Relevance of The National Research Agenda to the Research Initiative of a Higher Education Institution in the Philippines

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ABSTRACT

This study used survey research design to determine the relevance of the National Higher Education Research Agenda (NHERA) to the research initiatives of a specific Higher Education Institution (HEI) in the Philippines. It employed universal sampling of faculty and administrative staff as well as students to analyse discrepancy in the perceptions regarding the degree of applicability, importance and urgency of the NHERA to the HEI's research initiatives. Result of Mann-Whitney U Test revealed no significant difference between the ratings of the employees and students regarding the degree of relevance. This indicates that the respondents were all in agreement with the set of research agenda themes that should be prioritised by the institution. These themes include those related to the program curricular studies; institutional development studies; manpower demand/supply studies; policy-oriented studies on accreditation and quality assurance mechanisms, among others. These are the NHERA themes that need to be given much emphasis in the research agenda and initiatives of the institution as these are all for the sake of achieving their institutional learning outcomes towards developing skilled and competent manpower in the country's aviation industry.

KEYWORDS: *Higher Education, Initiatives, Philippines, Productivity, Relevance, Research*

INTRODUCTION

Research as defined and clarified by many scholars and experts is a careful and systematic investigation of a specific problem or issue or concern using scientific method to establish facts and conclusions (Shuttleworth & Wilson, 2008; Creswell, 2008; Kowalczyk, 2017). According to the Philippine Commission on Higher Education (CHED, 2009) it is the ultimate expression of an individual's innovative and creative powers. Since research is one of the core functions of higher education institutions (HEIs), HEIs shall therefore ensure that the academic environment nurtures and supports the pool of researchers in the country. For this reason, higher education policies need to enhance the individual's capacity to conduct independent and productive research.

A progressive society depends upon scholars who conduct research that leads to the discovery of new knowledge, skills and abilities that will generate or enhance productivity and even up to the invention of new knowledge to meet present needs and challenges (Lane & Flagg, 2010). As Filipinos aspire for a more progressive nation, educators and scientists seek ways on how their innovative and creative powers will make a difference to the current situation. It is not the number of studies that matter but how these studies will bring about concrete results that influence the growth and productivity of the nation. Thus, the members of the academic community must have the skills and competencies allied to research.

Developing a research culture in an institution is not an easy task. Research thrives in an environment characterized by free flow of information, honest and analytical exchange of ideas, and supportive administrative structures. The Philippine HEIs need to be proactive in planting seeds for research to become an integral part of the day to day academic discourses among students, faculty and administrative staff. HEIs are expected to lead in the conduct of technology-directed and innovative/creative researches which are locally responsive and globally competitive. Research is likened to a seed that needs to be nurtured with right amount of water, sunlight and nourishment. Likewise, any initiative needs to be nurtured and guided with focused research agenda, policies and guidelines that will equally give provisions to incentives, services and facilities leading to progressive research culture and publications.

The Philippine State College of Aeronautics (PhilSCA) is a state college offering several programs related and allied to aviation education. Being one of the HEIs in the Philippines, PhilSCA is expected to be in compliance with research. It must therefore have a production of good researches for the benefits that go beyond its own institution and the entire nation. But reality dictates that no matter how the HEIs in the country strive towards building a research community (i.e., an increased global connectedness and networks with international research peers) through various provisions, academicians still find it unappealing. This is particularly true in the case of PhilSCA Basa-Palmayo Campus where almost everyone in the academe would say, "I have no time". Thus, exempting oneself from the educational accountability towards community and the

entire society. As stated by the famous psychiatrist and author M. Scott Peck, until the people value their time, they will not do anything with it.

Time-related factor might be one, but the literature and even the actual scenario implies that there are underlying reasons why not only PhilSCA but other HEIs in the country find it challenging to respond to this so-called global research community. This in essence gave the researcher, being a member of the academe, to make further inquiry.

