THE LEVELS OF RESEARCH OUTPUT UTILIZATION OF SAMAR STATE UNIVERSITY

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MARIA RUBI M. PARROCHO
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APPROVAL SHEET

In partial fulfilment of the requirements for the degree, **MASTER IN PUBLIC MANAGEMENT**, this thesis entitled **"THE LEVELS OF RESEARCH OUTPUT UTILIZATION OF SAMAR STATE UNIVERSITY"**, has been prepared and submitted by **MARIA RUBIM. PARROCHO**, who having passed the comprehensive examination and pre-oral defense is hereby recommended for final oral examination.

FELISA E. GOMBA, Ph.D.
Vice President for Planning, Research and Extension, SSU
Adviser

March 4, 2016
Date

Approved by the Committee on Oral Examination on **March 4, 2016** with a rating of **PASSED**.

MARILYN D. CARDOSO, Ph.D.
Vice President for Academic Affairs/
Dean, College of Graduate Studies, SSU
Chairman

EUSEBIO T. PACOLOR, Ph.D.
University President, SSU
Member

RONALD L. ORALE, Ph.D.
Director, Research and Extension Services, SSU
Member

FLORABELLE B. PATOSA, Ph.D.
Dean, College of Arts & Sciences, SSU
Member

DEBORAH T. MARCO, Ph.D.
Graduate School Faculty, SSU-CGS
Member

Accepted and approved in partial fulfilment of the requirements for the degree, **Master in Public Management (M.P.M.)**.

ESTEBAN A. MALINDOG, Jr., Ph.D.
Dean, College of Graduate Studies, SSU

July 29, 2019
Date

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DEDICATION

I dedicate this humble work of mine to:

My parents, your love and hard work is my light in every step I took.

To the man behind my dreams and aspiration, **Benying**, for his unfailing support, understanding and love

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ABSTRACT

This study aimed to investigate the levels of research output utilization of Samar State University from 2010 to 2014. This study used a qualitative descriptive design to describe, identify and analyze the different levels of research output utilization of the social science, technology, and development. From the data collected, analyzed and interpreted, the salient findings of the study is that the research category within the study period (2010-2014) was evenly distributed to 65 researchers under sociocultural and another 65 researchers under technology, engineering and science. Generally, issues on the funding along project duration and lack of fund allocation to development projects, technical writing abilities, poor procurement system, level of confidence in conducting research, subject loading and family time were among the identified factors that affect in the levels of utilization. In the light of the findings arrived in the study, the researcher conclude that the dominance of younger faculty researcher (aged 47 and below) among their other counterpart showed a positive sign for sustained research endeavor. The researcher recommend that there is a need to provide more fund to increase utilization of sociocultural researches leading to publication in Thompson Reuters indexed journals and eventually be cited by top authors in the fields.

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Chapter 1

THE PROBLEM AND ITS SETTING

Introduction

Research output utilization determines the reputation of the University. It is used to measure research productivity of Higher Education Institutions such as Samar State University. This study sought to determine the levels of research output utilization of Samar State University categorized into five levels namely: 1) Level 1 for no action made after project/study completion; 2) Level 2 for promotion/dissemination/technology transfer; 3) Level 3 for publication/utility model and patent registration; 4) Level 4 for citation/part of prior art document of other patent and lastly; 5) Level 5 for commercialization. It sought to establish the relationship between research output utilization to the profile of researches for the period 2010-2014.

Samar State University envisions being an international university by 2020. World top ranking universities have high citation index, awards and winnings, publication, and commercialized research-based technology/innovation. Furthermore, the emergence of the concept on knowledge driven economy, put forward the utilization of research-based knowledge as major player in economy development, Griffit (2000). On this context, research universities are greatly important. Higher Education Institutions (HEIs) particularly in State Universities and Colleges (SUCs) in the Philippines are mandated by the Commission on

Higher Education or CHED to act not only as generator of knowledge but also an agent of economic growth (CMO 52, 2007).

Highly developed countries share high innovative capacity leading to patents and licenses; strong collaboration between Universities and Industries; high company expenditure in Research and Development or R&D; state of the art research institutions and labor market efficiency and technological readiness (Global Competitiveness Report 2011-2012). Griffit (2000) shows the contribution of R&D turned into industrial use and its' contribution to the country's Gross Domestic Product (GDP) from 1974, 1981, 1991 and 1996 distributed as follows: France 1.04 1.12 1.48 and 1.69; Germany 1.29 1.71 1.48 and 1.87; Japan 1.18 1.41 2.16 and 2.3; UK 1.36 1.49 1.28 and 1.10; and US 1.57 1.71 2.07 and 2.4.

The same claims are also true as shown in the 2007 R&D satellite account updates where the 2006 Bureau of Economic Analysis estimates of the effect of the United States of America's R&D on economic growth. Major findings include: 1) R&D accounts for five percent of GDP growth between 1959 and 2004, and seven percent between 1995 and 2004. This ramp-up in R&D's contribution help explain the pick-up in economic growth and productivity since 1995; 2) Information, communication and technology (ICT) and biotechnology-related industries account for two-thirds of the business sector's R&D contribution to GDP growth between 1995 and 2004; 3) Recognizing R&D as investment boots the level of state GDP the most in New Mexico by 8.50 percent and in Maryland by 6.20 percent between 1998 and 2002; 4) In 2004, the value added of majority-owned foreign

affiliates of United States Multi- National Corporations (MNCs) rises by $26 billion, or 3.10 percent, with R&D capitalization. The value added of majority-owned U.S. affiliates of foreign MNCs rises by $28 billion, or 5.50 percent. For U.S. parent companies, value added rises by $148 billion, or 6.70 percent.

