Analysis of Research Trends in Social Value Measurement

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Summary

This study aims to analyse research trends in the methodologies relating to social value measurement that have been enacted in Korea and in other countries. Examining the characteristics of previous studies relating to social value measurement ought to help us overcome the limitations of these studies in the future. In particular, we are interested in finding mechanisms for resolving institutional problems relating to social value measurement in the Korean context. Analysis of research trends in social value measurement conducted in Korea suggests that not many studies in Korea have applied the methodology for objectively measuring social value to actual cases. In the case of foreign countries, however, many attempts, centred on research institutes, have been made to measure social values through direct case analysis. In analysing the methodological trends, it is necessary to conduct numerous studies aiming at concrete and practical social value measurement in order to garner the implications for Korea in the future.

Keywords: social value measurement, social value measurement methodology, text-mining analysis.

Introduction

In many countries today, the concept of social value has become an important research topic (Walzer, 1987; Rawhouser et al., 2019; Powell and Doherty, 2019; Omo-Ikerodah and Dabota, 2020). The academic world is interested in developing a methodology that can measure social value, which is an abstract concept, effectively. By contrast, government policymakers are looking for quantifiable information as to what kind of social value their social policies are generating. However, since the concept of social value is essentially abstract, it is not easy to measure it objectively. It is no exaggeration to say that there is still no objective methodology that many researchers can feel happy with, even though relatively many studies have been conducted in developed countries. What is especially important here is that the methodology for measuring social value should be easy for policymakers or general researchers to use, while maintaining objectivity.

Developing an easy-to-use methodology means that it should be easy to quantify the social values generated by social projects carried out by government or the private sector (Andrew, 2021; Centre for Public Scrutiny, 2021; Fujiware et al., 2020; Raiden et al., 2021; Emerson et al., 2000). Also, the fact that the methodology must be objective means that such objectivity must be assured, and subjectivity largely excluded from the social value measurement process. Looked at from this point of view, the studies relating to social value measurement that have been conducted to date still show limitations (Environics, 2021; Gloucester City Council, 2020; Na et al., 2017) . Developing such a methodology is not a task that can be completed overnight, but instead is a process involving gradual improvements as studies accumulate (Kramer and Porter, 2011; Lautermann, 2013). It is in this light that this study intends to analyse the research trends in methodologies relating to social value measurement that have been conducted in the past so as to seek ways of overcoming their limitations.

Analysis Design

The basic premise

In order to analyse research trends relating to the measurement of social value, it is necessary first of all to define the concept of social value. Various studies (Newcastle City Council, 2021; Phills et al., 2008; Reeder, 2014); Social Value Salford, 2021; Wood and Leighton, 2010; Local Government Association, 2021) have attempted this. However, those that only include only definitions of social values have limitations. It is important to analyse studies that contain both the term 'social value' and the word 'measurement'. Accordingly, this study analyses academic data that contains both terms.

Secondly, this study is based on the situation applying in Korea. Since it addresses social value measurement under Korean circumstances, we analyse the research trends by comparing Korean and foreign studies.

In terms of analysis method, instead of a simple literature study, text mining is generally employed. This is a method suited to the analysis of big data, and so in order to analyse a large number of studies it is useful to employ this method instead of individually analysing individual academic materials.

Analysis method and procedure

The period of analysis ran from 1 January 2010 to 30 September 2022. This period was chosen in order to best reflect recent trends. Discussions relating to the measurement of social value are relatively recent, and in the case of Korea, since the Social Enterprise Promotion Act was enacted in 2007 interest in social value has grown.

For the Korean case, academic research papers included in the Korea Citation Index (KCI) are targeted, and the analysis focuses on the English abstracts included in these papers. First, academic papers that include 'social value' and 'measurement' in the title and as keywords are extracted. However, it is not the Korean but the English abstract that is the focus for analysis. The reason for this is that it is important to look beyond the characteristics of domestic research, to compare Korean with foreign trends and to analyse both together.

