

Knowledge-Intensive Social Services as the Basis for the National Social Innovation Systems

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Abstract

This paper provides theoretical foundations for the existence of national social innovations systems (NSIS) and presents such a system with empirical data. Departing from the activities in France of Ashoka, a large and old service organization, which we label as knowledge-intensive social service (KISS), we build a large and robust social innovation network in France and

argue that it represents a credible approximation of the country's NSIS. On this basis, we find differences within the national innovation system (NIS). Indeed, the core of the NSIS involves very few actors emanating from manufacturing or technology-intensive industries, and the coordination between actors seems more bottom-up than in the NIS.

Keywords: national innovation system; knowledge-intensive services; third sector; social innovation

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Introduction

Innovations are introduced by entrepreneurial individuals, but the sustained thrust of innovations requires a whole system of beliefs, payoffs, and supporting institutions (Baumol, 1993; Mokyr 2010). With regards to social innovations, we observe a gap between the literature that focuses on the character of the social entrepreneur (Mulgan et al., 2007; Dacin et al., 2010; Moulaert, MacCallum, 2019) and the fact that social entrepreneurship is becoming commonplace, thereby suggesting the presence of a dedicated innovation system that still needs to be uncovered. An indication of the prevalence of social entrepreneurship is provided by the Global Entrepreneurship Monitor (Bosma et al., 2016). Reviewing 52 countries across the globe, the report highlights that, on average, 3.2% of adults between 18 and 64 years old are in the process of starting a business with a social mission. Adding up the number of people who already operate such a venture, the authors find that 11% of the adults are involved in a social enterprise in the US and Australia. The corresponding figure in Europe and Latin America is around 6% of the adult population. It follows that the appropriate analytical angle should be the social innovation system, rather than the heroic individual. Hence, we developed a systemic view of social entrepreneurship whose key features are presented earlier in Desmarchelier et al. (2020).

Adopting a technological regime framework (Winter, 1984), the authors find that social innovations are getting increasingly routinized due to the activities of a new category of agents, the knowledge-intensive social services (KISS). These are agents from the third sector who assist social entrepreneurs by providing them with knowledge and other resources. A distinctive feature of KISS actors is that they put the social entrepreneurs in contact with other socially minded agents, thereby creating networks aimed at generating social innovations. The network built by Desmarchelier et al. (2020) is small and poorly connected (134 agents and 523 links). Thus, it represents at best a local system of social innovations, which is too fragile to stand as a major social innovation engine at the national level. In addition, their contribution does not provide an explanation for the growth of social entrepreneurship. In this context, the present paper pursues two objectives: (i) providing a theoretical framework of the growth of social entrepreneurship and the emergence of national social innovation systems (NSIS) and (ii) providing a more comprehensive view of such a system than the one proposed in Desmarchelier et al. (2020).

Acknowledging the connecting role of KISS actors, we propose to obtain an overview of the French national system of social innovations by tracking the social innovation projects supported in France by

an old and well-established KISS, Ashoka, a US-based non-profit organization promoting social entrepreneurship around the world. We limit the present study to the French case, but using such a global actor could offer the opportunity to trace similar networks in other countries and therefore to carry out comparative studies in the future.

From Innovations to National Systems of Social Innovations

The concept of innovation is well defined: it is the act of putting an invention on the market. In his classical work, Schumpeter (1934) distinguishes between five types of innovations: (i) the marketization of new goods or services, (ii) the implementation of a new production method, (iii) the discovery of a new market, (iv) the discovery of a new source of supply, and (v) a new way to organize an industry. This list is most often taken for granted. Yet, Baumol (1993) expands it with two new categories:

- The “*innovative acts of technology transfer*” (p. 28), which are activities surrounding the replication of foreign technologies. The author, among others (see for instance (Nelson, Pack, 1999; Hobday, 1995), consider that replication in a different context is a type of innovation because it always involves a certain degree of novelty and surmounting many obstacles and uncertainties. Baumol also puts forth that this type of innovation is necessary to account for convergence dynamics among economies.
- A destructive type of innovation in terms of rent-seeking procedures. According to Baumol (1993), these innovations have always been present over the course of human history, but they have been outnumbered by the other, productive, types of innovations in countries where economic growth has taken off.