The study reported in this paper aims to determine the relevance of the research agenda stipulated in the National Higher Education Research Agenda (NHERA) to the academic operations of PhilSCA based from the perceptions among their employees and students. It sought answers to the following research questions:

1. What is the degree of relevance of the National Higher Education Research Agenda to PhilSCA as perceived by their employees?
2. What is the degree of relevance of the National Higher Education Research Agenda to PhilSCA, as perceived by their graduating students?
3. Are there discrepancies in the respondents' perceptions on the relevance of the National Higher Education Research Agenda to the research initiatives of PhilSCA?
4. What implications could be drawn from the findings of the study that will help the HEI in formulating their own research agenda towards improving the quality of aviation education in the country?

MATERIALS AND METHODS

Research Design

This study is a quantitative type of research which specifically employs the descriptive type of study. This study describes the prevailing situation of an organization or any program. In this study, the responses of the respondents are described to come up with the scientific basis on the focus of the conduct of research in PhilSCA, Basa-Palmayo Campus.

Subjects of the Study

The respondents of this study were composed of two groups: the employees which included the members of the faculty and staff and the graduating students. The study employed universal sampling where not all the people in the population have the same probability of being included in the sample and each one of them, the probability of being selected is unknown (Richard & Margaret, 1990 in Kabera, 2009). The universal sampling technique was used where all the members of the two groups were taken as the respondents. The researchers preferred to use the universal sampling technique to select respondents from the faculty and administrative staff as well as some students because they were the ones who were able to provide the useful information

to test the hypothesis of this research. A total of 52 respondents including 34 faculty and staff and 18 graduating students participated in answering the survey questionnaire.

Instrumentation

A researcher-made survey questionnaire on the relevance was used to gather pertinent data in this research. Relevance refers to the quality or state of the national research agenda being closely connected or appropriate to the research initiatives of an existing HEI. It also refers to the degree of applicability, importance and urgency of each statement pertaining to the national research agenda vis-a-vis the research initiatives of the HEI. It uses four-point rating scale ranging from not relevant (1) to very highly relevant (4). The questionnaire was validated by experts in the field. There were items that were modified as suggested before the actual dissemination.

Data Analysis

The study used descriptive statistics such as means and percentages to analyse the data gathered. A non-parametric test such as the Mann-Whitney U Test was used to analyse the difference in the perceptions of the respondents on the relevance of the NHERA to the research initiatives of PhilSCA.

RESULTS AND DISCUSSIONS

This section presents the major findings of the study.

Degree of relevance of NHERA to PhilSCA as perceived by employees

Table 1 presents the data on the degree of the relevance of the National Higher Education Research Agenda (NHERA) to the Philippine State College of Aeronautics (PhilSCA), Basa-Palmayo Campus as rated by the employees composed of the faculty and staff.

In terms of applicability, research topics or themes related to program and curricular studies, quality and standards on assurance systems and on redefining classifications, quality standards on equivalency, quality assurance on system, and institutional development studies were rated *very highly applicable* by the faculty and administrative staff. The degree of relevance of the NHERA to PhilSCA in terms of applicability has a grand mean of 2.99 which is verbally described as *highly applicable*. This suggests that these themes if given greater emphasis in the research initiatives of PhilSCA would contribute to the fulfilment of its institutional goals and objectives towards excellence in providing aviation education in the country. This will just be one of the tangible results of active search for redefining classifications of employees and for continuous improvement in all the services of the campus' offerings to clienteles.

With respect to degree of importance, nine themes were rated *very highly important.* These include the program and curricular studies ($\bar{X}$=3.59); national science and technology plan on energy ($\bar{X}$=3.53), institutional development studies ($\bar{X}$=3.44); manpower demand and supply studies ($\bar{X}$=3.33); policy oriented studies on economics of higher education ($\bar{X}$=3.32); and quality and standards on equivalency ($\bar{X}$=3.29), redefining classifications ($\bar{X}$=3.29), and model building studies ($\bar{X}$=3.29).

