
Interdisciplinary Thematic Research at Addis Ababa University: Challenges and Opportunities

Dessu Wirtu*

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Abstract: The purpose of this study was to explore the prevailing challenges and opportunities in conducting interdisciplinary thematic research at Addis Ababa University. To this end, qualitative research design was employed. The case study method was used since it helps to generate in-depth information from highly appropriate and relatively small number of respondents. The primary sources of data were two research experts from the Office of the Vice President for Research and Technology Transfer, two directors, five college deans selected by using purposeful sampling technique, two senior professors selected by using snow-ball sampling technique, and 30 instructors and ten graduate students selected by using availability sampling technique. The secondary sources of data were relevant policy documents, AAU Senate Legislation, AAU Research Manual and guidelines. Semi-structured interview guide was used to generate in-depth information from the research experts, directors, college deans and professors whereas open-ended questionnaire was employed to elicit the required information from instructors and graduate students. In addition, a document review was used to critically analyze relevant documents. Biases and validity threats were controlled by using triangulation and member checks. The data were qualitatively analyzed, and tick descriptions were used to illuminate the findings. The results indicated that the major challenges faced in conducting interdisciplinary research at Addis Ababa University included: lack of adequate time management skills and tight financial regulations and inadequate incentives. In addition, participants believed that doing interdisciplinary thematic research had the following opportunities: it enhanced research skills of the researchers, promoted the development of team spirit among research team members, and contributed to the development of problem-solving skills of the researchers. From the findings, it could be safely concluded that despite the prevailing challenges, interdisciplinary thematic research was effective at Addis Ababa University because a number of academic staff and graduate students are increasingly engaged in thematic research projects. Finally, based on the findings and the conclusion, certain implications are suggested.

Key words: *thematic research, Interdisciplinary, problem-solving skills*

* Assistant Professor, Department of Curriculum and Instruction, College of Education and Behavioral Studies Addis Ababa University. E-mail: dwirtu@ymail.com

Introduction

Background of the Study

Ethiopia has about 40 public universities and more than 90 degree offering private higher education institutions in 2015/16 in which 778,766 undergraduate degree students were enrolled. From this total number of undergraduate students, 265,851 students were females. This number has undoubtedly increased over the last two years (Education Statistics Annual Abstract, 2015/16).

The issues of access, equity of education and training as well as the relevance of curricula are relatively well addressed. However, the problem of quality has remained a pressing problem. Universities play a decisive role in addressing this problem by conducting research in general and interdisciplinary thematic researches in particular.

Addis Ababa University, as the oldest and largest public university in the country, has embarked on discharging its missions, namely teaching, research and community service. Like higher education institutions elsewhere, Addis Ababa University is influenced by the following factors:

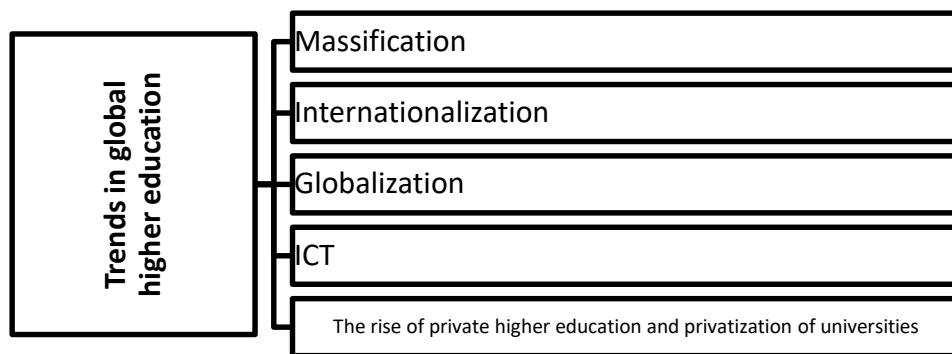


Figure 1: Trends in Global Higher Education (Adapted from Altbach, Reisberg, & Rumbley, 2009)

Addis Ababa University has already identified research priority areas in consultation with relevant stakeholders and it has focused on interdisciplinary thematic research so as to address pressing societal problems (AAU, 2013) and to contribute to the achievements of national goals as indicated in the country's overarching policy known as Growth and Transformation Plan-II- 2015/16-2019/20). Hence, this study attempts to explore the major challenges and opportunities in engaging in thematic research at Addis Ababa University.