Academic papers can be used to help us understand trends relating to social value evaluation or measurement as carried out in foreign countries, but actual evaluations and measurement have also been actively undertaken in foreign countries via various seminars and videos. Therefore, our analysis here focused on YouTube videos instead of on academic papers, the analysis period running from 1 January 2018 to 30 September 2022. We chose to analyse relatively recent foreign trends partly because the video material is extensive and so takes a long time to analyse. But also, the analysis period was limited because it was judged that the use of videos containing terms with high proximity to the main keywords satisfied the aim of the study. The text-mining method was applied by extracting video content that contained both the terms 'social value' and 'measurement'.

Analysis Results

Analysis of domestic papers in Korea
Basic analysis

Of papers published between 1 January 2010 and 30 September 2022, 970 included 'social value' and 'measurement' in their title or as keywords, the total number of words being 6,821. The results

Figure 1 *Word-cloud analysis result for domestic research papers*

of word-cloud analysis as a basic analytical process are shown in Figure 1. Next, the keywords appearing in domestic research papers are presented on the basis of frequency of occurrence (Table 1). The ranking by frequency of keywords generated in the network of foreign studies is shown in Table 1.

Table 1 *Frequency of occurrence of keywords in foreign studies*

		1	2	3	4
		Part of Speech(POS)	Frequency	Word length	Name Type
1	value	"Common Noun"	175.0	5.0	"-"
2	impact	"Common Noun"	102.0	6.0	"-"
3	Social	"Proper Noun"	96.0	6.0	rganization Name"
4	Social Value	"Proper Noun"	63.0	12.0	rganization Name"
5	measurement	"Common Noun"	57.0	11.0	"-"
6	sector	"Common Noun"	47.0	6.0	"-"
7	business	"Common Noun"	44.0	8.0	"-"
8	organisation	"Common Noun"	42.0	12.0	"-"
9	year	"Common Noun"	39.0	4.0	"-"
10	Summit	"Proper Noun"	35.0	6.0	ographical Name"
11	practice	"Common Noun"	30.0	8.0	"-"
12	community	"Common Noun"	29.0	9.0	"-"
13	session	"Common Noun"	27.0	7.0	"-"
14	datum	"Common Noun"	27.0	5.0	"-"
15	work	"Common Noun"	26.0	4.0	"-"
16	thanks	"Common Noun"	25.0	6.0	"-"
17	framework	"Common Noun"	25.0	9.0	"-"
18	Measurement	"Common Noun"	25.0	11.0	"-"
19	person	"Common Noun"	24.0	6.0	"-"
20	activity	"Common Noun"	23.0	8.0	"-"
21	way	"Common Noun"	22.0	3.0	"-"
22	project	"Common Noun"	22.0	7.0	"-"
23	Webinar	"Proper Noun"	22.0	7.0	"-"
24	partnership	"Common Noun"	21.0	11.0	"-"
25	Social Value Ac	"Proper Noun"	21.0	16.0	rganization Name"
26	procurement	"Common Noun"	20.0	11.0	"-"

Topic analysis

By analysing the important topics that domestic studies relating to social value measurement are concerned with, it is possible to identify trends in domestic studies. For this purpose, a separate ego-network linked to the keyword 'methodology' was constructed and topic modelling analysis was performed for them.. Through adjusting the number of topics several times, the analysis derived ten topics which appeared suitable for explaining the research trend. Figure 2 shows the entire network of ten topics.
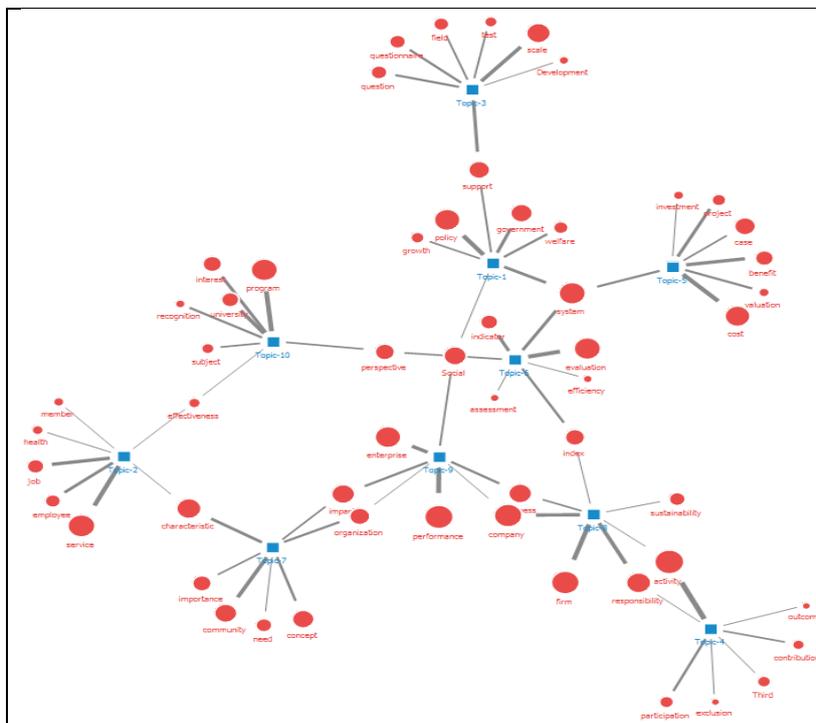

