Joint Research Activities- A Preliminary concept for Action

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by Rustan Santaria

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[1]Joint Research Activities: A Preliminary concept for Action

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Abstract

This study aims at describing a preliminary concept of a cooperation and sharing among the university institutions, including Asian Islamic Universities Association (AIUA) members, should emerge from isolations and develop the world by promoting Higher Education and scientific tradition. The method use to find what way and how to do the world future development can be started from a cooperation is descriptive –qualitative. The researchers ware doing exploration on the implemented collaboration, in the form of productive research collaborations, or Joint Research Activities (JRA) among the AIUA members and other researchers. The result of exploring some of the resources that there have been many previous studies of research collaboration, comparatively little attention has been given to the concept of 'collaboration' or to the adequacy of attempting to measure it through co-authorship. In this study, The researcher distinguish between collaboration at different levels and show that inter-institutional and international collaboration need not necessarily involve inter-individual collaboration. The researcher also shows that co-authorship is no more than a partial indicator of collaboration. Finally, the researcher suggest by arguing for a more symmetrical approach in comparing the costs of collaboration with the undoubted benefits when considering policies towards research collaboration.

Key Words: Join research, higher education, cooperation and sharing, research collaboration

1. Introduction

In todays' world, it is impossible for an institution to stand alone without a cooperation and sharing with others. The institutions, including Asian Islamic Universities Association (AIUA) members, should emerge from isolations and develop the world by promoting Higher Education and scientific tradition. The world future development can be started from a cooperation which is implemented in the form of productive research collaborations or Joint Research Activities (JRA) among the AIUA members. The

[1] *Had been presented at the International seminar on "Archipelago Islamic Society" conducted collaboratively of IAIN Ternate and AIUA in Kota Ternate in November, 10 – 12, 2017.*

activities should have the way to achieve the AIUA goals and at the same time, contribute to the existing body of knowledge and benefit to the lives of humankind.

The contributions of research to knowledge and human is a result of stimulating and generating process of the development of new sustainable technologies, better public policies and the preservation of cultural heritages. And it is expected that the AIUA collaboration in the form of joint research activities, can improve the members' education and research qualities, increase international competitiveness, publications, and receive world-wide recognitions. Therefore, IAIN Palopo as a member of AIUA proposes a join research activity plan as part of the members' responsibility to bring the AIUA goals become real. The research plan will cover the AIUA's three research collaboration goals mentioned above. However, before presenting the joint research activities plan and schedule, it is important to define all aspects relate to the research activity. It is because in this kind of research, a team or researchers are often faced some classical questions such as what we are going to do, what we should consider and where we should start, possible risks we can face on the field, resources, costs and benefits, and so forth.

In addition, researchers should consider some different factors that can affect the performance of collaboration in research activity, for example the research environments, to the partners involved, to the collaboration process, and to the project development process. In other words, poorly managed joint research activity will influence involvement and contribution of each member, fail to recognize potential conflict factors among the members, and finally it will lead to lower quality of research findings.

2. Method

The method use to find what way and how to do the world future development can be started from a cooperation in this study is descriptive –qualitative. The researchers ware doing exploration on the implemented collaboration, in the form of productive research collaborations, or Joint Research Activities (JRA) among the AIUA members and other researchers. The information gained from the resources be analyzed descriptively with inductive analysis and deductive analysis. Comparative was considered to apply as well in some ceses.

3. Finding and Results

a. The Key Factors in Joint Research Activity

There are some key factors need to consider in preparation for a joint research activity. These factors are important for effective preparation and planning team functioning. The factors will also help the members to identify their strength and weaknesses of their joint research plans and proposals. Moreover, good understanding of the factors will support the team to work and perform their duties and tasks effectively. Below are key factors in joint research activity:

a) Team Configuration

The joint research activity should be able to identify how the proposed team composition is necessary to pursue the research goals. The team should include sufficient breadth to ensure the expertise and manpower necessary to fulfill the research objectives.