Statement of the Problem

The culture of conducting interdisciplinary thematic research at Addis Ababa University is relatively new. As an academic staff member of the university, I usually heard my colleagues complaining on the implementation of thematic research in the university. Similarly, to my knowledge, there is no study conducted on challenges and opportunities in conducting interdisciplinary thematic research at Addis Ababa University. This has initiated me to undertake this research study which could contribute to closing the existing research gap. To this end, the following research issues were set:

- Why doing interdisciplinary thematic research at Addis Ababa University is regarded as an activity entangled with many challenges;
- How opportunities for doing interdisciplinary thematic research are seen at Addis Ababa University; and
- What to be done to improve the interdisciplinary thematic research at AAU

Objectives of the Study

This study has both general and specific objectives. The overall objective of the research was to explore the challenges and opportunities for conducting interdisciplinary thematic research at Addis Ababa University. The specific objectives included:

- Exploring the reasons why conducting interdisciplinary thematic research at AAU is regarded as very challenging.
- Identifying the existing opportunities in doing interdisciplinary thematic research at AAU.
- Finding out ways of improving interdisciplinary thematic research at AAU

This research study focuses on Addis Ababa University. It deals with only challenges faced, opportunities found in doing interdisciplinary thematic research and ways of improving it. In other words, research conducted by individual academic staff members or students are not considered.

Operational Definitions of Key Terms

Interdisciplinarity: Faculty members from different department/specialization areas are undertaking research together with the aim to solve problems by using diverse knowledge bases and research skills.

Multidisciplinary: Researchers from diverse disciplines come together to work on the same problem by employing diverse research methods and instruments.

Transdisciplinarity: Researchers from diverse disciplines come up with different theoretical perspectives, conceptualizations and methods with the aim to produce a synthesized overarching framework.

Review of Related Literature

The Concept of Interdisciplinary Research

Different scholars have given diverse definitions of 'interdisciplinary research'. In this study, the definition of interdisciplinary research given by the American National Academy of Sciences Committee on

Facilitating Interdisciplinary Research (2004:306) is employed. It has defined interdisciplinary research as follows:

... a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.

As can be seen, the above definition is comprehensive and it has clarity. It is, for example, quite different from the definition of multidisciplinary which pertains to doing “research on the same issue with different approaches and tools, or transdisciplinary which refers to the crossing of boundaries” (Domino, Smith and Johnson, 2007:257).

Purpose of Interdisciplinary thematic Research

The Office of the Vice President for Research and Technology Transfer (VPRTT) of Addis Ababa University has published its own Research Manual in 2013 so as to provide “researchers’ firsthand information on how they go about doing their research from initiation to completion and ways of channeling newly emerging technologies” (AAU, 2013: 8). One of the offices under the VPRTT is the Directorate of Research which has clearly indicated that one of its duties and responsibilities is to *facilitate the development of interdisciplinary research programs in consultation with concerned units* (AAU, 2013: 15).

Nowadays, it has become more and more ‘evident that discipline specialisation can also fragmentise knowledge’ (Briazu, 2017:37). Hence, it can be argued that interdisciplinary thematic research can provide comprehensive and evidence-based solutions to many societal problems.

Interdisciplinary Research and the Constructivist Approach

Interdisciplinary research is very useful to overcome what Simin Davoudi (2013) calls *disciplinary tribalism*. Traditionally, disciplines are divided as follows:

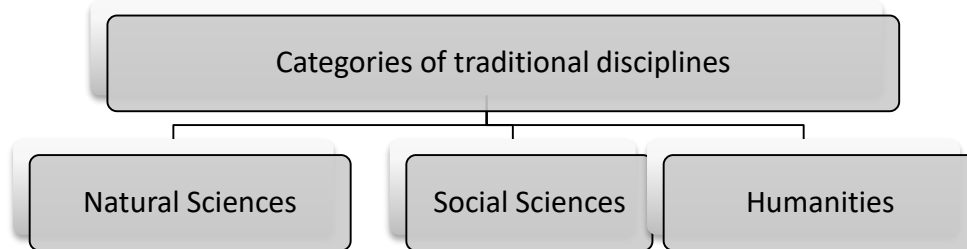


Figure 2: *Categories of Traditional Disciplines (Adapted from Simin Davoudi 2013)*

With rapid change of the world, a number of professions have emerged. It is difficult to place them in the strictly categorized traditional disciplines. The same is true for research. The complex nature of issues and problems of today have led to the need to embark on interdisciplinary research which aims at addressing problems through both pragmatic as well as transformative approach. According to Julie Thompson Klein (2010:30), there are the following two forms of interdisciplinarity.