Conversely, poor countries or low-income countries are those that has shown low spending in R&D, low number of licenses, and low number of patents which all indicates a low capacity for research and innovation Grepollo (2011). In the Philippines, R&D expenditure to Gross National Product (GNP) ratio is at 0.20 percent only in 1992 way far below the minimum of 3.00 percent. The country also shows very low proportion of engineers and scientists per million populations showing 152 against 6,736 minimum per million populations Cororato (1999) and low in innovation creativity showing a declining rank in the global innovation index from 91, 95, 90 and 100 from 2011, 2012, 2013 and 2014 respectively (National Competitiveness Councils Philippines, 2012). World Bank reports that there is a need to shift investments towards research capacity building in higher education institutions to improve innovation (Grepollo, 2011).

Recognizing the need to support the Higher Education Institutions (HEIs) along research development and extension, the Philippine government increased its budget allocation from the National Higher Education Regional Agenda 1 of 254M to 376M or 32.00 percent to cascade the National Higher Education Regional Agenda 2 which states "the knowledge society or knowledge economy characterize the university not just as a generator of knowledge, an educator of

young minds and a transmitter of culture but also as a major agent of economic growth" (Alcala et al., 2010).

Like other countries in Asia, the Philippines cannot do away with the increasing trend of emerging private universities. In 2010 alone there was an annual average of 45 new higher education provider or three percent increase private investments in higher education from 1,380 to 1,785 (Higher Education in Dynamic Asia, 2013). This development can only mean that the government cannot solely afford to provide this basic service, much more with the emerging shift of HEIs as driver of knowledge driven economy. Thus, in spite of the increase, budget allocation for HEIs in correlation with its increasing number, competition in funding is stiff that calls for maximization of fund utilization and research output productivity particularly commercializing knowledge generated into a meaningful income generating project of the university.

The study of Huggins et al. (2010) asserts that there is a significant knowledge that links between leading research-intensive universities and leading industrial R&D performers giving in higher level of research income. Weinberg (2012) disclosed that George University pull in two-thirds of its share of income from patented and licensed inventions that reap $2 million or more, leaving one-third for researchers and the rest of the funds go toward researchers' departments, schools and the Office of the Vice President for Research.

Furthermore, the Philippines have more than 1,500 higher education institutions. However, according to Valencia (2004) almost all of these universities

are mainly teaching institutions and only a handful could be truly considered as research universities. Valencia claims that based on the bibliometric search of the international scientific publications using the Institute for Scientific Information (ISI) database indicating that majority of international scientific publications came from the University of the Philippines (UP) and De La Salle University (DLSU). He explained that UP has long been the reputed premiere research university in the country. However, compared with other universities abroad, even the top in the country dims in comparison as reflected in Asiaweek's survey of Asia's Best Universities (Bacani, 1998, 1999, & 2000). In various studies using ISI publication data as a measure of science and technology capability of nations, institutions, and individuals, the Philippines as a country, and the UP as an institution lag way behind international standards.

Amidst the environmental and institutional culture, Samar State University emerged progressively drawing into the scientific arena. The Department of Science and Technology 8 can attest to its two-time grand slam winnings in the National Invention Contests and Exhibits, three-time grand slam winnings in the Regional Contests and Exhibits along with special awards. In the area of patenting and utility model registration, the university came 4th among the Intellectual Technology Service Offices nationwide in terms of number of registered patent and utility model applications. SSU has recorded awards and winnings of its faculty presentations in the regional, national and international arena which was a major contribution of the university to maintain the level four accredited status.

Samar State University (SSU) is situated in one of the poorest regions in the country. In a span of six years, Samar showed an increasing rate of poverty incidence of 32.2, 34.9 and 43.5 from 2006, 2009 and 2011 respectively. Samar now landed in the first cluster rank among the bottom poor cluster in 2012 contrary to prior years where it belonged to third and second cluster rank in 2006 and 2009 (National Statistic Coordinating Board, 2012) thus, the concept on higher education institutions as agent of economic growth post a big challenge for the university.

SSU started as a tech-vocational school and focused more into skills development (Gomba & Pacolor, 2014). This transition was institutionalized through Republic Act 9313 in 2004 which prompted the university to establish the Office of the Vice-President for Planning, Research and Extension in 2005 as mandated by the Commission on Higher Education. Embedding research and development culture from a tech-vocational school orientation posted a challenge to the university so two years after the Office of the Planning, Research and Extension was established the Director for Research and Development was also created. Along with the R&D leadership skills of the top management, SSU particularly the Office of the Planning, Research and Extension Services crafted, approved and strictly implemented a strategic phase-by-phase introduction of reforms within the university toward improving research productivity (Gomba & Pacolor, 2014) namely: the clearance policy; research incentive benefits for outstanding researches and publication initiatives; regular conduct of the In-house

Research Development and Extension or RDE Reviews; and continuous capability building among faculty on research proposal writeshop, scientific papers for peer-reviewed publications and other research related trainings, conferences and seminars among others.

However, the processes of research utilization are complex and are determined by numerous intervening variables related to innovation, organization, environment and individuals (Dobbins, 2002). Moreover, research utilization has to do with purpose and impact. It addressed the question why we want people to get the research outcome, what people will make for the research outcome and how such will be used (Odawaiye et al., 2009).

Furthermore, there are a lot of factors affecting research utilization differs. Studies Brown et al. (2005); Creighton et al. (1972); Landry et al. (2001); Hemsley-Brown (2004); Dunn et al. (1998); Albert, Fretheim & Maiga (2007) showed that one of the major breakthroughs in research utilization in developed countries was the government support in innovation and the university-industry collaboration. In a narrower perspective, factors affecting research utilization are: research knowledge was not or poorly communicated; behavioral characteristics of individuals; willingness of the researcher to assume transactional cost and the type of model of research conducted; accessibility, relevance of research, trust and credibility, gap between researchers and users, and organizational factors; inadequate facilities to support implementation; authority of the person presenting and who do the data gathering.

