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Documenting empirical research in Economics: why is it important and how is it done?

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Abstract: One of the main challenges facing economic researchers across the globe, especially empirical researchers in developing economies, is how to document their work. Indeed, numerous scholarly contributions are rejected by credible and refereed journals due to poor documentation. This paper examines the importance of good documentation of empirical research in Economics as well as how such documentation is done. Specifically, this paper shows that replication may be impossible if empirical research is not properly documented, and that well compiled data file, do-file, and technical annex are key ingredients of properly documented empirical research in Economics.

Keywords: Economic Research; Journal Articles; Developing Economies; Nigeria
JEL Classifications: B40; A29; O10; N17

INTRODUCTION

In the general research literature, the word ***documentation*** means the acknowledgment given to sources used during a research activity. It refers to the evidence provided in the form of footnotes, endnotes, references and bibliographies, to acknowledge information, materials and ideas obtained from others. In other words, it refers to the sources of information contained in a research report. Following this definition, several styles and formats of documentation such as APA, MLA, Harvard, Chicago, and Vancouver have become popular in the literature [1, 2]. However, in this paper, the term ***documentation*** refers to the write up describing the questions raised in an empirical research study, how the study was conducted, and the main findings of the study. Simply put, documentation is an important aspect of empirical research in Economics which deals with carefully reporting the goals/objectives of the empirical study, the method(s) used and the key findings so that others can understand the report and make use of the findings. The importance of documentation in empirical economic research cannot be over stressed. It is an obligation that the researcher owes others, which should be discharged with the highest ethical and technical standards. Indeed, in conducting empirical research in Economics, it is very essential that the research process as well as subsequent improvements made to it is properly documented. In economics, proper empirical research documentation requires that all the activities, processes, data, model specifications and estimation results should be fully and transparently reported. This means that no one is left in doubt as to how an empirical research has been conducted or the credibility of the empirical evidences obtained. In other words, when an empirical research work is adequately documented, other researchers following the reported procedures should be able to replicate the work. In what follows, the rationales behind proper documentation of empirical research in Economics and the main elements of such documentation are discussed.

Rationales for Good Empirical Research Documentation in Economics

Replication

Some empirical researchers undertake on-screen modeling. This means that with time, such researchers may not be able to remember what they have done or how they estimated their models. Proper documentation of empirical economic research makes it easy not only for the researcher but also for other interested third parties to easily replicate a given study. Simply put, good research culture requires that one can go back, repeat an analysis and arrive at the same result again [3].

Validation

Sometimes, editors and reviewers for credible journals, especially the ones indexed in Thomson Reuters, may need to validate the results reported for a given empirical economic research. Indeed, other interested third parties may also desire to validate the outcome of a particular empirical study, especially where such empirical results are somewhat controversial. Indeed, where fraud is suspected, validation of the research results and conclusions becomes necessary. Such validation will be practically impossible, except if the empirical study of interest is properly documented. This is because proper documentation is necessary to show what has been done, and that it was done in the way claimed in the original research report [3].

Comparability

Most empirical results in Economics are usually compared with the results of related studies in the literature. For such comparisons to be meaningful there is need to ensure that the empirical studies of interest are adequately and properly documented. Proper documentation makes it easy to establish the points of departure from one study to the other, especially in terms of data and methods.

Ease of Recall

As states in part an above, there is a natural tendency for a researcher or indeed anyone else to forget the procedures and processes of generating some empirical outcomes. This means that proper documentation is necessary to ensure that a researcher is able to recall the procedures and processes used to arrive at the reported empirical results.

Key Elements of Well Documented Empirical Research in Economics

The following are the main components of any credible empirical research in Economics:

Data File

There should be a well articulated data file. This file should contain the data used for the analysis. All data transformations, such as the conversion of data from one national currency to another or the indexing of data to a given base year, must be clearly and transparently captured in the data file. In addition, the source of all data items should be adequately reported in the data file. In general, the data and data transformations used for a given empirical analysis in Economics should be fully described and documented by means of a data file. It must be stressed here that without a properly documented data file, no empirical study in Economics can be replicated let alone validated.

