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Profiling the Research Culture of Philippine Higher Education Institutions

ABSTRACT: This survey study conducted some years ago critically examined the research culture profile of the six out of seven member institutions of the Philippines' SUCs (State Universities and Colleges) in the NCR (National Capital Region). A content validated, researcher-developed survey instrument determined the information necessary to profile the research culture of the participant universities. Results of the study showed that accordingly, the participant-SUCs, whether clustered as teaching-intensive or research-intensive, seek to establish an operational research center to manage all related activities. The idea of a stand alone research center provides autonomy to the center that probably enables a more efficient and effective research management. This management shift considerably influences the research culture profile defined in three senses: development; environment; and beliefs, skills, and custom, which primarily provide the entirety of research capability of the university. Finally, attempts to improve the research culture profile should sustain the balance of the trifocal nature of the university: teaching service; community outreach provision; and research culture to completely bring out the university's true essence. With a strong faculty profile, international linkages, and collaboration may be easily forged, which will eventually help build research culture profile in the context of teaching and community service. It takes also serious and strategic efforts to build a culture of research within the university and unique to the university without leaving behind the core purpose of a university – to teach and help improve the community.

KEY WORDS: Philippine Higher Education Institutions; Philippine State Universities and Colleges; Research Culture Profile; Typology.

INTRODUCTION

In the 21st century era, more countries acknowledge that scholarly output and research profile of universities are important contributory factors developing their knowledge-based economy. Seemingly, countries believed that their journey to economic growth and development is highly

influenced by knowledge-based strategies (*cf* ADB, 2007; Salem, 2014; and Litsareva, 2017).

Even advanced countries in Asia, like Japan, the Republic of Korea, Singapore, and Taipei China, shifted from agriculture to manufacturing to knowledge-based industries utilizing technology, innovation, research, higher education, and specialized skills to

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create, circulate, and use knowledge for economic growth and national development (ADB, 2014; Lane, 2014; and Litsareva, 2017).

Knowledge generated in the academe should reach and transform the larger community, the nation, and beyond; and contribute to the knowledge created for knowledge economy. This economic trend places research and innovation at the forefront and an integral part of higher education (Tynan & Garbett, 2007; Salem, 2014; and Širá, 2020).

Confluent with external demands, such as funding agencies' requirement, stakeholders' metrics, international competitions, and global indices, a major power shift dominates the tertiary education exuding an altered scene, which emphasizes research utilities and culture (Mintrom, 2008; De Castro, 2018; and Graham ed., 2018).

In fact, teaching intensive universities in developing countries, like the Philippines, started devising ways and means to provide better focus on research informing the other fields and to intensify a culture of research within and among universities (Salazar-Clemeña & Almonte-Acosta, 2007; Lodhi, 2012; and Tremblay, Lalancette & Roseveare, 2012).

Research Culture. Strong research culture in a university may provide power a shift to teaching intensive universities. Surveyed literature reveals three broad sense of culture: development or improvement; environment; and ideas, customs, and skills (Salazar-Clemeña & Almonte-Acosta, 2007; Evans, 2011; HR, 2014; Méndez & Cruz, 2014; and Wu, Garza & Guzma, 2015).

Apparently, each sense defines culture in a different perspective, which may be viewed as parts comprising the whole idea of research culture. Research culture may be defined through the lens of development sense as the individual's capacity to undertake research activities. In this context, L. Evans (2011), and other scholars, described this sense (development) inclusive of individual's skills, attitudes, competencies, understanding, and willingness to do research (Evans, 2011; Anheier *et al.* 2017; and Crossick & Kaszynska, 2018).

The second sense, environment, as a place

where research grows and multiplies and a set of variables associated with a particular academic institute, which helps nurture the research output. Finally, L. Evans (2007), and other scholars, utilized the third sense (ideas, customs, and skills, which are eventually transferred, communicated, or passed on to their successors) in the perspective of "shared values", assumptions, beliefs, rituals, and other forms of behavior, which emphasize worth and value of acceptance and recognition of research practices (*cf* Evans, 2007; Meek, Teichler & Kearney eds., 2009; and Jalkanen, Jokinen & Taalas eds., 2015).