**Figure 2** *Ten topics in domestic research trends*

As Figure 2 shows, the domestic research trends can be represented by ten topics. Separating these into individual topics again, and displaying the importance of the words making up each topic as a score on the link, gives the results shown in Table 2. The results of path finding network (PFnet) analysis and cluster analysis shown at the bottom of Table 1 are used as supplementary tools for analysing the characteristics of topics. Domestic research papers relating to social value measurement include the following as characteristics: government social welfare policy support; measurement of service worker effectiveness; scale problems in field surveys or questionnaires; the contribution of individual activities; valuation of costs and benefits; evaluation indicators and indices; and community. These can be divided into: the influence of measurement activities in the private sector; the influence of corporate performance; and interest in measurement programmes in universities.

Looking at this again, we can discern a further three categories. The first, as relating to the subject of social value measurement, is the issue of interest in and utilization of measurement by government, the private sector and universities: in other words, each subject is interested in measuring social value for the purpose of research or utilization. The second category relates to methodology, which concerns evaluation indicators, indices, and cost-benefit valuation. The third relates to the range of stakeholders included in the measurement, which itself may be related to the measurement of influence on the community and on the effectiveness on service workers.

Table 2 *Ten topics in domestic research trends*
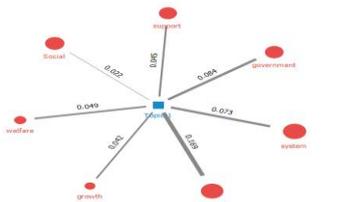
| Topic composition	Topic contents	Characteristics
Topic 1	Policy, system, government, support, social, welfare, growth	Government social welfare policy support
Topic 2	Service, job, health, member, employee, effectiveness, characteristics	Measuring the effectiveness of service workers
Topic 3	Scale, test, development, question, questionnaire, field, support	Scaling issues in field surveys or questionnaires
Topic 4	Activity, third, participation, exclusion, contribution, responsibility, outcome	Contribution of individual activities
Topic 5	Cost, project, case, valuation, benefit, system, investment	Valuation of costs and benefits
Topic 6	Evaluation, efficiency, index, system, indicator, perspective, assessment	Evaluation indicators and indices
Topic 7	Community, concept, importance, impact, organisation, need, characteristics	Impact on the community