b) Institutions Readiness

This term refers to the resources, infrastructure, and policies that each of the participating institutions has in place to support the research project. Institutions may provide relevant support for research, for example: technologies to support communication and coordination; training opportunities relevant to the research. In this section, each of the institutions involved in the research should be able to identify its weakness, strength and readiness for the research collaboration activity. It is not expected that conditions will be ideal at any of these levels, but challenges should be identified before entering upon a collaboration, and whenever possible, the plan should identify steps that will be taken to address the challenges.

c) Team Functioning

The joint research activity (JRA) plan should describe plans for carrying out key processes that underlie effective team functioning. These might include plans for generating a shared vision, mission and goals. Additional key team processes include developing team-level understanding of each team member's area of expertise, roles on the team, and contributions to the research activities. Joint research plans for interdisciplinary teams may also include plans for fostering key team processes necessary for interdisciplinary work, such as a critical awareness of the strengths and weaknesses of contributing disciplines.

d) Communication

Different multicultural background among research team members will be a challenge to team communication methods. Different member's geographic location and time zone differences are some influential things to be considered in terms of communication. Therefore, the research team's investment needed for effective communication and coordination in a regular meeting, teleconference, in-person phone meeting, internet (email and sharing documents) among members will be solutions to the geographic and time differences factors.

e) Coordination

Greater use of coordination mechanisms has been found to be related to more successful outcomes in large teams. The JRA plan should include strategies to coordinate day-to-day operations and approaches for the completion of research activities (e.g. work flow, data sharing and integration). The plan should address how tasks get allocated, how resources get shared, and how work gets integrated into the collaborative effort. These plans need to be specific and addressed, for

example to the number and distribution of team members and the design of team tasks.

f) Administration

When a research team members increase, administrative tasks become important to the team coordination. Administrative activities of critical importance to large teams including recruitment sharing, and daily administration of the JRA team.

g) Conflict Prevention

Some degrees of conflict within a collaboration are inevitable and indeed, may even be helpful for the team to achieve its goals, for example by leading to new avenues of thinking for everyone involved. However, when there is a difference between members and generate debate that lead on activities disagreement, negative impact on the research process and result. The potential for conflict will depend on the specifics of the team, e.g., member diversity in terms of demographics (e.g., age, gender, culture) or disciplinary training may lead to conflict. But, we should also believe, as an old saying, that when there is a problem, a solution will come with it. Therefore, when conflict arises in the research team, considering potential factors that may lead to conflicts and addressing these factors before the collaboration begins can reduce conflict later on. In addition, developing systems for managing conflicts by providing informal and formal approaches to conflict, which is included in the JRA plan, will be the best solution.

h) Training

Training plans before the JRA actually go down into the field should be included to help members maximally play their roles in the research process. Training may be included, for members for whom joint research is new as well as for those with prior joint or collaborative research experience. Therefore, all members can share and enhance their knowledge and skills specific to factors related to the proposed research activities. Training may occur at the start of the initiative and/or periodically throughout the research collaboration process. Training contents should be able to help members build skills in many of the necessary key areas for the JRA (e.g., team processes, leadership, management, communication, coordination and quality improvement activities). Training formats are designed to meet a wide variety of team's circumstances and needs which are given in formal (e.g., online courses, such as teamscience.net, which provides a completion certificate) or informal (e.g., seminar series featuring the work of all participating team members, to build cross-disciplinary awareness and greater mutual understanding).

i) Budget/Resource Allocation

Successful joint or collaboration research requires investments in training, management and quality improvement, all of which require financial support to

ensure their successful implementation. The JRA plan should identify the specific budget items that support the activities included in the plan. Clear but flexible plans for funds can allow optimal preparation, facilitation, during and after the research activities. The allocation of budget should consider research-supporting aspects including communication and coordination phases (point d and e).