Attaining these three senses may intentionally accentuate research in the academe and expand research capacity to increase revenue and higher university rankings, which influence student application and enrolment (Fry, Ketteridge, Marshall eds., 2009; Litwin, 2009; and Tremblay, Lalancette & Roseveare, 2012).

However, L.F. Huennekel *et al.* (2017), and other scholars, noted that this expansion in research activity may cause tensions with traditional university services, such as teaching and community outreach. Most universities want to distribute capacity to all the three major university expectations without putting one behind the others. Reality, though, does not speak of such occurrence; thus, universities differ in management allocation for these three domains resulting to different research productivity, teaching engagement, and outreach commitments (Fyfe *et al.*, 2017; Huennekel *et al.*, 2017; and Beaulieu, Breton & Brousselle, 2018).

Research Culture Phases and Profile.

Attempts by universities and education agencies to provide a balanced teaching-outreach-research agenda may be achieved through phases and stages. Acquiring a unique relation of three domains may be the quest for each university commencing with the idea of building a research culture (Marope, Wells & Hazelkorn eds., 2013; Bidabadi *et al.*, 2016; and Zosh *et al.*, 2017).

Apparently, Muhajir & M.A.A. Rahman (2013), and other scholars, shared the same belief who defined research culture using four distinct phases in the process of any

environmental conditions: (1) creating a research culture; (2) growing a research culture; (3) developing a research culture; and (4) nurturing a research culture. These phases may be utilized as a way to profile the university's research culture and capacity (*cf* Muhajir & Rahman, 2013; HR, 2014; and Elsbach & Stigliani, 2018).

Profiling the research culture of universities and research agencies is a way to showcase the current research capacity of the agency in terms of the three aforementioned phases. In fact, most universities use their research culture profile to promote their research agenda and improve their research reputation in the international scene (Vogel, 2012; Wenke & Mickan, 2016; and Nokkala & Diogo, 2020).¹

The same trend exists in Asia, where universities promote their academic stature through world ranking emphasizing their respective research culture profile (Altbach, Reisberg & Rumbley, 2009; Tremblay, Lalancette & Roseveare, 2012; and Marope, Wells & Hazelkorn eds., 2013).²

However, the highest world ranking, 24th, for the best school in Asia is far below the world ranking of American and European schools. In fact, D. Mathews (2015), and other scholars, reported the same drift and noted that only when Asians device their unique research culture and provide a distinctive research profile will the world see that they can match their American and European counterparts (Patel, Li & Sooknanan, 2011; Mathews, 2015; and Leow, 2017).

¹See also, for comparison, "Research Profile in 2017" in *Friedrich Schiller University*. Available online also at: https://www.uni-jena.de/en/Research_Profile_p_155716.html [accessed in Manila, the Philippines: June 1, 2019]; "The Turkish World in 2017" in *Ministry of Culture and Tourism*. Available online also at: <http://www.kultur.gov.tr/EN,99188/the-turkish-world.html> [accessed in Manila, the Philippines: June 1, 2019]; "Research in 2017" in *Universiteit Leiden*. Available online also at: <https://www.universiteitleiden.nl/en/humanities/research> [accessed in Manila, the Philippines: June 1, 2019]; and "Research Profiles in 2017" in *The University of Edinburgh*. Available online also at: <http://www.ed.ac.uk/research/profiles> [accessed in Manila, the Philippines: June 1, 2019].

²See also, for example, "The Work University Rankings in 2017" in *Asia University Rankings*. Available online also at: https://www.timeshighereducation.com/world-university-rankings/2017/regional-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats [accessed in Manila, the Philippines: June 1, 2019].