We believe social innovations could expand Schumpeter’s list further. However, defining social innovations proves to be difficult. Indeed, most definitions are making use of the word “social”, which poses a circularity problem. For instance, Mulgan (2015) indicates that they are “*innovations that are social in both their ends and their means*”. In the same vein, Dacin et al. (2010) list 37 definitions of social entrepreneurs, most of which are relying upon the word “social”. In their definition attempt, Krlev et al. (2019) put forth that social innovations respond to citizens’ lack of trust in the ability of the market to solve a wide range of social and ecological issues, and Moulaert and Ailenei (2005) highlight that social innovations are solutions aiming at correcting the allocation of resources produced by the market. Assuming that social innovations are emanating from the third sector (Anheier et al., 2019), we can infer that they depart from the profit-seeking mo-

tive and that they contribute to modifying society's allocation of resources (financial, medical, educational, relational, or environmental). From this perspective, we propose to define social innovations as reallocation innovations, which do not bow to the profit motive. This new type of innovation can be thought as another expansion of the Schumpeterian listing. Baumol's (1993) contribution to Schumpeter's work goes beyond the addition of elements to the well-known typology of innovations. He adds a theoretical framework to it: to him, all societies past and present are made of a category of risk-taking individuals, who allocate their efforts among the various types of innovations depending upon the society's payoff system. Prior to the Industrial Revolution, rent-seeking innovations were providing safer and greater rewards, in terms of profit and prestige, than the productive types. Mokyr (2010) indicates that the situation changed in England on the eve of the 19th century due to the emergence of a culture of the "*gentleman entrepreneur*" (p. 188). Despite an inadequate banking system, productive entrepreneurship flourished thanks to a virtuous circle between an individual's trustworthiness in business affairs and its social reputation. Going back to social entrepreneurship, we could infer that its recent development might be the reflection of a changing system of beliefs and payoffs. For instance, we note the appearance of new legal forms of non-profit companies, like the benefit corporations in the United States, the community interest companies in the United Kingdom, or the *entreprise solidaire d'utilité sociale* in France.

What Baumol's theoretical hypothesis of the allocation of entrepreneurial efforts reflects is that a sustained innovative dynamic in a specific direction (productive/unproductive, or even social) is the product of a larger system, which might include a set of cultural elements but also institutions governing financial payoffs (for instance, property rights or means to get access to necessary financial and human resources). These norms and institutions are largely country-specific and therefore, in the same way as we speak of national innovation systems (NIS), we believe that we could speak of national social innovation systems (NSIS). A gap in Baumol's theory is that it does not explain how and why payoff systems are changing over time, and therefore why would an NIS emerge at some point in a country's history, or why would an NSIS emerge in recent years? The lack of trust in governments and markets (Krlev et al., 2019) stands as a potential explanation. Moolaert and Ailenei (2005) also points to the gap between growing inequalities on the one hand, and the promises of greater wealth produced by free markets on the other.

Mokyr (2013) answers the question about changes in societies' payoff systems with his concept of cultural entrepreneurs. They are individuals who search for reputational fame by proposing new cultural elements (ideas, values, and beliefs). For the author, such individuals experience a "*cognitive dissonance*" (p. 7) between the set of prevailing beliefs and a large amount of contradictory evidence. Examples of cultural entrepreneurs are famous innovators in the domain of ideas who provoked dramatic changes in the beliefs of their contemporaries: Luther and Calvin, Galileo, Adam Smith, Marx, or Bacon stand as famous examples. The transformative power of these new beliefs comes from the fact that they share three characteristics: they are "normative", "positive", and "prescriptive", that is they are desirable, possible, and formulated in the form of a practical or political agenda. To rephrase the theoretical framework developed so far: due to some cognitive dissonance between observations and society's set of accepted beliefs, cultural entrepreneurs propose new beliefs and changes in the payoff system, which then guide the efforts of risk-taking individuals toward more or less productive innovations.