In this study, it will ascertain how far the researches of Samar State University socio-cultural and the technology, engineering and sciences for the last five years beginning 2010 to 2014 were utilized based on the expectation of international standards set by the national government as expounded by the CHED mandate to State Universities and Colleges and the Accrediting Agency for Chartered Colleges and Universities in the Philippines (AACCUP) criteria for university ranking standards. This study aimed to determine the levels of research output utilization and factors associated to its use of Samar State University.

Statement of the Problem

This study aimed to investigate the levels of research output utilization of Samar State University from 2010 to 2014. Specifically, it sought to answer the following questions:

1. What is the profile of the Samar State University researches from 2010-2014 in terms of:

    1.1 Category;

        1.1.1 socio-cultural, and

        1.1.2 Technology/Engineering/Science;

    1.2 type of research;

        1.2.1 college-based, and

        1.2.2 institutional;

    1.3 funding;

1.3.1 internal, and

1.3.2 external;

1.4 researcher;

1.4.1 age and sex;

1.4.2 civil status;

1.4.3 educational background;

1.4.4 family size;

1.4.5 academic rank/position;

1.4.6 local designation;

1.4.7 length of service;

1.4.8 teaching load;

1.4.9 number of preparation;

1.4.10 relevant trainings attended, and

1.4.11 affiliations;

1.4.11.1 professional, and

1.4.11.2 non-professional?

2. What are the levels of research output of Samar State University from 2010-2014 as to:

2.1 Level 1 Promotion and Dissemination;

2.2 Level 2 Publication;

2.3 Level 3 Citation;

2.4 Level 4 Policy Formulation/Technology Adoption, and

2.5 Level 5 Commercialization?

3. Are there significant relationships between research output utilization and the following characteristics of researches:

3.1 category;

3.2 type of research;

3.3 funding, and

3.4 researcher?

4. What are the issues and concerns of the researchers toward research utilization?

5. What policy may be introduced to address level of utilization of Samar State University research outputs?

Hypothesis

Based on the aforementioned specific questions the following null hypotheses were tested in this study:

1. There is no significant relationship between research output utilization and the following characteristics of researches:

1.1 category;

1.2 type of research;

1.3 funding, and

1.4 researcher.

Theoretical Framework

This study anchored its theoretical underpinning on the Theory of Academic Capitalism by Slaughter and Rhoades (2004). This theory suggests that the knowledge economy is a contemporary and dominant manifestation of capitalism. It is driven by production, distribution and consumption of knowledge.

Another is the Theory of Research Productivity espoused by Goodall (2010). This theory posits that best universities in the world are led by respected scholars. It suggests that since universities are being measured of its research productivity, it is of importance to be led by scholars. This theory explains that research utilization is higher when leaders particularly the Presidents or Vice Chancellor have higher lifetime citations and that universities progress further under leaders with more established research histories.

The Theory of the Stages of Research Utilization espoused by Landry, Amara and Lamari (2001) is also related to this study. This theory purports that there are six stages or ladder in research utilization: 1) transmission; 2) cognition; 3) reference; 4) effort; 5) influence, and 6) application. It postulates that the higher the attempt to climb the ladder of research utilization the greater the cost the researcher must be willing to pay. Each stage or level of utilization demands a transaction cost on the part of the researcher where the researcher has to decide as to what extent he/she is willing to spend in order to ascend to the higher level of

utilization. Transaction cost is defined as the costs of actions and tasks required to ensure utilization of knowledge.

The theory by Roger's Diffusion of Innovation Theory is also related to this study. Diffusion of Innovation Theory seeks to explain how, why, and at what rate new ideas and technology spread. It perpetuates that diffusion of innovation is like an S shaped curved wherein the highest peak represents the critical mass of diffusion.

Also related to this study is the Theory of Research Efficiency by Creighton, Jolly & Deming (1972). It postulates that there is a relationship between the output efficiency of research and development and the behavioral characteristics of individuals in the user organization. It suggests that the placement of linking mechanism within the user organization will produce higher coefficient of technology utilization than an intermediary, third organization placed between supplier and user (Creighton et al., 1972).

Conceptual Framework

This study through primarily descriptive used both correlational and comparative analysis. Shown by two boxes double sided arrows connecting the two boxes (Figure 1), the study attempted to assess the relationship between the profile variates of SSU researches and the levels of research output utilization.

