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### **Creating a Research Culture in a Dominican University: Perspectives and Productivity of the University of Santo Tomas Legazpi Faculty**

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#### **ABSTRACT**

In the Philippines, one of the requirements and mandates of faculty members teaching in Higher Education Institutions (HEIs) is research. Together with instruction and community extension, this forms the trifocal function. Research paves the way for collaboration and efficient knowledge generation, complementing instruction and community extension. As a developing country, the need and expectations for faculty members to conduct research in various HEIs in the Philippines have grown exponentially, and the need for quality has been imperative. In this study, the research culture at the University of Santo Tomas-Legazpi, a Dominican university, was assessed and evaluated along a) research administration, b) research policies, c) research incentives, d) research publications, e) research awards and recognitions, and f) research linkages utilizing a mixed methodology and employing a survey questionnaire (n=77). Other critical documentary data, such as the number of publications, were included in this research. Only one (research administration) out of six (16.67%) research areas assessed registered a cumulative rating higher than 4.00. Other areas reported the following ratings: research linkages (3.96), research publications (3.90), research awards and recognitions (3.87), research policies (3.82), research incentives (3.82). Further analysis revealed possible interventions for improvement might include i) a review of existing research policies and procedures and ii) justifiable workload distribution for faculty members. Together, all these areas play a pivotal role in advancing the frontiers of research and cultivating a culture that research is essential in HEIs

**Keywords:** research culture, institutional, research, Dominican university

## **Introduction**

In the Philippines, the mandated function of the Higher Education Institutions (HEIs) faculty is trifocal (Peñaredondo-Untong, 2020). These functions include teaching, research, and community extension (Quitoras & Abuso, 2021). These tasks are conventionally touted as the trio of workplace duties for faculty, so finding a balance between research, teaching, and service is pivotal for a successful and satisfying career (Kuntz, 2012, as cited in Ismayilova & Klassen, 2019). Newsome et al. (2021) also stated that faculty are required to provide teaching and service and have a minimum expectation for scholarly productivity. As a result, academic institutions strive to deliver their best services through their trifocal function to gain national and international recognition.

As countries in emerging economies race to improve their international standards in education, there is a growing realization that this cannot be done without a specific place for research (Sigué, 2012, as cited in Darley & Luethge, 2016). Through the years, research has gained its pivotal role in the academic arena. Research and development are now deemed very important in an educational setup, leading to a nation's overall progress and growth (Sultana, 2019). In a developing country like the Philippines, HEIs are encouraged to conduct research and other scholarly investigations in various academic disciplines to generate and disseminate knowledge (Commission on Higher Education, 2008). Peñaredondo-Untong (2020) even specified that teaching and research constitute a continuum of academic activity, so it is an academic obligation to undertake research. However, the onerous obligation to produce quality education through research remains a massive challenge for developing countries (Kyaw, 2022). Despite the challenges, universities have a significant role in driving nations' research and innovation to secure future prosperity (Watt & Richardson, 2020).

## **Research Culture**

Every academic institution has a robust need to conduct research. It is a university's key role to facilitate the pursuit of knowledge which invariably leads to research (Sultana, 2019). Through this pursuit, a sustainable research culture must be established. According to Evans (2012), research culture refers to shared values, assumptions, beliefs, rituals, and other forms of behavior geared toward acknowledging the value of research practice and its outputs (as cited in Olvido, 2021). Hence, it is crucial to highlight the significance of research as an integral aspect of higher education to keep the research culture alive. The value of research knowledge is to inform action, gather evidence for theories, and contribute to developing knowledge in a field of study (Arza & Vazquez, 2012; Perkmann et al., 2013; Zarah, 2022) must be cultivated within the members of a university. In this way, the institution will be constantly immersed in quality research that leads to innovation, encompasses relevance, creates impact, enhances teaching (Ho, 2014), and often highlights various societal issues (White, 2021). A research culture also provides a supportive

context in which research is constantly expected, discussed, produced, and valued (Hanover Research, 2014).