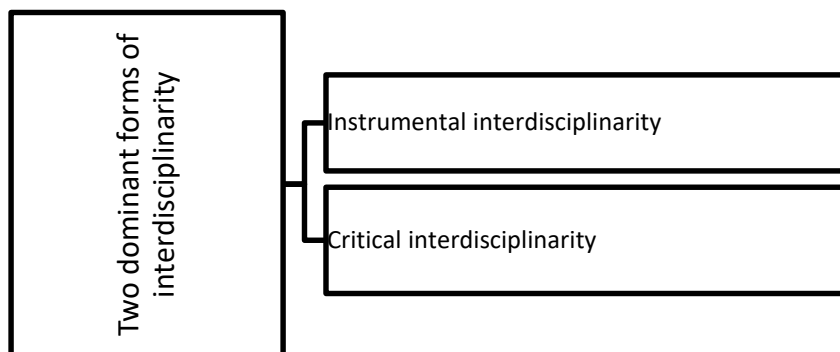


Figure 3: *Two Dominant Forms of Interdisciplinarity (Source: after Julie T. Klein, 2010)*

Instrumental interdisciplinarity is problem-driven and it follows a pragmatic approach that emphasizes the importance of research, borrowing, and practical problem-solving whereas critical interdisciplinarity is society-driven. It integrates the dominant structure of knowledge and education with the aim of transforming them while raising epistemological and political questions of value and purpose

This research also informs itself with the constructivist approach in that it underscores the importance of looking into problems from diverse perspectives so as to develop context-based meanings. In addition, constructivism appreciates the significance of qualitative approach to research.

Relevance of Thematic Analysis

Thematic analysis is one of the widely used methods in qualitative research today. According to Alhojailan (2012: 40) posits:

Thematic analysis is considered the most appropriate for any study that seeks to discover using interpretations. It provides a systematic element to data analysis. It allows the researcher to associate an analysis of the frequency of a theme with one of the whole contents. This will confer accuracy and intricacy and enhance the research's whole meaning.

Furthermore, the author argues that thematic analysis is beneficial in that it helps the researcher identify factors that affect views and opinions raised by participants. In addition, it is so flexible that the researcher can use diverse approaches to generate the data required (Alhojailan, 2012: 40-41).

Benefits of Interdisciplinary Research

A number of scholars described the benefits of interdisciplinary research. For instance, Nissani (1997: 215) underscores that *many complex or practical problems can only be understood by pulling together insights*

and methodologies from a variety of disciplines. Furthermore, the author asserted that interdisciplinary research inspires students since it is highly related to their life experiences. Moreover, the author asserts that it helps students become critical thinkers who are also capable of synthesizing different ideas and perspectives. Finally, the author believes that interdisciplinary research fosters the development of research skills and creativity.

A research study conducted by Aboelela et al. (2006) also emphasized there is currently a growing trend to 'link disciplinary fields to more fully answer critical questions or to facilitate application of knowledge in a specific area.

Likewise, Jones (2009:80) concluded in his study entitled *Interdisciplinary Approach - Advantages, Disadvantages, and the Future Benefits of Interdisciplinary Studies* that *students and their teachers will advance in critical thinking, communication, creativity, pedagogy, and essential academia with the use interdisciplinary techniques.*

In the context of the Ethiopian higher education in general and in the context of Addis Ababa University in particular, interdisciplinary thematic research is expected to respond to national demand, develop research capacity of both faculty and students, and enhance awareness of researchers about the need to be cost-effective and responsive in conducting research. Moreover, researchers are expected to recognize academic freedom and corresponding responsibilities in conducting research (AAU, 2013).

Research Design and Methodology

Research Design

The purpose of this study was to explore the prevailing challenges and opportunities in conducting interdisciplinary thematic research at Addis Ababa University. To this end, a qualitative research design was employed because it is appropriate to describe *the purpose of the*

research, the role of the researcher and the methods of data analysis (Kumar, 2013: 118). Among the diverse methods that can be used in qualitative research design, a case study method was used because it is appropriate to generate in-depth information from highly appropriate and relatively small number of respondents (Best and Kahn, 2003).

Finally, qualitative research helps the researcher to use open-ended questions, interview data, and document data by taking relatively small number of informants (Creswell, 2009).