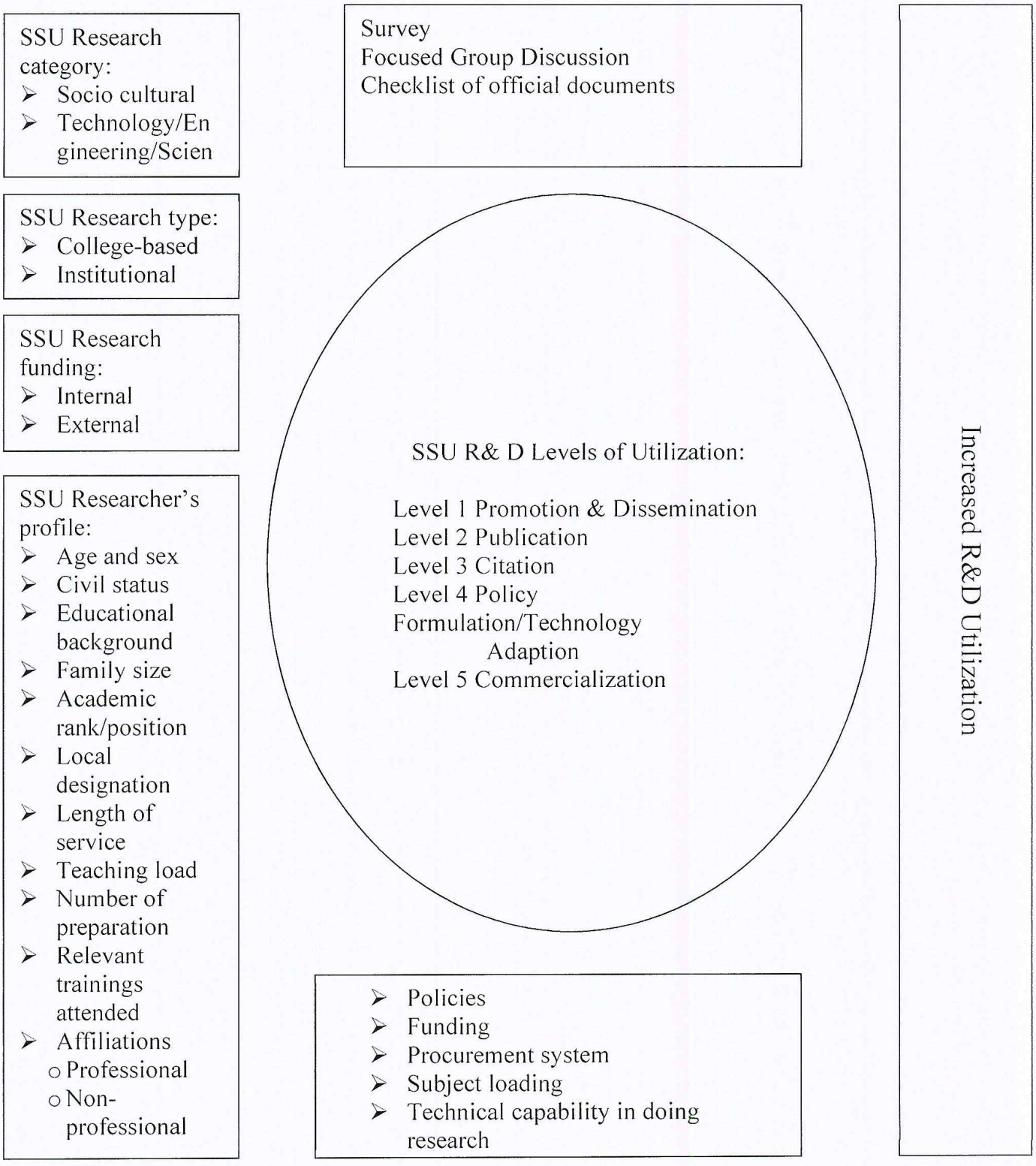

Figure 1. The Schema of the Study Shows the Variables and Their Relationships

From this relationship, possible gaps or problems encountered will be identified hence findings and recommendations ultimately hopes to address enhanced research utilization of Samar State University researches.

The conceptual schema of the study is presented in Figure 1.

Significance of the Study

This study is important to the following entities:

Administrators and management. They will be more aware of the call for commitment and responsibility in the delivery of support needed by the researchers as to their capability building and administrative support services such as procurement of research projects materials, office supplies and equipment and other administrative concerns. More so, the result of the study can be a spring board towards strategic intervention for research utilization of Samar State University.

Board of Regents. They will be more supportive in embedding the research culture in the University through strengthening policies perhaps on regular fund allocation relative to incentive, structural and training needs of the researchers comparable to performing universities in research and extension area.

Faculty and non-teaching researchers. For the faculty researchers and non-teaching researchers to gauge among them how far they have contributed to the University relative to research output accomplishments and may proactively support and engage in the utilization of their individual researches. They would

also be able to identify the blocks of research output utilization and may propose activities and interventions to enhance utilization of research outputs.

Community. They would be aware of the contribution and benefits of a research-based policies and product innovations in the local economy. Further, the community may likewise help in cultivating the culture of research in their respective area through active participation of extension related activities of the university and adopting such advocacies and teachings.

Researchers. The results and findings of this study will give insights to the researcher to ponder on the factors associated to research utilization.

Other higher education institutions. The results and findings of this study might serve useful on how they will strategize to enhance their research output utilization.

Students and future researchers. The future researchers can use this study to benchmark if their research is patentable and has potential economic value. Inputs of this study will allow them to prepare themselves the cost of transmitting and the transition period preparations that they need to consider until such that they will decide to pursue commercialization. Each level of utilization will require on their part hard work and commitment along with some challenges specially when funding stops.

Industry. The results and findings of this study would serve as baseline information of the developmental researches with commercial value ready for

commercialization and other research-based products for replication. Industries may likewise venture to a partnership with the university.

Local government unit. This study elucidates the importance of research and development in a knowledge driven economy, to be at par with developed cities/provinces in the Philippines, the study might influence them to practice knowledge-based decision making, plans and programs, policies and projects. And tap the university as partner in development.

Scope and Delimitation

This study is limited on the utilization levels of the output researches of Samar State University from 2010 - 2014 only. This study focused on the five-year researches data of the faculty either it be a college based and institutionally approved researches as to its characteristics and the level of its utilization based on the two broad levels of utilization categorized as to either social science research or a technology/development research. The study will also identify gaps in the utilization processes. This study does not cover researches of the faculty without the written approved endorsement made by their respective college/external campus. And researches listed in the Internal Operating Budget (IOB) but without completion report on records.

This study was a descriptive research design supported with triangulation method. It will employ a complete enumeration from Project Leaders of Samar State University who have conducted research either as student thesis, college

based or institutional research within the study period 2010-2014 using a validated research made questionnaire, focused group discussion and documentary analysis.

This study is limited to the levels of research output utilization of Samar State University and does not include the processes involved in the selection of researches as to its basis for approval.

This study will be conducted during the period of November 2015 to March 2016. Initial survey was conducted sometime in June 2015 onwards but the thesis paper was only presented in February 22, 2016.

Definition of Terms

The following terms will be defined conceptually and operationally for clarity and for better understanding of the study:

Citation. This refers to a line or a short section taken from a piece of writing or a speech quotation from or reference to a book, paper, or author, especially in a scholarly work (www.merriam-webster.com/dictionary). Operationally, citation means the number of researches cited by other researchers.