The road to established research culture in a university requires time and effort. According to Peñaredondo-Untong (2020), SUCs must create a healthy research culture to invite the faculty members to perform at a high level on their research-mandated function. Indeed, the first step to achieving a sustainable research culture begins with the leadership of research administration and the implementation of research policies. The role of the research leaders is invaluable in the research productivity of an institution because they are the ones who plan and strategize to carry out their research goals (Quitoras & Abuso, 2021). Establishing clear policies will guide research activities, training, and support services (Sherab & Schuelka, 2019). In addition, different offices work hand in hand towards this goal of establishing a vibrant research culture (Ateneo de Naga University, 2022). In this fashion, the productivity of the faculty in the trifocal function, especially research, will be maximized because the university puts a premium on research in its current undertakings and craft policies that are well-defined, fair, and relevant to the research needs of its constituents.

HEI's leaders should also encourage and support research activities that reinforce outstanding teaching and learning (Ho, 2014). These activities, namely paper presentations, journal publications, and research awards, immerse the faculty in their academic career's limitless benefits of research. It will aid the faculty in nurturing their potential and achieving goals by taking advantage of various opportunities in research (Zarah, 2022). Moreover, a set of guidelines covering research incentives for presentation, publication, and awards is imperative to acknowledge the effort and hard work of the faculty. The institution should support and sponsor participation in conferences for faculty and even host its own conferences (Hanover Research, 2014). In connection to this, the greatest rewards (such as tenure and promotion) flow to those faculty who are most active in research and publishing scholarly work alongside engaging in teaching and service activities (Watty et al., 2008 as cited in Ismayilova & Klassen, 2019). Thus, faculty members with rich and active research backgrounds are often perceived as powerful educators (Chen, 2015; Alralah, 2016). Faculty with 30-40 years of experience frequently attain the highest research productivity (Nafukho et al., 2019).

As the faculty members become more proficient in research, the opportunities may go beyond the institution's four walls. According to Quitoras and Abuso (2021), faculty members should be encouraged not just to produce research in their respective disciplines yet through collaboration as well to elevate research to the next level. These collaborations lead to established research linkages with other HEIs and institutions. Thus, high-impact and long-term types of research will be produced, which will benefit not only the institution but the entire nation as a whole. All these elements, such as robust research administration, sound research policies, excellent research publication track record, availability of research grants and incentives, acknowledgment of

research performance, and strong research linkages, contribute to sustainable research culture. Indeed, developing research culture is an investment (Olvido, 2021) that requires constant monitoring and breaking of barriers.

## **Research Culture Barriers**

Existing literature indicates there are still barriers to achieving an ideal research culture. Research efforts are still hampered by difficulties such as funding (Darley & Luethge, 2016). The lack of proper funding and support and adequate research facilities continue to be a barrier to the productivity of faculty members (Alralah, 2016; see also Masinde & Coetzee, 2021). These should be addressed with research grants by funding agencies and increased institutional funds for research. It also remains a demanding responsibility for the faculty members to maintain the trifocal function of the university. In a study by Peñaredondo-Untong (2020), the faculty members of the SUCs in Region XII of the Philippines spend much of the time and effort on their mandated instruction function, less on extension services, and least concern on research. Many faculty members are challenged by competing factors of scholarly productivity, research, and service obligations (Newsome et al., 2021). There is also a growing number of faculty members with other priorities and individual needs beyond their roles as educators. According to Brown & Masten (1998), many faculty have neither the time nor the incentive to assume research activities outside of the classroom as they often work part-time jobs to supplement their low university salaries (as cited by Darley & Luethge, 2015). They have some individual needs that need to be met to motivate them to take up research (Alralah, 2016). Moreover, some faculty members only view research as a professional requirement. It is understandable, though, that some faculty members pursue research to bolster their reputations and achieve promotion and tenure (Ho, 2014).

## **Research Perspectives and Productivity**

Several studies in Asia and Australia about research perspectives and faculty productivity have been published recently to break the barriers and keep the research culture alive in their respective institutions. In an exploratory study by Alralah (2016), the 21 dental faculty members in KSA identified the following needs for improving research productivity through a semi-structured individual in-depth interview: a) reasonable remuneration, b) adequate research facilities, c) funding for research, and d) support. Some researchers also showed a greater need to increase their research productivity to improve their status in the global academic community. This study strongly suggested that research productivity can be enhanced with a clear and detailed motivation plan. On the other hand, no quantitative data were provided to support the link between faculty members' motivation and research productivity.

