#### University of Rizal System Faculty Research Productivity

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**Abstract:** The study focused on the faculty research productivity of University of Rizal System (URS) Academic Years (AY) 2015-2019. This identifies the extent of productivity of researchers among the individual faculty, the perceived role of the university management in faculty research productivity and the relationship of the status of researches and perceived role of the of management with the productivity of individual faculty research. Descriptive method utilizing quantitative and document analysis were adopted. Frequency percentage, mean and standard deviation, F test or one-way analysis of variance (ANOVA) and Pearson r correlation were used to analyze the data. The result indicates that most of the respondents are in the age bracket of 41-45 years old, female, with doctorate degree, with academic ranks of Assistant and Associate Professor, have 2 and below completed researches which are basic research. Furthermore, the status of research with respect to completion, presentation and publication in general as fairly satisfactory. The productivity of faculty research among the individual faculty and the University is interpreted to a very great extent. In addition, the roles of the management were found to be of great extent to the faculty research productivity as perceived by the respondents. Even though URS has its Research Manual and Academic Manual, majority of the respondents affirmed that workload/deloading/designation is the topmost problem of the faculty in conducting research. The possibility of reviewing the URS research manual to enhance the research productivity and cope up with the current policies.

Keywords: Research Productivity, Faculty Researchers, Research, University

#### Introduction

University of Rizal System (URS) as the only chartered state university in the Province of Rizal encourages its faculty members to engage and conduct researches to satisfy the mandate of the university in offering higher professional and technical instructions and promoting research & development for utilization to the development goal of the province.

Research is a strategic way that can influence academics towards the goal of creating and disseminating new knowledge, fulfilling the vision and mission of the university, cascading the needs of the community, creating and collaborating with other researchers most essentially for self-development and promotion of faculty members. In addition, it is very personal work as the faculty members who want to conduct research must be the ones to identify problems and gaps to be addressed under the faculty members initiative and diligence (Aquino, 2014).

This research was focused and aimed to measure the faculty research productivity of URS as to the extent among individual faculty, perceived role of the university management in faculty research productivity, as well as the relationship of the status of researches and perceived role of the management with the productivity of the individual faculty researcher. Faculty members who are study/research leaders with approved and completed institutionally funded research and have direct accountability for the conduct and output of the research project for Academic Years (AY) 2015-2019 from the ten (10) campuses of URS.

URS Faculty members conduct research in specialization, their field of the Research Development, Extension and Production division (RDEP) thru the Director for Research and external evaluators in reference with the policy and provision stated in the URS Research manual peruse the relevance and financial soundness of the research proposal for approval and conduct. The research unit also provides assistance to faculty researchers in order to resolve problems and issues encountered during the conduct of the research. Moreover, researchers are required to complete their research project in a given duration and utilized the budget approved. After completion, presentation, publication and effective utilization of the output validates researchers' effort, motivates scholars to continue to discover new knowledge, reinforcers professional accountability (Walugembe, et. al., 2015) and is highly recommended for the beneficiaries and stakeholders.

The importance for the URS as it offers information on certain factors that can impact faculty research productivity. Understanding how research productivity differs among individual faculty helps decision makers in identifying and designing alternative strategies to enhance research productivity. SUC level allow the categorization of the different types of institution from Level I to IV with the latter as the highest in terms of institutional performance indexed to the four (4) Key Results Area (KRA): quality and relevance of instruction, research capability and output, services to the community and management of resources. Furthermore, determines the budget that will be allocated by the national government to a certain university. However, according to Calma (2010), the higher education receives two percent (2%) of the national budget which is directly funded to SUC's then allocate a portion toward research and research training. In SUC levelling, research capability and output are being measured including percentage of faculty researchers to the total of regular faculty, externally funded research in the past three (3) years, completed research based papers published in an international and scopus journal, presented in local and international fora/conference, citations and inventions in the past three (3) years. These variables will be beneficial to the faculty members for their promotion and financial gain as well as the University for SUC levelling/ranking accreditation of programs and research productivity. With this the extent of the research productivity will measure both the faculty and the university's capacity in research and understand the problems difficulties in conducting research that are needed to be addressed.

