



## Research Article

# Online searchable scientific publications of State Universities and Colleges (SUCS) presidents in the Philippines and top 20 higher education institutions

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### Abstract

**A blind man cannot lead another blind man or else they will fall into the pit. Most of the best higher education institutions (HEI) and the top movers in the world university rankings are headed by highly-cited scholars. Faculty members of HEIs are scholars and therefore must be managed by a much better scholar. Research is one of the major functions of HEIs and is the major criterion in the world university ranking wherein the best of the Philippine universities has a deteriorating performance. Are Philippine universities specifically the State Universities and Colleges (SUCs) managed by highly-cited scholars? Using the Harzing's Publish or Perish Software, HEI leaders' publication performance was determined. Result showed that 67% of SUC presidents have no online-searchable publication and only a third of those with publication have been cited and has an h index. The deference in research performance of SUC presidents is very significant compared to the top 20 HEIs in Asia. There is a weak positive relationship between SUC level and presidents' research productivity but these differences are not significant. To improve reputation of HEIs in the country, it is a must that university heads are highly cited scholars or has strong research capabilities and qualities.**

**Keywords:** HEI leader, publication, leadership by example, research leadership, Philippines

## INTRODUCTION

Universities are the indispensable players in advancing scientific knowledge that leads to creation of scientific breakthrough, new products driving economic growth of countries (Greenspan and Rosan, 2003). Universities play a very strategic role in developing capabilities of its professionals that fuel innovation in high technology and the knowledge industries that are the primary drivers of successful economies today and of the global economy in the future (Greenspan and Rosan, 2003; Salmi, 2011). The role of universities as knowledge creator is also the reason why universities in the world are ranked using research as one major factor. In the Academic Ranking of World University (ARWU), 60% are allocated for research productivity (Rauhvargers, 2011) while the World University Ranking-Times Higher Education allocated 20% of its point from research performance (Rauhvargers, 2011) with the rest of the factors indirectly related to the institutions reputation which can be traced to quality research outcomes. On the other hand, the Thompson-Reuters University ranking allocated 65% of total points associated to research productivity such as quantity of researches, income from research, and research citation (<http://www.timeshighereducation.co.uk>, 11/2/2013).

For consecutive years, the best of Philippine universities has declined in the global university rankings. The countries best universities such as the University of the Philippines(UP), Ateneo de Manila University(ADMU), De La Salle University(DLSU) and University of Santo Tomas(UST) has fallen in the Quacquarelli Symonds (QS) University rankings (<http://www.topuniversities.com>, 11/2/2013). In 2013, up to five HEIs in the Philippines have been included in some of several world university ranking. The answer why the Philippine HEIs fails to compete globally can be traced to the poor state of its institution.

Since one of the major indicators of a university is research productivity, it is but logical that a person with this qualification be its leader. The most prestigious and wealthiest universities in the world select a leader who is highly cited (Goodal, 2010). In the study conducted by Amanda Goodal shows that the top ten (10) and five (5) mover-institutions have leaders having three times and four-times the lifetime citations respectively compared to those who lead the universities that performed less well (pp. 9). This suggests that a university headed by an accomplished researcher is expected to improve the university reputation few years after his/her appointment (pp. 10).

One of the major concerns in the Philippine Higher Education Institutions is its deteriorating quality (CHED, PASUC, DBM, 2012). It can be deduced from the study of Goodal (2010) that the continued deterioration of quality maybe because of the institution's leaders' qualification specifically on research competencies. Leading by example is an effective methodology in promoting culture awareness and bringing about culture change in organizations (Schraeder et al., 2005), followers tend to become like their leaders. There are 110 SUCs, 1280 private colleges and universities (Padua, 2003) and one hundred and nine (109) local college or universities, specialized HEIs and other government HEIs in the Philippines (CHED, 2010). These institutions are either headed by presidents or chancellor. In SUCs, the head are chosen based on the Commission on Higher Education (CHED) Memorandum Order (CMO) No. 09, s 1995 (CHED, 1995). The minimum qualification to become president does not include research competence. Criteria of selection of qualified candidate for SUCs presidents includes only administrative experience in government service, academic background, vision for the SUC, academic community support, managerial competence and tertiary level teaching experience (CHED, 1995). Selection of leaders has historically not been the priority in higher education (Hecht, 2006) because it is believed that head will learn as they serve and this approach do not produce excellent leaders (Ruben, 2007).