The Philippine Context. A distinctive way to address D. Mathews (2015) and other scholars' concern required the country to underscore a unique trifocal framework. As preliminaries, the PCHED (Philippine Commission on Higher Education) plans to articulate this research direction of HEIs (Higher Education Institutions) by providing policies, directions, priorities, and thrusts both in medium and long terms through its conception of the National Higher Education Research Agenda (Salazar-Clemeña & Almonte-Acosta, 2007; CHED, 2009; Mathews, 2015; and Carillo, 2017).

In a report, Emmanuel Y. Angeles (2017), and other scholars, noted that CHED (Commission on Higher Education)'s NHERA (National Higher Education Research Agenda) 1 covered a 10-year period of reform efforts summed up into three priorities: (1) decentralization of locus of research administrative operations for broadened and more equitable access of research logistics support; (2) enhancing research productivity through direct support to individuals and institutions via research grants on commissioned studies for institutions and thesis/dissertation grants to graduate students; and (3) increasing the pool of capable researches through research capability program (*cf* Alcalá, Padua & Lachica, 2009; CHED, 2009; JICA, 2015; and Angeles, 2017).

NHERA 2 (2009-2018) defines continuous efforts to achieve better research culture and the research profile of the universities in the country. Specifically, this second set provides interventions to problematic areas in NHERA 1 to meet the dynamic demands of the 21st century. It anticipates for more immersive and purposeful strategies for enhancing research productivity of HEIs as they inch their way to top global marks (Salazar-Clemeña & Almonte-Acosta, 2007; Angeles, 2017; and Narbarte & Balila, 2018).

Apparently, the Philippines may be able to see the products and outcomes of its initiatives through a more responsive Philippine research culture. This vision may be realized through an improved perpetuation of research culture profiling

activities done locally in preparation to global presence, marks, and ranking. This step is a way towards unique trifocal framework for teaching expectations, outreach services, and research culture. Thus, the present study aims to determine PASUC (Philippine Association of State University and College) institutions' research culture profile as means to research sustainability (*cf* Salazar-Clemeña & Almonte-Acosta, 2007; Perez & Templanza, 2012; and Carillo, 2017).

Specifically, the objectives of the study are, firstly, to determine the participant universities' research profile in terms: Typology; Research organizational structure; Physical facilities, tools, and equipment; Research services; Existing research networks and linkages; Membership and affiliations with research institutions; Government support received; and Incentives and rewards mechanism. Secondly, to identify the research performance of the research institutions based on: Research outputs; and Number of publications.

METHODS

The current study used survey design to identify and gather pertinent data and characteristics pertaining to the objectives. Data on research performance of the respondent institutions generated from the institution's research accomplishments in year 2014-2015 served as the main source of data for this survey research (Krosnick *et al.*, 2015; Ponto, 2015; and Kabir, 2018).

Participants. The study included purposively chosen PASUC-NCR (Philippine Association of State University and College – National Capital Region) chapter from the 4 existing chapters in the Philippines archipelago. Selection criteria for this choice emphasized the variety of typology of the member institutions, which included colleges, comprehensive university, and professional institutions compared to the highly dominated comprehensive colleges and universities in the other chapters. Out of the 7 member institutions invited for the conduct of this research, 6 generously provided a complete enumeration of research directors and heads of their respective colleges and departments.

Research Instrument. The survey instrument includes four parts, but, for the purpose of the current study, the proponents only deduced and extracted data from the first 2 parts. The first part feature participants' profile that deduced information on the preparation, experiences, and productivity of research directors and heads, and their major attributes to research, academic, and managerial aspects that qualified them for the position (Draugalis, Coons & Plaza, 2008; Krosnick *et al.*, 2015; and Ponto, 2015).

Second part covered the research profile of the institutions, e.g. typology, organizational structure, physical facilities, tools and softwares available, and research services provided. Content experts in the field of research and measurement descriptively validated the entire instrument. Interview with several prospective participants established the descriptive reliability of the instrument (Draugalis, Coons & Plaza, 2008; Chen *et al.*, 2014; and Morales, 2014).

