



Exploring Researches on Impact Assessment: A Methodological Review

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Abstract

This study is aimed at exploring the methodologies, tools and instruments employed by researchers on impact assessment with respect to socio economic aspects, having first surveyed, now that this is an explorative research, comprehensive assimilation of available literatures, information and also drawing on our own experience to uncover the most credible tools that are most appropriately and most commonly employed. The research has revealed that impact assessment is a mystified and challenging research predominantly because what is assessed and what has actually been administered or intervened are in most of the cases parallel lines for what is being assessed is the tip of the iceberg; and further more pretty much of the researched relied on cross sectional data which is too inadequate to unveil the pertinent impact of a program, an intervention, a policy or anything of that sort. We thus recommend that a comprehensive and rigorous tools which are able to capture the multifaceted aspects of an impact should be used. We further recommend that panel data is more revealing than cross section data and hence researchers need to opt for panel data.

Key words: Impact; Panel Data; Propensity score marching.

1. Background and Statement of the problem

Impact is referred to as a marked effect or influence where by a broader and comprehensive approach is necessitated to identify and capture an impact. Of fundamental interest in all program evaluation efforts is whether a particular intervention, as designed, is effective in accomplishing its primary objectives.

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The main challenge of a credible impact evaluation is, thus, the construction of the counterfactual outcome, that is, what would have happened to participants in absence of treatment, the ability to identify and capture the signals of an impact, the accuracy and quality of data being used [1,2].

In absence of an experimental design research, assignment to treatment is frequently nonrandom, and thus, units receiving treatment and those excluded from treatment may differ not only in their treatment status but also in other characteristics that affect both participation and the outcome of interest. It is this nature of the control and treated group that complicated the process of impact evaluation. Even though several alternative tools are developed, there still remains a lot as to how well to identify the signals, capture the impact and come up with most credible research output on an impact assessment. Hence the need of a survey of this sort.

The complication and challenge of conducting an impact assessment has been brilliantly addressed in such a revealing depiction of the subject matter by [1] as:

" Why is it the case that what gets evaluated is only a fraction of what gets done in the name of development—given that the benefits and the need are so clear? Impact evaluation is resource and data intensive; it is a public good—while the benefits are shared the costs are not. High quality impact evaluations generate learning relevant across the international community, yet they are typically paid for by one agency, country or project" [1].

2. Objectives of the study

The main objective of this study is, thus, to explore and or survey literatures on impact assessment on socio economic aspects so much so that the most credible and pertinent tools, methods and instruments could be explored.

2.1 Scope of the study

The major types of impact assessments are, but not limited to, global assessments (global level), policy impact assessment (policy level), strategic environmental assessment (program and plan level), and environmental impact assessment (project level). And the tools are, but not limited to, Matching, Instrumental variable, difference in difference and before and after. Impact assessments can focus on specific themes, such as social impact assessments and gender impact assessments. The survey, however, is limited to impact assessment researches conducted to assess socio economic impacts. Furthermore, Impact assessment identified two separate sets of questions, one dealing primarily with quantification of effects, the other with their explanation. The former relying on counterfactual methods, the latter on theory based methods. This research assessed the different tools, instruments and methods used and their credibility in conducting an impact assessment. Thus we deal exclusively with the former set of methods, devoted to quantifying whether a given intervention produced the desired effects on some pre-established dimension of interest.

2.2 Research question

Empirical studies on impact assessment and/ or impact evaluations were conducted by a number of researchers. The empirical investigation has been useful to investigate and find answers to the following set of questions:

- What are the commonest and relatively most credible tools of impact assessment?
- Which types of data are more relevant to the issue of impact assessment?
- What are the differences among the various impact assessment tools?
- How far is the bias avoidable or controllable?

3. Methods

Review of empirical works on socio economic impact assessment is important for various reasons. First, it helps to assess the present state of knowledge of the impact evaluation process. Second, it helps to enhance the interpretation of empirical models and their results and its implications as against the conceptual or theoretical models.

This research is an exploratory research. The main purpose of such studies is that of exploring the tools and methods employed in socio economic impact assessment and thus an attempt is made to probe a more rigorous research question. As such the research design appropriate for such studies must be flexible enough to provide opportunity for considering different aspects of a problem under study. The study, has thus, employed an extensive survey of related literatures, conduct an expert opinion pool, and delve on a prior knowledge of the subject matter and previous researches conducted by the researchers.