In a mixed-method study by Ismayilova and Klassen (2019), the findings showed that self-efficacy in research varied according to career stage and qualifications. Still, teaching was the strongest

predictor of job satisfaction. This study showed a strong evaluation of research productivity in two developing countries (i.e., Azerbaijan and Turkey) where university resources are relatively limited compared to other western countries. However, the sample came from 25 universities in two countries before the COVID-19 pandemic, which may have a different influence on faculty members' self-efficacy and job satisfaction.

Another study by Watt and Richardson in Australia (2020) found that academic goals are distinct in teaching versus research domains, and increased satisfaction and reduced stress are associated only with the teaching domain. There is also a significantly higher rating of self-efficacy in teaching than in research caused by a lack of institutional support and heavy workloads (Villarino & Cagasan, 2012). This study discussed four significant theories of motivation that could broaden the views that could be applied to understanding academics' perspectives and productivity in research. However, the studies included in the commentary were all conducted outside the Philippines. Considering the possible role of culture in academics' motivation and differences in university policies and structures, the same findings may not apply to the Philippine context.

Next, Newsome et al. (2021) formed a collaborative team in their study, showing success in the three education domains. Developing meaningful mentor-mentee relationships within the team seemed to help mitigate burnout and increase faculty engagement in their trifocal function, especially research. The study indicated that a group of passionate professionals could focus on all three primary academic pillars and sustain favorable results in three years. Nonetheless, the collaborative team was only tested in its first three years in Georgia. Outcomes must also be reported in the succeeding years to understand their long-term implications.

These researches show that achieving a healthy research culture and ensuring research productivity among faculty entails a comprehensive strategy and initiative from an institution. In recent years, the University of Santo Tomas-Legazpi (UST-Legazpi) has initiated many efforts to become a research university. As the university placed more importance on research, all the faculty from Basic Education up to Tertiary Level are now required and capacitated to produce their own research works (UST-Legazpi Research Manual, 2018). Through the years, the fostering of a research culture has been a continuous endeavor of UST-Legazpi. With this current undertaking, the Office of Research Team is determined to examine views about research and research efficacy of UST-Legazpi Faculty. As the team primarily monitors and encourages the significance of research work in the university, this study helped them champion research more based on the needs of the academic community members. Therefore, the study objectives were to analyze the research perspectives and determine the UST-Legazpi Faculty's research productivity for the past five years.

This study aimed to assess the research culture at the University of Santo Tomas-Legazpi from 2015-2020. Specifically, it aimed to:

1. Derive narratives to establish faculty perspective on research in the academe;

2. Assess the university research culture along a) research administration, b) research policies, c) research incentives, d) research publications, e) research awards and recognitions, and f) research linkages
3. Propose measures for the continual improvement of the research culture in the university

## **Methodology**

This study utilized a mixed methodology based on Ismayilova and Klassen (2019) research. A quantitative approach was chosen to assess and evaluate the construct measures supporting a sustainable research culture. In this phase, a survey questionnaire was developed to gather relevant data. A qualitative method was selected to deepen the narratives of faculty perspective and productivity on research. For this phase, critical documentary data, such as the number of publications, incentives, and awards from 2015-2020, were employed in this research.

## **Participants**

Participants were 77 faculty members from the University of Santo Tomas-Legazpi who completed a survey questionnaire on research culture and research perspectives, and productivity. The faculty for AY 2021-2022 who participated in the study were equally represented by the Basic Education Department (51.95%) and Tertiary Department (48.05%).

## **Questionnaire**

The questionnaire was grounded on Alralah's (2016) study and focused on the following parameters: a) research administration, b) research policies, c) research incentives, d) research publications, e) research awards and recognitions, and f) research linkages and awards. Seventeen questions were developed on the abovementioned parameters, and six (6) questions on personal research.

## **Procedure**

Participants were invited to answer the survey through an email distributed to each university academic unit. They were asked to complete a brief online survey on research culture and perspectives and productivity on research as a faculty member. The participants also signed informed consent documents before the survey was administered. The Office of Research also evaluated the publication track record, incentive granted, and awards received by the participants in the field of research from 2015-2020 to add depth to the quantitative data. This study was conducted per the ethical consideration related to the confidentiality and anonymity of the participants.

