

METHODOLOGICAL CHALLENGES IN MEASURING SOCIAL INNOVATION – LITERATURE REVIEW

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ABSTRACT

The conceptualisation of social innovation and the determination of measurement levels are relevant challenges. However, they are only partly investigated in the academic literature. Several fundamental problems of economies and societies – such as population loss, unemployment, migration or lagging regions – require long-term solutions embodied in innovative cooperation between society stakeholders, direct and voluntary participation of the population in decision-making processes and implementation of social innovation efforts. The concept of social innovation focuses attention on meeting community's needs with a special emphasis on benefits of innovation to society, which results from problem solving of innovative ideas at local and community levels. Social innovation interacting with technological innovation and mutually reinforcing each other is capable of responding to local and community challenges, which will lead to improving communities' well-being. After conducting a literature review, this study attempts to identify measurement structures and fully analyse them. After this, a multilevel measurement model that helps measure social innovation processes is created. Also, specific rules and limitations are considered.

1. INTRODUCTION

The EU cohesion policy, Horizon 2020 program (a program that determines EU's research, development and innovation policy for 2014-2020) and different societal challenges provide a basis for investigating the opportunities for measuring social innovation processes. The concept of social innovation focuses attention on meeting community's needs with a special emphasis on benefits of innovation to society, which results from problem solving of innovative ideas at local and community levels. Well-being – apart from income conditions and livelihood needs – is also affected by the feeling of personal safety, self-esteem and network needs (Kocziszky et al., 2015). While investigating social innovation initiatives, it is essential to focus attention on meeting community's needs with a special emphasis on benefits of innovation to society and the role of active community participation in community's life in order to improve standards of living. Social innovation and so-called technical innovations reinforce each other and as a result they can respond to local, community-level challenges, find solutions to everyday problems and thus enhance the well-being of the community. Innovations resulting from the expansion of innovative areas can be characterized as complementary processes.

Social innovation efforts can be interpreted at several levels. When examining macro-level social innovation, network and systematic analysis of regional contexts is required. The analysis of social innovations at the meso level focuses on investigating novel regional co-operations. The exploration of contexts makes it possible to define the framework conditions that will be involved in generating regional social innovation.

2. CONCEPTUALISATION

The current academic literature does not provide a single definition of social innovation, so the scholarly community offers different interpretations and classifications of it (Veresné-Varga, 2018). Scholars have developed a common position that social innovation is closely related to improving well-being, involving societies in different activities and meeting communities' needs.

Table 1 The approaches of social innovation conceptualized by users
Source: Veresné-Varga, 2018.

DEFINITIONS AND USERS	INTERPRETATION
scientific associates, researchers	<i>scientific definitions (normative interpretations, utility, distinction from technical innovation)</i>
civil sphere, civil society organisations	<i>mission, emphasizing the role of social enterprises</i>
government, their institutions	<i>administrative, society-centered interpretation</i>
intergovernmental bodies (EU, OECD)	<i>theoretical and / or methodological approach, measurement questions</i>

However, they approach social innovation from different angles highlighting different aspects. Thus, it is essential to develop a transparent and a consistent structure of this concept. Social innovation can be defined as innovation that meets social needs along new or novel co-operations and structures. Societies' efforts to innovate result in the renewal of societies and in encouraging society members to act. In a normative approach, 'social innovation is a process that increases the willingness of a community to act in the form of new or novel collaborations' (Balaton-Varga, 2017).

Table 2 Interpretations of the concept of social innovation
 Source: own compilation based on G. Fekete, 2015.

AUTHOR	YEAR	CONCEPT, THEORY
Tarde, G.	1899	society as an expanding network economy
Hoggan, F.	1909	social substitution
Gábor, D.	1970	technical innovations have been torn apart from social innovations
Drucker, P.	1980	innovation is also a social category
Zapf, W.	1989	change in society
Mumford, D. M.	2002	new ideas - common aim
Hazel, C.	2003	solving social problems: people involved, new collaborations
Mulgan, G.	2007	social value created by social innovation
Pol, E. - Ville, S.	2009	improving quality of life