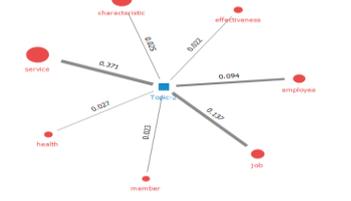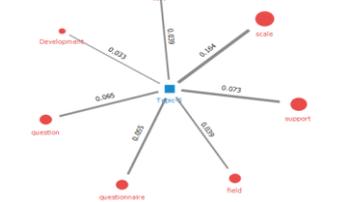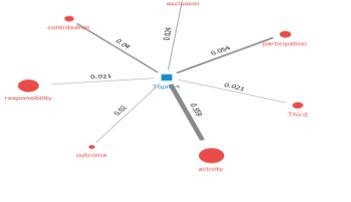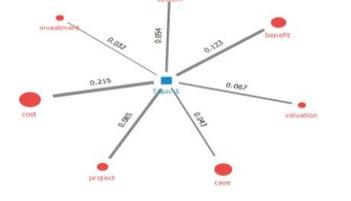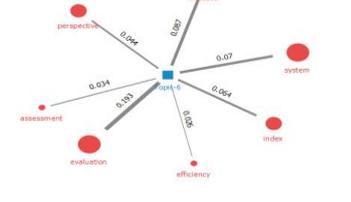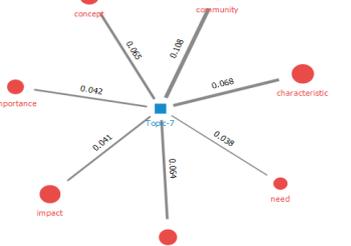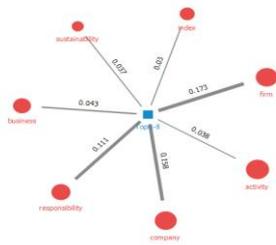
| Topic 8 | | Firm, index, sustainability, business, responsibility, company, activity | Measurement activities in the private sector |
Topic 9		Enterprise, social, impact, company, performance, business, ogranisation	Impact of corporate performance
Topic 10		Program, university, interest, recognition, subject, effectiveness, perspective	Interest in measurement programs at universities
PFnet analysis			
Cluster analysis			
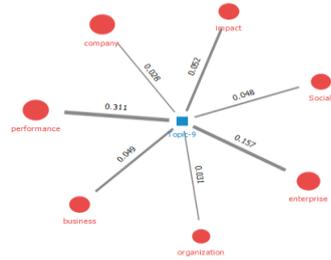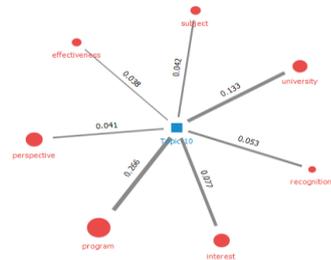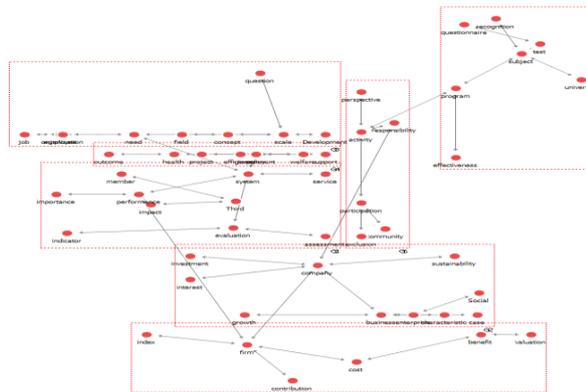
*Foreign video analysis*
Basic analysis

Between 1 January 2018 and 30 September 2022, 156 videos were extracted which included both 'social value' and 'measurement'. The results of executing word-cloud analysis in the same way as for the domestic trend analysis are shown in Figure 3.

Figure 3 *Word-cloud analysis result for foreign YouTube data*

Topic analysis

By examining YouTube videos concerned with social value measurement, it is possible to analyse the major topics relating to methodology that are discussed in foreign countries from a broader perspective than just from an academic point of view. Topic analysis was conducted by constructing the entire network for foreign trends research and reconstructing the ego-network relating to 'measurement' and 'methodology'. Trends in foreign studies were also analysed by extracting ten topics. Figure 4 shows the methodological trends relating to social value measurement in terms of the entire network of ten topics.

Figure 4 *Ten topics in foreign research trends*

As Figure 4 shows, the ten topics relate mainly to the methodological content of field application regarding social value measurement. As Table 3 indicates, the characteristics of the topics include: the principles of investment value evaluation through SROI; various events such as expert-centred seminars; impact-oriented project evaluation; and evaluation activities by private organizations centred on the UK. Also identified are: revitalization; data on impact-oriented stakeholder activities; co-operation between institutions through social value law; the role of consulting companies (summit businesses); various seminars on output evaluation; impact measurement and changes in management; consulting companies (Social Value Portal); and efforts to standardize social values.

