

# Research and Development Programs of Select Private Higher Education Institutions (HEIs): Input to a Research Productivity Model

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**Abstract:** *This study is to determine the best practices of the Research and Development Program of the three higher education institutions in region III, Philippines during the school year 2021-2022, and to serve as input to research productivity model. The respondents of the study consisted of program implementers such as the research directors, research coordinators, and faculty-researchers of the abovementioned HEIs in Region III. Descriptive assessments using quantitative approach were utilized and the data gathered were tabulated and treated using mean procedures. Findings suggest that the research and development offices are committed to facilitate the integration of research and other related creative activities and technology transfer. Research and other related components are used in evaluating the effectiveness of the faculty, in awarding promotion and merit raise. Towards the end of the study, a research productivity model was crafted.*

**Keywords—**Research and development programs, private higher education institutions, productivity model

## 1. INTRODUCTION

Instruction, Extension, Production and Research are the four main thrusts of the Commission on Higher Education or CHED. Among these, research activities have been utilized as one of the parameters of institutional quality. These functions are not independent of one another but rather work hand in hand, complementing each other. One of the three main purposes of all higher education institutions in the Philippines is research, as mandated by the commission. [1]. Administrators must therefore have a comprehensive awareness of how research should be incorporated into their academic duties in order to facilitate thoughtful and collaborative solutions. The theories learned and knowledge acquired in the classroom must be put to actual practice. Instruction can only be considered relevant if it comes from research and applied to community extension services to empower people in improving their way of life.

In Region III Philippines, there are colleges and universities whose contributions in the field of research are indeed commendable and worth to benchmark on. Furthermore, it is worth to contemplate on why these institutions perform well in research while others really do not, considering that the CHED strictly monitors the performance of every HEI on this function. These can be further gleaned on the pronouncement of Commissioner of CHED, in one of the recent occasions she attended where she posited that research is the prelude for a certain college to be elevated to university status. First and foremost, it is the research capability of the school that needs to be strengthened and the rest will follow.

Thus, this study aims to present the best practices of the Research and Development Office of these three leading HEIs in research as reflected on its development program and serve as benchmark in the preparation of a model or research program that would be of great importance to other colleges

and universities in the region or even to the entire HEIs in the country. This model may be used to enhance the research productivity of other HEIs in order to realize its functions and be the prime movers of reform and development as what the country needs today.

## 2. RELATED WORKS

The involvement of faculty members in research can be traced from the gradual emergence of the primary functions of higher education institutions. The medieval university performed academic work with teaching as its core on the basis of unchanging established knowledge. With the institutionalization of science into the university in the 19th century transformed the university dramatically from the pursuit of the sole ideal of teaching to the pursuit of research.

The significance of research is contained in the 1987 Philippine Constitution, Article XIV, Section 10, [2] that science and technology are vital for the national development and progress. The state shall give priority to research and development, inventions, innovations and their utilization, and to science and technology education, training and services. It shall support indigenous, appropriate, and self-reliant scientific and technological capabilities and their application to the country's productive systems and national life.

The status of research in higher education in general was first discussed during the First Regional Research Seminar for Asia and the Pacific at Tokyo, Japan May 13-14, 2004 among other concerns. Accordingly, there had been a general complaint that research in the universities is not taken seriously in political debates in the individual participating counties in which the Philippines was one of the attendees. Thus, as proposed, there is a need to get a re-assessment of the importance of research in higher education. Though, in a number of Asian countries, there have been considerable capacities in research in higher education as evidenced by the

presence of research centers and institutes, sometimes in government and sometimes separately.

During the same regional research seminar, an author presented a case study describing the status of research in the Philippines [3]. It was noted that improvement of the research capability of the country is necessary. Almost similar report was presented in an international seminar on research by a scholar [4]. Accordingly, it was given an emphasis that for the internalization of Philippine Higher Education Institutions (HEIs), research culture must be developed to foster and strengthen institutional readiness for this thrust. It was also disclosed that the idea that research enhances teaching activities lacks support in actual practice because not too many faculty members are actively doing research in most of the Philippine HEIs.

Schools at different places do research in varying extent of practice and implementation. Here in the Philippines, the well-established state and private universities have made their names in research in different disciplines [5]. Others are on the rush to be categorized as an institution whose focus is not merely on instruction, but more on research for the latter would serve as the nation's partner in the attainment of the so-called national development.