Data Collection and Analysis. Survey procedures commenced with formal correspondence to the head of the institutions of the 6 out of 7 PASUC (Philippine Association of State University and College) members, who accepted the invitation to be part of study as participants. Proponents fielded the survey instrument through official. Additionally, the proponents also sent all survey instruments via registered mail system to ensure receipt by the participating institution. Several phone calls also verified receipt of these instruments (Krosnick *et al.*, 2015; Ponto, 2015; and Kabir, 2018).

Participants send back the scanned accomplished survey instrument to the corresponding research institution via email. The proponents also conducted site visits for validation of all data collected in the survey instrument. Frequency and percentages dominated the statistical presentation of data on research profile per institution (Draugalis, Coons & Plaza, 2008; Krosnick *et al.*, 2015; and Ponto, 2015).

RESULTS AND DISCUSSION

The study aims to present the profile of the research culture of the participant institution

Table 1:
Profile of Research Office Staffing

University	Position	Main Task/Job Description
A	Research Directors, Senior Program Manager, Deputy Director, Faculty-Researchers, Research Officers, and Administrative Staff.	<ul style="list-style-type: none"> • Research management and production. • Assist project leaders. • Attends to administrative work.
B	Research Coordinator, Technical Assistant, Research Management Information Assistant, and Project Leader.	<ul style="list-style-type: none"> • Coordinates with faculty members researchers, and provide technical assistance. • Prepares reports and other communications (research report; accomplishments reports, etc). • Statisticians (SPSS).
C	University Research Director and Research Coordinator.	<ul style="list-style-type: none"> • Coordinates with the URD regarding the research activities of the University.
D	Research Director and Research Coordinators.	<ul style="list-style-type: none"> • Oversees the research activities of the institution. • Coordinates the research undertakings of their specific clusters/areas.
E	Research Director and Research Coordinators.	<ul style="list-style-type: none"> • Oversees the research activities of the institution • Coordinates the research undertakings of their specific clusters/areas
F	Research Director and Research Coordinators.	<ul style="list-style-type: none"> • Oversees the research activities of the institution. • Coordinates the research undertakings of their specific clusters/areas.

in three parts: (1) *Typology and Research Organizational Structure*; (2) *Descriptors of Research Culture*; and (3) *Research Performance*. The succeeding presentation shows all the descriptors of research culture, grouped according to the three major “sense” of research culture: development, environment, skill, ideas, and custom (*cf* Dicksona, Hartogb & Mitchelson, 2003; Salazar-Clemeña & Almonte-Acosta, 2007; and Olsson & Meek, 2018).

Typology and Research Organizational Structure. Results show that 83% of participant are state university and one as state college, based on typology. All surveyed institutions have an existing institutional research office or unit; however, only 80% have available fulltime staff.

These results show that participant display willful acts of having an operational research center to manage all research-related activities, which may help define their profile of research culture, similar to the recommendations of Building a Culture of Research-Recommended Practices of a well-defined research structure (Salazar-Clemeña & Almonte-Acosta, 2007; HR, 2014; and Chaplin & Price, 2018).

Descriptors of Research Culture. There are three senses of research culture, namely:

(1) *Development Sense*; (2) *Environment Sense*; and (3) *Skills, Beliefs, and Customs Sense*. The discussion on each sense is following here:

Firstly, *Development Sense*. The development sense encompasses: the profile of research office staffing; staffing arrangement for the faculty assigned in the research office; and research services provided by research offices of the participants. Table 1 presents the profile of the research office staff of member institutions.

Different research positions and their respective job descriptions in the research office vary from one institution to another depending on the nature and deliverables of the unit as defined by the university. Eighty three percent of the institutions project a research center managed by a Research Director tasked to oversee the research activities and production of the institution. Support services offered by the other positions, such as Faculty Researchers, Research Officers, and Administrative Staff include management of research desks and office operation.

