Proposal Writing: What you should know

Writing an AERC Research Proposal:

What You Should Know

1. Introduction

Research proposals sent to the African Economic Research Consortium (AERC) sometimes do not get very far. In some cases the researcher may be invited to present the proposal at a workshop, but it ends up attracting so much criticism that the author is eventually advised to withdraw it. In other cases the reviewers selected by the Secretariat may consider the proposal so far away from what is required that the researcher is not even invited to present the proposal. I have long felt that quite often these outcomes are avoidable because a good project may be presented very poorly. Many people in the AERC network are, therefore, concerned about such outcomes and this paper aims to reduce their incidence.

Cajal, a famous Spanish neuroscientist, in his book Advice for a Young Investigator (first published in 1897), noted the following simple rules for scientific writers:

- Have something to say
- Say it
- Stop once it is said
- Give the article a suitable title and order of presentation

After more than a century Cajal's advice still makes excellent sense, not only for drafting articles, but also for writing research proposals.

This paper gives researchers some simple advice to keep in mind when writing a proposal. Obviously, it will not give you good research ideas because it is your responsibility to "have something to say". But the paper will help you to put your good ideas into a format thatwill give them the recognition they deserve.

2. Choosing a research topic

Researchers differ widely in their motives for choosing a particular research topic. One strategy is to play safe by proposing to do for your own country what was recently approved as an AERC project for another country. This, of course, economizes on effort since one of your fellow researchers has already thought carefully about the research questions, the potential contribution of the proposed research to the literature, the methodology, possible solutions to the econometric issues involved and so on. Much of this you can easily adapt for your own purposes.

It is not easy, though, to indicate when such copying behaviour is acceptable. Clearly, in all our research we owe an immense debt to our predecessors in the field and there is nothing wrong with, for example, testing an existing hypothesis on a different data set using methods that have been used before. However, you will have to convince the reviewers that there is enough value added in what you propose to do. If you sail too close to the wind your proposal may be rejected, not because there is anything wrong with it, but simply because it is considered to be too similar to what has already been done.

The risk of a proposal being rejected for lack of value added is an important consideration, but not the only one. If your choice of topic amounts to using someone else's research design then the danger is that you will learn very little from the experience. You may succeed in getting the project approved, but you will not become a much better researcher in the course of the work.

It is much better - and certainly more fun - to be adventurous. While this may sound risky, it is not. If you move beyond well-trodden ground reviewers will certainly recognize this. They are then much more likely to support the proposal than if you propose something that has been done many times before.
When choosing your topic you should not feel constrained by the current designations of the four AERC groups:

- Group A Poverty, Income Distribution and Labour Market Issues
- Group AT Trade, Regional Integration and Sectoral Policies
- Group B Macroeconomic Policies, Stabilization and Growth
- Group C Finance, Resource Mobilization and Investment

There are many excellent AERC research projects that may not appear to fit under these headings, hence the heading alone may not provide a good reason to change your topic. The titles of the groups do not signal very clearly what sort of research they discuss (see Table 1). Basically, if you have an interesting research question that is within economics and addresses an important African policy issue, then you should proceed with your proposal.That last restriction is quite important, however, because AERC looks for policy relevant research. This means that a purely

Table 1: Examples of Group AT Topics

Trade policy
The effects of trade and exchange rate policy. This can be at the macro level (e.g., time series analysis on the effect of policy changes on the volume and composition of exports), but also at the micro level (e.g., using survey data to analyse the effects of policy changes on a firm's decision to export).

Regional integration
The analysis of preferential trade arrangements such as the Southern African Development Community (SADC). What is the effect of such trade blocs on trade flows, employment, public finance, welfare? The methodology can range from econometric analysis (e.g., estimating gravity models) to simulation experiments using multi-country general equilibrium models.

Political economy
Why are policy changes adopted or resisted? Researchers are encouraged to analyse the incentives/interests of politicians and policy makers. The methodology can range from game theory to analytical economic history.

