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Research policy redirection based on analysis of target- setting and accomplishment trends in a Philippine State University

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Abstract

Objectives: To examine the targets and accomplishments of Eastern Samar State University (ESSU) with respect to performance indicators of Major Final Outputs (MFO) in Research and Development Services. **Methods:** Documentary analyses were done in order to comparatively examine the trends in targets and accomplishments of the university in the past three years. Moreover, faculty profile was analyzed in order to gauge the number of those who are actively engaged in research versus the number of actually required as set by governing policies. The corpora of analysis covered the university's accomplishments from 2016-2018 in terms of: (1) number of completed researches, (2) number of research outputs utilized by the industry, and (3) number of research publications. **Findings:** Results have indicated that while 100% accomplishments in number of completed researches was recorded in 2017-2018 and with a +2 variance during 2016-2017, negative variances (-29.42%, -48.61%) were recorded in 2017 and 2018 in terms of research publications. Meanwhile, increments have been increasing in the past three years but have not been consistently projected. In addition, only 43% among the required faculty members have been active in research undertaking resulting to majority of accomplishments emanating from lower ranking faculty. **Implications:** From these results, redirection of regulatory policies addressing issues on faculty engagement, target setting, and productivity were undertaken.

Keywords: Research productivity; research management; Eastern Samar State University; research performance; research indicator

1 Introduction

Philippine professors are mandated to perform four major functions: instruction, research, service to the community, and production.⁽¹⁾ This is in support of the mandate of the Commission on Higher Education on the role of a faculty member in higher

education to generate and disseminate knowledge. However, less attention has been received by the implementation of research undertaking.

Looking at universities in affluent countries, research traditions are evidently rooted. However, universities in the third world countries have sustained less progress due to lack of strength in instructional functions.⁽²⁾ In the Philippines, only 7% out of 223 HEIs met the facilities required for graduate level education and only 0.8% HEIs met the criteria for conducting doctoral/research.⁽³⁾ Further, it was pointed out that among other Asian countries, the Philippines rank behind with respect to research, production and publication.⁽⁴⁾

The Philippine Commission on Higher Education (CHED) in its efforts to uplift the research thrusts in the country has established 12 Zonal Research Centers (ZRCs) in order to promote research activities in the country.⁽⁵⁾ However, these ZRCs have reported to have low research turnout among HEIs in the country.⁽⁶⁾

Similar situations are evident in the local setting. In Eastern Samar State University, Philippines, while consistent records have been observed in terms of completed research outputs in the past three years, problems cropped up with respect to the number of research published in internationally-refereed journals.^(7,8) In 2016, the university has surpassed the target on number of completed research outputs setting a +2 variance. However, in the next two years, accomplishments did not exceed targets but were only reached at 100%. In view of publication, an even worse case was observed from 2017 to 2018 as negative variances were recorded at an increasing trend. Similar trends have also been recorded in another State University in the region, that only five in every 30 to 40 or 12.5% of papers produced yearly are published in local journals.⁽⁹⁾ In view of faculty involvement, it was also revealed in the same article that at most only about ten people (or less than 10% of the faculty personnel) are involved in performing research outside of the thesis or dissertation advising.⁽⁹⁾

From these grounds, it is deemed imperative that an investigation be conducted to evaluate and analyze research productivity of the university so as to promote healthy research culture. In a related article, changing of culture towards research was identified as one of the most challenging transformation process in becoming a State University, but through strategic management, research productivity had improved several times better than when it started.⁽⁹⁾ In another article, Research and Development policies have been identified as integral component in improving research culture and productivity.⁽¹⁰⁾

In general, it is with the same hope that this investigation was prompted in order to gain a better view on the status of research production, utilization, and publication in the Eastern Samar State University through the analysis of trends in targets set during the past three years and the accomplishments the university has made along the three performance indicators of the Major Final Outputs in Research in order to strengthen research culture and thereby improve productivity.