## **Theoretical Framework**

The research was anchored on Human Capital Theory by Gary Becker (1962) which revolves around the basic views on investment on human resource and transforms it into knowledge and ideas. Similarly, investing in education leads to economic growth through increased productivity, social stability and healthier lifestyles (Frese, et. al., 2010). Moreover, this theory states that human capital is directly useful in the production process also increases a worker's productivity in all tasks though possibly in different tasks, organizations and situations. However, the role of human capital in the production process may be quite complex, there is a sense in which one can think of it is as represented by a unidimensional object, such as the stick of knowledge or skill and this stock is directly part of the production function. Thus, faculty members conducting research are funded by URS are responsible for the completion of the research project that are utilized by the beneficiaries and stakeholders.

This research was also anchored on the Agency Theory by Stephen A. Ross (1973) which revolves around the basic views on two party relationships between organizational executives and stakeholders. This theory states that relationship between management and members of the organization and delegation of control. It explains how best to organize relationships in which one party determines the work and which another party performs or makes decision on behalf of the management. In return, performance-based compensation is used to achieve a balance between management and members of the organization. Hence, URS faculty researchers are bounded by an agreement that they will accomplish their research in a specific timeframe and proper utilization of research fund. The top management monitor and evaluate the conduct of the research making sure that issues and concerns were addressed to achieve the expected output.

# Methodology

This research utilized the descriptive method of research with quantitative data and relevant sources in order to measure the URS faculty research productivity for AY 2015-2019.

The respondents of this research were the one hundred twenty-three (123) faculty members which are study/research leader with completed and internally funded research projects. The number of the respondents were pre-determined by the researcher and was selected via purposive sampling.

A researcher-made and validated survey questionnaire was the instrument in collecting data from the respondents. This was personally distributed to the respondents in their free time and indulgence. Also, an unstructured type of interview was conducted right after the respondents have answered the questionnaire and questions regarding the study were also entertained. In addition, document analysis was also utilized for the systematic procedure for reviewing or evaluating documents both printed and electronic material with the permission of the URS research unit.

Comments and opinions found relevant and have a high effect on the study were incorporated on the analysis of the results and findings. However, these responses were used only in evaluating the accuracy of the answers in the given questionnaire and were measured in making proper recommendation.

## **Results/Analysis**

Table 1. Demographic pro	ofile of th	e respondents.
Sar	£	0/

Sex	f	%
Male	49	39.8
Female	72	58.5
No Answer	2	1.6
Total	123	100.0
Age		
35 years old below	6	4.9
36 - 40 years old	16	13.0
41 - 45 years old	29	23.6
46-50 years old	27	22.0
51 years old	27	22.0
No Answer	18	14.6

Total	123	100.0
Highest Educational		
Attainment		
Doctorate Degree	46	37.4
with Doctorate units	45	36.6
Master's Degree	21	17.1
with Master's units	7	5.7
No Answer	4	3.3
Total	123	100.0
Academic Rank	_	
Instructor I	14	11.4
Instructor II	2	1.6
Instructor III	6	4.9
Assistant Prof I	25	20.3
Assistant Prof II	4	3.3
Assistant Prof III	7	5.7
Assistant Prof IV	8	6.5
Associate Prof I	16	13.0
Associate Prof II	6	4.9
Associate Prof III	4	3.3
Associate Prof IV	6	4.9
Associate Prof V	12	9.8
Prof I	2	1.6
Prof II	3	2.4
Prof III	3	2.4
Prof IV	1	.8
Prof VI	1	.8
No Answer	3	2.4
Total	123	100.0
Academic Rank		20000
Instructor	22	17.90
Assistant Professor	44	35.80
Associate Professor	44	35.80
Professor	10	8.10
No Answer	3	2.4
Total	123	100.0
Number of Research		20000
2 and below	77	62.6
3 - 6	36	29.3
7 and above	7	5.7
No Answer	3	2.4
Total	123	100.0
Type of Research		• •
Conducted		
Basic	104	84.60
Applied	31	25.20
rr		

Table 1 shows that majority of the respondents are female with a frequency of 79 and male with a frequency of 49 while, 2 of the respondents chose no to answer. This implies that most of the faculty of URS engaged in research are female hence women may have more intrinsic motivation given the common opportunities and resources available in the university. Agreeing to Ayala & Garcia (2013), there was a domination of female research managers in higher education institution in Region IVA but as argued by Mangheni, et. al., (2019), that agricultural research programs are generally implemented in a manner that has excluded women's participation and benefits.