Industrial performance
Why do most African industrial firms invest and export so little? Can these outcomes be explained in terms of industrial policies, risk, poor infrastructure, high transaction costs or deficiencies in financial markets? AERC encourages proposals addressing such questions on the basis of firm level survey data. Researchers can use existing data (e.g. the Regional Programme on Enterprise Development (RPED) surveys or use purpose-built surveys to collect the data.

Applying contract theory
The principal–agent framework of modern contract theory can be fruitfully applied to improve our understanding of labour markets (e.g., apprentice systems or the use of casual labour in agriculture), the functioning of firms (e.g., the incentives for managers of public sector firms) and the relationships among the users, providers and financers of a public service (e.g., a school). Would a redesign of the "contract" between such groups improve public sector performance? Empirical work in these directions is strongly encouraged. Often such proposals will involve data collection.

methodological research project, for example, would not qualify for AERC support.

To illustrate, consider group AT (Table 1). Group AT encourages work in political economy, in applied contract theory and in the microeconomics of industrial performance. None of these topics is, strictly speaking, covered by the group's title. But, there is exciting work to be done in these areas and you should feel free to move in such new directions. The same is true for other groups.

The boundaries of the AERC research programme are fluid. For example, there are numerous studies on poverty (in group A), while there were none some years ago. Also, AERC has supported work on topics as diverse as the determinants of school enrolment and farmers' choice of techniques. The lesson is that the titles of the groups should not be taken too literally when you are choosing your topic, since there is normally more room than these titles suggest.

3. Sketching the proposal

AERC does not have an application form for the purpose of crafting a proposal. There are, however, some requirements as to what the proposal should contain (see Table 2). The point to stress at this stage is that once you know what you want to do, you should not start writing the proposal straight away. Instead you should first work on a sketch. This involves writing brief notes indicating what you intend to say under each of the headings and how much space you want allocated to each section of the proposal.

Table 2: What Should the Proposal Contain?

Background. The policy context of the proposed research.

Research Issue. A detailed statement of the issue to be researched, including reference to other work and perceived gaps in knowledge

Objective(s). A brief statement of the specific objectives of the research.

Methodology. A statement detailing how the research objectives are to be achieved, i.e., hypotheses, methods, data collection, data analysis, etc.

Results. Anticipated results and how they might contribute to knowledge, future research and especially public policy.

Dissemination. Expected output from the project, e.g., paper(s), article(s) and other forms of dissemination to interested researchers and policy makers.

Budget. Estimated expenditure by major line item, e.g., research assistants, travel, computer time, etc.

Timetable and duration. The length and time needed for each portion of the project and an estimated completion date.

The proposal should also identify a "team leader" who acts as the "reporting centre" for the team, and the individual or institutional recipient of the grant.

Source: the AERC website www.aercafrica.org/research.asp

Poor space allocation is a major problem and experience shows that many AERC proposals devote ten pages or more to the background, the research question and the literature review, and only one or two pages to describing the proposed research itself. Predictably, such proposals are criticized for being "too vague". So you should make sure that the introductory material is just that and that it does not crowd out what should be the most important part of the proposal.

The sketch provides you with a skeleton, and writing the proposal then amounts to putting flesh on this skeleton. Working on the skeleton first will greatly improve the structure and coherence of your paper. Once you start writing you will know at each stage what points you need to make and how they relate to what will be discussed in other sections of the proposal. If you use this method you will be in good company as many experienced researchers use it, for both writing research proposals and drafting articles.

4. Writing the proposal

Table 2 shows what the proposal should cover, but you do not have to follow this particular format. Feel free to come up with your own format as long as you make sure you present all the essential information in an order that makes sense.

Title page

This will list the title, date, your name(s) and contact details (postal address, e-mail address, phone). Try to choose a short, catchy, informative title. Proposals sometimes have very long titles, which leave the reader dizzy without indicating clearly what the proposal is about. "The Determinants of Child Schooling in Nigeria" is a fine title.
It is also a good idea to include an Abstract in which you give a very short summary of the proposal, say in about 100 to 115 words. At present few proposals include an Abstract, but I strongly recommend it because the reader will immediately know what your proposal is about.