In the case of social entrepreneurship, there are many advocates of alternative business models, like Bill Drayton, the founder of Ashoka - a non-profit organization supporting social entrepreneurs, or Muhammad Yunus, the promoter of micro-finance and founder of the Grameen Bank. These individuals can be considered cultural entrepreneurs because they produce beliefs that are normative, positive, and prescriptive. Indeed, their social enterprises demonstrate the desirability and feasibility of social ventures, while their conferences, books, and papers incentivize other individuals and political leaders to change their beliefs and the payoff systems so as to make social entrepreneurship more common and rewarding.

The fact that people's values and beliefs have evolved in favor of social entrepreneurship in developed countries is exemplified by the normalization of social entrepreneurship evoked in the introduction of this paper and the appearance of the KISS actors (Desmarchelier et al., 2020). Regarding the changes in the payoff systems, we have highlighted the appearance of new legal forms of companies and there are many policy initiatives supporting social entrepreneurship, like the recent Social Economy Action Plan of the European Commission.¹ In sum, studying social entrepreneurship through the sole lens of the entrepreneurs is incomplete, because it omits the growing influence of the surrounding national system that supports and promotes social innovations. In this context, the objective of the next section is to bring evidence that NSISs do exist.

¹ <https://ec.europa.eu/social/main.jsp?catId=1537&langId=en>, accessed 07.02.2022.

Mapping a National Social Innovation System

The concept of a national innovation system (NIS) states that a country's performance in terms of innovations is the product of a set of intricate relationships between firms, universities, and government agencies (Nelson, 1993; Freeman, 1995). The national character comes from the history-dependent nature of the actors and their relations. For instance, the US innovation system since the Second World War has been dominated by the defense industry (Mowery, Rosenberg, 1993), while in Japan, the Ministry of International Trade and Industry had a considerable influence upon firms' technological catch-up (Odagiri, Goto, 1993).

From a methodological point of view, contributions in terms of the NIS often consist in presenting data about patents and R&D spending, which are then put into perspective through specific historical and political considerations. Such an identification strategy seems inappropriate in the case of social innovations. Indeed, actors from the social economy are not profit-seeking, and therefore they have no use in patenting. The consequence is a lack of data about social innovations at the national level.

In this context, Desmarchelier et al. (2020) propose an alternative: they depart from a KISS actor, the "Agence Nouvelle des Solidarités Actives" (ANSA), and they build a social innovation network from the list of all the innovative projects supported by this actor. The ANSA is a relatively new actor, as it was founded in 2006. We note that this network is too small (134 actors), too disconnected and too dependent on a few actors to stand as a fair picture of a NSIS. Yet, the methodology can be replicated on a larger scale. This is what we propose to do in this section to get an overview of the French NSIS. To uncover the French NSIS, we propose to use an older KISS, Ashoka, a US-based organization aimed at promoting social entrepreneurship around the world. The organization was founded in 1980 by Bill Drayton, who we identified in the previous section as a cultural entrepreneur. We consider Ashoka a KISS actor since it supports social entrepreneurs by helping them in skills building and by integrating them into a peer network. The organization operates in many countries, where it supports local social entrepreneurs, named "Fellows Ashoka".² In particular, Ashoka supports 72 "fellows" in France. These are selected by Ashoka for their specific projects, and as such these fellows actually constitute a list of 72 social innovation projects.

Table 1. Excerpt from the Relational Matrix of the Ashoka Network in France

Organizations	Projects		
	Les petites cantines	Chemins d'avenir	Activ'Action
Ashoka	1	1	1
AG2R	1	0	0
La France s'engage	1	0	1
Fondation de France	1	0	1
Fondation petits frères des pauvres	1	0	0
Fondation St Irénée Lyon	1	0	0
Fond Groupe SEB	1	1	0

Note: The projects supported by Ashoka are recorded in the columns, while the participants appear in the rows.
Source: authors.

