

Influence of Ethnicity and Geographical Location on Research Productivity in Mindanao State University System, Philippines

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Abstract This study determine the significant relationship of research productivity (publishing research papers, articles, and books at reputable refereed journals like ISI, Scopus, Thomson Reuters/Clarivate Analytics, Elsevier, American Journal of Research, and other foreign accredited journals) of faculty members in Mindanao State University System and respondent's ethnicity and geographical location of Campus or University during the year 2013-2017. The survey questionnaire was used to collect information from the 370 faculty members drawn from the eleven Campuses of Mindanao State University System. Two hypotheses were tested at a 0.50 level of significance. The data collected was analysed by use of Scientific Package for Social Statistics (SPSS). Results of the hypothesis testing revealed that research productivity of faculty member during the year 2013-2017 are very low. It also revealed from the findings of the study that geographical location of the Campus or University has no significant relationship on publishing research papers, articles, and books ISI, Scopus, Thomson Reuters/Clarivate Analytics, Elsevier, American Journal of Research, Local, and other foreign journals. These results provide useful information for policymakers of the University System in designing academic planning and development programs for the new career faculty member to teach in the University as well as provide insight on the negative influence on the access to research funding and research information from data based research centers.

Keywords: *research productivity, ethnicity, geographical location*

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1. Introduction

The globalization and the enlargement in the tertiary education of higher education (HE) world-wide which is coupled with the demand from a continually growing segment of students' population who believe having a graduate-level diploma will lead them to greater lifetime earnings and opportunities push many university's faculty members the responsibility of engaging in research which now becoming so important for an emerging economy. The research significantly contributes to the country's socio-economic development and prosperity. Thus, the need for a knowledge-based global economy and funding to researchers is of vital importance in order for academic institutions to cope with these increasing numbers of universities and the growing enrolment of students worldwide [1]. These changes in the internal and external environments of academic institutions have resulted in significant differences in the ways in which the vision and mission of the institution are now expressed [2]. Research

performance is perhaps among the most important factors for assessing the performance of a university and that accelerating changes in the higher education sector and technology will oblige universities to increase their research capabilities and productivity [3]. The strategic role in building knowledge-based economies as well gaining an academic reputation in improving research capacity in today's competitive market of higher education worldwide according to [4] requires high funding for the university to attract the best faculty member and students, as well as need a budget in building infrastructures necessary increasing investment in research and development. It is important to invest in faculty members using different means and resources to optimize their well-being, performances, knowledge, talent, and productivity, and the culture they have because they are the most valuable assets in a university. It is vital to find out what means and scientific innovation have more influence on faculty research productivity that can help stakeholders in higher education to develop alternative strategies to increase faculty research products that can benefit the country's economic performance [5]. Higher

education systems and individuals are under increasing pressure to be more productive in research as it is now the trend in international and widely recognized worldwide. The benefits of research help produce wealth and public support that is needed for sustainable development which resulted in the most developing countries such as China to invest huge amounts of money in the development of research in their universities [6].

Mindanao State University System (MSUS) administration has implemented resolutions and reforms to strengthen faculty members to become both effective and efficient in research or advancement of knowledge, teaching or transmission of knowledge, and community extension services or application of knowledge in the community. However, despite the resolutions and reforms initiated by Academic Administrators in Mindanao State University System (MSUS), to improve the research productivity of faculty members, there still appear to be many hindrances or obstructions that lead to low levels of research productivity among the faculty members in the University System. As a faculty member in Mindanao State University System (MSUS), I have an insight into the difficulties that my co-faculty members in the university system in participating in research activities. I expect that I may have similar difficulties those other faculty members in other campuses of the university system experience in their scientific research activities and gain insights from them. It is hoped that the outcomes and findings of this research work will contribute recommendations for the development of a high research productivity performance in the university system. For these purposes, I intend to explore measure, investigate, and evaluate research factors that have a significant relationship or influence to research productivity in Mindanao State University System (MSUS).

It is also an aim and purpose of this study to provide research information and findings that can also be seen as resource information to policymakers in the university system to craft or make strategies and reforms that will enhance or improve research productivity of faculty respondents, as well as resource-research information to State University and Colleges (SUCs) in the Philippines and other academic institutions who are ambitious to improve or enhance their academic institutions' research productivity.

1.1. Problem Statement

To determine the significant relationship of respondent's ethnicity and geographical location on research productivity of faculty members in Mindanao State University System (MSUS) during the year 2013-2017; the following research questions were formulated:

What is the significant relationship between research productivity and respondent's ethnicity?

What is the significant relationship between research productivity and geographical location of the campus or university?

1.2. Hypotheses of the Study

The following were the hypotheses of the study tested at a 0.50 level of significance.

There is no significant difference between research productivity and respondent's ethnicity?

There is no significant difference between research productivity and geographical location of the Campus or University.

1.3. Significance of the Study

Result and findings of this study may serve as resource of information to policy makers in the University System to craft, make strategies, and implement reforms and resolutions that will strengthen faculty members to become both effective and efficient in research or advancement of knowledge, serve as research information to other academic institutions both in government- owned and private academic institutions, serve as resource information and instruments of the Commissions on Higher Education (CHED) in the formulation of policies and strategies of developing faculty research productivity among the State University and Colleges (SUCs) in the Philippines in line with the 21st century internationalization and globalization of higher education institutions, enhance and motivate faculty members to develop their skills and attitudes, update their knowledge, get involve and collaborate with other faculty researchers, increase their level of motivation and competence to conduct research, improve their teaching skills, aim for the extrinsic and intrinsic rewards, and produce relevant and meaningful research that will link them to more opportunities and resources that will bring prestige to the college and university, and will increase the level of faculty competence as well as improve their quality of teaching skills which are beneficial for students' learning.