There are only two themes that have means ranging from 1.00 – 1.74. These are priority themes on disaster risk management and national science and technology plan on pollution control. Both have verbal description of *not important*. These are not important in PhilSCA as rated by the employees indicating that pollution control is not of the priority concern of the campus based on its vision and mission.

The degree of relevance of the NHERA to PhilSCA in terms of importance has a grand mean of 2.67 which is verbally described as *highly important*. This is scientifically interpreted as 51 to 75 per cent important NHERA themes among the employees. Whereas in terms of urgency, nine themes related to programs and curricular offerings, policy oriented studies on accreditation, quality assurance and mechanisms, national science and technology plan on energy, institutional development studies, technology and education, manpower demand and supply studies, and model building studies were rated *very highly urgent* by the faculty and administrative staff

Table 1. Degree of relevance of the NHERA to PHilSCA as rated by the employees

Research Agenda Themes	**Applicability**		**Importance**		**Urgency**		**RELEVANCE**	
	Weighted Mean	Verbal Descriptio	Weighted Mean	Verbal Descriptio	Weighted Mean	Verbal Descriptio	**Overall Weighted**	Verbal Descriptio n
1. Program/curricular studies	3.59	VHA	3.59	VHI	3.65	VHU	**3.61**	**VHR**
2. Policy oriented studies on financing higher education	2.79	HA	3.09	HI	3.23	HU	**3.04**	**HR**
3. Policy oriented studies on economics of higher education	2.68	HA	3.32	VHI	3.12	HU	**3.04**	**HR**
4. Policy oriented studies on governance & management	2.79	HA	2.38	I	3.00	HU	**2.72**	**HR**
5. Policy oriented studies on accreditation & quality assurance mechanisms	3.03	HA	3.21	HI	3.54	VHU	**3.26**	**VHR**
6. Policy oriented studies on rationalization	2.79	HA	2.85	HI	2.94	HU	**2.86**	**HR**
7. Policy oriented studies on internationalization	2.92	HA	2.62	HI	2.82	HU	**2.79**	**HR**
8. Policy oriented studies on access & equity measures	2.84	HA	2.85	HI	3.09	HU	**2.93**	**HR**

9. Policy oriented studies on student financing models	2.79	HA	2.77	HI	2.94	HU	**2.84**	**HR**
10. Quality & standards on assurance system	3.53	VHA	2.35	I	3.11	HU	**3.00**	**HR**
11. Quality & standards on quality assurance system	3.29	VHA	2.23	I	3.09	HU	**2.87**	**HR**
12. Quality & standards on equivalency	3.42	VHA	3.29	VHI	3.24	HU	**3.32**	**VHR**
13. Quality & standards on redefining classifications	3.53	VHA	3.29	VHI	3.57	VHU	**3.35**	**VHR**
14. Technology & education	3.21	HA	2.09	HI	3.47	VHU	**2.92**	**HR**
15. Model building studies	2.65	HA	3.29	VHI	3.29	VHU	**3.08**	**HR**
16. Institutional development studies	3.29	VHA	3.44	VHI	3.53	VHU	**3.42**	**VHR**
17. Manpower demand & supply studies	3.09	HA	3.33	VHI	3.32	VHU	**3.25**	**VHR**
18. Graduate tracer studies	2.62	HA	3.12	HI	3.02	HU	**2.92**	**HR**
19. National science & technology plan on ICT	2.95	HA	2.35	I	3.09	HU	**2.80**	**HR**
20. National science & technology plan on environment	3.03	HA	1.76	I	2.94	HU	**2.58**	**HR**
21. National science & technology plan on natural disaster mitigation	2.83	HA	2.06	I	2.94	HU	**2.61**	**HR**
22. National science & technology plan on energy	2.83	HA	3.53	VHI	3.44	VHU	**3.27**	**VHR**
23. Priority themes disaster risk management	2.65	HA	1.65	NI	1.76	U	**2.02**	**R**
24. National science & technology plan on pollution control	3.03	HA	1.68	NI	1.88	U	**2.20**	**R**
25. National science & technology plan on global warming	2.92	HA	1.75	I	1.65	NU	**2.11**	**R**
26. National science & technology plan on future ASEAN	2.79	HA	1.88	I	1.24	NU	**1.97**	**R**
27. Peace process and conflict resolution	2.92	HA	2.44	I	3.33	VHU	**2.90**	**HR**
Grand Mean	**2.99**	**HA**	**2.67**	**HI**	**2.97**	**HU**	**2.88**	**HR**