3.1 Survey of Empirical Studies on Impact assessment

There is a growing interest on impact assessment and now a day's countless researchers are joining the same bandwagon. For instance [3] on the study conducted on the impact of ciet assisted projects on children's educational attainment the case of Aleta Wendo (sidama zone, SNNPR) employed Propensity Score matching technique to capture how well the project influenced the academic performance 10th grade students (10 GSLCE result) of the participant of the program; The greatest drawback of this approach for such research topic, number one, is the spillover effect of the project has not been controlled. Hence the limitation. Secondly the impact of the project across a serious of time on the treated was not beyond the capacity of the propensity score matching model. In a similar vein [4] in her study on the impact of khat production on farm households' staple food crop production: the case of Shebedino Woreda, Southern Ethiopia propensity score matching as an attempt to see how well or bad khat production affected farmers' food production. Again the matching algorism may deceive researchers that the final outcome is plausible. What most researches who are employing propensity score, like this, are missing is understanding of the processes leading to the factors that caused and shaped the particular context [5]. That is why panel data is believed to have been able come up with a more revealing information.

A couple of researches are surveyed which could have identified a more revealing impact had it been the case that either the tool and or instrument or the data question is addressed the way it is generally recommended [6,

7].

Even though the literature is full of existing work on various aspects of impact assessment, the researchers earmarked the necessity of employing a rigorous tool, with a somewhat a comprehensive focus. In this regard' [8] eloquently underscored:

"..... Assessment of local development impact often focuses excessively or exclusively on how much cash, how much increased production, or how many jobs are generated, rather than on a broad range of livelihood issues. This is particularly true in conservation and development projects, which have only recently come to embrace wider social issues."

The reality of the above case in point is not limited to studies on conservation and development projects it is also a marked veracity, and not an exception, when we come to impact assessment researches conducted on socio economic aspects.

Be that as it may however, there are also research articles which comprehensive research questions, with wide-ranging tools and with relevant and quality data. A typical instance that approached the issue from multifaceted perspective is the work of [9] on their studies on Impacts and sustainability of dry land husbandry project. In a similar vein [10] in their attempt to answer the research question "Do Natural Disasters Affect Human Capital" addressed the subject matter from a wide spectrum of perspectives. Reference [11] too was very comprehensive in his impact assessment research on Socio economic and environmental impact assessment of community based small-scale irrigation in the Upper Awash Basin. A case study of four community based irrigation schemes. For instance authors [2] who under took an impact assessment research on the hidden impact of cooperative membership on quality management: a case study from the dairy belt of Addis Ababa using panel (pooled cross section) data and used multiples of tools (both instrumental variable regression and propensity score matching methods) and proved the consistency of the finding between the two methods, thus justifying credibility and reliability. Furthermore [12] in their endeavor to study the Impact of Grain Price Hikes on Poverty in Rural Ethiopia using panel data and a random effect model. Furthermore, [13], in his study on The Effect of Asset Liability Management on Profitability of Ethiopian Commercial Banks used panel data to fit them into the Social Cost Accounting (SCA) Model.

4. Conclusion

In this research the works of Published studies on impact assessment with respect to socio economic aspect has been surveyed, albeit with limited scope. The study has underscored that there is a growing interest on impact assessment among researchers with the tool and method of the assessment skewed unduly to propensity score methods. A vast majority of the published work lack either comprehensiveness in their tool or a quality or relevant data (especially panel data) in their regression models to evaluate the relationship between an exposure and an outcome.

The study also identities, though handful, several published studies who have number one applied a multiple of tools, number two addressed the subject matter from a wide array of perspective and number three used relevant

and quality data.

5. Recommendation

We thus recommended the following:

- The application of pertinent, comprehensive, rigorous and contextually reliable tools of impact assessment than following the beaten path of mediocrity or the bandwagon effect
- One should address the subject matter of impact assessment from a wide spectrum of perspective for the bandwagon effect tells you other wise
- In addition to the type of methodology that is employed, there is also an equally important questing that one needs to be conversant of. That is the type and the quality of. Data type and quality is always the critical ingredient to any reliable estimation strategy. As far as impact assessment is concerned, since an impact cannot really be short lived, time series or panel data is a preferred data which could yield a reliable estimation.
- Since the study is limited to socio economic aspect of impact assessment, it is recommended that similar studies on other or related scope should be conducted to augment the findings of the study.

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