2. Literature Survey

Unfortunately, the research has paid little attention to culture (ethnic tribe) and religion, and geographical location of campus and university in the context of research productivity and even in the broader context of economic development and growth. To [3], religion and culture are phenomenon that has not received much attention in the literature. These phenomena comprise people's values, beliefs, attitudes, behavior, often referred to as culture. Besides, religion is something that often guides people's choices and behavior which can be expected to be related to the everyday performance of the workplace and have a significant influence on research productivity. According to [7] the position in employment is important in determining the level of authority an individual has within the institutions and could translate into a case with which he can get access to information, materials, or equipment. He added that position on employment in many cases influences job satisfaction which in turn motivates the employee to produce more to realize better performance.

3. Methodology

This section describes the research design, research setting, population and sample selection and estimation using Slovene's equation, data collection instruments, data analysis procedure, and the statistical tools used in the

study. As previously mentioned, the aim and purpose of this study were to examine, explore, and evaluate the multi-dimensional factors that have a significant relationship (influence) on faculty research productivity in Mindanao State University System.

The research study is non-experimental in nature, and used the mixed methods involving both quantitative and qualitative research design whose purpose is not only restricted to fact-finding. The quantitative methods include discrete and continuous variables that involved the use of self-administered survey questionnaires executed to the male and female faculty member in the eleven campuses of Mindanao State University System (MSUS) whose academic rank is from Assistant Professor (I-IV), Associate Professor (I-V), Full Professor (I-VI), and University/Research Professor. In the qualitative methods, it provides the researcher with depth understanding of the theoretical plausibility and generation of new theories/hypotheses that involve causal-informal interviews, gathering of faculty respondent's personal information, gathering or collection of relevant documents from journals, articles, books, and websites.

The Statistical data analysis of the study involves the formulation of the research problem, defining population and sampling, collection of the data, descriptive data analysis, and the use of statistical methods to solve and explain the multi-dimensional factors that significantly influence research productivity in Mindanao State University System.

3.1. Research Design

The research study is non-experimental in nature, and used the mixed methods involving both quantitative and qualitative research design whose purpose is not only restricted to fact finding. The quantitative methods includes discrete and continuous variables that involved the use of a self-administered survey questionnaires executed to male and female faculty member in the eleven campuses of Mindanao State University System (MSUS) whose academic rank are from Assistant Professor (I-IV), Associate Professor (I-V), Full Professor (I-VI), and University/Research Professor. In the qualitative methods, it provides the researcher with depth understanding on the theoretical plausibility and generation of new theories/hypotheses that involve causal-informal interviews, gathering of faculty respondent's personal information, gathering or collection of relevant documents from journals, articles, books, and websites. The Statistical data analysis of the study involve the formulation of the research problem, defining population and sampling, collection of the data, descriptive data analysis and the use of statistical methods to solve and explain the multi-dimensional factors that significantly influence research productivity in Mindanao State University System.

3.2 Setting of the Study

This research study was carried out at the eleven campuses of Mindanao State University System, Philippines over a long period. The survey method technique was used to hand down survey questionnaires that were collected from the widely dispersed University System's faculty members.

3.3. Respondents of the Study

Respondents of the study are those faculty members in the eleven campuses of Mindanao State University System (MSUS) with academic ranks of Assistant Professor (I-IV), Associate Professor (I-V), Full Professor (I-VI), University Professor/Research Professor or that member of the Academic Planning Committee (APC) and System University Council (SUC) of the University System.

3.4. Sampling Procedure

The estimated sample size of the population is equal to 313, computed using Slovin's Formula (**Equation 1**): where the total population (respondents) was 1103 and an error of margin of 0.05%.

$$n = N / (1 + Ne^2) \quad (1)$$

Where: n = Number of Samples

N = Total population equal to 1103

e = Error of margin/ margin of error (5% or 0.05)

Computation: $n = 1103 / (1 + 1103 (0.05)^2) = 1103 / 3 = 315$ estimated sample size of the population.

3.5. Data Gathering Procedure

The rationale behind this study is to measure, investigate, and evaluate factors that have a significant relationship to research productivity in Mindanao State University System. A letter of consent was handed to the Chancellors, superintendents, Vice-Chancellors, Vice President, and Vice Chancellor for Research Extension of the different campuses of Mindanao State University System, informing them and seeking approval to distribute survey questionnaire to the faculty member whose academic rank is Assistant Professor (I-IV), Associate Professor (I-V), Full Professor (I-VI), and University or Research Professor (Academic Planning Committee (APC) member, attached to the letter of consent is an English written self-administered survey questionnaire and had a cover form letter explaining the purpose and significance of the research study with an implied consent letter approved by their chancellor or vice-chancellor. The approved consent letter was made to encourage more participation, a higher response rate, sincere and honest response from faculty respondents. The survey questionnaires to measure and determine the significant relationship of respondent's ethnicity, and geographical location on research productivity were handed directly to the faculty respondents. Respondents have assured confidentiality by keeping their information and answers saved and it would only be accessible by the researcher for evaluation and answering the research questions. The name of the faculty respondent is also an option in the survey questionnaire.