Legend: 3.25–4:00Very Highly Applicable (VHA)/Very Highly Important (VHI)/Very Highly Urgent (VHU)/Very Highly Relevant (VHR); 2.50-3.24 I- Important (I)/ Urgent (U); 1.75-2.49 Relevant (R); 1.00-1.74 Not Relevant (NR)/ Not Urgent (NU)/Not Important (NI

Most of the other themes in the research agenda of NHERA in terms of urgency have means ranging from 1.75–3.24 which were verbally described from *urgent* to *very urgent*. But there were two themes, with lowest weighted means ranging from 1.00–1.74 which were verbally described as *not urgent*. These themes were the national science and technology plan on pollution control and priority themes on disaster risk management.

The degree of relevance in terms of urgency have a grand means of 2.97 which was verbally described as *highly urgent*. This means that the items or themes on the research agenda of NHERA in the aspect of urgency, are 50 to 74 per cent urgent. Moreover, the items in this aspect, urgency

with weighted means verbally described as very *highly urgent* need to be conducted in the soonest possible time for the continuous improvement of PhilSCA for the benefits of the stakeholders in the community and the society as a whole.

In totality, the degree of relevance of the themes on the research agenda of NHERA to the PhilSCA in terms of applicability, importance, and urgency is *highly relevant* (OWM=2.88) based from the perception of employees. With this, there are 7 themes that need to be researched on, those with an overall means ranging from 3.25-4.00 and verbally described as *very highly relevant*. These include programs and curricular studies, policy-oriented studies on accreditation, quality assurance and mechanisms, quality and standards on equivalency, redefining classifications, institutional development studies, manpower demand and supply, and national science and technology plan on energy.

Degree of relevance of NHERA to PhilSCA as perceived by the Students

Table 2 presents the different themes on the research agenda of NHERA and its relevance to PhilSCA, Basa-Palmayo Campus as rated by the enrolled graduating students.

Based on the findings, the degree of relevance of the NHERA to PhilSCA in terms of applicability as rated by the students has an overall weighted mean of 2.76 which was verbally described as *highly applicable*. These NHERA themes are said to be 51 to 75 per cent applicable to the research initiatives of PhilSCA. These themes include manpower demand and supply studies ($\bar{X}$=3.17); institutional development studies ($\bar{X}$=3.02); and policy-oriented studies ($\bar{X}$=3.00).

In terms of Importance, the overall mean is 2.96 which was verbally described as *highly important*. This means that the themes in the research agenda are also 51 to 75 per cent important to the institution from the viewpoint of students. The first three themes with weighted means ranging from 2.50 to 3.24 include manpower demand and supply studies ($\bar{X}$=3.28); model building studies ($\bar{X}$=3.22); and policy-oriented studies ($\bar{X}$=3.20).

The last sub-variable, urgency for the degree of relevance of NHERA to PhilSCA has an overall mean of 2.68, which was verbally described *highly urgent*. This means that the themes that ranked first are 51 to 75 per cent urgent. These items include program and curricular studies ($\bar{X}$=3.17); technology and education ($\bar{X}$=3.02); and quality and standards on assurance systems ($\bar{X}$=3.00).

To sum it all, the degree of relevance of the themes in the research agenda enumerated in NHERA to the operation of PhilSCA in terms of its sub-variables, applicability, importance and urgency based from the ratings of the students is *highly relevant* (OWM=2.89). This means that the NHERA themes to consider are 51 to 75 per cent relevant to the operation and research initiatives of PhilSCA-BASA Campus. These items include manpower demand and supply

studies, policy-oriented studies, institutional development studies, model building studies, and technology and education.