Only institution B recognizes a Research Coordinator rather than a Research Director to supervise the university research activities. All sampled institutions have internal research

Table 2:
 Staffing Arrangements for Faculty Assigned at the Research Office

Staffing Structure	Frequency
Full-time	2
Part-time	4
Arrangements	
Service credit	2
Research load as part of regular load	4
Research load given as extra load	2

Table 3:
 Research Services Provided by Research Offices

Institution	Services/Desks	Major Function
A	Training in tools preparation; Test administration; Consultation; Research capability building for faculty and staff; Editing, advising, and consultation; Facilitating research colloquium; Management of thesis writing; Research monitoring and evaluation; Proposal review and development; and Mentoring.	Data gathering; and Capability building of faculty.
B	No formalized desks yet.	Just to identify, rationalize, and consolidate the projects and activities in R&D; Packaging of research proposals; Monitoring research status; and Research funding – allocation of research fund based on the approval of the request.
C	No formalized desks yet.	Consultative supervising research activities; and Publishing research reports.
D	No data.	--
E	No formalized desks yet.	Assist in applying for IP, paper presentation, statistical treatment of data of researchers; and Consultative.
C	No formalized desks yet.	Consultative, supervising research activities; and Publishing research reports.

structure that clearly defines positions and their respective services gearing towards a stand-alone research center, which may have contributed to their sustainable research activities (*cf* Mallon & Bunton, 2005; DESA, 2008; and Olsson & Meek, 2018).

Table 2 presents the staffing arrangements for the faculty assigned as the faculty researcher of the participant institutions' research centers.

Two universities have faculty members assigned in the research office on full-time basis, while four universities reported to have part-time faculty members. This means that majority of the institutions recognize that assigning faculty for research is a viable means of increasing institutional research capacity (*cf* Mallon & Bunton, 2005; Salazar-

Clemeña & Almonte-Acosta, 2007; and Tremblay, Lalancette & Roseveare, 2012).

Apparently, this scheme showcases the professor or faculty as the core of a university system and his/her primary role on knowledge creation showing, therefore, “*cross fertilization between teaching and cutting-edge research, which allows generating quality research*” (Esposito-Vinzi, 2015).

In fact, C.B. Mugimu, M.G. Nakabugo & E.R. Katunguka (2013), and other scholars, argued that those people who are keen on research and are good at conducting research also make the best teachers as they possess the intellectual skills and creativity, which they normally pass on to their students. However, several of the institutions with emerging research culture prefer assignment to the

Table 4:
Available Facilities, Equipment, and Softwares

Facilities	Frequency (n=6)
Study Center	3
Conference Room/ Area	4
Office Area	4
Intellectual Property Support Unit	2
Research Advising Area	4
Equipment:	
Computer Units	4
Printer	4
Photocopying Machine	4
Tools/ Softwares:	
Statistical	4
Qualitative Data Analysis	2
Anti-Plagiarism	2
Bibliography Software	1

research office on a part-time basis. These universities are teaching intensive universities and are gradually developing their research culture (Salazar-Clemeña & Almonte-Acosta, 2007; Mugimu, Nakabugo & Katunguka, 2013; and OECD, 2016).

Auckland Uniservices Limited, in 2001, observed similar trend involving 15 higher education institutions in Maori and Pacific region. Some of the participant institutions (classified as relatively new and whose research cultures were just emerging) commonly face trade-offs between research development and fulfilling demanding teaching schedule (Ward, 2001; Kidman, 2007; and Townsend & Bates eds., 2007).³

However, caution must be observed in balancing teaching services and research development as both are considered as intensive work. Research offices or centers provide a wide array of administrative and academic services to both the faculty and students in the college/university (Salazar-Clemeña & Almonte-Acosta, 2007; Townsend & Bates eds., 2007; and Tremblay, Lalancette & Roseveare, 2012).

Table 3 presents the research services provided by the research office of the participant institutions.

³See also, for example, "Auckland Uniservices Limited in 2001". Available online at: <https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=11712520> [accessed in Manila, the Philippines: June 8, 2019].