3.6. Statistical Tools Used

The following statistical tools were used in analysing the data collected from the distributed survey questionnaires: Frequency and percentage distribution were used to quantitatively describe the socio-demographic of the faculty respondents, and Chi-Square was used to determine

the significant relationship (influence) between religion, ethnic tribe, and geographical location factors and research productivity of faculty members in the eleven (11) campuses of Mindanao State University System during the year 2103-2017.

4. Results

This section presents the socio-demographic profile of the respondents and the results for the analyses of interest:

ethnicity and geographical location of the Campus or University.

4.1. The Descriptive Statics

4.1.1. Respondent's Socio-demographic Profile

Respondent's Socio-demographic Profile in terms of gender, age, marital status, religion, ethnic tribe, and highest educational qualification, field of specialization, academic rank, and length of service is presented in [Table 1](#).

Table 1. Frequency and Percentage Distribution of Respondents' Socio-Demographic Profile

Factor	Frequency	Percentage
Gender		
Female	207	55.9
Male	163	44.1
Total	370	100.0
Age		
55- 65 years old	107	28.9
34 years old and below	88	23.8
35-44 years old	88	23.8
45-54 years old	87	23.5
Total	370	100.0
Marital Status		
Married	266	22.2
Single	82	71.9
Widowed/Separated/Divorced	22	5.9
Total	370	100.0
Religion		
Roman Catholic	158	42.7
Islam	143	38.6
Others*	69	18.6
Total	370	100.0
Ethnic Tribe		
Ethnic Tribe Group 3 ***	232	62.7
Ethnic Tribe Group 1**	95	25.7
Ethnic Tribe Group 2****	43	11.6
Total	370	100.0
Field of Specialization		
Field of Specialization Group 1*****	96	25.9
Field of Specialization Group 5*****	95	25.7
Field of Specialization Group 2*****	90	24.3
Field of Specialization Group 4*****	45	12.2
Field of Specialization Group 3*****	44	12.7
Total	370	100.0
Academic Rank		
Assistant Professor (1-IV)	217	58.6
Associate Professor (1-V)	97	26.2
Full Professor (1-VI)	47	12.7
University/Research Professor	9	2.4
Total	370	100.0
Administrative Designation		
College Secretary	45	12.2
Department Chairman	73	19.7
Special Assistant	21	5.7
Dean	16	4.3
Vice Chancellor/Vice President	9	2.4
Total	164	100.0
Length of Service		
10 years or below	127	34.3
Between 11-20 years	92	24.9
Between 21-30 years	76	20.5
More than 30 years	75	20.3
Total	370	100.0
Highest Academic Qualification		
Master	246	66.5
PhD's	83	22.4
Baccalaureate Degrees	30	8.1
Diploma	11	3.0
Total	370	100.0

Legend:*Buddhist, Iglesia Ni Cristo, Born Again Christian, Seventh day Adventist, etc.**Maranao, Iranon, Maguindanao***Tausog, Yakan, Samal, Subanon, **** Cebuano, Waray, Ilonggo, Ilocano, others, *****Humanities *****Social Sciences*****Natural Sciences***** Formal Sciences, ***** Applied Sciences.

Table 1 revealed that out of 370 respondents, the majority of them representing 207 or 55.9% were female faculty members, while 163 or 44.1% were male faculty members. The plausible insight for this result is that female faculty members value the opportunities to work as teachers than their male counterparts who are compelled to migrate to such urban areas even outside their cultural sphere in search of work to support their family. These findings of the study do not support or affirm the results of the study of [4] in which women in the academe comprise a third of the faculty in many institutions and are still main remain underrepresented in many departments and institutions at the higher faculty ranks.

One hundred and seven (107) or 28.9% of the respondents were between 55-65 years old, 88 or 23.8% were below 34 years old, 88 or 23.8% were between 35-44 years old, and 87 or 23.5% were between 45-54 years old. The plausible insight for this result is that faculty members in the University System are by fact academically experienced, research-oriented, resilient, and can spend more time in undertaking tasking activities such as research. These findings of the study do not support or affirm the results of the study [8] in which State Colleges and Universities prefer to hire young individuals who are educated with the recent trends along their field of specializations to become faculty members who will impart knowledge and skills among their students. Applying the results of that study like Levin and Stephan (1989) in which the retirement ages of faculty members of all universities and colleges in the Philippines is 65 years, the average ages of faculty members teaching in Mindanao State University System (MSUS), Philippines is between the ages of 44-65 years.

The frequency and percentage distribution of respondent's marital status is presented in Table 1. Out of 370 respondents; the majority of them representing 266 or 71.9% were married respondents, 82 or 22.2% were single, and 22 or 5.9% were widowed/separated/divorced. The plausible insight for this result is that faculty members are settled, have social and family responsibilities, and tied up with responsibilities of taking care of family and children. These findings of this study support or affirm the results of the study of [4] in which parent employee's exhibit significantly higher levels of conflict between work and family/personal life than non-parents.

In terms of religion, out of 370 respondents, the majority of them representing 158 or 42.7% belong to Roman Catholic by religion, 143 or 38.6% belong to Islam religion, while 69 or 18.6% belong to other religious affiliations or groups. The plausible insight for this result is that faculty members are God-fearing, righteous, have moral values and beliefs, and can combat vices, and are often guided by the powerful influence of religious teachings in various aspects of their lives. These findings of the study support or affirm the results of the study of [9] in which religion or culture often guides people's choices, behaviors, and attitude towards work.