Most of the respondents are on the 41-45 years old age bracket with a frequency of 29, 35 years old and below has the least frequency of 6 while 18 of the respondents did not answer. This implies that the prime age in conducting research in URS is between 41-45 years old. Given the same work schedule and resources, these age group find research activities complementing their energy and time management to pursue scholarly works.

As presented in Table 1, 46 of the respondents have doctorate degree and the least is with mater's unit with a frequency of 7 while 4 of them did not responded. This reveals that faculty with doctorate degree in URS dominated the passion to pursue research activities that are obviously attributable to their academic preparations and research compliance from universities they completed their respective higher degrees of specialization.

Most of the respondents are assistant and associate professors with both frequency of 44 and professor rank have the least frequency of 10. This denotes that researchers in URS involve more assistant and associate professor ranks that are presumed to be contributory to their aspiration to receive rewards, deloading and earned points for promotion. Contrary to Alzuman (2015), that full professors had the highest level of research productivity in universities that attributes to their rank.

Table 1 reveals that 77 have 2 and below completed researches, 7 have 7 and above completed researches while 3 of the respondents did not answer. This implies that the number of completed researches of faculty is low and only belongs to the 2 and below bracket leading the concerns that need to be addressed based on the inferences revealed in the results.

Basic research dominates the type of research conducted by the faculty of URS with a frequency of 104 whereas applied research has only a frequency of 31. It seems that researchers are more inclined with the convenience and expecting immediate return benefits of the research rather that creating new knowledge worth emulating and sharing in publications. Applied research were not only much more able to demonstrate the impacts from their research, but this in turn meant they are at great advantage when it comes to publication (Grove, 2017).

completion.	N 1	e	M	<b>X</b> 7- <b>1 1</b>
Completion	Number of Researc h	f	Mea n	Verbal Interpretati on
Research	None/	4	2.56	Fairly
Complete	0			satisfactory
d within	1	59		
the	2-5	49		
original	6-10	7		
time	11 or	3		
frame	more	-		
	No	1		
	Answe			
	r			
	Total	12		
		3		
Research	none	11	2.3	Fairly
Maximizin			7	satisfactory
g budget	1	67		
allocation	2-5	35		
	6-10	6		
	11 or more	3		
	No	1		
	Answe	1		
	r			
	Total	12 3		
Research Compliant	none	6	2.6 8	Satisfactory
to URS agenda,	1	51		
CHED Research	2-5	46		
agenda, Regional and	6-10	14		
National R&D	11 or more	5		
Agenda	No Answer	1		
	Total	12 3		
Average			2.5 4	Fairly satisfactory

**Table 2.** Status of Researches in URS in terms of completion.

faculty researches of URS in terms of completion is 2.54 verbally interpreted as Fairly Satisfactory.

The result indicates that completed researches of URS satisfactorily complied with the institutional agendas and this was validated in the review and evaluation of research proposals that all proposals should be aligned to research thrusts and agenda as stated in the URS research manual. On the other hand, the respondents perceived that budget allocation still fall short to satisfy the requirements of conducting intensive research. According to Mahilum (2012), the relevant faculty research must be undertaken in accordance with approved research agenda. Researches that are not within the research agenda of the school will not find useful benefits in research utilization. Moreover, academic institutions anchor its research agenda aligned along the research priorities of funding agencies (Roberto & Revilla, 2009). In addition, as denoted by Uy et al. (2014), that research grants and budget allocations from the university resources places it at the mercy of the administrator's availability of funds and knowing the importance of research it is then judicious to look into its financial sustainability. Administrators focused on the research output of the faculty members conducting research. The financial assistance and support are always given for the betterment of the performance of the faculty researchers.