Research centers manage the research undertakings in the university, from developing, reviewing, and packaging research proposals to monitoring of progress and timeliness of research projects, including the necessary compliance, especially on funding and good governance requirements. They also equip the faculty members with necessary research skills through capability and mentoring programs (Mallon & Bunton, 2005; Curristine, Lonti & Joumard, 2007; WHO, 2011; and Kruk *et al.*, 2018).

They even provide support to students through advising, consulting, and facilitating research colloquia. Post-project assistance is also extended by research centers to faculty and staff on patent applications and coordinating requests for assistance on paper presentations and trainings (Vigdor *et al.*, 2000; Meek, Teichler & Kearney eds., 2009; and Kruk *et al.*, 2018).

Secondly, *Environment Sense*. This sense emphasizes environment, as a place where research grows and multiplies and a set of variables associated with a particular academic institute, which helps to nurture research outputs (Townsend & Bates eds., 2007; Marope, Wells & Hazelkorn eds., 2013; and OECD, 2016). Table 4 presents the available facilities and other research tools.

Most of the institutions (83%) have conference rooms/areas, office area, and research advising area in their respective

Table 5:
 Existing Research Linkages and Collaborations

Agency	Title of Project	Duration	Expected Output
CHED; National Research Council of the Philippines; and South Manila Inter-Institutional Consortium.	Many.		
Department of Energy.	5% and 20% Biodiesel Blends for in Use Vehicle.	2 Years.	Evaluation on Engine Performance and Emissions.
Jose Rizal University.	Community Resources Needs Assessment of Mandaluyong City.	7 Months.	Extension Programs for the Community.
Philippine National Philosophical Research Society; Philippine Association for the Sociology of Religion; and Philosophical Association of the Philippines.			

research offices. Only 3, however, have a study center and only 2 have existing intellectual property support unit. Four have computers, printers, and photocopying machines; and majority exerted substantial efforts to provide the basic infrastructure requisites for research as evidenced by the facilities and equipment that they have.

However, it appears that 1 institution is still in the process of building infrastructural support for research. By standard, many research universities put in large budgetary allocation to two major items: salaries of faculty researchers and equipment and facilities. Two out of 5 have intellectual property unit, which marks institution's serious commitment to rally for technology-transfer (Salazar-Clemeña & Almonte-Acosta, 2007; Crawford & Himes, 2011; and Kowalski, 2017).

Four reported to have the necessary equipment in their research office, like computer units, printer, and photocopying machines with availability of statistical programs for research use. However, only 2 out of 6 have softwares for qualitative data analysis and anti-plagiarism, while only 1 university has acquired bibliography software (*cf* Crawford & Himes, 2011; Francis, 2017; and Kowalski, 2017).

Softwares acquisition is a major challenge among most government-owned HEIs (Higher Education Institutions), because these tools require huge budgetary allocation. However, this state may also be an opportune time to establish linkages and partnerships

with other potential research partners (Fry, Ketteridge & Marshall eds., 2009; Hénard & Roseveare, 2012; and Tremblay, Lalancette & Roseveare, 2012).

Table 5 presents the existing research collaborations of the participant institutions with other institutions.

The research collaborating partners of the participants include either government agencies or associations of experts in the country. For example, the CHED (Commission on Higher Education), Department of Energy, and DOST (Department of Science and Technology) as their research partners. Universities accept grants and technical support from these partner agencies to conduct research, proving the important role of the academe in the research pursuits of other government institutions (JICA, 2015; Angeles, 2017; and Carillo, 2017).

Consortia of universities and association of experts in different disciplines are also important mechanisms and venues to collaborate research among faculty members. Various associations in the country forge research, like the Philippine National Philosophical Research Society and the NRCP (National Research Council of the Philippines). Consortia of HEIs (Higher Education Institutions), like the PASUC (Philippine Association of State University and College) also promote research collaborations among their member institutions (Salazar-Clemeña & Almonte-Acosta, 2007; Angeles, 2017; and Carillo, 2017).