Introduction

This section includes a non-technical problem statement and a clear motivation for investigating the particular problem and indicating why it is important. The material would include what is listed in Table 2 under "Background" that is the policy context of the proposed research.

You would, for example, state the problem as "the low investment rates of private sector manufacturing firms in country X". You would then present some evidence (e.g., results from firm surveys) to indicate that there is indeed a problem. Next you would link this to the policy context, pointing out that private investment has important implications for employment growth and poverty reduction, but there is controversy on why investment rates are so low and on what would be appropriate policies to raise them.

The controversy would for example be about whether the main reason for low investment is an imperfection in credit markets (e.g., banks discriminating against small firms) or the volatility of macroeconomic policies as perceived by entrepreneurs (e.g., frequent reversals in trade policy). Obviously, these two different diagnoses of the problem of low investment have very different policy implications. This is the point you would want to stress in the introduction since it provides a convincing justification for the research you propose to do.

You want to make sure that at the end of the section readers know that you are going to investigate determinants of private investment and that they understand why resolving this research issue is important for policy. Typically the length of this section is one or two pages.

Research Issue

In this section you set out the research question(s) in detail, sketch how you intend to address them and, most importantly, position yourself in the literature. This section would include what in many proposals is covered in separate sections under the headings of "Literature Review" and "Justification of the Study".

It is a good idea to formulate the research questions as testable hypotheses, something like "The main determinant of a firm's private investment is access to formal bank credit".

Writing a literature review that encompasses a long list of who did what is neither necessary nor sufficient. Rather than just listing authors and their findings you should impose an analytical structure; some questions to ask yourself would include: Are there different approaches in the literature? How do they differ? How do you evaluate these differences? Is the methodology of one group of authors better than that of others? Why?

To return to the example of investment behaviour, a useful catalogue in your review would be one that indicates whether authors used time series (macro) or cross-section (micro) evidence or not. Obviously, you cannot say that one methodology is better than the other one, but if country X had recently adopted policy reforms and these radically changed investment incentives, then a time series analysis could be misleading.

If you are interested in current investment incentives, an estimation largely based on pre-reform information is not very informative. In this case there would be a good reason to use cross-section data, assuming that a post-reform survey is available. This is the sort of point that the literature review should highlight.

You will be able to write such an analytical literature review only if you have thought carefully about the differences and similarities of the different papers. If you just string summaries together, your literature review will be useless and you would then show that you are aware of the literature, but not that you understand which parts of the literature you can build on.

You should also indicate clearly what you think your own contribution is going to be. If there are already ten studies on the determinants of private investment in country X then why do we need your study? Do not be intimidated by this question.

There are many possible answers. For example, previous studies may have been methodologically flawed, or you have a newer or better data source, or the policy environment has changed since the earlier studies. But the burden of proof is on you and you must therefore convince the reader that what you propose is not "more of the same" but something that differs from the literature in interesting and important ways.

On this score many proposals fail, thus researchers who are new to the AERC network often appear rather surprised when fellow researchers or resource persons raise critical questions about the value added of their proposal. Sometimes authors are not even aware that something very similar has already been done, often with AERC support! At a minimum you should look at completed research reports and at ongoing work to ensure that you know exactly what AERC has done in your area of study

Beyond that you should make sure that the proposed work indeed offers value added and that you explain this in a convincing way. This is one of the most difficult tasks when writing a research proposal and you should take it very seriously. A good way to proceed is to imagine yourself in the position of the reader, that is to say if you were to read this proposal, would you then find this a convincing account of value added? If not, then you should go back to the drawing board. This section might take 4-6 pages.

Objectives

This is a very short section - usually only a single paragraph in which you summarize the preceding two sections, indicating what questions will be answered and how policies might change as a result of these answers. Check whether the text is self-contained and ask yourself if it would make sense to a reader who just flips thorough your proposal and who has not read the introduction and research issue sections.

