technique.
Each original variable $y_j (j=1,2,\ldots,p)$ can be expressed as follows:

$$y_j = b_{1j} F_1 + b_{2j} F_2 + \ldots + b_{qj} F_q + e_j$$

where F_k $(k=1,2,\ldots,q)$ are the common factors, b_{kj} $(k=1,2,\ldots,q;\ j=1,2,\ldots,p)$ are the factor loadings measuring the relationship of variable y_j to factor F_k, and e_j is the y_j variable's unique factor, or measurement error.
The above equation emphasizes that the linear combination of common factors and factor loadings reconstructs the original variables, minus a measurement error. The only observed variables are the variables whereas all the quantities on the right-hand side of the equation have to be estimated.
Once the number of factors to be extracted has been identified, we can compute the factor scores that can be used as summary indexes of all observed variables.
We aim to create new variables (the latent factors) that summarize this information, to be interpreted as measures of the degree of innovation. We begin by extracting the factors of the seven observed variables. The results for 2017 and 2018 are displayed in Table 4. Although more than one factor can be extracted, only the first factor appears to be meaningful.
The percentage of variability retained by the first factor alone is very high (96% and 97% in 2017 and 2018, respectively).
The factor loads positively on all seven indicators, which confirms that it can be interpreted as a measure of innovation.
In both years, the factor shows the strongest correlation (not lower than 0.75) with patent intensity and trademark intensity and the weakest one with the intensity of public research institutes.
Patent intensity and trademark intensity, as well as the share of large enterprises and the share of people with a university degree, are well explained by the factor.

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Table 4 – Results of factor analysis – 1 factor extracted

	2017	2018
Percentage of retained variability	**0.9692**	**0.9607**
Factor loadings:		
patent	0.7498	0.7695
trademark	0.8047	0.8243
research	0.3798	0.3101
big_enterp	0.6797	0.7107
univ_degree	0.6523	0.6780
innov_startups	0.5144	0.5259
crowdfund	0.5086	0.6235

2017
2018

Figures 3 and 4 display the maps of the factor scores for each province for 2017 and 2018, respectively. The darkest colours are associated with the highest factor scores, therefore with the highest innovation performance. In both years, the provinces at the top of the ranking include Milano and Roma, as well as other large county seats such as Torino, Firenze, Bologna and Trieste. Conversely, the provinces of Crotone, Vibo Valentia, Trapani, Agrigento and those located in the southern Sardegna rank at the bottom, as several other provinces of the South of Italy (i.e. Calabria, Puglia, Sicilia and Sardegna) do.
Our results confirm those of Evangelista et al. (2002) and De Marchi & Grandinetti (2016). Specifically, our findings clearly show that almost all the Northern provinces, with only few exceptions, exhibit a factor score higher than the national average, whereas Bari and Pescara represent the only Southern provinces with a score higher than the average. With the only exceptions of Napoli and Cagliari, we observe that provinces located in the South of Italy gain a very poor performance in innovation.
Moreover, our results show a high level of variability (heterogeneity) in the degree of innovation performance among different provinces of the same region. Figures 5 and 6 highlight this evidence: they plot the mean against the standard deviation of the factor score of all the provinces of a given region. Each region is represented by a point in the plot, with the exception of Valle d'Aosta, that is excluded as it is composed of one province only. In the upper portion of both figures, Lombardia and Lazio stand out for the large variability of the innovation performance among their provinces. Indeed, no other province of Lazio, apart from Roma, shows a factor score higher than the national average. As for Lombardia, among the different provinces besides Milano, just Monza-Brianza (and in 2018 also Bergamo and Brescia) shows medium or medium-high values.

Regions in the lower right portion of the figures display a large mean coupled with a medium degree of heterogeneity of the innovation indicator among their constituent provinces. They include Friuli-Venezia Giulia, Trentino-Alto Adige, Emilia Romagna, Marche and Veneto. In these regions, the majority of the provinces displays medium to high values of innovation performance. In other words, taken independently, every province performs well or very well in terms of innovation. Moreover, a moderate degree of within-region variability signals that they can mutually benefit from the spillover of innovation from nearby provinces with similar innovation performances, which can foster the interactions among the actors in a local area covering several nearby provinces. This is evident for the provinces of Trieste, Udine and Pordenone in Friuli-Venezia Giulia, for Verona, Padova, Vicenza and Treviso in Veneto, for almost all provinces in Emilia Romagna and for Ancona, Macerata and Ascoli in the Marche region. The result for Friuli-Venezia Giulia confirms the evidence of a recent comparative analysis of innovation across regions of European countries, which has identified Friuli-Venezia Giulia as a 'pocket of excellence' in a moderate innovator country (European Commission, 2019). Friuli-Venezia Giulia emerges as the only strong innovator region of Italy, whereas all other regions have been classified as moderate innovators, with Emilia Romagna ranking second and Lombardia third, after Friuli-Venezia Giulia.