Objectives of the study

This investigation generally aimed at analyzing the targets set and the accomplishments in research and development of the Eastern Samar State University covering the past three years. Specifically the study analyzed the following:

1. The trends in the targets and accomplishments for Research and Development along the following performance indicators:
 - (a) Number of Completed Research
 - (b) Number of Research Utilized by the industry or other beneficiaries
 - (c) Number of research published in internationally refereed journals;
2. The trends in increments along the three performance indicators.
3. Faculty engagement in research for the last three years.

Significance of the study

Research is an integral part and function of HEIs. However, despite consistent demand to increase research production and publication in the country, records reveal a low turnout as compared to other countries around the world. And with the expected increments yearly envisioned, and the accomplishments waning across the system over the years, it is of prime importance, that the administration should look into policy formulation to establish a scientific target projection, beneficial to both delivery unit and the university as a whole. It is therefore the hope that with the results of this investigations, policies that would govern target setting will be formulated and be well-established for uniform implementation across the system.

Further, when redefined policies are put in place the university's research culture may be upgraded, faculty involvement will be highlighted, and ultimately research productivity will improve.

Scope and limitations

The study dwell on analyzing records on targets and accomplishments of the university with respect to research and development. The analysis covers reports from 2016-2018 and focuses on the three performance indicators of the major final outputs, to wit: (1) Number of Completed Research; (2) Number of Research Utilized by the industry or other beneficiaries; and (3) Number of research published in internationally refereed journals.

2 Methodology

This investigation utilized the descriptive retrospective trend study design. This involves consideration of recorded data indicating what has been happening in the past, what the current situation reveals, and on the basis of these data what is likely to happen in the future. This design is deemed appropriate as it is the vision to analyze records of targets and accomplishments for research and development in the past three years.

The analysis was done from July to September of the current year (Academic Year 2020) and covered data on research accomplishments of the university from 2016 to 2018. Data were obtained from the Annual Accomplishment Report of the Research and Development Services Office (RDSO), the records from the Institutional Planning and Development Office (IPDO), and the statistics found in the official site of the General Appropriations Act (GAA). Three records of information were obtained in order to ensure consistencies before the analysis proper. Records were analyzed by comparing the targets and accomplishments in terms of the gains and the gaps per year. As to faculty engagement, an in-depth analysis was performed by scanning through the terminal reports and manually tabulating the number of researcher per deliver unit and comparing it with the number of associate and full-fledged professors across campuses as per Plantilla-based item. Simple percentage was computed per indicator in order to compare the trends and the accomplishments per year. Variances were also calculated per indicator.

3 Results and Discussion

The succeeding sections reveal the results of the retrospective analysis of the records obtained from the RDSO, IPDO and GAA.

Comparative analysis of trends in RDSO targets and accomplishments for the last three years

The succeeding tables present the targets set and the accomplishments in research and development the university has made in the past three years.

As can be seen in Table 1, the university has surpassed the targets in number of completed research outputs and even in terms of number of research publications while recording positive variances in both indicators. This data imply that faculty members in the system were capable of meeting required targets.

Table 1. Accomplishments in research and development along the three major final outputs in 2016

Performance Indicators (MFO)	2016		VARIANCE
	TARGET	ACCOMPLISHMENT	
1. Number of Research Outputs Completed	66	68	2
2. Number of Research Outputs Utilized by the community or industry	-	-	-
3. Percentage of research outputs published in refereed journals/CHED accredited journals	65.15%	66.18%	1.03%

Table 2 presents data on the targets and accomplishments in research and development in 2017. It is manifested, that while 100% accomplishment was recorded in terms of number of completed research outputs, a negative variance was set for indicator two on number of research publications. For the former, the findings imply that majority of the university researchers have been able to comply with the expectations but in view of publication, the negative variance indicates a waning productivity. This further shows that while researchers are able to complete research outputs, they have difficulty in translating research outputs into publishable forms.

In 2018, the same trend was observed with respect to indicator one on number of completed research outputs. The university has maintained 100% accomplishment in terms of number of completed research outputs and even in terms of research outputs utilized by community or the industry. However, an even higher negative variance was recorded for number of research publications.