Sources of Data

The primary sources of data in this study were research experts from the Office of the Vice President for Research and Technology Transfer, directors, college deans, senior professors, instructors and graduate students. The secondary sources of data were relevant policy documents, AAU Senate Legislation, AAU Research Manual and guidelines.

Sample Size and Sampling Techniques

In this case study, a total of 51 participants were used, namely two research experts from the Office of the Vice President for Research and Technology Transfer, two directors, five college deans who were selected by using purposeful sampling technique, two senior professors who were selected by using snow-ball sampling technique, 30 instructors and ten graduate students who were selected by using availability sampling technique.

Data Collection Instruments

The following instruments of data collection were employed in this study:

- *Semi-structured interview guide*: It was used to generate in-depth information from two research experts from the Office of the Vice

President for Research and Technology Transfer, two directors and five college deans of Addis Ababa University.

- *Open-ended questionnaire*: It was employed to elicit the required detailed information from instructors from the College of Education and Behavioral Studies and graduate students from the Department of Curriculum and Instruction of the same College.
- *Document review*: It was used to critically analyze relevant documents.

Ethical consideration

First, the participants of the research were requested for their consent. Once, they expressed their agreement, the title and purpose of the research was explained to them. Then, date and time for conducting the interview was fixed based on the interest of the interviewees. During the interview sessions, notes were jotted down by the researcher. Biases and validity threats were controlled by using triangulation and member checks. For those who were to use the open-ended questionnaire, I urged them that their responses would be used only for research purposes.

Results and Discussions

Under this section of the study, data were analyzed and triangulated with research findings from similar type of studies where necessary. Then, in line with the research questions, the issues were presented thematically as follows:

Challenges in conducting interdisciplinary thematic research at AAU

The engagement of researchers from diverse disciplines or sub-disciplines in doing a thematic research together is not an easy task. Hence, college deans, instructors and graduate students were asked about the challenges faced. Accordingly, one of the college deans (CD-1) posited:

I haven't directly participated in interdisciplinary research in light of the work load I have right now. However, I was informed from academic staff members of our college that some research team members are not discharging their responsibilities on time. For instance, they usually absent from very useful meetings intended to create a forum for discussion on both the process of the research and the research results.

Steven E. Domino, Yolanda R. Smith and Timothy R.B. Johnson (2007:257) identified institutional and practical barriers. The former refers to the fact that academic traditions "organize research by disciplinary departments, creating barriers to promotion for those who have interdisciplinary careers by disagreement on what constitutes high quality research," and the latter pertains to "the difficulties of organizing meetings, developing a common language and knowledge and understanding the work at hand."

In the same vein, one of the college deans (CD-2) reported:

Interdisciplinary thematic research is responsive to societal problems. However, still the academic tradition of emphasizing the significance and relevance of disciplinary research has predominantly influenced the attitudes of the faculty. In other words, there is academic prejudice against the importance of interdisciplinary research. Hence, thematic research is less appreciated.

Aldona Skucaite (2008:6) mentioned these challenges in undertaking interdisciplinary research:

Combination of methods and concepts from different disciplines could lead to misunderstanding or disagreement among researchers, for example, when it comes to determining which data is relevant, which method is more appropriate. Sometimes, researchers may tend to use interdisciplinary research with the

aim to win research grant even though there is no need to conduct it that way.

Concerning the challenges one of the directors (D-1) said:

One of the major challenges of participating in thematic research is the fact that the financial process takes unnecessarily longer time. This situation demotivates researchers and I am sure that it would also influence the quality of the research output.

Similarly, one of the college deans (CD-5) reported:

The major challenges of interdisciplinary thematic research is unnecessarily long financial procedure, the existing per diem rates, travel costs and research costs can not cover the actual costs of the researchers whose research includes field visit.

In the same vein, respondent instructors identified the following major challenges faced when they were doing interdisciplinary thematic research at Addis Ababa University:

- Lack of commitment on the part of some research team members in discharging their responsibilities,
- The long process of financial service demotivates researchers,
- The existence of academic prejudice that favors the disciplinary research instead of the interdisciplinary one,
- Sometimes, disagreement on the methods to be used as well as on the content and analysis to be included in the final research report.