Table 2. Degree of relevance of the NHERA to PHilSCA as rated by the students

Research Agenda Themes	Applicability		Importance		Urgency		RELEVANCE	
	Weighted Mean	Verbal Description	Weighted Mean	Verbal Description	Weighted Mean	Verbal Description	**Overall Weighted ..**	Verbal Description
1. Program/curricular studies	2.72	HA	2.89	HI	3.17	HU	**2.92**	**HR**
2. Policy oriented studies on financing higher education	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
3. Policy oriented studies on economics of higher education	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
4. Policy oriented studies on governance & management	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
5. Policy oriented studies on accreditation & quality assurance mechanisms	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
6. Policy oriented studies on rationalization	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
7. Policy oriented studies on internationalization	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
8. Policy oriented studies on access & equity measures	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
9. Policy oriented studies on student financing models	3.00	HA	3.20	HI	2.94	HU	**3.05**	**HR**
10. Quality & standards on assurance system	2.56	HA	3.17	HI	3.00	HU	**2.91**	**HR**
11. Quality & standards on quality assurance system	2.56	HA	3.17	HI	3.00	HU	**2.91**	**HR**
12. Quality & standards on equivalency	2.56	HA	3.17	HI	3.00	HU	**2.91**	**HR**
13. Quality & standards on redefining classifications	2.56	HA	3.17	HI	3.00	HU	**2.91**	**HR**
14. Technology & education	2.94	HA	2.89	HI	3.02	HU	**2.95**	**HR**
15. Model building studies	2.94	HA	3.22	HI	2.89	HU	**3.02**	**HR**
16. Institutional development studies	3.02	HA	3.06	HI	3.00	HU	**3.03**	**HR**
17. Manpower demand & supply studies	3.17	HA	3.28	VHI	3.00	HU	**3.15**	**HR**
18. Graduate tracer studies	2.83	HA	2.83	HI	2.00	U	**2.55**	**HR**
19. National science & technology plan on ICT	2.22	A	2.89	HI	1.67	U	**2.26**	**R**
20. National science & technology plan on environment	2.22	A	2.89	HI	1.67	U	**2.26**	**R**
21. National science & technology plan on natural disaster mitigation	2.22	A	2.89	HI	1.67	U	**2.26**	**R**

22. National science & technology plan on energy	2.22	A	2.89	HI	1.67	U	**2.26**	**R**
23. Priority themes disaster risk management	2.78	HA	3.00	HI	1.67	U	**2.26**	**R**
24. National science & technology plan on pollution control	2.78	HA	3.00	HI	2.22	U	**2.67**	**HR**
25. National science & technology plan on global warming	2.78	HA	3.00	HI	2.22	U	**2.67**	**HR**
26. National science & technology plan on future ASEAN	2.78	HA	3.00	HI	2.22	U	**2.67**	**HR**
27. Peace process and conflict resolution	2.72	HA	2.94	HI	2.61	HU	**2.76**	**HR**
Grand Weighted Mean	**2.76**	**HA**	**2.96**	**HI**	**2.68**	**HU**	**2.89**	**HR**

Legend: 3.25–4:00Very Highly Applicable (VHA)/Very Highly Important (VHI)/Very Highly Urgent (VHU)/Very Highly Relevant (VHR);

2.50-3.24 I- Important (I)/ Urgent (U); 1.75-2.49 Relevant (R); 1.00-1.74 Not Relevant (NR)/ Not Urgent (NU)/Not Important (NI

Discrepancy on the perceived relevance between employees and the students

The overall means given to each theme led to the determination of the suggested themes to be prioritized in the research agenda of PhilSCA.