The projects' websites usually list all the participating actors, which enables us to build a relational matrix linking actors to the social innovation projects. Since we do not know the financial involvement of the various actors, we use binary numbers: 0 when an actor is not involved in a project and 1 when it participates. An excerpt of this matrix is provided in Table 1. In this table, we observe that many actors are involved in a project named "les petites cantines"³. In addition, the actor "Fond Groupe SEB" is also involved in the project "Chemins d'avenir", while the actors "La France s'engage" and "Fondation de France" participate in the project "Active Action". This type of cross-participation acts as bridges between projects, favoring the emergence of a well-connected network of socially motivated actors.

The 72 projects mobilize a total of 1,031 actors. Assuming that participants in a given project are related to one another, we can build a second matrix linking these 1,031 actors together directly.⁴ The resulting network is displayed in Figure 1. In this Figure, the vertices represent the actors and every relationship between them is symbolized by a link. Links are not repeated: if two agents are involved in several identical projects, then we still count as only one link. In the Figure, the more central an actor, the more connected it is. Nodes and labels sizes are proportional to the actor's connectivity in the network, and for readability reasons, only the labels of the 50 most connected actors are displayed. Figure 1

² The list of all Ashoka Fellows in France can be obtained at the following address: <https://www.ashoka.org/fr-fr/fellows-ashoka>, accessed 07.02.2022.

³ "Les petites cantines" is a project aiming at reducing people's loneliness by creating participative canteens throughout the country. "Chemins d'Avenir" is a mentoring system to provide support and guidance to the youths living in disadvantaged neighborhoods. "Active Action" helps the unemployed to gain more confidence in their capabilities, beyond their past job experiences.

⁴ The corresponding network files can be obtained freely from the authors upon request.

Figure 1. Overview of the Ashoka Network in France

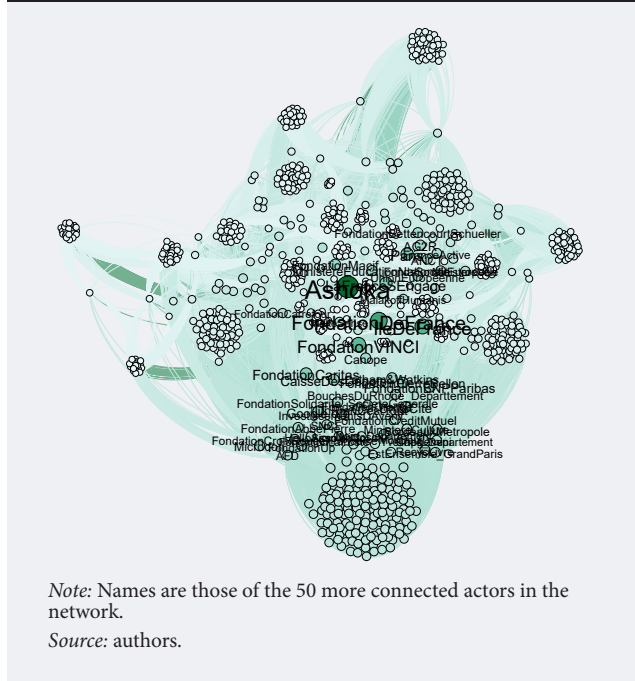
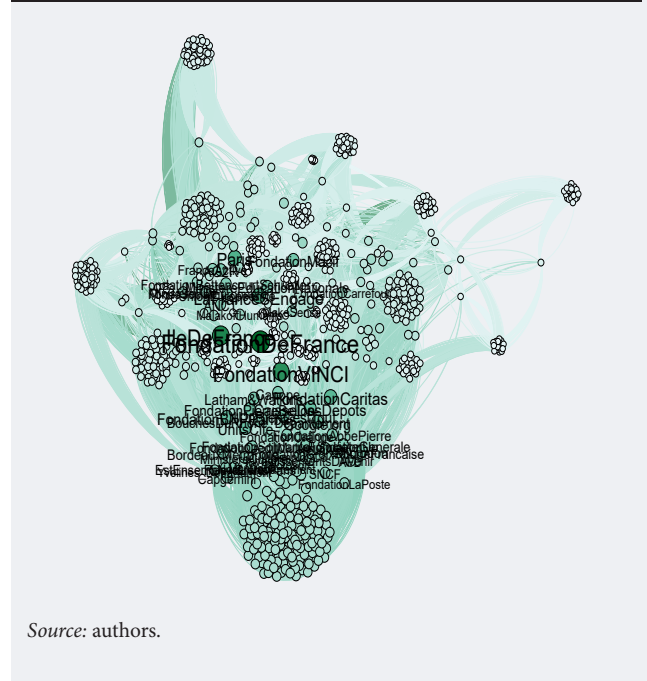