## Data Analysis

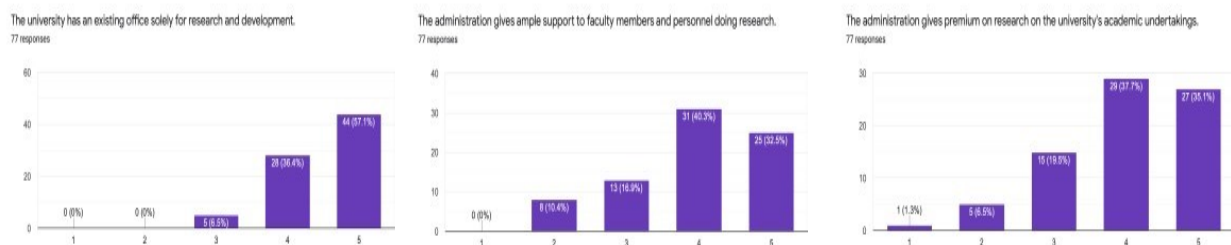
Data and statistical analysis were done, and relative means were computed for each parameter and compared for the functional areas assessed. Other critical documentary data, such as the number of publications, incentives, and awards from 2015-2020, were also recorded and discussed. The results proposed measures to address gaps identified to further the university's research culture.

## Results and Discussion

This section discussed the construct measures supporting a sustainable research culture and the perspectives and productivity of faculty on research.

### Research Administration

Good research culture in any institution is an office or a department that caters to all research endeavors like publication, grants, and other analogous services (Quitoras & Abuso, 2021). A mean rating of 4.15 was observed for research administration, corresponding to an adjectival rating of "satisfied".



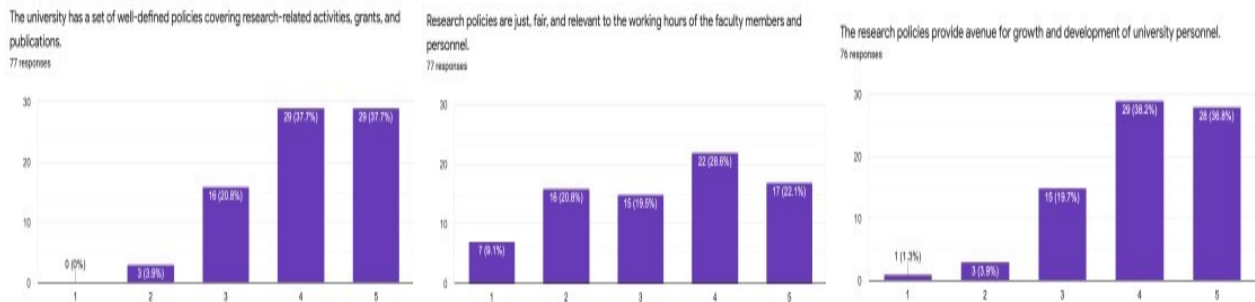
**Figure 1: Results on Research Administration (n=77)**

Data suggests (Figure 1) that UST-Legazpi has an existing and functioning research office solely for research and development. It ensures that the university gives ample support to faculty members doing personnel research, whether they may be classified as faculty or member of the non-teaching personnel. Furthermore, mean ratings of 3.94 and 3.98 were recorded for the university's support and giving premium to the conduct of research of its employees, respectively.

### Research Policies

Systems and procedures must be in place, with an office solely overseeing and supervising the university's research endeavors. Systems and procedures are essential in ensuring that all steps and processes are correctly executed. It also ensures that the system has existing controls in place to eliminate biases and errors that may arise during implementing of the system's processes (Kyaw, 2022).