Methodology

In this section you describe your proposal in detail. Unfortunately, in many proposals this section is normally too brief. A vague methodology section is the prime reason why proposals get rejected. When drafting this section you should keep in mind that this is the most important part of your proposal because you will be judged to a large extent on the basis of what you write here.

From this section the readers should learn exactly what you intend to do and they should be able to see whether the proposed work will indeed answer the research questions. It is important to keep this point in mind as more often than not a proposal raises quite grandiose research questions whereas the proposed methodology could be suitable only for a much narrower set of questions. So check for consistency and if you have done all the work you describe in this section, you will then have attained the objectives set out in the previous section. If not, you should ensure consistency, by amending the objectives or adjusting the methodology, or both.

Often the proposed work will involve econometrics. In this case you should begin by presenting your model, indicating its position in the literature, discussing the various assumptions and showing how the estimating equation is derived from the model. (Make sure at this stage that you define all the symbols.) This means that you need to think carefully about specification issues and you have to be quite precise at this stage.
Hand waving (statements like "the investment decision will be related in a profit to firm characteristics such as firm size..") are not acceptable, thus you have to show the specification, discuss the variables to be included and spell out in detail how you plan to proceed.

You should then discuss your estimation strategy, indicating how you intend to deal with various econometric concerns such as endogeneity or measurement error and justifying your chosen method (e.g., why do you want to use a profit?). Finally, you should indicate how you will test your hypotheses ("under this hypothesis the sum of these three coefficients has to be positive").

For non-econometric work basically the same guidelines apply. Indicate clearly what you are going to do, how it is linked to theory and how your methodology will lead to answers to the research questions. If the last step is omitted, it would be known what you intend to do, but how you would use the results to answer the original questions would not be apparent. The methodology section will cover at least five pages.

Data Sources

Data source is not listed separately on the AERC website, but it is a good idea to discuss your data separately.

If you are going to do a survey, you should include a draft questionnaire. This is an important requirement. Survey-based research obviously depends very much on the quality of the survey instrument and your proposal will be judged in part by people asking whether the survey will generate data suitable for testing your hypotheses.

It is, therefore, not sufficient to include some vague sentence like "the survey will collect information on household composition, the crops grown and the mechanisms used by households to cope with risk". There really is no substitute for a draft questionnaire. You will find that drafting it is a very useful experience as it forces you to think very carefully about what information you need.

A good test is to ask yourself questions like, suppose I have collected all these data, then how will I use them? You may find that some questions are superfluous and, conversely, that you need additional questions to be able to construct the variables you intend to use in the analysis.

In addition you should discuss the sample (sample size, sample frame, stratification, etc.) and the organization of the survey (enumerators, data entry, logistics).

If you use existing data then you should discuss their availability carefully. For example, time series econometrics may quickly run into degrees of freedom constraints. You, therefore, need to establish that data series of sufficient length exist. You should be very specific here. Proposals with vague statements to the effect that (unspecified) secondary data will be used and that these are available at the Bureau of Statistics or at a World Bank website are not acceptable. You should be precise in your description of the data and establish whether they are indeed available. You should also reflect on their quality by, for example, posing questions like, are these data to be trusted?

Results and dissemination

This could be a single section. Here you should indicate how you want to disseminate the results, for example, are you planning to write a journal article? Will you present the results to policy makers? If yes, in what form? The section should also indicate what impact you expect the research results to have. Avoid grandiose claims ("the study .. will be of immense benefit to the .. authorities as well as their staff") and try to be specific.

References

These should include all the publications you refer to in the text and only those. If there was no need to discuss a paper then there is clearly no need to list it in the bibliography. Remember that the reviewers are not normally impressed by long bibliographies. Do spend some time reviewing the references to ensure that they are complete and accurate - names of all the authors, correct date, full and accurate title, complete publishing information (city of publication, publishing company for books, full journal title, volume and number and pages for journal articles).