Table 3. Statu	s of Researches in URS in terms
of presentation	

Presentation	No. of Research	f	Mean	Verbal Interpretation
Presented in		10	2.64	-
	none	-	2.04	Satisfactory
Local /	1	51		
university agency in-house	2-5	42		
review/	6-10	11		
congress/	11 or	8		
conference in the	more			
past 3 years	No	1		
	Answer			
	Total	123		
Presented in	none	44	2.07	Fairly
regional/national	1	41		satisfactory
fora/conference	2-5	19		
in the past 3	6-10	9		
years	11 or	5		
	more			
	No	5	]	
	Answer			
	Total	123		
Presented in	none	62	1.77	Poor
international	1	29		
conference in the	2-5	17	]	
past 3 years	6-10	6		

Table 2 presents that research compliant to URS agenda, CHED agenda, Regional and National Agenda has the highest mean of 2.68 verbally interpreted as Satisfactory. On the other hand, completed research maximizing budget allocation has the lowest mean of 2.37 verbally interpreted as Fairly Satisfactory. Overall, the average mean status of the

	11 or	2			published in	1	1	
	more				Internation	2.5	1	
	No	1			al Refereed	2-5	/	
	Answer	100			journal and	6-10	3	
	Total	123	2.10	<b>F</b> : 1	publication	11 or	2	
Average			2.19	Fairly	in the past 3	more		
				satisfactory	years	No	9	

Table 3 reveals that researches presented in local/university agency in-house review/congress /conference in the past three (3) years has the highest mean of 2.64 and verbally interpreted as Satisfactory. Whereas, presentation in international conference in the past three (3) years has the least mean of 1.77 verbally interpreted as poor. The result indicates that faculty research in URS was unsuccessful to maximize in the dissemination of research outputs in the international conference/fora whereas exchange of information and technology is at its full potential. However, the university is in full financial support as mandated by the URS Research manual and accounting rules and regulation for the presentation of research output locally and internationally faculty researchers make it a hard time looking for conferences/fora. Opposing to Babalola (2014), that most of the researchers used their personal money to attend conferences and other scientific forum.

 
 Table 4. Status of Researches in URS in terms
 of publication.

Publication	Number	f	Mea	Verbal
	of		n	Interpretatio
	Researc			n
	h			
<b>Research-</b>	none	85	1.42	Poor
based paper	1	18		
published in	2-5	7		
University	6-10	4		
Refereed	11 or	1		
journal in the past 3	more			
years	No	8		
years	Answer			
	Total	123		
<b>Research-</b>	none	8	1.37	Poor
based paper		7		
published in	1	1		
National		8		
Refereed	2-5	4		
journal	6-10	4		
accredited by CHED in the past 3 years	11 or	1		
	more			
	No	9		
	Answer			
	Total	123		
<b>Research-</b>	none	9	1.37	Poor
based paper		1		

Average			1.41	Poor
	Total	123		
	Answer			
years	No	9		
in the past 3	more			
publication	11 or	2		
journal and	6-10	3		
al Refereed	2-5	7		
Internation		1		
published in	1	1		

As shown in Table 4 that research-based papers published in the University Refereed journal in the past three (3) years have the highest mean of 1.42verbally interpreted as Poor while research-based papers published in CHED refereed and international journal for the last three (3) years has the least with both 1.37 verbally interpreted as Poor.

This shows that overall, URS has poor rating in terms of publication of research-based paper and this implies that the University failed to create an environment conducive to faculty researchers for creativity and innovations that would make research outputs publishable to national and international refereed journals. Moreover, researchers chose not to pursue on publishing their research outputs as to their mindset that the process of refereeing takes a lot of time and effort to be accepted in any journal publication regardless of the level.

The extent of	Mean	Verbal
productivity of		Interpretation
research to the faculty		_
1. Self-development	4.11	To a great extent
2. Promotion	4.04	To a great extent
3. Financial gain	3.52	To a great extent
4. Deloading	2.93	To some Extent
5. Research capability	3.70	To a great extent
6. Leadership	3.44	To a great extent
opportunity / designation		
7. Transfer of knowledge	3.75	To a great extent
8.	3.40	To a great extent
Awards/Citations/Grants		
Average	3.60	To a great extent
The extent of	N	Verbal
The extent of	Mean	verbai
productivity of	Mean	Interpretation
	Mean	
productivity of	Mean	
productivity of research to the	4.07	
productivity of research to the University		Interpretation
productivity of research to the <u>University</u> 1. SUC leveling/		Interpretation
productivity of research to the University 1. SUC leveling/ Ranking	4.07	Interpretation To a great extent