Table 3 *Ten topics in foreign research trends*
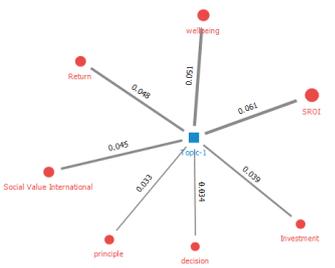
|	Topic composition	Topic contents	Characteristics
Topic 1		Investment, SROI, well-being, return, Social Value International, principle, decision	Principles of investment valuation through SROI
Topic 2		Opportunity, event, professor, president. member, expert, speaker	Professional-focused event opportunities
Topic 3		Impact, project, challenge, company, part, programme, perspective	Impact-based project evaluation
Topic 4		Ben Carpenter, series, Executive, Chief, Malone, PfHs, Social Value UK	Vitalization of evaluation by private institutions centred on the UK
Topic 5		Impact, datum, primary, stakeholder, tool, organisation, investment	Stakeholder-focused data on impact
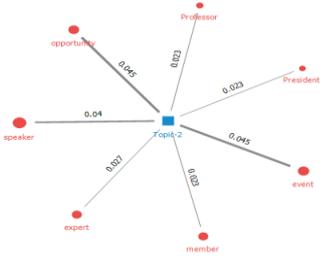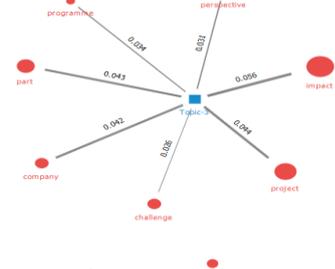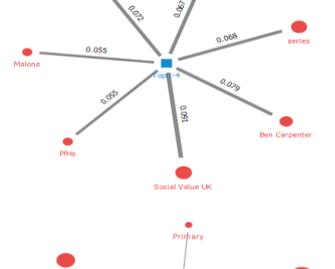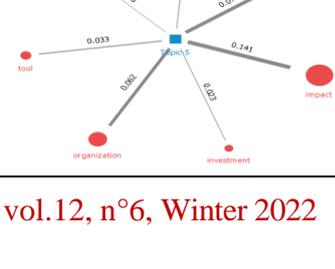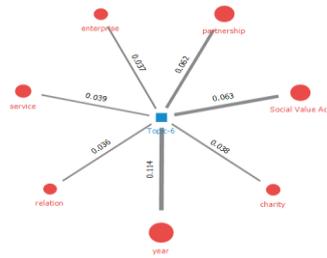
|		
Topic 6	Social Value Act, partnership, enterprise, service, relation, year, charity	Co-operation between institutions through social value law, etc.
Topic 7	Summit, business, development, role, work, com, practice	The role of consulting firms (summit businesses)
Topic 8	Measure, outcome, evaluation, individual, understanding, webinar, case	Various seminars on output evaluation
Topic 9	Impact, information, www, change, management, measuring, org	Impact measurement and management change
Topic 10	Procurement, benefit, Social Value Portal, project, director, measuring, National TOMs	Social value standard efforts made by consulting firms (Social Value Portal)
PFnet analysis		
Cluster analysis		
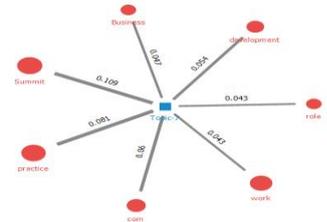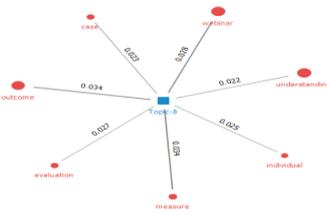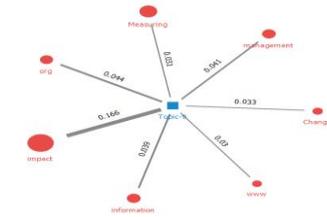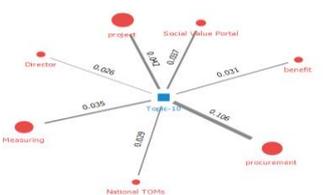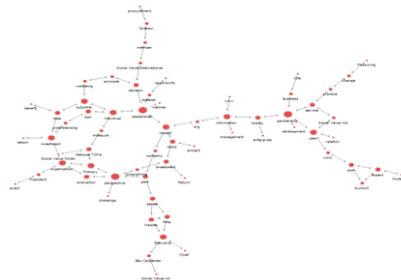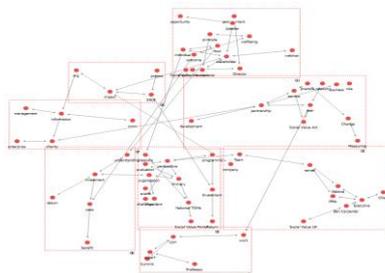
Characteristics of domestic and international research trends