Commercialization. This is defined as the stage in product development process where the decision to order full-scale production and launch is made (www.businessdictionary.com). In this study, commercialization is operationally defined as the process of converting the research output for economic value.

Dissemination. Dissemination means to spread information, knowledge, opinions widely (www.vocabulary.com/dictionary). In this study, dissemination is the transmission of research results in all avenues i.e. discussion, presentation, publication.

Presentation. This is being defined as an activity in which someone shows, describes, or explains something to a group of people (Merriam and Webster Dictionary). In this study, presentation means the act of participating and sharing information in research conferences, in-house reviews and competition of the study conducted.

Promotion. The word is defined as the advancement of a product, idea, or point of view through publicity and/or advertising (www.businessdictionary.com). In this study, promotion is presentation.

Policy formulation. It is the process of transforming an agenda into policy (www.slideshare.net). In this study, policy formulation means if your research is one or is the basis of a policy formulated.

Research output utilization. The prevailing concept of research (output) utilization stresses application of specific research conclusion to a specific decisional choice (Miyakawa, 1999, p. 315). In this study, research output utilization refers to the study conducted by the university used in any one or more of the following avenues presentations, publication, utility model, patent, citation, policy formulation, technology adoption and commercialization.

Socio cultural researches. This pertains to studies involving social and cultural factors (Merriam & Webster). Operationally, it is defined as the researches that are non-engineering, technology and science.

Technology adoption. This is being defined as the choice to acquire and use a new invention or innovation (Hall and Khan, 2002). Operationally, it is defined as if your research was used or copied to enhance work productivity.

Technology and development researches. This is operationally defined as those researches related to Technology, Engineering and Science.

GII or Global Innovation Index. This ranks the innovation index (GII) the innovation performance of 141 countries and economies around the world, based on 79 indicators. The GII is co-published by WIPO, Cornell University and INSEAD.

GNP or Gross National Product. This is a measure of a country's economic performance, or what its citizens produced (i.e. goods and services) and whether they produced these items within its borders.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter discusses the literature and studies written in books, journals, magazines and other reference materials that were read and noted that have significant relevance on the present study. In addition, this also consists of excerpts from unpublished materials such as theses and dissertations reviewed by the researcher to provide further insights in the conduct of the study.

Related Literature

The approval of the Bayh-Dole Act in the United States has stimulated the commercialization of university researches to contribute more directly to industrial development. This act transfers the ownerships of intellectual property (IP) from the publicly-funded granting agencies to the universities. Such government intervention resulted to a high increase in patents in the United States by 5.4 times higher from 589 patents in 1985 to 3200 in 2006. And from 16,000 patents from 155 universities 533 spin-off establishment were created (Guldransen & Rasmussen, 2008).

This literature affirms that of Rhoades & Slaughter (2004) that the current shift in today's university is going towards an entrepreneurial university. Further, this literature likewise shows at the macro level the intervention of the government support thru policy making in enhancing the research utilization output.

Further, knowledge economy is a potent force pervading global and national policy circles, Kenway et al. (2006) particularly in the higher education institutions. Knowledge economy is defined as a contemporary and dominant manifestation of capitalism driven by the production, distribution and consumption of knowledge.

This considerable shift of the Higher Education Institutions as generator of new knowledge to a major agent of economic growth posed a big challenged to all Universities like the Samar State University, in the production, dissemination and utilization of knowledge (CHED Memo 15, series of 2015).

Commercialization of research outputs bring in a new concept that of "entrepreneurial university". It seeks to generate revenue from their core educational, research and service functions, ranging from the production of knowledge, such as research leading to patents, to the faculty's curriculum and instruction, like teaching materials that can be copyrighted and marketed, Rhoades & Slaughter (2004).

Rubins (2007) call it academic capitalism knowledge regime. Rubins defines it as knowledge privatization and profit taking in which institutions, faculty, and sponsoring corporations have claims that come before those of the public.

Furthermore, Revazishvili (2008) states that the academic attitude towards commercialization activities traditionally considered as remote from academic world should be changed. On this way, academics should acknowledge that commercialization is another way of communicating their knowledge to society.

The infrastructure with entrepreneurially educated staff is another important aspect for promoting commercialization at universities. Moreover, finances are vital for running commercialization infrastructure and supporting academics especially in the first phases of a product development.

For academic productivity, publication and industry-university collaboration are the two measures according to Lehming (2003). One is publications of research results. The other is industry participation in scientific publishing, that is an indicator of the readiness and ability of industry to scan basic research for what might be useful to them. Thus, joint publications by industry and university scientists are one piece of evidence of links that one might track.

Further, partnering with industries has its' own share of glory however it is not given in a silver platter. The university has to build scientist, experts and engineers which could mean a serious commitment of the university and sustained investment in research and development (Gulbarandsen & Rasmussen, 2008).

High industry-university collaboration shows high citation index (Porter & Stern, 2001). ISI citation is well accepted indication of research performance among the three major university ranking systems namely the Higher Education Evaluation & Accreditation Council of Taiwan (HEEACT Ranking), the Academic Ranking of World Universities (ARWU Ranking) and the QS World University Ranking according to Huang (2011). Moreover, citation is one of the major indicators considered in the normative financing and SUC leveling.

The study of Landry, Amara and Lamari (2001) entitled "Climbing the Ladder of Research Utilization "*Evidence from Social Science Research*" presents that utilization of research is more adequately described as a process comprising many stages rather than as a product arriving at the final stage of decision making. The authors used validated modified levels Knott and Wildavsky scale following six stages of utilization: transmission, cognition, reference, effort, influence, and application. Moreover, the results of the study suggest that there are barriers to climbing and the barriers are primarily located between the stage of no transmission and the stage of transmission. Furthermore, these barriers are actually the transaction costs that the researcher must shoulder in order to ascent the higher level of utilization. Transaction cost is defined as the cost of actions and tasks required to ensure utilization of knowledge.