Turning our attention back to the maps in Figures 5 and 6, in such regions as Piemonte and Toscana, the innovation is mainly driven by a couple of provinces, namely Torino and Cuneo in the former, Firenze and Pisa in the latter. Lastly, the regions in the lower left portion of the figures (Sicilia, Sardegna, Calabria and Puglia) are characterized by low innovation performances, distributed more or less uniformly across the different provinces.

2.
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Figure 3 – Map of factor scores - 2017

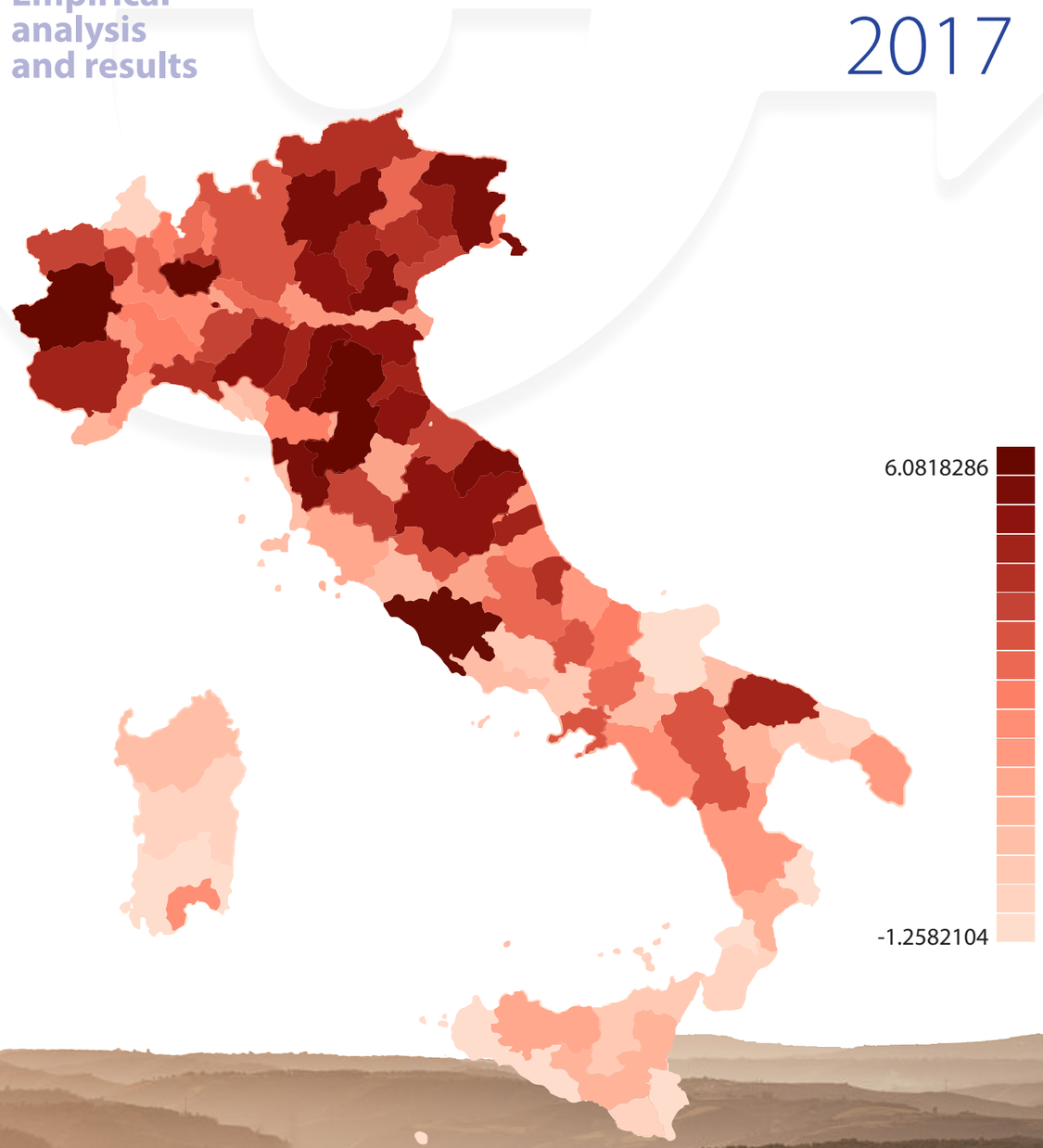
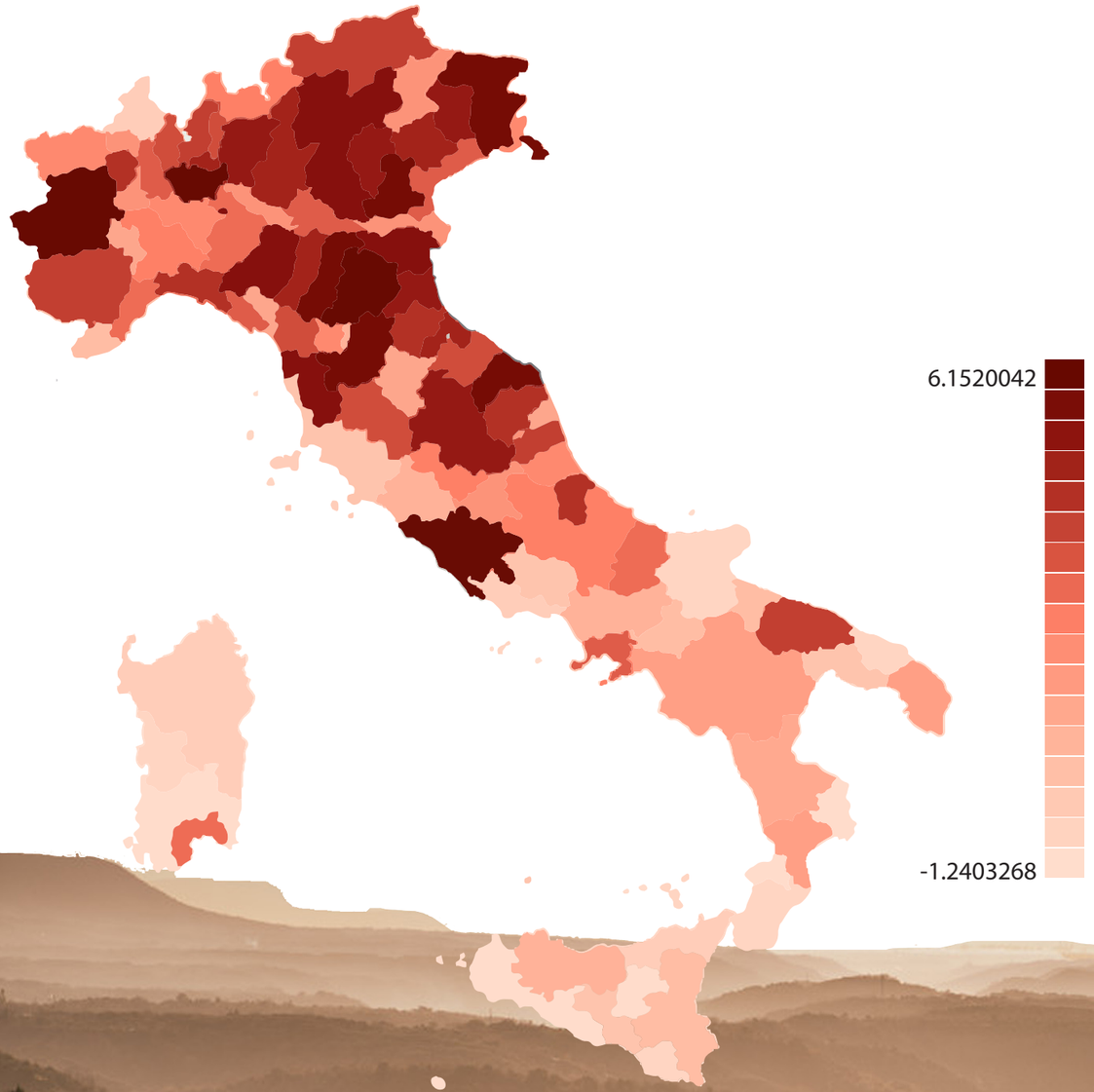