Whether individual or group, all these

Table 6:
Strategies Adopted to Encourage Faculty

Strategies	Frequency (n=5)
• Requiring faculty to undertake research	5
• Giving subsidies	4
• Giving incentives	4
• Giving honorarium for conducting research	4
• Considering research as teaching load	5
• Providing financial grants	3

Table 7:
Research Metrics

Institution	Paper/Poster Presentations			Completed Research	Publication			Patent	Copyright
	Local	Natl	Intl		Local	Natl	Intl		
A	-	9	51	38	-	13	61	-	-
B	24	38	45	54	21	-	10	6	20
C	-	-	-	2	-	1	18	-	-
D	No data submitted								
E	No data submitted								
F	No data submitted								

linkages bring positive products and outcomes to the university's research profile to bring specific benefits, such as funds, technology, time-management, interdisciplinary nature of the research, intellectual resource, division of labor, and intellectual interactions (Nezu *et al.*, 2007; Townsend & Bates eds., 2007; and Olsson & Meek, 2018).⁴

Thirdly, *Skills, Beliefs, and Customs Sense*. Some strategies adopted by the participant SUCs (State University and Colleges) encouraged faculty members to conduct research and accomplish the research deliverables of the universities, which in a way developed the skills and values of research practices (Mayer & Wilde eds., 2015; Ontoy & Paspasan, 2016; and Melon-Galvez, 2017). Table 6 presents these strategies.

All institutions reported that they require their faculty to conduct research. Five out of 6 universities gave subsidies, incentives, and honorarium to faculty members conducting research and incentives in successful publication in reputable journals, while 3 of

the universities extend financial support to cover the incurred research costs. Strategies to encourage faculty involvement in research appear to be common among the majority of the participants, leading to the context of strengthening research capacity building efforts (*cf* Tongai, 2013; Schimanski & Alperin, 2018; and Arsyad *et al.*, 2019).

Based on these results, Philippine universities see the benefit of subsidies, honoraria, and incentives to better research profile, such as improved performance, engaged participants, motivated quality researchers, and long term programs outperform short term programs (Stolovich, 2010; Brown *et al.*, 2016; and Read & Atinc, 2017).

Research Performance. Surveyed literature points to measures of inputs and outputs, more specifically on research performance defined by research publications, completion, and research presentation as traditional indicators of research performance (Salazar-Clemeña & Almonte-Acosta, 2007; Paterson, Rachfall & Reid, 2013; and Olsson & Meek, 2018).

Table 7 presents the research performance of the participating SUCs (State University and Colleges) in terms of the aforementioned indicators.

Apparently, there were more presentations

⁴See also, for example, "University of California, Santa Cruz in 2017" in *The World University Rankings*. Available online also at: <https://www.timeshighereducation.com/world-university-rankings/university-of-california-santa-cruz#ranking-dataset/589595> [accessed in Manila, the Philippines: June 8, 2019].

done on the international level than on local or national level. This may be a response to internationalization demands. Completed research provided a different trend. SUC (State University and College) A presents a lesser number of reported completed researches compared to the number of publications. Contrastingly, 2 other SUCs (State University and Colleges) reported more number of completed research compared to research publication. Among the sampled SUCs, only B reported to have other measures of research performance, i.e. patent and copyright (*cf* Tremblay, Lalancette & Roseveare, 2012; Marope, Wells & Hazelkorn eds., 2013; and Bok, 2017).

The inherent nature of SUC B as a technology and product-oriented university explains the capability for patent and copyright compared to other SUCs in NCR (National Capital Region). These numbers maybe numerically less compared to other privately-operating universities or other Asian universities, which categorize the participant SUCs as teaching intensive universities and maybe labelled as emerging research universities (*cf* Salazar-Clemeña & Almonte-Acosta, 2007; Muhajir & Rahman, 2013; and Olsson & Meek, 2018).