The frequency and percentage distribution of the profile of respondent's Ethnic Tribe or Cultural Affiliation is presented in Table 1, it revealed in Table 1 that out of 370 respondents; the majority of them representing 232 or 62.7% belong to Ethnic Tribe of Group 3 which is composed of the Cebuano or Bisaya, Ilongo, Ilocano,

others; 95 or 25.7% belong to Ethnic Tribe of Group 1 which is composed of the Maranaos, Iranons, and Maguindanaos; while 43 or 11.6% belong to Ethnic of Group 2 which is composed of the Tausogs, Yakan, Subanon, and Manobo. The plausible insight for this result is that faculty members are often guided by values, beliefs, culture, and traditions. These findings of the study support or affirm the results of the study of [9] in which religion or culture often guides people's choices and behavior.

The frequency and percentage distribution of the profile of respondent's field of specialization as presented in Table 1, it indicate that out of 370 respondents; the majority of them representing 96 or 25.9% were in the Field of Specialization of Group 1 (Humanities); 95 or 25.7% were in the Field of Specialization of Group 5 (Applied Sciences); 90 or 24.3% were in the Field of Specialization of Group 2 (Social Sciences); 45 or 12.2% were in the Field of Specialization of Group 3 (Natural Sciences); 45 or 12.2% were in the field of specialization of group 4 (Formal Sciences), and 44 or 11.% were in the Field of Specialization of Group 3 (Natural Sciences). The plausible insight for this result is that faculty members are proportion to the programs offered by the University System. They are more resilient to undertake tasking activities such as researching their field of disciplines or expertise. These findings of the study support or affirm the results of the study of [8] in which the percentage of faculty members should be proportionate to the programs offered in the particular program.

Table 1 present the frequency and percentage distribution of respondent's academic ranks. Out of 370 respondents; the majority of them representing 217 or 58.6% were Assistant Professors (I-IV); 97 or 26.2% were Associate Professors (I-V); 47 or 12.7% were Full Professors (I-VI); while 9 or 2.4% were University or Research Professors. The plausible insight for this result is that faculty members are younger academicians, experienced, and research oriented, resilient, and can spend more time, if not days or months to undertake tasking activity like research. These findings of this study support or affirm the results of the study of [3] in which State University and Colleges in the Philippines should hire faculty members with at least master's degree to comply with requirements set by Commission on Higher Education [10].

In terms of administrative designated position, out of 370 respondents; the majority of them representing 206 or 55.7% have no administrative position, 45 or 12.2% were College Secretaries, 73 or 19.7% were Department Chairperson, 21 or 5.7% were Special Assistants, 16 or 4.3% were Deans of the colleges, while 9 or 2.4% were Vice Chancellors or Vice Presidents. The plausible insight for this result is that faculty members are academically stress, have more workloads, and office responsibilities, and functions that usually hinder the undertaking of a high tasking activity like research. These findings of the study support or affirm the results of the study of [6] in which a moderate workload assignment would increase employees' performance.

The frequency and percentage distribution of respondent's length of services to the Campus or University is presented in Table 1. Out of 370 respondents; the majority of them representing 127 or 34.3% have

served the Campus or University for 10 years or below; 92 or 24.9% have served the Campus or University between 11-20 years; 76 or 20.5% have served the Campus of University between 21-30 years; while 75 or 20.3% have served the Campus or University for 30 years or more. The plausible insight for this result is that faculty members are younger faculty members with less interest, have the feeling of inferiority conflict especially to their very strict academic heads and often place themselves away from senior faculty members, needs mentoring from experience senior faculty member, and have less experience in undertaking a high tasking activity like research. These finding of the study support or affirm the results of the study of [6] which stated that length of service have a significant impact on faculty attitudes.

Table 1 present the frequency and percentage distribution of respondent's highest educational qualification. Out of 370 respondents; the majority of them representing 246 or 66.5% have master degrees, 83 or 22.4% have Ph.D. or Doctoral degrees, 30 or 8.1% have Baccalaureate degrees, and 11 or 3.0% have Diploma degrees as highest educational qualification. The plausible insight for this result is that faculty members are academically- experienced individuals that have undergone research activities, resilient, and can spend hours, days or even months to undertake or perform a high tasking activity like research. These findings of this study support or affirm the results of the study of [11] which stated that people with high achievement needs are willing to pay in an attempt to expand their skills and that high achievers have a compelling drive to do things better than others or more efficiently, they have the quest to excel even though they odds are overwhelmingly stacked against them.

4.2. Respondents' Research Productivity by Ethnicity

4.2.1. Hypothesis Testing

Hypothesis testing is very crucial in research work because until a hypothesis has been tested and checked against available data, it is nothing more than a guess. To test, check, and judge the hypothesis against the data and to determine the significant difference between research productivity presenting and publishing research papers, articles, and books at Scientific Research Conferences or Forums, and publishing at a reputable refereed journal when respondents when grouped according to religion and ethnic tribe, and geographical location of the Campus or University, a five (5) Likert form survey questionnaires was distributed to the respondents of the study. The following Tables 24 to 36 present the tabulated data collected from the survey questionnaires. The hypothesis tested as there is no significant difference between research productivity (publishing research papers, articles, and books at reputable refereed journals and respondent's ethnicity.

4.2.1.1. Significant Difference between Research Productivity (Published Research Papers, Articles and Books at Reputable Refereed Journals during the Year 2013-2017) and Respondents when Group According to Ethnicity

The hypothesis tested was there is no significant difference between research productivity (publishing research papers, articles, and books at reputable refereed journals) and respondents when grouped according to ethnicity.