Figure 4 – Map of factor scores - 2018



2.
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Figure 5 – Scatterplot 2017

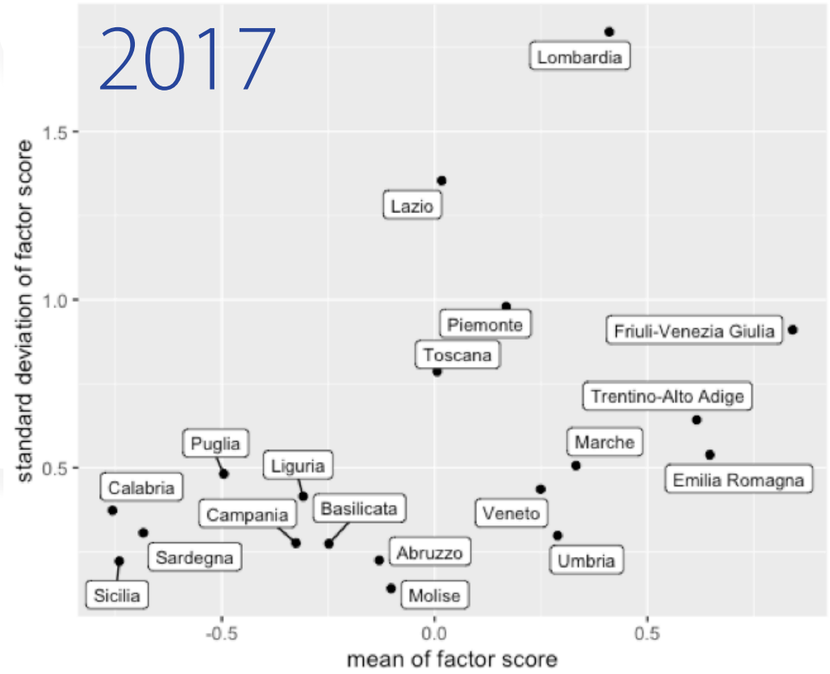
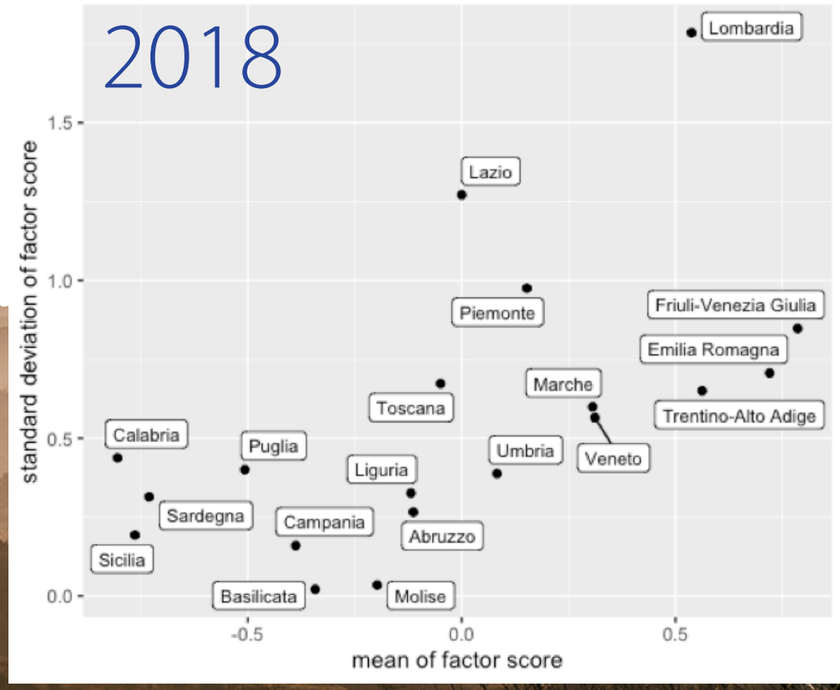


Figure 6 – Scatterplot 2018



3. Conclusions

The main goal of our research is to map and measure the innovation performance of Italian provinces, by showing their evolution pattern in most recent years (from 2017 to 2018). In our study, innovation performance is a latent variable, indirectly measured by the following indicators: granted patents and registered trademarks, public research institutes, graduates aged 25-39, big enterprises with at least 250 persons employed, start-ups and innovative small and medium enterprises (SMEs) and crowdfunding campaigns.