Table 2. Accomplishments in research and development along the three major final outputs in 2017

Performance Indicators (MFO)	2017		VARIANCE
	TARGET	ACCOMPLISHMENT	
1. Number of Research Outputs Completed	68	68	0
2. Number of Research Outputs Utilized by the community or industry	-	-	-
3. Percentage of research outputs published in refereed journals/CHED accredited journals	66.18	36.76	-29.42%

An increasing negative variance is recorded from 2017 to 2018 which manifests a declining performance of faculty researcher. More and more research outputs are not published hence a probe into faculty research publication capability is needed so as to understand detrimental factors affecting their contributions to publication productivity. In a related article, similar trend can be observed that only five in every 30 to 40 or 12.5% of papers produced yearly are published in local journals. This is too far from the publication records made by top 200 universities in World University Ranking that publish 43% of its more than 1000 papers per year with at least one with an international co-author in a world-class international refereed research journal.⁽⁹⁾

This waning productivity perhaps is indicative of the struggling system. With the increments yearly imposed on targets, there is a positive likability that a negative variance will be recorded in the coming years. Moreover, what makes a university world-class is primarily on its ability to create new knowledge; other factors are indirectly associated with it. This new knowledge results in the production of better products and/or more efficient processes, which results in positive financial benefits; thus improving the economy.⁽⁹⁾

Table 3. Accomplishments in research and development along the three major final outputs in 2018

Performance Indicators (MFO)	2018		VARIANCE
	TARGET	ACCOMPLISHMENT	
1. Number of Research Outputs Completed	72	72	0
2. Number of Research Outputs Utilized by the community or industry	9	9	0
3. Percentage of research outputs published in refereed journals/CHED accredited journals	69.44	20.83	-48.61%

This trend is a clear manifestation of a serious problem among faculty members in the university. Nevertheless, this poor performance should serve as springboard to further strengthen programs and activities that will help alleviate existing problems on research publication.

Comparative analysis of trends in increments of RDSO targets and accomplishments for the last three years

Table 4 reveals data on targets increments along the three performance indicators of the Major Final Outputs for Research for the last three years. As can be gleaned, trend in increment is not consistent in all of the three areas concerned. This result suggests that though increment is yearly envisioned, clear projection on the magnitude of increment has not been considered. In addition, the nature of working environment alongside faculty capability might not have been contemplated during the planning stage.

Table 4. Trends in increment of RDSO MFO targets for the past three years

Performance Indicators	2016-2017	2017-2018	2018-2019
1. Number of Research Outputs Completed	3.03% (66 to 68)	5.9% (68 to 72)	5.5% (72 to 76)
2. Number of Research Outputs Utilized by the community or industry	-	-	1.11% (9 to 10)
3. Percentage of research outputs published in refereed journals/CHED accredited journals	0.01580% (65.15 to 66.18)	0.04925% (66.18 to 69.44)	0.0044% (69.44 to 69.74)

Mechanisms should be provided to ensure that targets are scientifically and consistently but progressively projected and set based on existing empirical data supported by documents describing the actual work environment and university's capability

of reaching the targets. This will ensure positive achievements of goals.

Faculty profile in research: Required versus actually involved faculty members

A total of 125 faculty members have been actually engaged in collaborative research but only 25 of whom have worked on individual outputs.

This situation implies that majority of the accomplished outputs are more of collaborative than individual efforts. From the data, it is clear that not even majority (20%) of those who are engaged in research are competent to embark on individual investigation, suggesting that most faculty members are struggling in accomplishing research targets by themselves alone. Competency, perhaps could be one of the factors, and with the increments progressively envisioned, problems are likely to crop up in the future. It is therefore imperative, that alongside projecting an increase in all areas of research production, faculty capability should be considered. While scientifically projecting targets, inherently, the capacity of those individual from whom performance variance is expected should greatly be considered.