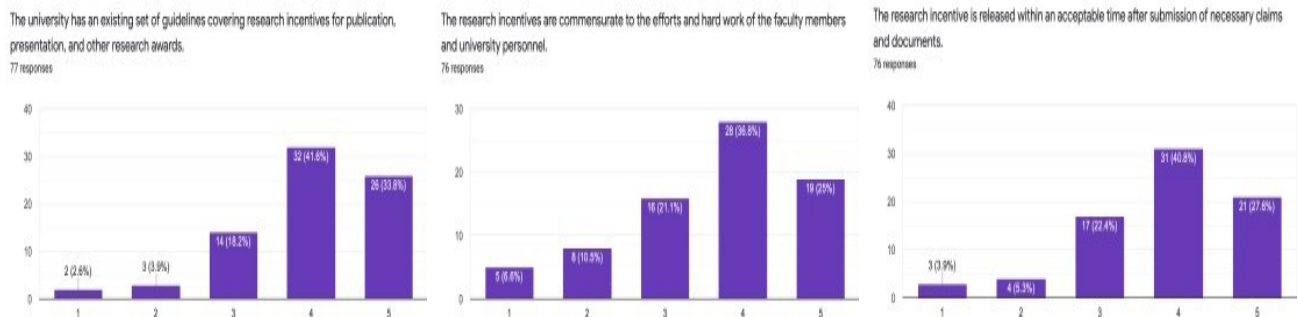
With a mean rating of 3.82, UST-Legazpi employees are satisfied with the existing research policies of the institution (Figotr 2). However, it is worth noting that a review be conducted on the relevance and fairness of the research policies relative to the mandated existing workloads of the faculty members as reflected in the dismal 3.34 rating garnered in this particular parameter. Studies have shown that one of the main reasons faculty members in higher education institutions in the Philippines have difficulty conducting research is because they tend to be overwhelmed with tasks on instruction and other facets of employment (Villarino & Cagasan, 2012). Many faculty members are also challenged by competing factors of scholarly productivity, research, and service obligations (Newsome et al., 2021).



**Figure 2: Results on Research Policies (n=77)**

**Research Incentives**

While conducting research may be overwhelming and lackluster for some, higher education institutions have devised several ways to increase research productivity and research production; this includes research incentives (Quitoras & Abuso, 2021). Incentives may include financial, in-kind, gifts, bonuses, or even leave credits (Compensation & Reimbursement of Research Participants | Research & Innovation, 2019).



**Figure 3: Results on Research Incentives (n=77)**



Figure 3 reveals that UST-Legazpi employees are satisfied with the existing research incentives of the university, with a mean rating of 3.82, corresponding to a "satisfied" adjectival rating. Incentives of the university include publication incentives in the form of cash incentives and research presentation grants. Research publications and presentations are also given proportional weights and bearings in promoting non-academic or academic employees. It is worth emphasizing that incentives are one of the top motivators in research and a wide array of services and productivity (Masinde & Coetzee, 2021).

### Research Publications

Over the millennia, research productivity in higher education institutions has been widely measured by the number of research publications produced by a specific institution. It is often one of the critical metrics in school rankings, whether local, national, or international (Chen, 2015). Some institutions have already started placing a minimum number of publications per year for their faculty members. USTLegazpi has its own international publication to which employees can submit their papers for publication. Aside from this, faculty members are encouraged to publish their papers in reputable journals locally and internationally.

### Research Awards and Recognitions

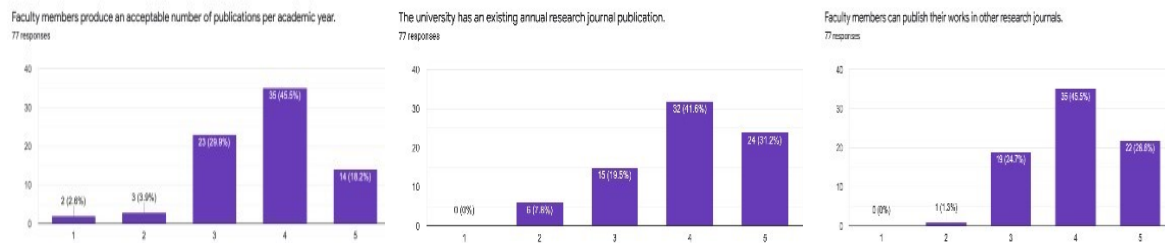
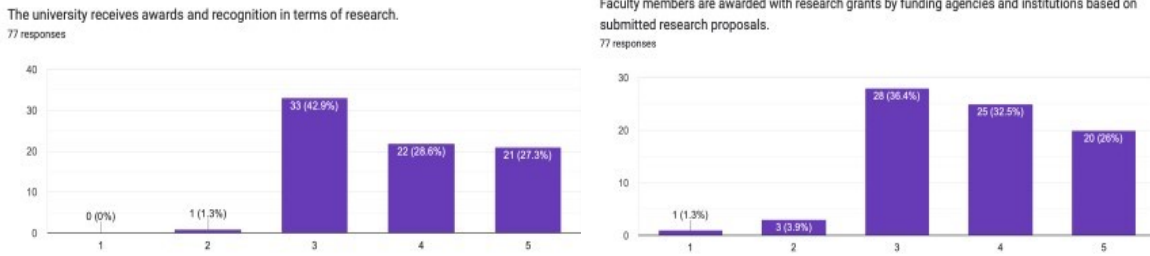