In response to the problems of HEIs, the Philippine government is currently implementing a modernization plan to improve quality standards of higher education, raise the level of educational outcomes and increase social relevance of its development functions (CHED, PASUC, DBM, 2012). But none in this modernization act pointed out the importance of research competencies of its leaders. In the absence of this requisite of research competencies to qualify as president, it is likely that the Presidents of the Philippine SUCs might not possess the same. Volume of refereed journal publication, citation and h index are widely used indicators of research competence. How does the state-owned institution leaders fair in this indices?

## OBJECTIVES

This paper presents the publication performance of the Philippine SUC presidents until 2013 and compares it to the leaders of top 20 HEIs in Asia which are searchable online, specifically

1. Determine publication performance of presidents of Philippines SUCs as well as the top 20 Asian HEIs in terms of;
  - 1.1 volume of publication
  - 1.2 number of citation
  - 1.3 h index
2. Determine the relationship between the SUC level and the publication performance of its respective president.
3. Compare the performance of Philippine SUC presidents and that of the leaders of the top 20 Asian HEIs.

## METHODOLOGY

- A. Almost all of the major scientific publications in the world are already published and indexed online making review of scholarly work published and cited convenient.
- B. a. Reviewing HEI Leaders' Publication Performance.

The retrieval and analysis of academic citation used the Harzing Publish or Perish 4 software. The said software is available online and uses the database of Google Scholar or the Microsoft Academic Search. It is capable of producing results such as number of publication, citations, years of publications, h index and others ([www.harzing.com](http://www.harzing.com), 2013). List of searched publication of an HEI leader was reviewed to exclude publications not belonging to the said leader. Available biography of HEI leaders was used also used to validate list of publications detected by the software. The list however may not be exhaustive of all publications of the concerned leader because only publications published and indexed online could be searched by the software.

## Identifying the HEI Heads and their Institutions Ranking

The list of presidents and the state universities and colleges were taken from the Philippine Association of State Universities and Colleges web-site and the SUC levels come from the CHED CMOs available on their website. The list of top 20 universities in Asia was based on QS University Ranking and names of their presidents were taken from their respective websites.

## Treatment of Data and Analysis

Data collected from the Harzing Publish or Perish software were cut and pasted into excel. This information was stratified according to SUC levels and summarized using means, standard deviation and percentages. The publication performance (volume, citation and h index) of the Philippine SUCs was compared to the top 20 Asian universities using t-test. Relationships between SUC president's publication performance, the SUC level and leveling points in the research area were determined using Pearson correlation.

## RESULTS AND DISCUSSION

There were a total of 1792 HEIs in the Philippines and 110 are categorized as State Colleges and Universities (SUCs). Each of these SUCs not including the autonomous universities, local college/universities, specialized HEIs and other government HEIs are stratified into four levels. In the 2012 institutional evaluation widely known as SUC leveling, about 17% belongs to level 4 SUCs (the best SUCs in instruction, research, extension and production) while about 35%, 33% and 15% belongs to level 3, 2 and 1 respectively (CHED, 2007).

## Volume of publications of SUC leaders

**Table 1.** Volume of Publication Performance of HEI Presidents/leaders

No. of publications*	% of Philippines SUC Presidents by SUC Level				Asia's top 20 HEI leaders (%)
	1	2	3	4	
0	100	91	67	53	-
1-10	-	9	33	41	5
11-20	-	-	-	6	5
21-50	-	-	-	-	-
51-100	-	-	-	-	10
101-200	-	-	-	-	40
201-500	-	-	-	-	21
501-1000	-	-	-	-	15

\*retrieved from the Harzing Publish or Perish 4 Software (12/2013)

Table 1 shows the number of publication made by the Philippine SUC presidents until December 2013. This includes publications even before he/she become HEI head. All presidents of level 1 institutions has no searchable publication, while SUC levels 2, 3 and 4 has about 91%, 67% and 53% of its presidents having no publication. Many of these presidents have published papers in their respective institutions journals, most of which are non-refereed thus quality is questionable. These publications are poorly circulated and are relatively inaccessible worldwide.