b. *Pertinent resources dealing with the study analysis*

Katz J.S., Martin B.R. (1995) found the implicit in enthusiasm for research collaboration and in policies aimed at fostering it are a number of assumptions: 1. that the concept of 'research collaboration' is well understood; 2. that we are dealing with essentially the same phenomenon, whether we are concerned with collaboration between individuals, groups, institutions, sectors or nations; 3. that we can in some way measure the level of collaboration and hence determine whether or not it is changing as a result of a particular policy; 4. that more collaboration is actually better, whether for the advancement of knowledge or for exploiting the results of our scientific endeavour more effectively. Beaver D.B.. (2001: 365–377) states his collaboration with his team that they have a kind of hybrid collaboration lying between "collaboration" and "teamwork." Having 10–12 individuals working on the same project should qualify their product as teamwork, but if they are viewed as 2 collective individuals (laboratory collectives), their product is like old style collaboration. The fact that the modal number of collaborating laboratories is 2 additionally supports this idea of laboratories/working groups as "individuals." Ricardo B. D. et. al. suggest a paradox that raises issues for future studies: those conditions that unsettle the relationship between collaboration and productivity in developing areas may undermine the collaborative benefits of new information and communication technologies. The researcher hypothesizes that the relationship between collaboration and productivity will be moderated by the researchers' strategies for collaboration: those seeking collaborators with complementary skills or strong scientific reputations will have the greatest productivity gains from collaboration and those seeking primarily to help students or junior colleagues will have fewer productivity gains. Lee S. and Bozeman B. (2015: 180) hypothesize that the relationship between collaboration and productivity will be moderated by the researchers' strategies for collaboration: those seeking collaborators with complementary skills or strong scientific reputations will have the greatest productivity gains from collaboration and those seeking primarily to help students or junior colleagues will have fewer productivity gains. Bozeman B. and Corley E. (2004: 600-616) try wish to understand the ways in which collaboration affects scientists' educational.' 'social' and 'religious' human capital. From previous studies the researcher assumes that collaboration often has salutary effects with respect to socialization, training, transmission of know-how and just as important, the ability to develop the network ties and contacts so critical to 'educational.' 'social' and 'religious' career success.

Based on an analysis of several aspects mentioned above, it is expected that what

the members intend in the AIUA Joint Research Activities will be achieved successfully. It also means that all universities or members in the JRA should consider the aspects as because the successful joint or collaboration research depends on paying attention to them. However, it does not mean that we have summarized all aspects influencing and determining the successfulness of our JRA plans. There must be some other aspects need to be addressed before, during, or after the JRA and it is our duty. Let us consider these other forms of collaboration. For example, two team leaders might agree to their groups focusing on a common research goal, each team bringing their collective knowledge to the problem at hand. This is an example of inter-group collaboration. Yet certain members of the two groups may not work directly with each other. Furthermore, some team members may leave during the course of the collaborative project while new ones may join. Thus, it is not always immediately obvious who is collaborating with whom.

4. Implication

4.1. Conclusion

The world future development can be started from a cooperation which is implemented in the form of productive research collaborations or Joint Research Activities (JRA) among the AIUA members. Although there have been many previous studies of research collaboration, comparatively little attention has been given to the concept of 'collaboration' or to the adequacy of attempting to measure it through co-authorship. In this study, The researcher distinguishes between collaboration at different levels and show that inter-institutional and international collaboration need not necessarily involve inter-individual collaboration. The researcher also show that co-authorship is no more than a partial indicator of collaboration. Below are key factors in joint research activity: (1.) Team Configuration, (2) Institutions Readiness, (3) Team Functioning (4), Communication, (5) Coordination, (6) Administration, (7) Conflict Prevention, (8) Training, and (9) Budget and Resource Allocation. The researcher was able to shed some light on the determinants of collaboration and infer implications for human capital. Before extending the discussion beyond findings, the researcher summarizes the most important findings, including their implications for the hypotheses the researcher developed and for these conceptual model.

4.2. Limitation

This study has several limitations state that warrant future research. The researcher was not able to examine all the elements and relationships of the Life Cycle Model of Collaboration, though the researchers are able to consider include more element of collaboration models to be explored and be examined.

4.3. Suggestion

Finally, the researcher suggest by arguing for a more symmetrical approach in comparing the costs of collaboration with the undoubted benefits when considering policies towards

research collaboration. The researcher also suggest that inter-institutional and international collaboration need not necessarily involve inter-individual collaboration.

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