Figure 4: Results on Research Publications (n=77)

Research undertakings with national and international recognition are a good sign of a well-developed research culture in any university (Olvido, 2021). UST-Legazpi faculty are generally satisfied with the awards and recognitions the university receives, as justified by the mean rating of 3.81. The study also garnered a mean rating of 3.78 for the parameter on faculty members being awarded external research grants, which translates to UST-Legazpi being recognized as a vital partner for funding agencies and institutions in research.



**Figure 5: Results on Research Awards and Recognitions (n=77)**

**Research Linkages and Networks**

The success of research engagements and projects depends on the established research linkages a university has shown through the years (Perkmann et al., 2013). Establishing research linkages ensures that various fields of specialization and expertise from different universities and institutions are highly utilized to complete a particular project or research endeavor (Arza & Vazquez, 2012).



**Figure 6: Results on Research Linkages and Networks (n=77)**

The university's linkages and networks with other HEIs and institutions have benefited and impacted the university's academic workforce, as justified by the 3.96 rating, which translates to the satisfaction of the faculty members regarding the existing linkages and networks that the university has sustained and maintained throughout the years.

**Personnel Research**

Out of the 77 respondents, only two (2) respondents have published five (5) to seven (7) research publications in the last 10 academic years, while the rest of the respondents have published two (2) or fewer research publications in the said time frame. This result reflected the Nafukho et al. (2019) study that faculties with 30-40 years of experience frequently attain the highest research productivity.

Only one (1) of the 77 respondents has been awarded research grants not more than five (4) times, while the rest of the respondents only had two (2) or fewer. On submission of research proposals to the university, three (3) respondents have submitted five (5) to seven (7) research proposals, and six (6) have submitted three (3) to four (4) proposals. In contrast, 68 have submitted two (2) or fewer to the university. Only two (2) of the respondents have submitted research proposals to funding agencies outside the university, while the rest have submitted not more than two (2) research proposals. Given the low number of research proposals in the university, faculty members should be encouraged not just to produce research in their respective disciplines yet through collaboration as well to elevate research to the next level (Quitoras and Abuso, 2021).

Three (3) out of the 77 respondents have received incentives from the university for three (3) or four (4) of their research, while the rest have received incentives for not more than two (2) of their research. Lastly, only two (2) respondents have received research incentives from funding agencies outside the university for three (3) or four (4) of their research. In contrast, the rest received incentives for not more than two (2) of their research. These low figures reflect how research efforts are still hampered by difficulties such as funding (Darley & Luethge, 2016).

Considering the various ratings on the parameters examined and assessed, the following can be suggested to improve the research culture of the university further:

1. **On research administration:** it is recommended that the office be expanded to utilize the existing resources of the university fully;
2. **On research policies:** a thorough review must be made to ensure that all existing policies are just, fair, and relevant to the changing times;
3. **On research incentives:** incentives must be adjusted based on the results of the thorough review of research policies;
4. **On research publications:** as one of the significant requirements of teaching at the tertiary level, more publications must be produced by faculty members, focusing not only on quantity but also on the quality and credibility of the research publications;
5. **On research awards and recognitions:** research outputs from the faculty should be sent to more national and international conferences to promote more opportunities for recognition and strengthen the university's credibility as a research partner to external funding agencies and institutions; and
6. **Research linkages and networks suggest** that all associations be sustained and maintained for continual improvement and future research collaborations.