In contrast, the volume of publication of the top 20 HEIs in Asia is more than 33 times that of the Philippine SUC presidents.

## Publication citation of SUC leaders

Citation counts capture popularity of an author while weighted citation captures prestige, both measure however are comparable (Yan and Ding, 2010). Table 2 shows only citation counts and did not consider the weight like how fast an article was cited. A little more than 75% of the Philippine SUCs have not published and thus will never be cited. In many cases, SUC presidents' research outputs are locally published and circulated in their local libraries shutting potential users of the information from around the globe. The inaccessibility of articles affects the chances of being cited by other researchers, this is also the reason why publishing in an online, open access refereed journal makes a researcher most likely to be cited (Eysenbach, 2006).

**Table 2.** Citation Counts of HEI Presidents/leaders

Citation counts*	% of Philippines SUC Presidents by SUC Level				Asia's top 20 HEI leaders (%)
	1	2	3	4	
0	100	91	67	53	5
1-10	-	9	33	41	-
11-20	-	-	-	6	5
21-50	-	-	-	-	-
51-100	-	-	-	-	-
101-200	-	-	-	-	5
201-500	-	-	-	-	5
501-1000	-	-	-	-	10
1001-10000	-	-	-	-	40
10001-20000	-	-	-	-	15
20001-30000	-	-	-	-	10
30001-40000	-	-	-	-	-
40001-50000	-	-	-	-	5

\*retrieved from the Harzing Publish or Perish 4 Software (12/2013)

In contrast, leaders of Asia's top 20 have citations counts reaching to approximately 41,000 from around 500 articles while the top cited Philippine SUC president has citation count of 63 from 15 publications.

### H index of SUC leaders

The h-index gives an estimate of the importance, significance, and broad impact of a scientist's cumulative research contributions (Hirsch, 2005). Shown on table 3 are the h indices of presidents/leaders of Philippine SUCs and the top 20 HEIs in Asia. Most of the SUCs president has no h index, primarily because about 75% of them has no publication, while only about a third of those with publication has been cited. In contrast to the top 20 HEIs in Asia, Philippine SUC presidents fare poorly in terms of having h index.

**Table 3.** H index of HEI Presidents/leaders

H index*	% of Philippines SUC Presidents				Asia's top 20 HEI leaders (%)
	1	2	3	4	
0	100	97	90	82	5
1-10	-	3	10	18	20
11-20	-	-	-	-	15
21-50	-	-	-	-	35
51-75	-	-	-	-	15
75-100	-	-	-	-	10

\*retrieved from the Harzing Publish or Perish 4 Software (12/2013)

### HEIs publication performance by rank

Mean publication performance and its standard deviation is presented in table iv. SUC by level was compared with Asia's top 20 HEIs. T-test shows that the difference between the SUCs and the best HEIs in Asia is significant. This is because the gap between the performances between the two is too huge. Mean volume of publication of SUCs is only 1.95 while that of the top HEIs in Asia is 256.4. This goes the same with the citation count and h index of HEI leaders. Mean citation count of Presidents in Philippine SUCs is only 5.74 which is too small compared to Asia's best which is more than 8,500 on average.

It appears that the higher the SUC level the larger the publication performance. The differences however are proven to be mostly not significant. This indicates that research competencies such as the volume of publication, citation count and h index are not considered in the selection of leaders. In terms of citation and h index, all SUCs fair the same. The significant differences were only observed in the volume of publication of SUC levels 3 and 4 as it is compared to SUCs level 1 and 2.

The insignificant differences in research performance between SUCs is alarming as it suggests that SUCs lacks potential leaders who possess high qualification in research. In Eastern Visayas Region, SUC presidents were occupying ranks of associate to full professors with doctoral degree in education when they were elected as president. Research competence is a major qualification in the promotion of academic personnel from instructor to professors. This result suggests that these requirements may have been not strictly considered, criterion is flawed, or evaluation is not objective.