Table 3 presents the top 10 most relevant research agenda themes based on the perceptions of the respondents. These include themes related to the program curricular studies; institutional development studies; manpower demand/ supply studies; policy oriented studies on accreditation and quality assurance mechanisms; quality and standards on redefining classifications; quality and standards on equivalency; policy oriented studies on financing higher education; policy oriented studies on economics of higher education; model building studies; and policy oriented studies on access and equity measures.

Table 3 Discrepancy on the ratings between employees and students

Research Agenda Themes	**Employees**	**Students (OWM)**	**Overall**	**Rank**
1. Program/curricular studies	3.61	2.92	3.27	1
2. Policy oriented studies on financing higher education	3.04	3.05	3.05	8
3. Policy oriented studies on economics of higher education	3.04	3.05	3.05	8
4. Policy oriented studies on governance & management	2.72	3.05	2.89	16.5
5. Policy oriented studies on accreditation & quality assurance mechanisms	3.26	3.05	3.16	4
6. Policy oriented studies on rationalization	2.86	3.05	2.96	11.5
7. Policy oriented studies on internationalization	2.79	3.05	2.92	15
8. Policy oriented studies on access & equity measures	2.93	3.05	2.99	10
9. Policy oriented studies on student financing models	2.84	3.05	2.95	13
10. Quality & standards on assurance system	3.00	2.91	2.96	11.5

11. Quality & standards on quality assurance system	2.87	2.91	2.89	16.5
12. Quality & standards on equivalency	3.32	2.91	3.12	6
13. Quality & standards on redefining classifications	3.35	2.91	3.13	5
14. Technology & education	2.92	2.95	2.94	14
15. Model building studies	3.08	3.02	3.05	8
16. Institutional development studies	3.42	3.03	3.23	2
17. Manpower demand & supply studies	3.25	3.15	3.20	3
18. Graduate tracer studies	2.92	2.55	2.74	19
19. National science & technology plan on ICT	2.8	2.26	2.53	20
20. National science & technology plan on environment	2.58	2.26	2.42	23
21. National science & technology plan on natural disaster mitigation	2.61	1.26	2.44	21
22. National science & technology plan on energy	3.27	2.26	2.77	18
23. Priority themes disaster risk management	2.02	2.26	2.14	26.5
24. National science & technology plan on pollution control	2.20	2.67	2.44	22
25. National science & technology plan on global warming	2.11	2.67	2.39	24
26. National science & technology plan on future ASEAN	1.97	2.67	2.32	25
27. Peace process and conflict resolution	2.90	2.76	2.14	26.5

Result of Mann-Whitney U Test revealed no significant difference between the ratings of the employees and students regarding the degree of relevance of NHERA to PhilSCA (Mann-Whitney U (*df*=4, n=52)= 0.717, p=8.61). This further indicates that the respondents were all in agreement with the set of research agenda themes that should be prioritised by the institution. However, the statistical test result is particularly true to the case of the stated PhilSCA campus and therefore cannot be generalised to all other HEIs in the country.

CONCLUSION AND IMPLICATION

The study provides an elaborate discussion and analysis of the NHERA and its relevance to a specific HEI in the Philippines. It provides a concrete example of how the stakeholders' stance will bring about a positive change in the research culture of their own institution. Time-related factor was identified as a potential barrier to institutional research productivity at the onset of the study. But as the study presents its outcomes, the findings showed a very specific and fundamental concern on the alignment of the institutional research initiatives to the national research agenda in relation to its own vision and mission as a HEI. The NHERA themes that need to be given much emphasis in the research agenda and initiatives of the institution are all for the sake of achieving their institutional learning outcomes towards developing skilled and competent manpower in the country's aviation industry. This study also serves as an eye opener to all other HEIs beyond the Philippines concerning the importance of incorporating the perspectives of the major stakeholders as far as the search for knowledge and enrichment of research productivity are concerned. That no matter how challenging the job of creating knowledge, as long as it is done on the right track, there is a great assurance that any research pursuit will never defeat its ultimate purpose of bringing positive change in the society.

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