Figure 2. The Social Innovation Network in France when Ashoka has been Removed



shows the existence of several clusters of agents, but none is disconnected from the rest of the network and overall, all the actors seem highly connected to one another. The descriptive statistics provided in Table 2 confirm this impression. Indeed, first, the network is made of a single component, and secondly, the path length of 1.909 implies that many actors are in direct contact and that there is no intermediary between them.

In Desmarchelier et al.'s network (2020), removing the organizing KISS had the effect of splitting the main component into a myriad a smaller and disconnected sub-networks. Figure 2 displays the Ashoka network when Ashoka has been removed. It appears that the network remains highly connected and made of a single component. This observation is confirmed by the Table 2, which shows that the path length is only marginally increased by the removal of Ashoka (2.065 instead of 1.909). At the same time, the average number of links per vertex barely decreases (91.363 instead of 93.272). As a result, we can say that the present social innovation network is way more robust than the one presented in Desmarchelier et al. (2020), and therefore it constitutes better proof of the existence of a French NSIS as well as a better picture of it.

Table 3 provides the list of the 50 most connected actors in the network. All of them are more than twice as connected as the network average (93.272 links on average, see Table 2). This core of highly

connected agents is the source of the robustness of the network, even in the hypothetical situation in which Ashoka would cease its activities. They are thus essential for the functioning of our social innovation network and certainly central as well in the French NSIS. Comparing this list with the core of the country's NIS allows one to highlight differences and similarities between the two innovation systems.

To our knowledge, the most recent description of the French NIS is provided by Muller et al. (2009). This system is structured around a few major public research centers: the National Center for Scientific Research (CNRS) which handles fundamental research and several mission-oriented public research

Table 2. Descriptive Statistics of the Social Innovation Network

Indicators	Network with Ashoka	Network without Ashoka
Nb. of links	48082	47052
Av. degree	93.272	91.363
Av. path length	1.909	2.065
Highest distance	2	3
Nb. of components	1	1

Note: The average path length is the average shortest distance between pairs of vertices in the graph.
Source: authors.

Table 3. The 50 Most Central Actors in the Ashoka Network in France

Actor	Numbers of links in the network
<i>Third sector – Knowledge Intensive Social Service</i>	
Ashoka	1030
Fondation de France	705
La France s'Engage	418
Fondation MACIF	319
France Active	253
Make Sense	226
<i>Third sector – Large corporation Foundations</i>	
Fondation Vinci	564
Fondation BNP Paribas	352
Fondation Solidarite Societe Generale	282
Fondation Credit Mutuel	281
Fondation Orange	265
Fondation La Poste	232
Fondation Carrefour	228
Fondation Up	270
<i>Third sector – Independent actors</i>	
Fondation Caritas	396
Unis Cite	337
Un rien c'est tout	321
Fondation Abbe Pierre	283
Fondation Croix Rouge Francaise	270
Fondation Perre Bellon	317
Fondation Bettencourt Schueller	281
<i>Third sector – Social Security</i>	
AG2R	300
Malakoff Humanis	230
<i>Public Service – Administration</i>	
Ministry of Education	301
Ministry of Culture	263
Ministry of City	237
ANCT	268
Canopé	293
European Union	263
Department of Yvelines	236
Department of North	243
Department Bouches Du Rhone	276
Ile de France	603
Paris	426
Bordeaux Metropole	289
Est ensemble Grand Paris	269
Montreuil	238
<i>Public Service – Funding Agency</i>	
Caisse des Depots	348
Investissements d'Avenir	261
European Social Fund	250
Agence Francaise de Developpement	243
<i>Companies</i>	
Google	331
Latham & Watkins	307
Microdon	293
Recyclivre	269
Capgemini	269
SNCF	251
Simplon Co.	267
Microsoft	233
Hello Asso	260