As such, the management team of these universities should look into several aspects, such as faculty, facilities, administration, and rewards to name a few (*cf* Lodhi, 2012; Tremblay, Lalancette & Roseveare, 2012; and Lederman, 2020).⁵

CONCLUSION

The study investigated the general research culture profile of the participant sampled PASUC-NCR (Philippine Association of State University and College – National Capital Region) chapter. Accordingly, the participant-SUCs (State University and Colleges), envisioned having an operational research center to manage all related activities. The idea of a standalone research center provides autonomy to the center that

probably enables a more efficient and effective research management.

Strong responsibilities and expectations of standalone centers may create heaps of active engagement and probably adherence to the principle of “from control to commitment”. This scheme influences the research culture profile defined in three senses: development; environment; and beliefs, skills, and custom, which primarily provide the entirety of research capability of the university.

Generally, these three senses underscore significant research outcomes. Research staffing and job descriptions depend on the basic research needs of the institutions. Considerably, those intending to be a research university prefer stand alone research center, while emerging universities conform to part time assignment. In terms of services, research centers whether with formal or non-existing desks in the center, service the research needs of both students and teachers. Since all participants are government-owned institutions, acquiring tools and equipment for research is a major challenge, for them are necessities in research.

As emerging and developing research universities of the Philippines, the participants engage in many attempts and strategies to develop research skills, and develop positive beliefs towards research among the faculty and students. Standards for research as well as customs in research are being developed in each institution with the end goal of building a culture of research unique to the respective institution to achieve a globally-rated university research standard.

Comparably, research outputs of the participant institutions may appear lagging behind other Asian countries, and other privately-owned universities, which is attributable to their current focus-teaching and community involvement. Noticeably, these universities are aspiring to improve their research profile; and, at the same time, maintain an intensive teaching state university and community-focused service as well.

Philippine universities significantly attempt to contribute to knowledge creation, dissemination, and utilization by improving their research culture profile. As

⁵See also, for example, “Research Performance in 2017” in *Charles Sturt University*. Available online also at: <https://www.csu.edu.au/research/performance> [accessed in Manila, the Philippines: June 8, 2019].

forementioned, varied strategies mapped their intentions to improve their respective research culture profile and influence research practice. These strategies include the idea of “commitment over control”.

However, ensured success may be realized with gradual orientation and movement towards being a research university. This scheme may be a good way to slowly, but patiently bring the faculty to this state, so as to refrain from being stressed declining research motivation. The trend could be going towards a better research profile, while maintaining teaching intensive and community service oriented roles of the universities.

Augmenting the trifocal principle, universities may also take a look at the non-traditional metric of successful research performance: improvement of teaching practices; development of research products that aid improvement of teaching practices; development of products for community consumption; development of research to improve small and medium entrepreneurship; and development of means, ways, and products that make safe communities' life, resources, and culture and identity. With these non-traditional metrics, the faculty may fully see the value of research in the spheres of community and teaching service; and may facilitate transfer of research culture to young mentees emphasizing the trifocal nature of all the university service.

The development of trifocal identity of the university may also depend on certain aspects, such as management, infrastructure, funding, and faculty to name a few. Faculty profile may define unique teaching-outreach-research needs and strength of the faculty of each participating university. This may inform what aspects may be strengthened and what are to be uniquely developed.

With a strong faculty profile, international linkages, and collaboration may be easily forged, which will eventually help build research culture profile in the context of teaching and community service. Indeed, research is an inescapable requisite for faculty members as experts of the academe. Research requires a composite of skills set, not to mention a lot of time, discipline, and patience.

It takes serious and strategic efforts to build a culture of research within the university and unique to the university without leaving behind the core purpose of a university – to teach and help improve the community.⁶

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⁶**Statement:** We confirm that this article has not been published elsewhere and is not under consideration in whole or in part by another journals. This article is also not product of plagiarism. So, we have no conflicts of interest to declare it.

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