Opportunities in Conducting Interdisciplinary Thematic Research at AAU

Interdisciplinary thematic research has been launched at Addis Ababa University in order that the academic community engages itself in doing responsive research studies. Concerning this issue, research experts from the Directorate for Research were asked about the opportunities

they observed in conducting interdisciplinary thematic research. Accordingly, one of these research experts (RE-1) reported:

Recently, thematic research has been conducted at Addis Ababa University with the aim to address national priority agenda. A number of academic staff members from diverse faculties and/or departments selected research themes and conducted research studies. I have observed that this has given the researchers the opportunity to share their knowledge and skills of doing a research.

The above response goes in line with the ideas of the Delors Commission (1996). This Commission which was assigned by UNESCO to come up with the report on the desirable education for the 21st century came up with four pillars of education, namely learning to know, to do, to live together and to be. This is because research team members widen their knowledge of interdisciplinary research, develop essential skills of doing it, develop their interpersonal competence and finally interdisciplinary thematic research is so responsive to national needs that it would contribute to ensuring the very existence of the nation.

Likewise, one of the senior professors (P-1) asserted:

One of the great opportunities in doing interdisciplinary thematic research is that members of the research team develop team spirit, cooperation, learn from each other and thereby improve their research skills, and develop their sense of responsibility in accomplishing their tasks.

In the same vein, one of the college deans (CD-4) said:

One of the prevailing opportunities for interdisciplinary thematic research is the existence of institutional structure at Addis Ababa University which is organized under the office of the Vice President for Research and Technology Transfer. Furthermore, the existence of research institutes in the University is a good opportunity to scale-up interdisciplinary thematic research practice.

With regard to this same issue, one of the research experts (RE-2) reported:

The major opportunities in doing interdisciplinary thematic research is the fact that graduate students get the opportunity to participate in research activities with junior and senior faculty members from different colleges and/or departments. This situation gives them the chance to learn more from the faculty members and develop their research skills.

The graduate students mentioned the following benefits of interdisciplinary thematic research:

- Graduate students can see the relevance of theoretical learning in the classroom for practical research activity.
- They can improve their research skills by working with more experienced research team members; and
- They can develop team spirit and collegiality in working with people from diverse disciplines or sub-disciplines.

Likewise, one of the directors (D-2) asserted:

The most important benefit of interdisciplinary thematic research is experience sharing among team members. It enhances the development of research skills of all participating individuals on the one hand, and it promotes the development of interpersonal competence of the research team members.

From the above responses, one can deduce that the major opportunities in doing interdisciplinary thematic research include the existence of institutional structure within the university which would facilitate research activities, the coming together of researchers with diverse specialization would lead to the development of their interpersonal skills and team spirits, and the improvement of research skills of all individual research team members through experience sharing.

Ways of Improving Interdisciplinary Thematic Research at AAU

Conducting interdisciplinary research is not an easy task. It requires sense of accountability, commitment and research skills from participating researchers as well as the ability to render timely and appropriate administrative support from relevant offices.

Concerning this issue, one of the interviewed directors (D-1) pointed out:

Smoothing the financial regulations of the university is indispensable for the timely provision of the research fund. By doing so, the University can enhance the motivation of researchers so that they focus on their research activities and would produce the intended research output.

Likewise, one of the research experts (RE-1) suggested the following:

The amount of money allocated to the competitive research projects must be provided for researchers on time and it must also be a grant. Furthermore, it is necessary to modify the existing thematic research priority areas by considering the dynamicity of socio-economic contexts.

With regard to this same issue, one of the college deans (CD-3) suggested the following in order to improve interdisciplinary research at AAU:

I think is necessary to raise awareness of the academic community on the significance of interdisciplinary thematic research. Furthermore, it is necessary to organize short-term training on ways of doing interdisciplinary thematic research by considering the best practices of other universities.

Moreover, to improve the practice of interdisciplinary thematic research at Addis Ababa University, respondent instructors suggested the following major issues in the open-ended questionnaire:

- The need to seriously consider meritocracy in the allocation of research funds for research proposals;
- The provision of funding must be based on merits;
- Transparency should be ensured in the award of research fund for thematic research;
- The financial regulations must be improved so as to make the process of funding thematic research more efficient.

The above responses indicate that Addis Ababa University needs to work on improving the transparency in the process of selecting competitive thematic research projects and the management of research fund. Finally, the university is to raise awareness and understanding of the academic staff about interdisciplinary thematic research.