**Table 4.** Comparison of Performance of HEI Presidents/leaders by Rank

Publication performance		SUC Level				Top 20 HEI in Asia
		1	2	3	4	
Volume	X	0.00 <sup>+a</sup>	0.39 <sup>+a,b</sup>	0.72 <sup>+a,+b,c</sup>	1.95 <sup>+a,+b,c,d</sup>	256.4
	SD	0.00	0.99	1.30	3.55	213.7
Citation	X	0.00 <sup>+a</sup>	0.09 <sup>+a,b</sup>	0.42 <sup>+a,b,c</sup>	5.74 <sup>+a,b,c,d</sup>	8508.5
	SD	0.00	0.51	1.97	16.22	11138.64
h index	X	0.00 <sup>+a</sup>	0.03 <sup>+a,b</sup>	0.13 <sup>+a,b,c</sup>	0.53 <sup>+a,b,+c,d</sup>	21
	SD	0.00	0.17	0.41	1.22	30.86
n		17	36	38	19	20

<sup>+</sup>( significant, 0.05) <sup>a</sup>(vs. Asia top 20) <sup>b</sup>(vs. SUC1) <sup>c</sup>(vs. SUC2 20) <sup>d</sup>(vs. SUC3)

**Publication performance of leaders vs. SUC level**

SUCs are evaluated and are rated in four areas as prescribed in the DBM/CHED Joint Circular No. 1, s. 2003, namely; instruction, research, extension and management of resources (CHED-DBM, 2003). Each of the aforesaid areas was allocated with 17 (49%), eight (23%), five (14%) and five points (14%) respectively. This shows that Philippine SUCs considers research productivity as secondary only to instruction by a little more than half. In the SUC leveling under the research area, SUCs are evaluated in terms of research outputs published in international/national/local journals and research outputs disseminated/presented.

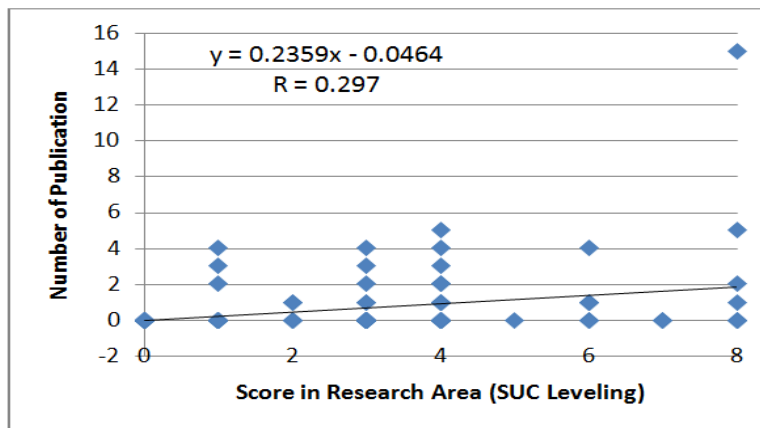


Figure 1. Publication volume versus SUCs research score

Figure 1 shows the relationship between the research rating (wherein 8 is maximum) in the SUC leveling under research area and the number of publications of the SUC president. It shows that the higher the rating in the SUC leveling specifically in the research area, the higher the publication volume. This means that better universities tend to select leaders who are into publishing research. The Pearson correlation coefficient is weak because there are presidents belonging to higher levels who have no online-traceable research publication.

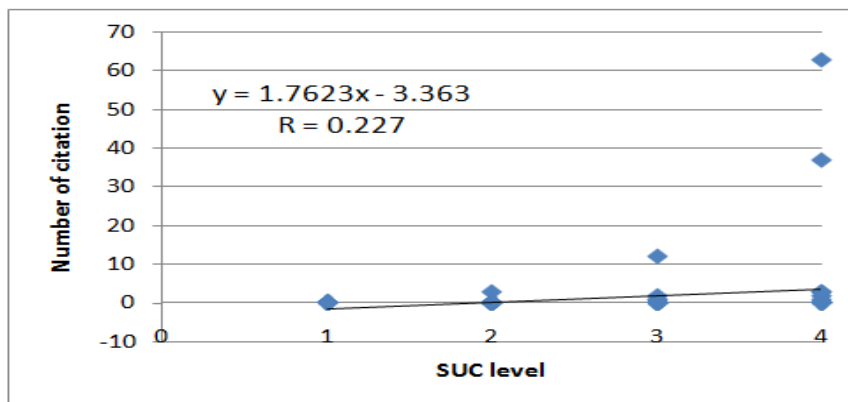


Figure 2. Publication volume versus SUC level

SUCs are stratified into four levels based on the aggregated ratings along instruction, research, extension and management of resources (CHED-DBM, 2003). The higher the level, the better is the quality of the SUCs. Those belonging to SUC level 4 are considered the Philippine top SUCs. Most likely, SUCs with higher level tend to have a president who has good research publication count as shown on Figure 2. The said positive correlation is weak primarily because there are many SUC presidents who have no searchable publication even in the top Philippine SUCs.