## **Conclusion**

The following conclusions are as a result of this derived:

1. Some faculty members still view research as a professional requirement and not as means for the overall progress and growth of the institution. It is understandable, though, that some faculty members pursue research to bolster their reputations and

- achieve promotion and tenure (Ho, 2014). Faculty members are also challenged to do research by overwhelming tasks on instruction and other facets of employment. Publication incentives and research presentation grants enhance the faculty member's research productivity as one of the top motivators to carry on with their research.
2. Regarding the university's research culture, only one out of six assessed research areas registered a cumulative rating higher than 4.00. The mean ratings of the research areas are as follows: research administration (4.15), research policies (3.82), research incentives (3.82), research publications (3.90), research linkages (3.96), and research awards and recognitions (3.87). The mean ratings in all areas correspond to an adjectival rating of "satisfied".
  3. Continual improvement of the research culture in the university needs improvement in all six research areas assessed by the study. An office expansion would significantly boost research administration to utilize the university's existing resources fully. A review of whether the existing research policies are relevant to the changing times must be done, precisely the policies on the faculty members' mandated workloads. A thorough review of the said policies should also help determine whether the research incentives offered by the university would also need to be adjusted. Faculty members, specifically those teaching at the tertiary level, need to focus on the quality and credibility of the research publications. Lastly, existing linkages and networks of the university must be maintained and sustained while creating ones for future research collaborations.

## **Recommendation**

Given that this research was done during the initial implementation of UST-Legazpi's efforts to become a research university, it is recommended that another study on the perspectives on research and research productivity of the UST-Legazpi Faculty be conducted after five to ten years. An in-depth interview and focus group discussion can also be implemented to deepen further the narratives on faculty members' perspectives on research.

It is further recommended that:

1. Submission of progress reports for research undertakings of the faculty for further checking and follow-up by the Office of Research;
2. Re-orientation of the Research Policies and Procedures in each of the departments as an avenue to further assess and evaluate the research culture of individual units of the university; and
3. Continuous research capability efforts from the office to discuss new trends and developments in research

## References

- Alrahlah, A. A. (2016). The impact of motivational factors on research productivity of dental faculty members: A qualitative study. *Journal of Taibah University Medical Sciences*, 11(5), 448–455. <https://doi.org/10.1016/j.jtumed.2016.06.006>
- Arza, V., & Vazquez, C. (2012). Firms' linkages with universities and public research institutes in Argentina: factors driving the selection of different channels. *Prometheus*, 30(1), 47–72. <https://doi.org/10.1080/08109028.2012.671287>
- Ateneo De Naga University (2022). *ADNU progRAMa: Capacity Building for Professionalizing Research Administration and Management Training Module*. Ateneo De Naga University
- CHED (2008, July 14). *Revised Guidelines for the CHED Best Higher Education Institution (HEI) Research Program Award*. CHED. <https://ched.gov.ph/wpcontent/uploads/2017/10/CMO-No.32-s2008.pdf>
- Chen, C. Y. (2015). A Study Showing Research Has Been Valued over Teaching in Higher Education. *Journal of the Scholarship of Teaching and Learning*, 15–32. <https://doi.org/10.14434/josotl.v15i3.13319>
- Compensation & Reimbursement of Research Participants | Research & Innovation. (2019). University of Toronto. <https://research.utoronto.ca/compensationreimbursement-research-participants>
- Darley, W. K., & Luethge, D. J. (2016). The Role of Faculty Research in the Development of a Management Research and Knowledge Culture in African Educational Institutions. *Academy of Management Learning & Education*, 15(2), 325–344. <https://doi.org/10.5465/amle.2013.0337>
- Hanover Research (2014). Building a culture of research: Recommended practices. <https://www.hanoverresearch.com/media/Building-a-Culture-of-Research-RecommendedPractices.pdf>
- Ho, S. (2014, April 3). *Real purpose of academic research is to seek truth*|Hong Kong|chinadaily.com.cn. CHINADAILY. [http://www.chinadaily.com.cn/hkedition/2014-04/30/content\\_17475199.htm](http://www.chinadaily.com.cn/hkedition/2014-04/30/content_17475199.htm)
- Ismayilova, K., & Klassen, R. M. (2019). Research and teaching self-efficacy of university faculty: Relations with job satisfaction. *International Journal of Educational Research*, 98, 55–66. <https://doi.org/10.1016/j.ijer.2019.08.012>