Summary, Conclusion and Implications

In this section, the major findings are summarized, conclusions drawn and implications are forwarded:

Summary of the Major Findings

The purpose of this study was to explore the existing opportunities and challenges in conducting interdisciplinary thematic research at Addis Ababa University. In order to achieve this, qualitative research design was employed and a case study method was used. A total of 51 respondents were used as primary sources of data whereas relevant policy documents, AAU Senate Legislation, and research manual were employed as secondary sources of data. Purposive, snow-ball and availability sampling techniques were used to select the primary sources of data. Data were gathered by using semi-structured interview, open-ended questionnaire and document review were used as instruments of data collection. The, the gathered data were qualitatively analyzed and the following major findings were obtained:

Challenges faced

The data analysis revealed that four major challenges have encountered interdisciplinary thematic research at Addis Ababa University. The first challenge was epistemological in nature. This is because the diverse philosophical and methodological orientations of research team members often hamper timely decisions on the research design and methods and data collection instruments to be employed. The second challenge was pertaining to the issue of financial administration because the tight financial regulations often led to delay in the process of releasing the research fund on the one hand, and to lack of flexibility in the utilization of the research fund. The third major challenge was pertaining to the behaviors of the research team members, since some team members usually lacked commitment and adequate time management skills. The last but not least one was systemic challenge like lack of clarity with regard to responsibility and accountability of the offices which usually lead to unnecessary delay in reporting.

Opportunities identified

The study disclosed that interdisciplinary thematic research provides a number of opportunities. The major ones include the fact that it gives faculty members to see research issues from diverse perspectives which make experience sharing among research team members possible, and it enhances institutional development, since it elevates the visibility of colleges as well as the University. Moreover, it creates opportunity for team members to acquaint themselves with state-of-the art doing research, gives graduate students the chance to do research with well experienced researchers, and it provides researchers financial incentives, and thereby positively adds to the financial strength of the researchers.

Furthermore, it encourages the development of good relationships among colleges and/or departments that have worked together, and increases team spirit and collegiality among the participating research team members.

Finally, it promotes professional development of the academic staff in the areas of research knowledge, skills and ethics, gives researchers an opportunity to publish their research output provided that it meets the expected quality standard, and promotes the development of sense of self-confidence among participating research team members.

Ways of Improving Interdisciplinary Thematic Research at AAU

The study indicated that it is possible to improve the practice of interdisciplinary thematic research at Addis Ababa University by putting the following in place: a system of personal and institutional accountability which is clarified and well communicated to colleges and departments; effective financial administration service that overcomes the unnecessary delay in releasing of the research fund for researchers, and a system of research grant that allows researchers to utilize research fund effectively and efficiently so as to timely come up with the expected quality deliverables.

Conclusion

The major findings indicated the existence of challenges and opportunities in the practice of interdisciplinary thematic research at Addis Ababa University. Despite the identified epistemological, administrative and systemic challenges that have encountered interdisciplinary thematic research in this flagship university of the nation, the opportunities thereof were found to be immense. This can be seen from the fact that interdisciplinary thematic research at Addis University has provided more opportunities for the academic staff members and graduate students to improve their research skills by viewing research problems and questions from multiple perspectives as well as to come up with research outputs that could influence national policy initiatives and decision-making and elevate the visibility of the university. Hence, it could be safely concluded that in spite of the existence of some challenges, interdisciplinary thematic research at Addis Ababa University is relatively effective and promising in

contributing to the endeavor of higher education to solve myriads of societal problems.

Implications

Based on the major findings and conclusion drawn, the following implications are forwarded:

- Addis Ababa University should consider improving its financial administration service so that researchers so that there won't be unnecessary delay in the release of the research fund.
- Addis Ababa University should organize periodic short-term trainings on research skills for the faculty members so that they update their research knowledge and skills, for instance, on the application of SPSS in doing research.
- Addis Ababa University should look into the existing priority areas of research so as to give rooms for new research agenda.
- Addis Ababa University should be more transparent in the selection of research projects to be awarded financial support.
- Addis Ababa University should encourage the academic staff and graduate students so that they would show more commitment to producing quality interdisciplinary thematic research outputs that would help the country in its effort to achieve quality of education (Goal 4) of the UN Sustainable Development Goals (2016-2030).
- Colleges and Institutes of Addis Ababa University should initiate the academic staff to engage themselves more in doing interdisciplinary thematic research.
- Departments should organize series of colloquia on interdisciplinary thematic research skills so as to raise the awareness of the academic staff members about the growing reputability of interdisciplinary research.
- Finally, Addis Ababa University should exert more effort to enhance the incentives for interdisciplinary thematic research by closely working with the Ministry of Education and other cooperating bodies.

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