### 3. STATEMENT OF THE PROBLEM

The general problem of the study is: What are the best practices of the Research and Development Program of higher education institutions in Region III during the school year 2021-2022, which would eventually serve as input to a research productivity model? Specifically, this sought to answer the following questions:

1. How may the best practices of research programs in various HEIs be described in terms of:
  - 1.1 mission, goals and objectives;
  - 1.2 adequacy of personnel;
  - 1.3 adequacy of facilities and equipment;
  - 1.4 adequacy of funding;
  - 1.5 number of research studies/outputs;
    - 1.5.1 presented in local and international conferences/fora,
    - 1.5.2 published in refereed/non-refereed journals,
    - 1.5.3 received recognition/awards,
    - 1.5.4 received internal/external funding,
    - 1.5.6 with established linkages/networks,
    - 1.5.7 secured patent/copyright, and
    - 1.5.8 application to extension services?
2. What model for research and development program may be proposed to enhance the practices of the HEIs based on the results of the study?

### 4. METHODOLOGY

The use of the descriptive survey method of research was particularly suitable in this study since it addressed the general and specific problems of the study, which revolved around the in-depth evaluation of the research and development programs

of the select private higher institutions in Region III, Philippines.

The respondents of the study included the research directors, research coordinators, faculty researchers of the three higher education institutions in Region III, Philippines during the school year 2021-2022.

The researcher used a guided questionnaire that includes factors on research functions of various HEIs in Region III.

Descriptive statistics such as frequency distribution, percentages, mean, and standard deviation were also utilized.

## 5. RESULTS AND DISCUSSIONS

### Research Functions of Various Higher Education Institutions in Region III

Research productivity plays a major role in attaining success in higher education. Research is central to the work of higher education institutions [6]. At its best, research contributes not only to the stock of human knowledge but also to the intellectual climate of a college or university. Not just the outcome, but the process, and especially the passion give meaning to the research effort. Any new knowledge generated through research, any new technology transferred and utilized, can generate a lot of academic excitement in the institution. Moreover, research productivity varies widely from institution to institution depending on the emphasis that is placed on three key aspects of higher education, namely, teaching, research, and community service. University research centers and grant agencies often make the implicit assumption that research productivity depends on the innate abilities of a few key individuals [7]. By putting these people in charge and giving them all resources, research productivity may be maximized.

Universities in the developed world have a firm tradition of research. Since research has been an important part of their responsibilities, faculty members of higher education institutions (HEIs) have consistently evidenced research productivity together with other factors that contribute to the process [8]. One of these is research promotion. One important goal of this research is to determine the research function of the three selected HEIs in Region III in terms of their mission, goals and objectives, adequacy of personnel, adequacy of facilities and equipment, adequacy of funding, and number of research studies/outputs.

**Mission, Goals, and Objectives.** Institution 1 through the Research and Development Office envisioned building and sustaining an infrastructure that encourages greater participation by faculty in research and related activities. Such research efforts would result in; an increase number of publication; greater and more significant opportunities for students to participate in scholarly activities with their professor and assists in building national reputable centers. RDO is committed to facilitate the integration of research and other related creative activities and technology transfer. Research and other related components are used in evaluating the effectiveness of the faculty, in awarding promotion, tenure and merit raise.

The LCUP-RDO assumes responsibility for managing interactively its core services in the area of research and publication, institutional planning and development, information management and personnel development. The major goals are:

1. Promotes, enhances, and sustains an infrastructure that facilitate the integration of research, planning and development, instruction, and partnership;
2. Builds and sustains an infrastructure that encourages greater participation by faculty in research and related activities.
3. Continually reviews its research agenda to align it with national development, and local community needs, especially in sustainable development, justice and peace, gender sensitivity, and political education;
4. Generates resources for the maintenance of the university through advocacy participation in external research and optimum utilization of RDO services;
5. Becomes a provider or a resource of the University in information dissemination, custody of the institutional accreditation documents, publication and other technical services;
6. Enhances university image and reputation through compliance with accreditation requirements; increase research productivity, socially-oriented interdisciplinary research projects and adherence to high intellectual-ethical standards in the work environment.