Do-file

The do-file is the program file used to run the model of interest for a given empirical study. It is usually written using the computer programming codes of a particular econometric package such as Eviews, STATA, Microfit, GAUSS, SPSS and so on. The do-files for most empirical studies in microeconometrics are written using STATA or SPSS codes, while those of empirical studies in macroeconometrics are mainly written using Eviews, Microfit or GAUSS codes. The critical issue here is that even though empirical researchers in Economics are not expected to be expert computer programmers, they are nonetheless expected to possess certain minimum skills in the use of computers in empirical analysis. This means that economic researchers should be able to write computer programs or codes that can run the models of interest using the available data. Interestingly, once a do-file is written, it becomes a permanent feature of a given research study. It can be run over and over again by the researcher or any other interested person. Furthermore, since most econometric packages are backward compatible, it then follows that a do-file written under a particular version of an econometric package will still run on subsequent versions of that package. For example, do-files written in Eviews 8.0 and GAUSS 13 are compatible with Eviews 9.0 and GAUSS 15 respectively. Hence, once an economic researcher develops a do-file, there is no need to worry if new versions of the package used emerge. The most interesting feature of a do-file is its ability to use the data to repeatedly generate the results of the study even without further human intervention. Hence, most credible journals insist on the submission of the do-file as one of the critical requirements for paper submission.

Research Report

Once the data file and the do-file have been used to successfully run the model for a given empirical study in Economics, the researcher can then proceed to report the results. This is done in such a way that the research output is presented in a transparent, concise and well written article, bearing in mind the requirements of the journal where the researcher intends to publish the report. A detailed guide on how to write good articles for publication in credible journals can be found in Nikolov [4] and Ogbuabor and Eigbiremolen [5]. In a nutshell, the researcher must ensure that: (i) a proper introduction is provided, showing the overall motivations for the study; (ii) a clear gap is identified in the literature which the study then addresses; (iii) quality papers, mainly those published in credible refereed journals are cited in the literature review; (iv) the methodology and empirical discussions meet high technical and analytical standards; (v) the style of presentation, quality of grammar, word count and referencing format used are quite standard and meet the requirements of the journal of interest; and (vi) that all unethical issues such as plagiarism are avoided.

Technical Annex

Sometimes, the word count limitations imposed by a given journal may not permit the researcher to show the full details of the technical computations and derivations involved in a study. When such situations arise, the researcher may use the so-called **technical annex** to provide the details of the computations and derivations, thereby giving room for the main write-up to proceed seamlessly. Some editors usually upload the main article and the accompanying technical annex in the online version of the paper, while others upload only the main article so that the technical annex can then be obtained on request. In general, empirical economic researchers interested in papers that have technical annex are generally encouraged to obtain the technical annex so that they will be able to see the full details of the technical computations and derivations involved in the study. Similarly, economic researchers are also encouraged to make use of technical annex so that transparency and technical details are not sacrificed on the altar of brevity.

CONCLUSION

The hallmark of every academic career is the publication of research outputs in credible and refereed journals, especially the ones indexed in Thomson Reuters. Unfortunately, most empirical research outputs in Economics are usually rejected by top ranking journals due to poor documentation. In this paper, I have provided the rationales behind proper documentation of empirical research in Economics and the main elements of such documentation. Empirical researchers in Economics, especially those in less developed countries like Nigeria, are encouraged to carefully consider the points raised in this paper so that the challenges they face in publishing their research outputs in top ranking economic journals may be reduced.

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REFERENCES

1. McCaston, M. K. (2005). Tips for collecting, reviewing, and analyzing secondary data. *HLS Advisor*, *27*, 1-9.
2. Derntl, M. (2014). Basics of research paper writing and publishing. *International Journal of Technology Enhanced Learning*, *6*(2), 105-123.
3. Lewis, M., Haviland-Jones, J. M., & Barrett, L. F. (Eds.). (2010). *Handbook of emotions*. Guilford Press.
4. Pavlov, D., & Nikolov, P. (2013). Capacitive carbon and electrochemical lead electrode systems at the negative plates of lead–acid batteries and elementary processes on cycling. *Journal of Power Sources*, *242*, 380-399.
5. Ogbuabor, J. E. and Eigbiremolen, G. O. (2016). Why Do Research Articles in Economics Get Desk Rejection in Reputable Journals? *International Journal of Academic Research in Business and Social Sciences*, 6(7), 276 – 283.