The succeeding table provides numerical data on the number of required faculty versus the number of actual faculty members involved in research production and publication. As per NBC 6th cycle guidelines, faculty members who intend to be evaluated for associate and full-fledged professorial ranks must perform 50% instruction and 50% research functions alongside other mandate of HEIs. These guidelines therefore specify, that those who occupy such positions should render full time service for the advancement of science and technology and knowledge in general through various research undertakings.

Table 5. Frequency counts of faculty researchers required and actually involved in research

INDICATORS	MAIN	SALCEDO	CAN-AVID	MAYDOLONG	GUIUAN	TOTAL
Number of Professors and Associate Professors Required to undertake research	27	18	4	1	5	55
Number of Professors and Associate Professors actually involved in research production as of 2018	11	10	0	1	2	24

Surprisingly, the collated data from the annual accomplishment report of the unit indicated that of the total faculty members who are expected to produce yearly research outputs not even 50% have actually contributed to the achievements of the research unit of the university, thus a negative variance (-31) is recorded.

From these facts, it is indicated that a greater percentage of the total accomplishment in research production during academic year 2017 and 2018 have been contributed by faculty member holding lower ranks (Assistant Professors and Instructor). It is therefore of prime significance that policies be formulated to ensure that guidelines for promotion should be consistent with local guidelines on research productivity. One way to ensure that productivity will be promoted is to create and enforce policies that will govern faculty engagement in research.

4 Summary, Conclusions, Recommendations and Implications

Summary

This investigation generally aimed at analyzing the targets set and the accomplishments in research and development of the Eastern Samar State University covering the past three years. Specifically the study analyzed the following: (1) the trends and accomplishments for Research and Development along the following performance indicators: (1.1.) number of Completed Research; (1.2.) number of Research Utilized by the industry or other beneficiaries; and (1.3.) number of research published in internationally refereed journals; (2) the trends in increments along the three performance indicators; and (3) faculty engagement in research for the last three years.

The descriptive retrospective trend study design was utilized. This design is deemed appropriate as it is the vision to analyze records of targets and accomplishments for research and development in the past three years.

The analysis was done from July to September of the current year covering accomplishments from 2016 to 2018. Data were obtained from the Research and Development Services (RDSO), the records from the Institutional Planning and Development Office (IPDO), and the statistics found in the official site of the General Appropriations Act (GAA). Records were analyzed by comparing the targets and accomplishments in terms of the gains and the gaps per year. As to faculty engagement, an in-depth analysis was performed by scanning through the terminal reports and manually tabulating the number of researcher per deliver unit and comparing it with the number of associate and full-fledged professors across campuses as per Plantilla-based item. Simple percentages were computed per indicator in order to compare the trends and the accomplishments per year.

Conclusions

Targets are consistently increasing within the last three years but accomplishments are generally recorded without any positive variance in each of the three performance indicators for research which is indicative of a waning productivity. And with targets increments yearly imposed, productivity may suffer in the coming years. Also, increments are yearly and progressively projected. However, records and analyses have shown inadequacy in scientific planning and consideration. There is also a discrepancy between the expected number of faculty and the actual number of faculty involved in research undertaking. Analyses have shown that most of the accomplishments of the university are accounted to the contributions of lower ranking faculty members.

Recommendations

1. Improvement of the support system to further strengthen capabilities of faculty researchers.
2. Analysis of the inherent research mandate with respect to personal factors of faculty which may have impact on their productivity.
3. Planning officials should not only look into statistics but should take a closer look at the working environment in each delivery unit so as to consider all other factors while projecting increments and setting targets.
4. Policies should be crafted and uniformly implemented across the system to govern research and development procedures.
5. Policies should be enforced and amended responsive to the needs of the faculty without sacrificing the benefits of the institution as a whole.
6. Policy redirections addressing productivity in times of crisis such as the case of pandemics should be projected and considered so as not to hamper productivity even during difficult times.

Implications

Based on the core findings of this study, the policy on the conduct of faculty research has been revised accordingly. The policy highlights faculty academic rank as defining requirement in the conduct of faculty research. Protocols have been simplified to address major issues which deter productivity, and end terminal exits of research outputs were defined. All these, among others, were off shoot of the results of this investigation.

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