Statistical results presented in Table 2 revealed that the values $p = 0.125 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at ISI Refereed Journals and respondent's religion. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the religion of faculty member is a limiting factor in publishing research papers, articles, and books at ISI Refereed Journals during the year 2013-2017. The plausible insight for this result is that faculty members are not resilient and confident to spend more time and days to perform and undertake highly tasking and strenuous activity like publishing research papers, articles, and books at ISI Refereed Journals. Their non-involvement in research can be associated to the doctrines of religion which guides people's choices and preferences which influence attitudes and behavior in the workplace that resulted to low research productivity. These findings of the study do not support or affirm the results of that study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 2 revealed that the values $p = 0.125 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at ISI Refereed Journals and respondent's ethnic tribe. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the ethnic tribe or cultural affiliation of faculty members is a limiting factor in publishing research papers, articles, and books at ISI Refereed Journals during the year 2013-2017. Faculty members are not resilient to spend more time or days to perform and undertake highly strenuous and tasking activity like publishing at ISI refereed journals, and their non-involvement in research are due to customs, beliefs, values, and traditions that have a significant influence on their attitudes and preferences towards jobs and tasks in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the result of the study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Table 2. Significant Relationship between Research Productivity (Publishing Research Papers, Articles and Books at ISI Refereed Journal during the Year 2013-2017) and Respondent's Ethnicity

Difference		Chi Square (χ^2)	p-value	Remarks
Religion	Publication of Research Papers,	7.224	0.125	*Not significant
Ethnic Tribe or Cultural Affiliation	Articles, and books at ISI Journal	5.357	0.253	*Not significant

Legend:* Not significant. Means significant at a 0.05 level of significance.

Table 3. Significant Relationship between Research Productivity (Publishing Research Papers, Articles, and Books at Scopus Refereed Journal during the Year 2013-2017) and Respondent's Ethnicity

Difference		Chi Square (χ^2)	p-value	Remarks
Religion	Publication of Research Papers, Articles	0.115	0.944	*Not significant
Ethnic Tribe or Cultural Affiliation	and Books at Scopus Journal	0.305	0.858	*Not significant

Legend: * Not significant, ** Significant. Means significant at a 0.05 level of significance.

Statistical results presented in Table 3 revealed that the values $p = 0.944 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at Scopus refereed journals and respondent's religion. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the religion of faculty member is a limiting factor in publishing a research papers, articles, and books at Scopus refereed journals during the year 2013-2017. Faculty members are not resilient and confident to spend more time and days to perform and undertake highly tasking and strenuous activity like publishing research papers, articles, and books at Scopus refereed journals. Their non-involvement in research can be associated to the doctrines of religion which guides people's choices and preferences that influence attitudes and behavior in the workplace which often resulted to low research productivity. These findings of the study do not support or affirm the results of that study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 3 revealed that the values $p = 0.858 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and book at Scopus refereed journals and respondent's ethnic tribe or cultural affiliation. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the ethnic tribe or cultural affiliation of faculty members is a limiting factor in publishing research papers, articles, and books at Scopus refereed journals during the year 2013-2017. Faculty members are not resilient to spend more time or days to perform and undertake highly strenuous and tasking activity like publishing research papers, articles, and books at Scopus refereed journals, and their non-involvement in research maybe because of the customs, beliefs, values, and traditions that have a significant influence on their attitudes and preferences towards jobs and tasks in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the result of the study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 4 revealed that the values $p = 0.394 > 0.05$, indicates that there is no

significant relationship between publishing research papers, article, and books at Thomson Reuters/Clarivate Analytics Journals and respondent's religion. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the religion of faculty members is a limiting factor in publishing research papers, articles, and books at Thomson Reuters/Clarivate Analytics journals during the year 2013-2017. Faculty members are not resilient and confident to spend more time and days to perform and undertake highly tasking and strenuous activity like publishing research papers, article, and books at Thomson Reuters/Clarivate Analytics journals. Their non-involvement in research activity can be associated with the doctrines in the religion which guides people's choices and preferences that influence their social attitudes and behavior in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the results of that study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 4 revealed that the values $p = 0.550 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at Thomson Reuters/Clarivate Analytics journals and respondent's ethnic tribe or cultural affiliation. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the ethnic tribe or cultural affiliation of faculty member is a limiting factor in presenting research papers, articles, and books at Thomson Reuters/Clarivate Analytics Journals during the year 2013-2017. Faculty members are not resilient to spend more time or days to perform and undertake highly strenuous and tasking activity like publishing research papers, articles, and books Thomson Reuters/Clarivate Analytics Journals and their non-involvement in research maybe because of the customs, beliefs, values, and traditions that have a significant influence on their attitudes and preferences towards jobs and tasks in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the result of the study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Table 4. Significant Relationship between Research Productivity (Publishing Research Papers, Articles, and Books at Thomson Reuters/Clarivate Analytics Journal during the Year 2013-2017) and Respondent's Ethnicity

Difference		Chi Square (χ^2)	p-value	Remarks
Religion	Publication of Research Papers, Articles, and Books at	1.862	*0.394	Not significant
Ethnic Tribe or Cultural Affiliation	Thomson Reuters/Clarivate Analytics	1.196	*0.550	Not significant

Legend: * Not significant. Means significant at a 0.05 level of significance.