Overall, research trends in social value measurement in Korea over the past ten years can be said to have involved research applied to actual cases. Prior to that, research was carried out simply to emphasize the necessity for social value measurement. Perhaps the reason for this is that the definition of social value itself was unclear, making measuring it well difficult, and meaning that it was not an easy concept to measure methodologically.

The characteristics of domestic research trends in social value measurement may be summarized as follows:

1. Interest in and utilization of social value measurement is growing in government, the private sector and academia. This means that each subject is interested in social value measurement for either research or policy application.
2. This characteristic is related to methodology, which is itself related to evaluation indicators, indices and cost-benefit valuation. There exists a problem relating to which evaluation index to use when measuring social value, and to whether it can be indexed. In addition, the domestic studies discuss issues relating to which methodology to use in quantifying cost benefits.
3. In order to measure social value, the scope of stakeholders must be determined, but this point receives a great deal of discussion because determining this is not easy.
4. Government-affiliated research institutes, private research institutes and individual researchers in Korea have recently conducted a great deal of research on the Social Return on Investment (SROI) method, and studies applying this method to actual cases are appearing. However, according to the various reports, there are many cases dealing with the SROI procedure, but not many studies that follow through the procedure and logic of the SROI method with actual cases. It is hard to say that it has yet to be established as a standardized technique, but it may be said that it is still at the level of discussing methodological issues.

Turning to the case of foreign countries, we can observe that the content of YouTube videos, as opposed to academic theses, may be somewhat different from content apparent in domestic research trends, since the videos are strongly connected with actual applied cases. Research trends in foreign countries, initially classified into ten topics, can be grouped into several intermediate categories, as follows:

1. An increase in the number of evaluation cases for impact using SROI can be identified. In Europe, and centrally in the UK, it seems that the focus is on measuring impact in the process of using the SROI technique for measuring and evaluating social values. Impact does not appear over a short period of time as do output or outcome, but rather is an effect that appears in the mid to long term.
2. It is apparent that private organizations such as consulting companies are holding numerous events in the form of various seminars relating to social values, and leading the spread in the use of social value measurement software through workshops and other means.
3. Foreign research is an attempt to standardize efforts to measure social values. To date, numerous methodologies for measuring social value have been proposed, but it is difficult to say that standardized efforts have yet to be exhausted. Although many methodologies have been proposed, it is thought that the necessity for standardization efforts is recognized, because results can vary greatly depending on which methodology is used.
4. Various areas of foreign research are much more active than in Korea, since the result

of a specific project is digitized and used as a concept of ratio of input to output. In particular, a variety of software for measuring SROI, etc. has been created and spread through seminars and the like. Software for social value measurement has been created (e.g. Sametrica, Sinzer), and measurement using it is becoming more active.

5. An increasing number of evaluations are based on the theory of change, and as a result it can be said that, methodologically speaking, system thinking is highly related to this. A basis on systems thinking is not limited to measurement of the total effect that occurs when one effect occurs, but is related to measuring subsequent effects such as secondary and tertiary effects that the initial effect subsequently occurs. This is also connected with how to set the scope of stakeholders.

Conclusion

This study has attempted to analyse research trends in the methodology for measuring social value, which has recently become an important research topic in academia and in practice, both at home and abroad. It is difficult to measure the concept of social value accurately (Alker, 2020), because it is innately abstract and unclear, and because software that can measure it while excluding subjectivity and strengthening objectivity is not well-developed. Nevertheless, since numerous projects are being undertaken relating to social policy or social welfare, it is critically important to measure the social value that these projects can generate. Developing a methodology for social value measurement is particularly important, because it is necessary to analyse or evaluate a business that reflects not only economic but also social value. From this point of view, this study may prove meaningful in that it analyses the trends in methodologies relating to social value measurement that have been employed to date, and foregrounds strategies that can be used in the future to address the weaknesses of existing methodologies.

Acknowledgements

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