We use exploratory factor analysis to build up a synthetic measure, which allows us to summarize in a single factor all the previous indicators, each capturing a relevant feature of the innovation performance of a specific geographical area.

Our paper adds value to the existing literature on the topic because it is the first study to focus on the performance of the Italian LISs at provincial level. In this regard, our database is unique and original. Data at provincial level allows us to bring a deeper understanding of the innovation performance than regional data. Specifically, the innovation performance gained by some provinces, such as Roma and Milano (at the top of the ranking in Table A1 in the Appendix), seems to stand alone within their respective regions. Indeed, with the exception of Roma, the other provinces of Lazio show a lower performance than the national average.

As for Lombardia, apart from Milano, the province of Monza-Brianza only (and in 2018 also Bergamo and Brescia) shows medium or medium-high values. This evidence underlines a more heterogenous ecosystem compared to that emerging from the analysis of regional data.

Conversely, in other areas, such as Emilia Romagna, Veneto, Friuli-Venezia Giulia and Marche, the results achieved at provincial level are more homogeneous within the region. A moderate degree of within-region variability signals that the provinces can mutually benefit from the knowledge spillover from neighboring provinces with similar innovation performances, which in turn can foster interactions among actors in a wider local area.

Moreover, this is the first paper to employ the number of crowdfunding campaigns to capture a specific dimension of the innovation performance of the LISs. Our evidence shows that the crowdfunding intensity is positively related to the other indicators and that in the investigated period, the number of the crowdfunding campaigns increases dramatically, especially in the geographical areas more prone to innovation, namely the areas where a large number of patents and trademarks are granted and registered and where big enterprises are located.

With reference to this feature, the factor analysis highlights that from 2017 to 2018 the correlation between the crowdfunding indicator and the latent factor increases, showing that the latent factor provides a better explanation of the crowdfunding intensity.

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Appendix

Table A1. Ranking of Italian provinces based on the estimated factor score. Years 2017 and 2018