Landry et al. states that for a research to be utilized it has four major alternatives to choose from namely the technological model, the economic model, the institutional model, and lastly, the interaction model. Technological model is the science push model, stresses the supply of research findings as the determinant of knowledge utilization. Economic model referred as the demand-pull model, knowledge utilization exists only by the needs and the context of the users. Institutional dissemination model explains knowledge utilization based on two determinants: the adaptation of the research products to meet the needs of the users and the dissemination efforts. Social interaction model also known as the

interaction model, predicts that the more sustained and intense the interaction between researchers and users, the more likely it is that there will be utilization.

Research utilization according to Beyer & Trice (1982) involves only two processes, the adoption and implementation phase. It connotes that since utilization of research entails people doing something with research results it follows that the components of behavior and how these behavioral processes influence the use of research. Components of behavior are cognition, feelings, choices and action. Cognition the elements of situations people see as relevant to them. Feelings express the values that people place on alternatives. Choices integrate cognitions and feelings by expressing a selection between alternatives. And actions are the overt behaviors people engage in to implement conscious or unconscious choices. Moreover, the adoption phase includes the set of behaviors through which decision makers choose research to be used by them or by others in their organization. And the implementation phase includes the set of behaviors through which managers and other users actually carry out research prescriptions.

Understanding the diversity of perspectives on social science research utilization may serve many purposes. For one, it may help to overcome the disenchantment with the usefulness of social science research that has afflicted those who search for use only in problem-solving contexts. For another, it may enable us to engage in empirical study of the policy uses of research with better awareness of its diverse and often subtle manifestations Weiss (1979).

Weiss (1979) presented the different meanings of social science research utilization which have evoked diverse images of the processes and purpose of utilization. The first concept is the knowledge-driven model, assumes that from basic research comes applied research followed by development and then application. This connotes that when knowledge exists presses it toward development and use.

The second concept introduced by Weiss (1979), is the problem-solving model. This model speaks about doing research for direct application of the results to a pending decision. The third concept is the interactive model. This model use of research is only one part of a complicated process that also uses experience, political insight, pressure, social technologies and judgment.

Fourth is the political model. Research utilization is being subjected to biases of interest, ideology, or intellect they have taken a stand that research is not likely to shake where utilization of research rests to the pull of interests around a policy issue predetermined by the positions of decision makers.

Fifth, is the tactical model. Under this concept social science research is used for purposes of illustrations as a tactic in bureaucratic politics and not of its significance of findings.

The sixth model is the enlightenment model. This model purports that it is not the findings of a single study nor a body of related studies that directly result to utilizations or affect policy but rather the concepts and the theoretical

perspectives that social science research has engendered that permeate the policy-making process.

The last model is the research as part of the intellectual enterprise of the society. Here, social science research is viewed as one of the intellectual pursuits of a society

Levels of research utilization are also influenced by the type of leadership the university has. Studies of Goodall (2009) posit that the best universities in the world are led by more established scholars. That is to say that they have proven a track record of a lifetime citations leading to 'excellent departments'. Further, Goodall claims that these types of leaders may be able to help improve the future research performance of their universities. By constructing a new dataset, the research shows that the characteristics of a leader in position today are correlated with the future performance of the organization.

Moreover, result of his studies shows that: scholar-leaders are thought to be more credible leaders in universities. 1) Greater respect is bestowed on distinguished researchers by their academic peers, which enhances a president or vice chancellor's influence. 2) One that is internal or behavioral is that scholar-leaders have expert knowledge. In the context of a knowledge-intensive organization like a research university, having been an expert or top scholar may provide an administrator with a deep understanding of the organization's core business, which may have some bearing on the behavior of leaders. 3) It was argued that leaders must establish the quality threshold of their institution. Setting

an organization's academic standards was viewed by those interviewed as a significant part of the function of president or dean, and, therefore, one should expect the standard bearer to first bear that standard. 4) Finally, it was suggested that a leader who is an established scholar signals the institution's priorities, internally to its faculty and externally to potential new academic recruits, students, alumni, donors, and the media.

Another is the study of Everett Roger entitled "Diffusion of Innovation Theory". Diffusion of Innovation Theory seeks to explain how, why, and at what rate new ideas and technology spread. It perpetuates that diffusion of innovation is like an S shaped curved wherein the highest peak represents the critical mass of diffusion. The critical mass is the final crucial concept in understanding the nature of the diffusion process which occurs at the point at which enough individuals have adopted an innovation that the innovation's further rate of adoption becomes self-sustaining. It implies that outreach activities should be concentrated on getting the use of the innovation to the point of critical mass and should therefore focused its efforts on the early adopters of innovation.

Valencia's (2004) study revealed that Philippines have substantial research activities on-going in the universities however very few research projects find their way to being published internationally. This is being attributed to a large extent to lack of funding, inadequate research facilities and heavy teaching loads as serious impediments to research productivity of academic scientists in the Philippines. Valencia inferred that beyond these limitations, the research culture in Philippine

universities is such that publication is not the targeted culmination of a research activity.

Another is Lacanilao (1999), asserts that most research projects in the University of the Philippines end up only as project reports, presentations at conferences, or published in "grey" literature and it would take a lot more of continuous organizational reorientation and realignment of systems and policies in order to foster the desired conditions. He added that culture takes years or even generations to become fully imbibed in an organization.

The aforementioned readings points all to the concepts and processes of research utilization both for the socio cultural and technology, engineering and science researches. As an end view, the uptake of research utilization for Higher Education Institutions is the call of time and soon will be a 'non-negotiable' for its survival. It is therefore with this notion and intention that this study was conceptualized so as to survey and assess the research utilization of Samar State University.