Table 5. Significant Relationship between Research Productivity (Publishing Research Papers, Articles, and Books at Elsevier Refereed Journal during the Year 2013-2017) and Respondent's Ethnicity

Difference		Chi Square (χ^2)	p-value	Remarks
Religion	Publication of research Papers, Articles and Books at Elsevier Referred Journal	1.925	*0.382	Not significant
Ethnic Tribe or Cultural Affiliation	Elsevier Referred Journal	1.799	*0.407	Not significant

Legend:* Not significant. Means significant at a 0.05 level of significance.

Statistical results presented in Table 5 revealed that the values $p = 0.382 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at Elsevier refereed journals and respondents when grouped according to Religion. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the religion of faculty members is a limiting factor in presenting a research paper, articles, and books at Elsevier Refereed Journals during the year 2013-2017. Faculty members are not resilient and confident to spend more time and days to perform and undertake highly tasking and strenuous activity like publishing research papers, articles, and books at Elsevier Refereed Journals and their non-involvement in research activity can be associated to the doctrine in the religion which guides people's choices and preferences that influence their social attitudes and behavior in the work place. These findings of the study do not support or affirm the results of that study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 5 revealed that the values $p = 0.407 > 0.05$, indicates that there is no significant difference between publishing research papers, articles, and books at Elsevier Refereed Journals and respondents when grouped according to their Ethnic Tribe or Cultural Affiliation. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the ethnic tribe or cultural affiliation of faculty members is a limiting factor in presenting research papers, articles, and books at Elsevier Refereed Journals during the year 2013-2017. Faculty members are not resilient to spend more time or days to perform and undertake highly strenuous and tasking activity like publishing research papers, articles, and books at Elsevier Refereed Journals, and their non-involvement in research maybe because of the customs, beliefs, values, and traditions that have a significant influence on their attitudes and preferences towards jobs and tasks in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the result of the study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 6 revealed that the values $p = 0.935 > 0.05$, indicate that there no significant relationship between publishing research papers, articles, and books at the American Journal of Research and respondent's religion. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the religion of faculty member is a limiting factor in publishing a research paper, articles, and books at the American Journal of Research during the year 2013-2017. Faculty members are not resilient and confident to spend more time and days to perform and undertake highly tasking and strenuous activity like publishing research papers, articles, and books at American Journal of Research. Their non-involvement in research activity can be associated to the doctrine in the religion which guides people's choices and preferences that influence social attitudes and behavior in the work place. These findings of the study do not support or affirm the results of that study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 6 revealed that the values $p = 0.843 > 0.05$, indicates that there no significant relationship between publishing research papers, articles, and books at American Journal of Research and respondent's ethnic tribe or cultural affiliation. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that ethnic tribe or cultural affiliation of faculty members is a limiting factor in presenting research papers, articles, and books at the American Journal of Research during the year 2013-2017. Faculty members are not resilient to spend more time or days to perform and undertake highly strenuous and tasking acclivity like publishing research papers, articles, and books at American Journal of Research. Their non-involvement in research can be associated to the customs, beliefs, values, and traditions that have a significant influence on their attitudes and preferences towards jobs and tasks in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the result of the study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Table 6 Significant Relationship between Research Productivity (Publishing Research Papers, Articles, and Books at American Journal of Research during the Year 2013-2017) and Respondent's

Difference		Chi Square (χ^2)	p-value	Remarks
Religion	Publication of research Papers, Articles, and Books at American Journal of Research	0.133	*0.935	Not significant
Ethnic Tribe or Cultural Affiliation	American Journal of Research	0.342	*0.843	Not significant

Legend: * Not significant. Means significant at a 0.05 level of significance.

Table 7. Significant Relationship between Research Productivity (Publishing Research Papers, Articles, and Books at Local Journals during the Year 2013-2017) and Respondent's Ethnicity

Difference		Chi Square (χ^2)	p-value	Remarks
Religion	Publication of Research papers, Articles and	1.310	*0.860	Not significant
Ethnic Tribe or Cultural Affiliation	Books at Local Journals	5.303	*0.258	Not significant

Legend:* Not significant, Means significant at a 0.05 level of significance.

Statistical results presented in Table 7 revealed that the values $p = 0.860 > 0.05$, indicates that there is no significant relationship between publishing research paper, article, and books at Local Accredited Journals and respondent's religion. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that religion of faculty members is a limiting factor in presenting research paper, articles, and books at Local Accredited Journals during the year 2013-2017. Faculty members are not resilient and confidence to spend more time and days to perform and undertake highly tasking and strenuous activity like publishing research papers, articles, and books at Local Accredited Journals. Their non-involvement in research can be associated to the doctrines of religion which guides faculty member's choices and preferences that influences their attitudes and behaviour in the work place which resulted to low research productivity. These findings of the study does not support or affirm the results of that study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances. Statistical results presented in Table 7 revealed that the values $p = 0.258 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at Local Accredited Journals and respondent's ethnic tribe or cultural affiliation.