After the first mentioning of the concept of social innovation (Tarde, 1899, Hoggan, 1909), Dénes Gábor examined the essential role of social initiatives in 1970, analyzing scientific, technical, biological and social innovations, and concluded that technical innovations had significantly got away from social innovations. In his view, the overwhelmingness of technological innovations has caused disproportion in the process of innovations, as efforts to increase social prosperity are lagging behind and are marginalized. In this sense, social innovation is a comprehensive framework program, which is not primarily an initiative going along with technical innovations, but a "reform" that controls and regulates all the innovations (Gábor, 1970). Social innovations are inseparable associates of technological innovations, and innovations can be interpreted as complementary processes. The new innovative bases - as the field of social innovation - help to realize and improve the technical innovations, while at the same time increase each other's strength and this way they are able to respond to the current challenges of society. While giving the theoretical definition to social innovation, it becomes important to innovate in every area of life, and innovation initiatives should not only be confined to technical and economic fields (Drucker, 1985). According to another approach to social innovation (Mumford, 2002), it means generating and implementing new ideas, in which social interactions are organized to achieve a common goal. Another trend of social innovation theories (Hazel-Onaga, 2003) focuses on solving social problems, highlighting the importance of collaboration among stakeholders. There is also a point of view according to which the concept emphasizes the value created by social innovation (Mulgan et al, 2007), highlighting the fulfillment of social demand as the main goal.

3. MEASURING SOCIAL INNOVATION PROCESSES

Bacon et al. (2008) identified three major factors that explain the dynamic of social innovation processes. They are as follows:

- willingness to change (resulting from awareness of threat or from the feeling of a new opportunity);
- effective activation of the available (internal) capacities to promote such change;
- access to (external) resources to help implement transformation processes

As guidelines and issues related to the methodology of measuring innovation (OECD, 1963, EC, 2006, 2012, Schmitz et al., 2013, Bund et al., 2015) indicate, different measurement methodologies are applied to scientific and technical innovation and social innovation. Social innovation processes combine macro-level measures with organisation-level initiatives based on voluntary participation. In order to create a model that measures effort processes, results and effects, it is essential to examine both top-down (theoretical) and bottom-up (practical based on engaging civilians) strategies.

Drafting measurement structures of social innovation is a complex endeavour. When social innovation is measured based on the system applied in technical innovation, first, the indicators are to be specified and identified as input, output and impact indicators. Also, activity levels and types of their relationships are to be specified. Indicators of technical innovation can help specify social innovation indicators. However, great care should be taken when indicators are adopted (Schmitz et al, 2013).

Measurement is complex and requires the following:

- application of the available and known methodologies and the combination of the available (macro) data;
- investigation of good practices at local levels.

A two-level measuring system (with sets of indicators) is to be developed. Relationships between two structures are to be defined. Also, conducting both structural interviews and empirical research studies (tests, questionnaires) help create the necessary framework conditions.

According to Reeder et al. (EC, 2012) measuring social innovation is an interactive process, which requires the usage of previous data, the application of the available and known methodology at both micro and macro levels.

Zapf (1989) separates methodologies measuring technical innovation from methodologies measuring social innovation.

According to him, the productivity of technical innovation depends on physical energies and materials, whereas the productivity of social initiatives is affected by human creativity and available resources.

Societies keep changing and new products, services, or programs are developed, which both meet societal needs and develop new solutions and relationships.

The investigated academic literature reveals that recommendations made regarding methodologies measuring social innovation and based on different interpretations of the concept can be divided into two groups: top-down and bottom-up strategies (Bund et al., 2015). In the top-down process, a macro-level measurement structure can be elaborated which is based on previous innovation measurement data and on recommendations of the academic literature and determines measurement framework conditions at local level. In the bottom-up process, a systematic measurement typology and methodology can be elaborated which is based on case studies conducted in certain localities. If this measurement typology and methodology is raised to a macro level, this allows measuring the country's social innovation performance.

As for the top-down measurement process, first, measurement recommendations described in the academic literature are to be reviewed and analysed and framework conditions for macro-level measurements are to be established. A macro-level model helps determine micro-level measurements. As for the bottom-up measurement process, analyses of case studies at micro levels help define the typology and methodology to be applied and elaborate a micro-level measurement model.

4. CONCLUSIONS

The above discussed two different interpretations provide a basis for elaborating a methodology for combined measurement structures. The theoretical approach (top-down) based on quantitative examinations (macro-level analyses and the establishment of indicators), qualitative methods analysing best practices (interviews and micro-level case studies) and their combination allow measuring social innovation processes, which face several challenges such as the selection of variables, scarcity of significant best practices and control, among others. The combination of theoretically-based quantitative calculations and expert-based qualitative examinations provide adequate responses to challenges. Quantitative calculations and qualitative analyses allow establishing measurement framework conditions determining social innovation processes, identifying the starting point and the end point and conducting a complete examination of the process.

The social innovation process determines preconditions that guarantee the development of social innovation, factors that define efforts and outputs that are implemented in new structures and collaborative forms.

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