Related Studies

A study conducted by Metla (2003) in his thesis "Research Faculty, Entrepreneurship and Commercialization: The Case of Kansas State University" claims that to bring Universities research to technology commercialization requires educational programs for faculty to enhance perceptions about the commercialization and entrepreneurship. Further, this need is independent to the

demographic characteristics of the faculty but influenced the university's policies covering intellectual property and commercialization. This study confirms the work of Lacanilao (1999).

The theory of academic capitalism gained popularity with the argument on declining public resource spending in higher education. Bullard (2007) 'Academic Capitalism in the Social Sciences: Faculty Responses to the Entrepreneurial University' posits that social science discipline is at disadvantage against other discipline. Results of her study reveal that social science research utilization in academic capitalism involves essentially no technology transfer or patenting. Further, academic capitalism in the social sciences is about a market of ideas, based on the value of positive social change and quality research, rather than economic yield.

In the context of health science the study of Kenny (2002) entitled 'Research utilization of registered nurses in United States Army hospitals' revealed that nurses in military hospital indicated generally positive attitude towards use of research for practice, stating that they believed it would enhance patient outcomes and they would use it if they could. There were direct relationships between several factors and research utilization, including attitudes toward research, time to read and implement research, access to research findings and support. Nursing support was directly correlated with all aspects of organizational climate indicators.

The thesis of Schoonover (2006) 'Barriers to research utilization among registered nurses working in a community hospital confirms the aforementioned study of Kenny (2002). Accordingly, the greatest barriers to research utilization reported included characteristics of the organization, a lack of authority to change patient care procedures, lack of time to read research, and the lack of awareness of the research. Organizational strategies that influence the rate of adoption of innovations, leading to research utilization, such as practice rounds, the use of clinically appraised topics, and educational prescriptions in which individuals reflect on the process of evidence-based practice and determine where they currently have learning gaps.

Wanis (2010) posits in his dissertation entitled 'Youth Participatory Action Research and Decision-Making: A Multi-Case Study of Five Californian Health Departments' that the factors influencing data utilization on health-related research findings in decision making is most effective with the use of Youth Participatory Action Research (YPAR). Wanis claims further that this method proved to fit in decision making in public health and that this method fit the political, problem-solving and interactive models among health research utilization compared to the traditional research utilization.

Furthermore, as the benefits of knowledge are realized when it is applied, this dissertation places special emphasis on the usability of the knowledge. This is the study of Teppo (2010) 'All for one, one for all. Organizational knowledge creation and utilization using a new generation of IT tools' shows that in order for the knowledge to be really usable, the knowledge creation should aim at

producing knowledge in explicit and actionable form. Accordingly, producing knowledge in the form of guidelines was found to be beneficial for the utilization of knowledge. Guidelines support learning-by-doing and reflection-in-action, which are crucial for the emergence of new tacit knowledge, Teppo added. Thus, evidence-based information and decision aid tools can help in choosing the knowledge that is to be applied.

The dissertation of Habibie (2015) is also noteworthy to be quoted when he said academic productivity has become one of the inherent requirements of global scholarship, and scholarly publication has turned into "the major marker of productivity in academia"; it is also a significant determinant of the efficiency of both individual scholars and academic institutions.

University technology transfer activities have become increasingly important as a source of information dissemination and revenue since the passage of the Bayh-Dole Act in 1980, Anderson (2014) thesis. Anderson asserts that technology transfer outputs include the number of licenses executed, licenses generating income, cumulative active licenses, and licensing income. The following factors enhance university technology disclosures: high quality faculty, technology transfer office staff size, and research expenditures. This study also found that technology disclosures are not positively related to revenue sharing incentives to university scientists. The results suggest that technology transfer outputs are significantly related to number of technology disclosures.

Research utilization requires good data management. The article in Boston University on Research Data Management states that research data is data that is collected, observed, or created, for purposes of analysis to produce original research results (http://www.bu.edu.datamanagement).

In research utilization, data pertains to the assertions of the authors based on the result of his study. This information requires a program for easy access of information in cases wherein the aptly felt to continue or build on his previous study. This would also be useful for other researchers as reference other than the hard copy which is normally kept on file cabinets.

Chapter 3

METHODOLOGY

This chapter describes the methodology used in the conduct of this study. Included in this part are the research design, instrumentation, validation of the instrument, sampling procedure, data gathering procedure and statistical treatment of data.

Research Design

This study used a qualitative descriptive design to describe, identify and analyze the different levels of research output utilization of the social science, technology, and development research of Samar State University from 2010-2014. The study used a research expert validated questionnaire to describe the profile of the research as to its category, type of research, funding and the researcher's profile. The study also depict the kind of research output utilization as to its level of use such as level 0 for no action made after project completion; level 1 dissemination, promotion and presentation; level 2 publication/ utility model/patent registration; level 3 citation/part of prior art document of other patent; level 4 policy formulation/technology adoption; level 5 commercialization. In-depth focus group discussions will be employed to determine the issues and concerns to explain the high or low utilization of research

output. Documentary analysis was also employed to validate/augment data extracted from the results in the questionnaire.

Instrumentation

The instrumentation that will be used is triangulation using the following instrument with the use of the following instruments:

Questionnaire. The researcher made questionnaire underwent validation at Northwest Samar State University. There were 50 respondents during the dry run. Results were validated using Cronbach's Alpha showing a reliability of 0.70. The questionnaire is composed of two parts. Part A sought to answer 1.4 of question number one in the questionnaire which is the profile of the researcher, namely: age, sex, civil status, family size, academic rank/position, local designation, educational background, length of service, teaching load (unit), number of preparation and number of years in conducting years. Part B sought to answer the questions related to the research profile. These are part of question number one, two and four. On question number one the researcher sought to answer item 1.1 research category, 1.2 type of research, and 1.3 research funding.