The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that ethnic tribe or cultural affiliation of faculty members is a limiting factor in presenting research papers, articles, and books at Local Accredited Journals during the year 2013-2017. Faculty members are not resilient to spend more time or days to perform and undertake highly strenuous and tasking activity like publishing research

papers, articles, and books at Local Accredited Journals and their non-involvement in research may be because of the customs, beliefs, values and traditions that have significant influence on the attitudes and preferences of faculty members towards jobs and tasks in the workplace which resulted to low research productivity. These findings of the study does not support or affirm the result of the study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in Table 8 revealed that the values $p = 0.343 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at other Foreign Accredited Journals and respondent's religion. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the religion of faculty members is a limiting factor in presenting a research paper, articles, and books at other Foreign Accredited Journals during the year 2013-2017. Faculty members are not resilient and confident to spend more time and days to perform and undertake highly tasking and strenuous activity like publishing research papers, articles, and books at other Foreign Accredited Journals and their non-involvement in research can be associated to the doctrines of religion which guides people's choices and preferences that influences their attitudes and behavior in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the results of that study of [9] in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Table 8. Significant Relationship between Research Productivity (Publishing Research Papers, Articles, and Books at Other Foreign Accredited Journals during the Year 2013-2017) and Respondent's Ethnicity

Difference		Chi Square (χ^2)	p-value	Remarks
Religion	Publication of Research papers, Articles and Books at	4.498	*0.343	Not significant
Ethnic Tribe or Cultural Affiliation	other Foreign Accredited Journals	3.984	*0.408	Not significant

Legend:* Not significant, Means significant at a 0.05 level of significance.

Table 9. Significant Relationship between Research Productivity (Publication of Research Papers, Articles, and Books at Reputable Refereed Journals like ISI, Scopus, Thomson Reuters/Clarivate Analytics, Elsevier, American Journal of Research, Local Accredited Journals, and Other Foreign Accredited Journals during the Year 2013-2017) and Geographical Location of the Campus or University

Difference		Chi Square (χ^2)	p-value	Remarks
Publication				
ISI		1.604	*0.952	Not significant
Scopus		4.758	*0.190	Not Significant
Thomson Reuters/Clarivate Analytics		3.016	*0.389	Not Significant
Elsevier		1.834	*0.608	Not significant
American Journal of Research		0.579	*0.901	Not significant
Local accredited Journals		8.954	*0.176	Not significant
Other Foreign Accredited Journals	Geographical Location of the Campus or University	8.960	*0.176	Not Significant

Legend:* Not significant, Means significant at a 0.05 level of significance.

Statistical results presented in [Table 8](#) revealed that the values $p = 0.408 > 0.05$, indicates that there is no significant relationship between publishing research papers, articles, and books at other Foreign Accredited Journals and respondent's ethnic tribe or cultural affiliation. The findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that the ethnic tribe or cultural affiliation of faculty members is a limiting factor in presenting research papers, articles, and books other Foreign Accredited Journals during the year 2013-2017. Faculty members are not resilient to spend more time or days to perform and undertake highly strenuous and tasking acclivity like publishing research papers, articles, and books at other Foreign Accredited Journals and their non-involvement in research maybe because of the customs, beliefs, values, and traditions that have a significant influence on the attitudes and preferences of faculty members towards jobs and tasks in the workplace which resulted to low research productivity. These findings of the study do not support or affirm the result of the study of [\[9\]](#) in which religion and culture play in the social, moral, economic, and political lives of nationalities, ethnic groups, traditions and values of human being which determine their acceptance or rejections of life circumstances.

Statistical results presented in [Table 9](#) revealed that the two-tailed test values $p = 0.952 > 0.05$, $p = 0.190 > 0.05$, $p = 0.389 > 0.05$, $p = 0.608 > 0.05$, $p = 0.901 > 0.05$, $p = 0.176 > 0.05$ and $p = 0.176 > 0.05$ indicates that there is no significant relationship between publication of research papers, articles, and books at reputable refereed journals like ISI, Scopus, Thomson Reuters/Clarivate Analytics, Elsevier, American Journal of Research, Local Accredited Journals, and other Foreign accredited journals and geographical location of the Campus or University. These findings of the study support or affirm the stated hypothesis. The plausible insight for this result is that faculty members are not satisfied, motivated, and resilient in undertaking such high tasking activities as research. The non-involvement of the faculty member in publishing research papers, articles, and books can be associated with the location of the campus or university which find difficult for the faculty member to travel for the publication of research papers, articles, and books, as well as find difficult to access to research funding from funding agencies, and the access of data information from the database centers. These findings of the study do not support or affirm the results of the study of [\[12\]](#) in which location in certain regions and affiliation with specific elite institutions are positively associated with future publication outputs even of controlling past publications and other proxies for research quality.

5. Summary of Findings

The following conclusions are drawn from the summary of findings:

Results of the study show that research productivity in terms publishing research papers, articles, and books at reputable refereed journals during the year 2013-2017 are very low.

The tested hypothesis indicates that ethnicity of faculty members have no significant relationship in terms of publishing research papers, articles, and books at ISI, Scopus, Thomson Reuters/Clarivate Analytics, Elsevier, American Journal of Research, Local, and other foreign journals during the year 2013-2017. It also revealed from the result of the study that geographical location of the Campus or University has no significant relationship in terms of publishing research papers, articles, and books at ISI, Scopus, Thomson Reuters/Clarivate Analytics, Elsevier, American Journal of Research, Local, and other foreign journals during the year 2013-2017. The results provide useful information for faculty members and policymakers of the University System regarding significant influence of respondent's ethnicity and geographical location of the campus or University. These factors should be addressed when hiring or recruiting faculty members to teach in the university especially in designing academic planning and development programs for the new career faculty member, in making policy for the award of research funding, travel allowances, and providing incentives for those faculty member undertaking research activity.