Meanwhile, the Academic Research Office of Institution 2 stipulated the following goals:

1. Develops a research culture in the University such that research becomes a way of life among faculty members;
2. Conceptualizes and implements training programs aimed at upgrading the research competence of the academic community;
3. Encourages, inspires, and assists faculty members in the production of scholarly University-commissioned research outputs that are aligned with the research agenda, and collaborative research outputs undertaken in partnership with or under a grant from external parties such as governmental agencies, non-governmental organizations, private businesses, professional groups, research and development entities, and the like;
4. Organizes fora, such as colloquia and conferences, for the presentation, discussion and critiquing of faculty researches;
5. Encourages and assists faculty researchers in the publication of their research outputs in refereed local and/or international journals;
6. Proposes programs directed at the utilization of the University's research outputs by identified stakeholders on one hand, and the protection of the University's intellectual property rights on the other hand; and
7. Explores, establishes, and maintains external research linkages by establishing research networking/collaboration with national and international academic institutions, government and other funding agencies.

On the contrary, Institution 3 has not yet developed any mission, goals, and objectives, which could mean that the RDO program implementers need to sit down and brainstorm their strategic actions for research. The mission, goals, and objectives will help them direct the research activities aiming at improving the research productivity of faculty members.

**Adequacy of Personnel.** For the last five years, La Consolacion University Philippines maintains one qualified research director, two research coordinators, and departmental faculty researchers. Holy Angel University retains one research director, three research coordinators, and three faculty researchers. The respondents stated that the competency of research personnel made the number of personnel adequate in instituting varied research activities and producing quality research outputs. Meanwhile Baliuag University maintains one research director, two research coordinators, and two faculty researchers.

**Adequacy of Facilities and Equipments.** Institutions 1 and 3 maintains a spacious research and development office where faculty researchers can conduct their researches. The office has seven units of computers equipped with internet connection, statistical package for social science (SPSS) software, printers, among others. In addition, LCUP has purchased a software that will detect forms of plagiarism and language deficiencies of research papers.

HAU also spends considerable amount of money in purchasing softwares such as but not limited to SPSS, STATA, AMOS, and NVIVO. PRO-QUEST database is also available that is useful in searching for published scientific research articles. In terms of school's research resource center, the respondents are unanimous in saying that the center is not strategically located because it is not very accessible.

**Adequacy of Funding.** As per the respondents of the study, LCUP and Baliuag University allocate limited budget for institutional researches. Thus, the RDO is active in sending research proposals for funding to DOST, DOH, CLHRDC, CHED, among others.

The acquisition of research funds is also evident at Holy Angel University. They also send research proposals to NRCF, CHED, Department of energy, DOST, and DOH. The institution allocates three million budgets for research.

The limited appropriation of budget for research would mean that there is still a need to study the research budget. The Commission on Higher Education requires all higher education institutions to allot at least 2% of the total University budget.

**Number of Research Studies/Outputs.** Faculty members with longstanding success or integrity in research are often admired by other faculty and students as being on the cutting edge of their career and are regarded as knowledgeable about most issues in their field [9]. These faculty members are seen as more powerful educators and often serve as a frame of reference for junior faculty members or others who are developing their own research agenda. The research

studies/outputs of the faculty members were assessed in terms of the number of presentation in local and international conferences/for a, published in refereed/non-refereed journals, received recognition/awards, received internal/external funding, with established linkages/networks, secured patent/copyright, and application to extension services.

The data revealed that in terms of the number of research outputs, Institution 1 recorded the highest number of output as follows: presentation in local/international conferences/fora (13), journal publications (8), recipient of research awards (3), recipient of internal/external funding (8), established linkages and network (7), and application to extension services (3). It may be worth noting that LCUP organized an international research conference in 2012 and a recipient of best extension program in 2006.

Institution 2 recorded the following number of research outputs: presentation in local/international conferences/for a (8), journal publications (4), recipient of research awards (3), recipient of internal/external funding (6), established linkages and network (8), and application to extension services (2). Meanwhile, Institution 3 established the following number of research outputs: presentation in local/international conferences/fora (3), journal publications (1), recipient of research awards (1), recipient of internal/external funding (2), established linkages and network (3), and application to extension services (1).