Kyaw, M. T. (2022). Policy for promoting teacher educators' research engagement in Myanmar. *Teaching and Teacher Education*, 113, 103680. <https://doi.org/10.1016/j.tate.2022.103680>

Masinde, M., & Coetzee, J. (2021). Modelling research productivity of university researchers using research incentives to crowd-in motivation. *International Journal of Productivity and Performance Management*. <https://doi.org/10.1108/ijppm-12-2020-0669>

Nafukho, F. M., Wekullo, C. S., & Muyia, M. H. (2019). Examining research productivity of faculty in selected leading public universities in Kenya. *International Journal of Educational Development*, 66, 44–51. <https://doi.org/10.1016/j.ijedudev.2019.01.005>

Newsome, A. S., Smith, S. E., Bland, C. M., Branan, T. N., & Hawkins, W. A. (2021). Scholastic synergy: A team prototype for pharmacy faculty engagement in education, research, and service. *Currents in Pharmacy Teaching and Learning*, 13(3), 238–244. <https://doi.org/10.1016/j.cptl.2020.10.011>

Olvido, M. M. J. (2021). Developing Research Culture: An Outcomes Perspective. *Science, Ethics and Research Administration*. 52(1), 15-37. <https://www.srainternational.org/blogs/srain-jra1/2021/03/22/developingresearch-culture-an-outcomes-perspectiv>

Peñaredondo-Untong, L. (2020). Ethical Climate and Faculty's Trifocal Functions of State Universities and Colleges (SUCS) in Region XII, Philippines. *International Journal of Education and Literacy Studies*, 8(1), 135. <https://doi.org/10.7575/aiac.ijels.v.8n.1p.135>

Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'Este, P., Fini, R., Geuna, A., Grimaldi, R., Hughes, A., Krabel, S., Kitson, M., Llerena, P., Lissoni, F., Salter, A., & Sobrero, M. (2013). Academic engagement and commercialisation: A review of the literature on university–industry relations. *Research Policy*, 42(2), 423–442. <https://doi.org/10.1016/j.respol.2012.09.007>

Quitoras, M. C. L., & Abuso, J. E. (2021). Best Practices of Higher Education Institutions (HEIs) for the Development of Research Culture in the Philippines. *Pedagogical Research*, 6(1), em0087. <https://doi.org/10.29333/pr/9355>

Research Manual Committee (2018). *University of Santo Tomas-Legazpi Research Manual*. Legazpi, Philippines: University of Santo Tomas-Legazpi

Sherab, K. & Schuelka, M. (2019). The Value of Research Culture. *The Druk Journal* 5(1), 72-83, <http://drukjournal.bt/the-value-of-research-culture/>

Sultana, M. S. (2019). A Study of the Importance of Academic Research in Social Sciences and the role of University Libraries in A. P.. *Library Philosophy and Practice (e-journal)*, 2620. <https://digitalcommons.unl.edu/libphilprac/262>

Villarino, N. A., & Cagasan, E. (2012). Conditions Surrounding Publication Performance of Faculty Members of Two Selected Higher Education Institutions in Eastern Visayas, Philippines. *Annals of Tropical Research*, 75– 94. <https://doi.org/10.32945/atr3425.2012>

Watt, H. M., & Richardson, P. W. (2020). Motivation of higher education faculty: (How) it matters! *International Journal of Educational Research*, 100, 101533. <https://doi.org/10.1016/j.ijer.2020.101533>

White, S. (2021, March 27). *Importance of Academic Research: Steps to make a research paper*. AllAssignmentHelp.Com. <https://www.allassignmenthelp.com/blog/importance-of-academic-research/>

Zarah, L. (2022, May 8). *7 Reasons Why Research Is Important*. Owlcation. <https://owlcation.com/academia/Why-Research-is-Important-Within-andBeyond-the-Academe>