Table 5. Extent of Productivity of Faculty Researches to the Individual Faculty and to the University

4.	4.03	To a great extent
Accreditation/Regional		-
Recognition/Certification		
5. Awards/Citations	3.68	To a great extent
6. External	3.48	To a great extent
Funding/Linkage		
Average	3.87	To a great extent
Grand Mean	3.73	To a great extent

Table 5 shows that self-development has the highest mean of 4.11 verbally interpreted as to a great extent while deloading has the lowest mean of 2.93 with verbal interpretation of to some extent on the other hand the average mean of the extent of productivity of researches to the individual faculty is 3.60 with a verbal interpretation of To a great extent. SUC levelling/ranking has the highest mean of 4.07 with a verbal interpretation of To a great extent while external funding/linkage has the lowest mean verbally interpreted as To a great extent. Over all the average mean of the extent of productivity of research to the university is 3.87 with verbal interpretation of To a great extent.

The respondents believe that completion of research works is contributory to their professional development. However, the deloading policies of the University as to the conduct of research activities has properly clarified and cascaded to all faculty members. Furthermore, with the normative financing adopted by government vis-a-vis the national completed researches and publications remained one of the most important niches to any university increase their levelling and consequently budget allocations. On the other hand, based on the results the lack of established engagements and networks of the university created the gaps for potential collaborations and partnership to produce more worthwhile researches. Furthermore, individual faculty and the University on the productivity of faculty research have a great extent in the productivity of research. Likewise, the faculty in terms of self-development is enhancing their skills in conducting quality research and in the University for the purpose of SUC Levelling/Ranking.

**Table 6.** Perception of the Respondents on the Roles

 of the University Management in Faculty Research

 Productivity

Roles of the	Mean	Verbal
management		Interpretation
1. Provide funding	3.79	To a great
support		extent
2. Promulgate policy	3.57	To a great
intervention (reward,		extent
deloading, or incentives)		

3. Provide flexibility in work schedule	3.38	To a great extent
4. Enhancement and	3.65	To a great
Capacity Building		extent
5. Establishment of	3.55	To a great
research networks / links		extent
for collaboration		
Average	3.60	
		To a great
		extent

It can be gleaned in Table 6 that the role of the management as perceived by the respondents to provide funding support has the highest mean of 3.79 while provide flexibility in work schedule has the lowest mean of 3.38 both verbally interpreted as To a great extent. Furthermore, the total average of the roles of the management to the faculty research productivity as perceived by the respondents is 3.60 verbally interpreted as To a great extent.

This implies that the role of the management primarily is to provide funding support for the research proposals in order for the conduct and accomplishment of faculty researches. However, in the insufficiency of university fund for research, external funding, linkage and collaboration may be considered to compensate the needed fund. In parallel with Zhou et. al., (2016), research funding plays an important role in influencing innovation and development of new knowledge. Research and development funding can promote economic growth and enhance scientific competitiveness, as well as help to advance societal development.

Likewise, the management should look into the aspect of schedule flexibility of faculty members on research activities, instruction, designation and other function. In addition, the most serious issues and concerns that faculty researchers actually have is the inadequacy of time among administrators and faculty to process research. Deloading of subjects is the least incentive provided by the institution to those who are conducting and have research efforts (Fetalver, Jr., 2014). Moreover, Sibanda & Begede (2015) stated that lack of time was a major constraint in a heavily congested teacher's load, which to them did not include research activities.

Table 7. Significant Relationship between the
Status of Researches and Productivity of the Individual
Faculty.

Extent of	Status of	Pearson-	Sig.	$\mathbf{H}_{0}$	VI
Productivity	Researches	r			
Productivity	Completion	.225	.013	R	S
of the	Presentation	.263	.003	R	S
Individual	Publication	.187	.041	R	S
faculty					

Legend: R – rejected S – significant

Table 7 reveals that there is a very low correlation between the status of researches and the productivity of the individual faculty. However, there is a significant relationship in the status of researches to the productivity of the individual faculty with respect to the status of the researches in terms of completion, presentation and publication since the obtained p-value of .013, .003 and .041 respectively which is less than the .05 significance level thus reject the null hypothesis.