Studies on research culture have focused on the kind of environment that leads to research productivity among faculty members in HEIs. There are 12 factors present in high performing research environments [10]. These are: clear goals for coordination, research emphasis, distinctive culture, positive group climate, decentralized organization, participative governance, frequent communication, resources (particularly human resources), group age, size and diversity, appropriate rewards, recruitment emphasis, and leadership with both research skill and management practice. On the other hand, authors identified unanimous and extremely important characteristics of successful research environments in family medicine residency training programs [11]. The unanimous characteristics are: program director support, time, faculty involvement, didactic curriculum/journal club, professional support and guidance, forum/opportunities for presenting. The extremely important characteristics include: early start, integrative curriculum, required projects, broad research definition, visibility, and research committee. Individual attributes, institutional and departmental attributes, as well as departmental culture and working conditions affect research productivity. Additional indicators of research culture, derived from the broad criteria evident in CHED's NHERA, are: research agenda, policies and guidelines on research incentives, services and facilities for research, publications, and research capable faculty.

It is very interesting to note that majority of the higher education faculty of the aforementioned institutions have recognized the value of scholarship as shown by their interest

in doing research. But it would be more interesting if they would take cognizance of what an author is saying that it is not a matter of doing research for its own sake, but engaging in original research. For the real work of research scholar is stepping back from one's investigation, looking for connection, building bridges between theory and practice, and disseminating research findings to students [12].

In terms of network and linkages, LCUP, HAU, and BU have shown active linkages with DOST, DOH, and CLHRDC. It is an indication that the three universities continue to seek linkages in order to upgrade their research capability and financial sources for research activities.

**Research Productivity Model Evolved from the Findings of the Study**

With the aim of understanding the best practices of research and development office of higher education institutions in Region III, this research attempted to develop a model that may be used in improving the research of faculty in Region III.



**Figure 2. Research Productivity Model**

**Strategies.** This is very important in creating a positive attitude towards promotions of the research initiatives. These could take the form of providing a healthy research environment, providing mentors' assistance, and improving researchers' capacity.

Specific initiatives supported of developing a healthy research environment include presence of the following: development of institutional research policies and agenda, departmental culture and working conditions, budget for research, availability of research infrastructure, collaboration with and access to research professionals in other institutions, presence of guidelines on research benefits and incentives, functional research committee, and publications.

Institutional research policies and agenda include the presence of research agenda based on the institutions' philosophy, goals, mission and vision, as well as its research emphasis for supporting and promoting research. Departmental culture and working conditions refer to the departmental research programs and strategies that are designed to encourage and sustain research productivity among the full-time and part-time faculty members. Budget for research pertains to allocation of adequate funds for research. Infrastructure includes the provision of research unit, research staff, adequate research services, and facilities in different disciplines for the conduct of research. Collaboration with other institutions refers to the provision of means for linkages with other institutions, local or international, in order to create intellectual synergy. Research committee refers to the presence of research monitoring body that screens the types of research conducted and looks into the ethical dilemmas involved, especially in sensitive fields. Publications consists of the production of quality researches as evidenced by the number of published researches in local and international journals, awards attained by faculty, and patents, among others.

Mentors' assistance could be in the form of trainings/workshops on conceptualization of research, data gathering, data analysis and interpretation, preparation of the research report, and other assistance as needed.

**Outcome.** There are two possible outcomes of the decision stage. A faculty member may choose to participate or not in the research activities. If the decision to participate is taken, then the faculty engages in number of research activities, and the productivity of their research participation may be measured in terms of the number of scientific papers produced, publications in local and international journals, citations and patents.

## 6. CONCLUSIONS

On the basis of the significant findings of the study, the following conclusions were drawn:

The research and development offices of the three HEIs in Region III are committed to facilitate the integration of research and other related creative activities and technology transfer. Research and other related components are used in evaluating the effectiveness of the faculty, in awarding promotion, tenure and merit raise.

## 7. RECOMMENDATIONS

The researcher offers the following recommendations on the basis of the findings and the conclusions derived from the study.

1. The kind of research environment may lead to research productivity among faculty members in HEIs. Hence, developing an attainable research agenda, good culture of research, appropriate budget for research, functional research units and services, linkages and networks, provision of research benefits and incentives, research committee, and

venue for publications are the essential elements of supportive research environment.

2. It was also opined by one of the program implementers projects low participation to international research publication. Hence, one of the programs developed to address the issue is the conduct of lecture on how to write for international publication. And since the budget is not enough to support the researches of the faculty members, the University through the RDO encourages the writers to submit research proposals to the Commission on Higher Education, Department of Science and Technology, Department of Health among others for possible financial support.

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