Province	factor score 2017		Province	factor score 2018
Milano	6.0818		Milano	6.1520
Torino	2.4418		Torino	2.4172
Roma	2.4282		Roma	2.2538
Bologna	1.8580		Bologna	2.2002
Trieste	1.8112		Trieste	1.6027
Firenze	1.7431		Firenze	1.5432
Udine	1.3546		Modena	1.4339
Trento	1.0703		Udine	1.3182
Pisa	1.0547		Ancona	1.2683
Modena	1.0182		Padova	1.1010
Ancona	0.9805		Trento	1.0221
Padova	0.8874		Verona	0.8451
Ferrara	0.7778		Ferrara	0.8224
Forli'	0.6035		Parma	0.6669
Macerata	0.5780		Pisa	0.6427
Verona	0.5777		Vicenza	0.5902
Parma	0.5109		Ravenna	0.5404
Perugia	0.5000		Pordenone	0.4947
Vicenza	0.4438		Bergamo	0.4315
Reggio Emilia	0.4325		Perugia	0.3567
Pordenone	0.4037		Monza e della Brianza	0.3555
Ravenna	0.3970		Reggio Emilia	0.3504
Bari	0.3845		Treviso	0.3392
Ascoli Piceno	0.3713		Brescia	0.3322
Cuneo	0.3374		Rimini	0.3294
Monza e della Brianza	0.3263		Macerata	0.3174
Genova	0.2825		Forli'	0.2981
Treviso	0.2166		Pescara	0.2850
Biella	0.1784		Biella	0.2811
Pescara	0.1625		Genova	0.2534
Bolzano-Bozen	0.1617		Ascoli Piceno	0.2513
Siena	0.1396		Cuneo	0.2484
Rimini	0.1318		Bari	0.2019
Venezia	0.1284		Como	0.1182
Aosta	0.1115		Bolzano-Bozen	0.1026
Pesaro e Urbino	0.0981		Lecco	0.0895
Piacenza	0.0941		Pesaro e Urbino	0.0554
Sondrio	0.0895		Siena	0.0330
Terni	0.0784		Varese	0.0200
Isernia	-0.0023		Lucca	-0.0212
Bergamo	-0.0151		La Spezia	-0.0335
Brescia	-0.0286		Venezia	-0.0527
Napoli	-0.0411		Novara	-0.0550
Potenza	-0.0548		Mantova	-0.1083
Belluno	-0.0736		Napoli	-0.1453
L'Aquila	-0.0771		Savona	-0.1610
Benevento	-0.1052		Piacenza	-0.1635
Como	-0.1109		Campobasso	-0.1729
Cremona	-0.1143		Lodi	-0.1731
Novara	-0.1319		Cagliari	-0.1776
Pistoia	-0.1492		Terni	-0.1917
Lecco	-0.1583		L'Aquila	-0.2219
Alessandria	-0.1610		Isernia	-0.2222
Lucca	-0.1690		Alessandria	-0.2242
Varese	-0.1752		Sondrio	-0.2330
Campobasso	-0.2022		Chieti	-0.2518
Gorizia	-0.2034		Aosta	-0.2612
Pavia	-0.2066		Pavia	-0.2617
Cagliari	-0.2104		Teramo	-0.2631
Vercelli	-0.2438		Pistoia	-0.2641
Salerno	-0.2573		Gorizia	-0.2730
Teramo	-0.2621		Cremona	-0.2730
Asti	-0.2655		Vercelli	-0.2889
Lecce	-0.3060		Rovigo	-0.3198
Chieti	-0.3441		Rieti	-0.3204
Mantova	-0.3472		Belluno	-0.3208
Savona	-0.3535		Salerno	-0.3264
Cosenza	-0.3564		Matera	-0.3273
Fermo	-0.3666		Catanzaro	-0.3315
Grosseto	-0.3801		Lecce	-0.3335
Lodi	-0.4141		Potenza	-0.3574
Palermo	-0.4170		Fermo	-0.3620
Rieti	-0.4177		Massa-Carrara	-0.3844

Rovigo	-0.4360		Cosenza	-0.3859
Arezzo	-0.4398		Arezzo	-0.3877
Catanzaro	-0.4410		Asti	-0.4183
Matera	-0.4423		Prato	-0.4289
Imperia	-0.4954		Benevento	-0.4335
Caltanissetta	-0.5185		Caserta	-0.4736
Catania	-0.5318		Viterbo	-0.4901
Prato	-0.5453		Palermo	-0.4967
Viterbo	-0.5466		Imperia	-0.5328
Sassari	-0.5521		Catania	-0.5483
Avellino	-0.5612		Avellino	-0.5618
Barletta-Andria-Trani	-0.5620		Barletta-Andria-Trani	-0.5684
Livorno	-0.5891		Siracusa	-0.5902
Massa-Carrara	-0.6024		Grosseto	-0.5950
Latina	-0.6381		Taranto	-0.6157
Caserta	-0.6648		Livorno	-0.6324
La Spezia	-0.6690		Frosinone	-0.6936
Messina	-0.6707		Caltanissetta	-0.6978
Enna	-0.7364		Messina	-0.7354
Frosinone	-0.7431		Verbano-Cusio-Ossola	-0.7406
Taranto	-0.7447		Latina	-0.7482
Reggio Calabria	-0.7604		Sassari	-0.8013
Verbano-Cusio-Ossola	-0.8105		Nuoro	-0.8319
Oristano	-0.8175		Reggio Calabria	-0.8405
Brindisi	-0.8505		Brindisi	-0.8470
Ragusa	-0.8594		Foggia	-0.8792
Nuoro	-0.8766		Oristano	-0.8981
Foggia	-0.8921		Ragusa	-0.9253
Siracusa	-0.9147		Enna	-0.9266
Sud Sardegna	-0.9660		Trapani	-0.9433
Vibo Valentia	-0.9690		Sud Sardegna	-0.9447
Trapani	-0.9764		Agrigento	-1.0098
Agrigento	-1.0440		Crotone	-1.2251
Crotone	-1.2582		Vibo Valentia	-1.2403

ENZO ALBANO
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