6. Conclusion

The following conclusions are drawn from the summary of findings:

One of the significant to emerge from this research study is that even though the Faculty members in the eleven (11) Campuses of Mindanao State University System (MSUs) have the sufficient knowledge, competencies, academic experiences, educational qualifications, length of service and expertise needed for undertaking a high tasking activity like publishing research papers, articles, and books at reputable refereed journals, they do not put these qualifications, experiences, and expertise into practice which resulted to low levels of research productivity in the University system. The results that faculty members are slightly dissatisfied with levels of internal and external research collaborative activities due to the geographical location of the Campus or University which influence the access to travel, access to research funding, and access to gather research information from data base centers, expenditure on materials and pieces of equipment, and better access to e-net connections.

Skill enhancing such as recruitment of newly minted master or doctoral graduates, training in writing, advanced research skills and time management; motivation-enhancing such as academic staff assessment with both quantitative and qualitative approaches, opportunity-enhancing such as involvement in projects, support of work in teams, encouragement to collaborate with talented graduates students and to communicate outside the institution, and adequate autonomy in research agenda provides a theoretical answer to the question with regards to the influence of ethnicity and geographical location.

There should be a research center in every campus of the University System that will provide supportive leadership, clear goals, and responsible for the implementation of less teaching load to the faculty member, responsible to work on the access of research funding, monitor on research assistants, monitor on the time for research, and grants

travel to the faculty member who will present and publish research papers, articles, and books.

7. Recommendations of the Study

The following are the recommendations of the study:

Administrators or policymakers of every campus of Mindanao State University System (MSUS) should encourage and mandatory require all faculty members whose academic ranks from Assistant Professor (I-IV), Associate Professor (I-VI), Full Professor (I-VI), and Research or University Professor to present and publish research papers, articles, and books at least two times (2x) a year, and transferred research inventions for commercialization once in two (2) years. University administration should fund those researchers.

Administrators or policymakers of every campus of Mindanao State University System (MSUS) should encourage and make policy not to assign or designate faculty members to any administrative position especially those who possess doctoral degrees.

Administrators or policymakers of every campus of Mindanao State University System (MSUS) should encourage and hold annual awards for researchers, departments, and colleges that produce the highest number of research papers, articles, books presented at scientific conferences or forums as well as highest those who has to publish the highest number of research papers, articles, books at reputable refereed journals, and those who have transferred technology inventions for commercialization.

There is a need therefore to sensitize the faculty member in the university system on the need to appreciate undertaking research activity in their career life and, more so for the campuses to be engaged in ambitious plans to create a research and publishing culture in the university system. Fostering a positive culture of research and involves advocacy and publicity to popularize and encourage appreciation of undertaking research activity.

It is highly recommended that a research development center is established in the University System to provide training sessions on enhancing research skills-research methodology and data analysis- as well as general professional development on ensuring high scientific standards are maintained before selecting the right journal for publishing, will encourage faculty member to achieve

research productivity by devoting extra hours to research, and a part of a committee responsible in the recruitment in the selection of a research faculty member that have the experience, skills, and knowledge in writing and publishing scientific research papers. The research development center will receive and review faculty research proposals including those dissertations and thesis of graduate students and decides on its quality and illegibility for the research funding, and provide suggestions for improving the research proposals of the faculty members in the University System, and enhance university research journals through securing indexing from reputable refereed journals.

References

- [1] Altbach, P.G. (2011). The past, present, and future of the research university. In P. G. Altbach and J. Salmi (Eds. *The Road to Academic Excellence*, Washington: The World Bank, 1-32.
- [2] Geuna, A., & Martin, B.R. (2003). University research evaluation and funding. An international comparison. *Minerva*, 41, pp. 277-304.
- [3] Chukwuma, C. U., and Iheriohanma, E.B. J. (2005). The Effect of Cultural Diversity on Employee Productivity in Work Organizations in Port Harcourt,
- [4] Panisoara, G. and Serban, M. (2012). Marital Status and Work-Life Balance. *SciVerse Science Direct. Procedia. Social Behavioral Sciences*.
- [5] Shin, J.C. (2009). Building world-class research university: The Brain Korea 21 project. *Higher Education*, 58, 669-688
- [6] Tang, T.L. and Chamberlain, M. (2003). Effects of Rank, Tenure, Length of Service, and Institution on Faculty Attitudes Toward Research and Teaching: The Case of Regional State Universities. *Analysis. Higher Education*. 39, 201-222.
- [7] Webber, K. L. (2013). Research productivity of science and engineering faculty at U.S. universities: The construction of foreign versus U.S. born status. *Journal of the Professoriate*. 7(1), p.52.
- [8] Cocal, C.J., Cocal, E. J., and Celino, B. (2017). Factors Limiting Research Productivity of Faculty Members of a State University: The Pangasinan State University Alaminos City Campus.
- [9] Kaasa, A. (2016), Social Capital, Institutional Quality and Productivity: Evidence from European Regions, *Economics and Sociology*, Vol. 9, No 4, pp. 11-26.
- [10] Asamani, J., A., Amertil, N., P. And Chebere, M, (2015). The influence of Workload Level on Performance in a Rural Hospital. *British Journal of Healthcare Management*, 2015. Vol 21. No. 12.
- [11] Robbins S. P. (2001). *Organizational Behaviour* (9th ed), New delhi. Prentice Hall of India.
- [12] Arora A, Gambardella A. The impact of NSF support for basic research in economics. *Annales d'Economie et de Statistique*. 2005:79-80. 91-117.