The result shows that the productivity of the faculty researcher depends on the status of research such as completion, presentation and publication. It is true to the fact that completion, presentation and publication has a significant relationship with the productivity of faculty researches. Moreover, those three variables have relationship in the scholarly works of the researchers needed for their self-development and promotion. Consequently, with respect to the status of researches in URS in terms of publication it is rated as poor affecting the faculty research productivity of the University.

**Table 8.** Significant Relationship between thePerceived Roles of the Management and theProductivity of the Individual Faculty.

Productivity of Faculty	Pearson-	Sig.	Ho	VI
Research	r			
The extent of productivity of research to the faculty	.429	.000	R	S
The extent of productivity of research to the University	.462	.000	R	S

Legend: R – rejected S – significant

Table 8 presents that there is a significant relationship in the status of researches to the productivity of the individual faculty with respect to the extent of productivity of research to the faculty and to the university since the obtained both a p-value of .000 which is less than the .05 significance level thus reject the null hypothesis. This entails that the faculty research productivity also depends on the support of the management. Furthermore, the conduct of research which is essential to the university and to the faculty must be backed up with funding, less workload for the faculty and linkage to have a quality research output. Parallel to Acar (2012), that a very important institutional support in cultivating and nurturing the research climate are research incentives. Same importance in boosting the researchers would be the provision of facilities and equipment in support of research function. Primary facilities provide better research sources and output, while incentives provide good attraction to undergo research.

### Conclusions

Based on the findings of the study the faculty respondents are generally belonging to the age bracket of 41-45 years old, female, with doctorate degree, assistant and associate professor as their academic ranks, with 2 and below number of completed research and majority of them conducted basic research.

Presently the number of researches conducted as revealed fairly satisfied the minimum as per institutional target and regulatory agencies requirement but publication on the other hand is loosely neglected. The status of research in the University of Rizal System in general was fairly satisfactory on the other hand in terms of publication it is generally poor and therefore need appropriate action and programs to resolve the gap.

The productivity of research to the faculty as shown has a great extent on self-development of the faculty members of the university; university deloading is the common problem of faculty members in conducting research and the productivity of research to the university has a great extent on SUC Levelling/Ranking; on the other hand, External funding/Linkage is neglected.

It was reinforced the substantive roles of the University management to provide funding support to the faculty members to accomplish research. However, there is a rigid/inflexible work schedule that affect the efficiency of research completion that consequently influence the university research productivity.

Respondents' age and the number of completed researches are significant on the productivity of research to the university thus their contribution varies. The number of completed research has significant difference with respect to the productivity of research to the individual faculty. Based on the number of completed research individual faculty's research productivity is much appreciated.

One factor in the promotion of the faculty in the university is to engage in research. Completion, presentation and publication of research conducted by faculty members have a great impact on their promotion and are essential to the universities research productivity.

### Recommendations

The University of Rizal System thru the Research Development Unit may design programs like rigid trainings and lectures specifically in making full blown research proposals, sending to conferences of their discipline to inculcate the in-depth importance of research and becomes updated of the new trends in their field, in order for them to be encouraged and engaged in the call for proposals and other related research activities.

Top management may strictly implement the grants of incentives particularly in the deloading scheme in order for the faculty researchers to strengthen their urge to publish their research output in different accredited/recognized and reputable journals/publications.

Faculty researchers are encouraged to consider the national, regional and university research agenda and a benchmarking to come up with a more scholarly research. It is also ideal if all provisions that are directly involve on motivating faculty researchers be cascaded regularly to the faculty meetings, in-house seminars, campus orientations and multi-media presentations.

Research capability trainings and workshops spearheaded by the Research Development Unit for the writing of quality research and research output dissemination (presentation to fora/conferences, publication to journals) may be given continuous attention, effort and support and at the same time to explore potential linkages (national and international) to establish more feasible research collaboration for joint projects and funding.

The university may seriously take the policy among state universities and colleges that a faculty holding professorial rank must prioritize the involvement in research in order for the faculty researchers to be more productive. In addition, Continuous support to the faculty members conducting research by crafting long term university research strategic plan that will ensure the enhancement of the research productivity of the university.

Look at the possibility of reviewing the Research Manual of the university and to consider policy revisions to enhance the research productivity and address the needs of the present time.

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