Source: authors.

institutes.⁵ The research output emanating from these centers are then spread among the country's major corporations and therefore, a few public research centers determine the system's technological trajectories (Dosi, 1982). Coordination of the agents is mainly top-down and is initiated by the scientific and industrial policies of the central government. The network provided in this paper can only stand as a partial view of the French NSIS. Nonetheless, it allows one to see that the coordination of actors within the NSIS follows a more bottom-up logic. This claim can be justified in several ways. Firstly, the social innovation projects upon which the network has been built were not initiated by actors from the public sector, nor by large corporations. Secondly, Table 3 lists several mission-oriented public actors: three ministries (Education, City, and Culture), Canopé (a public network promoting reforms in education), and the ANCT (a government agency supporting the local administrations in their projects aimed at improving a territory's economic attractiveness). By nature, these actors are not engaged in providing others with hands-on new technologies to exploit. Besides, ANCT and Canopé put forth a co-production logic and the projects they support are initiated by local actors. In sum, while the NIS is led by the central government, the NSIS, while the former system is led by the central government, the latter one is led by private actors (mostly from the third sector). Apart from the coordination criterion, the NSIS differs in terms of the actors involved. First, there is no research center at the core of the network. Secondly, large corporations are mainly present through their foundations and, except in the case of Vinci (construction industry), these foundations emanate from service industries. Other specific features are, of course, the presence of many third sector agents and that of KISS actors. Interestingly, the funding agencies especially the Caisse des Dépôts and Investissements d'Avenir are major funders of the NIS as well, suggesting the possibility of an intertwining of the NIS and NSIS actors. All in all, despite some common points (especially in terms of funding agencies), the NSIS and the NIS differ in terms of coordination mechanisms and in terms of the actors involved.

Conclusion

The first objective of the paper was to discuss theoretical foundations about the existence of NSIS. Using Baumol's (1993) theory of the allocation of

⁵ Such as the National Research Institute for Agriculture, Food and Environment (INRAE), the national institute for research in computer science (INRIA), the Nuclear Energy Commission (CEA) or the National Institute for Medical Research (INSERM).

entrepreneurship among the various types of innovations, we argue that the normalization of social entrepreneurship suggests the existence of a large support system. The second objective was to provide an illustration of a NSIS. With this in mind, we built a large network aimed at producing social innovations in France. In our view, the size and robustness of this network make it a credible picture of the French NSIS. On these grounds, we highlight some marked differences between it and the French NIS. Indeed, the core of the NSIS involves many nonprofit actors and, among them, very few emanate from manufacturing industries. Besides, the coordination of actors seems largely bottom-up, because the social innovation projects at the basis of the system are not resulting from decisions of the central government. One may argue that it is a direct consequence of the methodology that we

used for uncovering the NSIS: after all, we started from entrepreneurs and their social innovations. It remains nonetheless the case that the public institutions that proved central in the network are adopting a co-productive stance, instead of providing directions to the rest of the system.

To expand this discussion, the existence of NSIS suggests that many concepts forged into the study of technological innovations (technological regimes, technological trajectories, regional innovation systems, etc.) could be applied to social innovations. This would represent a promising avenue for future research.

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