### Research Capabilities of SUC Presidents

A bible verse says that a blind man cannot lead another blind man or else they will both fall into the pit. Goodal (2010) summarizes that HEI leaders who are “better scholars appear more credible as leaders, that they have expert knowledge of the core business of universities, that they are standard bearers, and finally, that leaders who are scholars signal organizational priorities.”

Majority of the presidents in the Philippine SUC grow within the ranks from the same institution they come from. They start as instructors and later as assistant, associate and full professors. Promotion of ranks is based on the employee's performance in the quadrology functions (CHED, 2009), some of which are scholarly works such as publication of research, citation among many others. Most of these presidents have professorial ranks wherein 50% of their ratings come from research accomplishments with great emphasis on publication of research outputs in refereed journals as well as presentation of research outputs in national and international scientific conferences.

The weak publication performance of SUC presidents is attributed to the low qualification standards that measures research competencies. Qualification standards for SUC presidents based on CHED CMO No. 16 s 2009 require only age, citizenship, administrative experience as Vice Presidents, Deans and Campus Directors and earned any doctoral degree from reputable HEIs (CHED, 2009). In the world HEIs, most leaders have gained management experience as provosts, pro-vice chancellors or deans, or by running major research centers or labs (Goodal, 2010).

The best universities in the world have wide choices of potential leaders (Goodal, 2010). These universities have attractive packages to hire the best scholars to lead their institutions. On the other hand, Philippine SUCs seems to have limited number of professionals with excellent research competencies available to head Philippine SUCs. This is clearly shown on the poor publication performance of SUC presidents as compared to the best in the world.

The guidelines used for promotion of academic staff in SUCs which clearly stipulated in the Department of Budget and Management(DBM) Normative Budget Circular No. 461(DBM, 1998) have allocated significant number of points towards research productivity. There is also a requirement of accreditation of personnel who qualified professors by the Philippine Association of State Universities and Colleges(PASUC) wherein one major criteria is on research competencies. The SUC leveling also looks into research productivity as one major requirement for attaining higher levels. If this criterion exist but does not result into better reputation especially in the world arena only means it is not seriously followed or strictly implemented.

### CONCLUSIONS

The study examined the SUC presidents' research competencies such as volume of publication, citation counts and their h index and was compared to the leaders of the top 20 HEIs in Asia.

Two out of three (2/3) SUC president has no publication. One in every two (1/2) presidents of level 4 SUC has no publication. Only one of three SUC presidents with publication has been cited and has h index ranging from 1 to 5. Differences in citation and h index of the leaders are not significantly related while SUCs with higher level tend to have presidents who have higher volume of refereed publication.

Volume of publication, citation and h index of SUC presidents compared to the leaders of the top 20 Asian HEIs are very significant. Almost all top Asian HEIs hire presidents with high volume of publications, citation count and h index reaching to 500, 40000 and 60 respectively.

Research productivity in HEIs is an important measure of quality in the world. Most worldwide university rankings uses research productivity and other research related profile in its evaluation. It has been pointed out that best universities are managed by top scholars in the world. The research productivity can be measured through volume of publication, citation and h index of researchers.

### RECOMMENDATIONS

Since universities managed by top scholars tend to move faster in the world university ranking it is recommended that SUC presidents hired must exhibit excellent research productivity specifically in terms of research publication in referred Journals.

SUC presidents rose from the ranks, usually from instructor to assistant professor, associate professor and professors. One major requirement in reaching the top rank is research productivity. This means that research evaluation is weak or not seriously implemented. Review and evaluation process of academic personnel for promotional purposes must be re-examined and must be monitored.

Candidates for SUC presidents must include research competence as a mandatory requirement. Furthermore, there is a need to re-examine the selection process of SUC presidents.

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