



Article

## Social Uncertainty Evaluation of Social Impact Bonds: A Model and Practical Application

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**Abstract:** In the last years, Social Impact Bonds (SIBs) have gained popularity in the impact investing space. A number of scholars and practitioners are debating—in theory and practice—the opportunities, challenges and obstacles of these financial models. Amongst others, social uncertainty evaluation metrics appear as a critical factor for the future development of the SIB market. The present work aims to shed some light on this issue, by realizing a practical application of a model—which is an extension of a framework previously proposed—for social uncertainty evaluation in SIBs. In our exploratory analysis, 34 SIBs were selected for the empirical tests. We combined the Analytic Hierarchical Process (AHP) with the creation of aggregate measure, deriving by suitable indicators at the end of the tree. Our findings open new avenues for future research in the field of uncertainty factors in the SIB landscape. Finally, our results represent a basis for implementing a prediction model for social uncertainty evaluation.

**Keywords:** social impact bonds; impact investing; social uncertainty; decision-making under uncertainty; analytic hierarchy process

## 1. Social Impact Bonds and Social Uncertainty: Setting the Context

The purpose of this exploratory study is to realize a practical application of a model for social uncertainty evaluation in Social Impact Bonds (SIBs).

Since their introduction in the United Kingdom in 2010, SIBs have become popular in the academic, practitioner, and policy-maker world [1,2]. In the impact investing arena, SIBs are an interesting innovative financial mechanism [3], that seem to promise a solution for financing complex social interventions [4] and reallocate performance and financial risk from the public towards the private sector ([5], p. 41). More in detail, SIBs have been defined as "payment by results contracts that leverage private social investment to cover the up-front expenditure associated with welfare services" ([6], p. 57). According to ([7], p. 1), payment-by-results (PbR) is a scheme for "delivering public services where the government (or the commissioner) pays providers for the outcome they achieve rather than the activities they deliver".

A literature overview provided by ([8], p. 72) discusses the main characteristics of PbR: (1) contingent payments depend on independent verification of results; (2) the PbR contracts should include both reward and penalties useful for achieving the outcomes; (3) risk transfer exists and depends on both the impact and the success of the project. SIBs are a form of PbR, but SIBs extend