Budget

This should list the amounts required for major line items, such as travel, research assistance, photocopying or the honorarium of the principal researcher. There is no need to make this very detailed and usually around ten line items will suffice.

You should include explanatory notes justifying major items. For example, if you have included a large amount for travel you should explain how it was calculated and why the travel is necessary. Do not forget that the cost of literature acquisition such as a subscription to the Journal of African Economies is a legitimate budget item.

Work program

Here you should indicate when the various components of the project (e.g., literature review, training of enumerators, pilot survey, survey, data cleaning and preliminary analysis, and econometric analysis) would be completed. This should make clear how far you expect to be after six months (i.e., at the work in progress stage if your proposal is approved) and when the project will be completed.

5. What happens next?

When you have finished the proposal do not just to send it to the AERC Secretariat in its first draft form. You should first give it to your colleagues for comments. You will be surprised by their reactions: What would seem perfectly clear to you they may find confusing. Where you thought you had covered the literature they may point to some important papers you had never heard of, and while you were convinced that you had dealt with all econometric issues they may find a gaping hole in your methodology.

Do not be discouraged by such comments as they will definitely improve your proposal. It is a good idea to give your proposal to some researchers who are experts in the field and ask for their comments. You should also give the draft proposal to some colleagues with AERC experience who can tell you what is likely to be acceptable or not. You should, therefore, revise your proposal more than once before submitting it.

When a proposal arrives at the Secretariat there is a brief internal review first. The Secretariat will check whether the proposal contains the basic information needed and whether it addresses an issue that fits the AERC research programme. For example, a biological research project on plant diseases will get caught in the Secretariat's net at this stage because the AERC supports only economic research. But the vast majority of proposals normally clear this first hurdle.

The next step is to determine whether the proposal can be presented at an AERC workshop. This decision is perhaps the most important one in the AERC process. Presentation of a new proposal at an AERC workshop exposes the researcher to comments, advice and guidance from fellow researchers and resource persons.

While this is sometimes terrifying, it is a tremendously useful experience, and of course the essence of the network's capacity building. Bringing people to a workshop is expensive, however; hence slots must be rationed. Also, inviting a person to a workshop does not always make sense. If the proposal is very far from what is required, the researcher might be hurt by the experience while learning little from it. For this reason proposals are reviewed to establish whether an invitation to the next workshop is warranted.

Secretariat staff sometimes do the review, but more commonly the reviewers are resource persons. The reviewer reads the proposal, writes a short report (one page or so) and advises the Secretariat what changes (if any) need to be made before the proposal is suitable for workshop presentation. The reviewer may also recommend rejection. Note that the reviewers have no power of decision, but they are advisers of the AERC Research Director. You should think of them as referees rather than journal editors.

A large number of proposals are held back at this stage. This is almost entirely avoidable. Typically researchers make one or more of the following common mistakes:

- They have never looked at an AERC proposal so they have no clue as to what to include and what not to include.
- The proposal is clear on the research question, but very vague on the methodology.
- Similar work has already been done (sometimes even work supported by the, AERC itself) and the author is unaware of it or unable to explain the value added of the proposed research.

The Secretariat may then ask you to withdraw the proposal or to revise it before you are invited to a workshop. In the case of revision the proposal may be sent out once more for review, but this is rare.

6. Conclusion

You may well feel that if you need to do all this to write a good research proposal then you would already have done a substantial part of the research. This is true. It may seem unfair, but you can write a good proposal only if you put in substantial effort.

In particular, you will have to think very carefully about your methodology, about the contribution your work would make to the literature, about the potential policy implications of the proposed research, and, in case of fieldwork, about the information you need to collect, your survey instrument and the sample. All of this is hard work, which will pay off by making the early stages of your research easy because you would have already thought through the issues.

While all of this may seem daunting, you should not feel intimidated. Writing a good research proposal is not easy, but if you follow the guidelines of this paper you will substantially improve your chances of success.

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