On item number 1.1 research category sub fields are 1.1.1 socio-cultural (social science, education, economics, health and agriculture) and 1.1.2 technology and development (technology, engineering and science related). The item 1.2 type of research sub-fields are 1.2.1 if it is a college-based research or 1.2.2 if the type of

research is institutional. Item 1.3 pertains to type of funding either internal 1.3.1 or external 1.3.2.

Part B also sought to answer the question "What are the levels of research output utilization of Samar State University from 2010-2014 as to: level one no action made after completion; level two promotion/disseminated/technology diffusion; level three publication/utility model/patent; level four citation/part of prior art document of other patent; level five commercialization"

Still in Part B of the questionnaire, the last item sought to answer question number four of this study "What are the issues and concerns of the researchers toward research utilization?"

Checklists for documents from Offices. Checklist of official documents were retrieved from the offices to get information particularly: 1) Approved Internal Operating Budget for Research and Special Projects from 2) Files of submitted completed research 3) Annual Reports 4) Research & Graduate Journals 5) list of related trainings 6) number of years in service 7) list of faculty with designation 7) college based researches conducted.

Data Gathering Procedure

The instrument used in the data gathering was an expert validated research made questionnaire, focused group discussion and documentary analysis as described in the instrumentation.

The researcher sought the permission from the University President for the conduct the study. Approved request will then be forwarded to the Vice President of Academic Affairs, Dean, and Campus Director of Samar State University.

The researcher sought the permission of the College Deans and Campus Directors for the distribution of the questionnaire. During the distribution of the questionnaire, the researcher allowed the respondents complete the questionnaire and explained respondent queries. The researcher allowed respondents two days before retrieval.

The responses to the instruments will be recorded, tabulated and analyzed statistically.

For the focused group discussion, the researcher used purposive sampling, 19 respondents from different colleges and external campuses participated in this activity, out of a population size of 73. The moderator introduced himself and gave the overview of the topic. The FGD has two parts. Part I consists of participants introduction comprising their name, designation, designated college, number of years in conducting research and the number of years in service.

Part II was a question-and-answer interview style. The moderator asked a question and each of the participants were given time to respond in succession until all responses were heard. The group openly discussed any comments, suggestions, or ideas until the moderator finally determined that the questions were thoroughly discussed. After the discussion, the group determined a

consensus by validating views expressed until the group arrived naturally at the summary of the key points in themes.

Statistical Treatment of Data

Data gathered was tabulated, organized, analyzed and interpreted with the use of the following descriptive and inferential statistical tools:

Frequency count and percentage. These descriptive statistical measures used to present the characteristics of the research and the level of research utilization in each category of respondents as to the number and magnitude of the occurrences.

Mean. This measure was employed to calculate the averages where the measure was applicable.

Pearson r. This was employed to test the relationship between the research characteristics and the levels of research utilization.

Chapter 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the results of the study with emphasis on the presentation of findings, analysis and interpretation of data gathered, and conclusions on the questions presented in Chapter 1. This chapter also features implications and salient findings which are significant to the understanding of the answers to the questions posted.

Profile of the Researches

This study covers from year 2010 to 2014 were the respondents are the Project Leaders for all college-based researches and those institutionally approved researches. In cases where the Project Leader is already out of service during the conduct of the study period, the Assistant Project Leader takes place in his/her behalf. There were 130 researches conducted from 2010 to 2014 done by 72 Project Leaders. From the 130 researches, 65 are into socio-cultural researches and the other 65 are into technology, engineering & science researches. Thirty of these researches are college-based, 95 are institutional, marked as the highest percentile of 73 and five are collaborative researches as the lowest percentile pegged at four percentile.

Furthermore, as gleaned from the Table 1 below, the university is poor in collaborative research nailed at only four percentile in externally funded projects hence it follows that most of the researches are institutionally funded pegged at 96 percentile.

Table 1

Research Category, Type and Funding

Profile	*f*	Percentage
Research Category		
Socio-cultural	65	50
Technology, Engineering & Science	65	50
Total	**130**	**100**
Research Type		-
College-based	30	23
Institutional	95	73
Collaborative	5	4
Total	**130**	**100**
Research Funding		
Internal	125	96
External	5	4
Total	**130**	**100**

Gleaned from Table 2 presents that majority of the respondents has higher family responsibilities marked at 78 percentile dominated by male counterparts.

Along age, age bracket of 35-44 got the highest percentile rank of 28 among the respondents, followed by age bracket of 45-54 at 26 percentile and age bracket 55-64 landed third at 25 percentile. Among the 72 respondents, majority is male and the highest percentile age is between 35-44 years old nailed at 28 percentile which is dominated by their female counterpart. This was followed by aged group 45-54 comprising 26 percentile where male is dominant and age 55-64 at 25 percentile dominated again by female. Moreover, male dominates over female with only 6.00 percentile higher among the total respondents.

Table 2

Respondent's Age, Sex, and Civil Status

Respondent	Sex		*f*	Percentage
	Male	Female		
Age				
Below 24	0	0	0	0
25 - 34	7	6	13	18
35 - 44	8	12	20	28
45 - 54	13	6	19	26
55 - 64	8	10	18	25
65 - up	2	0	2	3
Total	**38**	**34**	**72**	**100**
Civil Status				
Single	4	6	10	14
Married	31	25	56	78
Separated	0	1	1	1
Widow	0	5	5	7
Total	**35**	**37**	**72**	**100**

While majority of the respondents are married, Table 3 presents that the bulk of the university researches came from respondents having smaller family size. This result corresponds with the issue on time which has surfaced during the focused group discussion were researchers shared that conducting research along with other university activities oftentimes results to extra hours away from family time.

Table 3

Respondents' Family Size

Family Size	*f*	Percentage
10	1	1
9	1	1
8	1	1
7	3	4
6	12	17
5	8	11
4	14	20
3	17	24
2	13	18
1	2	3
Total	**72**	**100**

Among the respondents' academic rank, Instructor has the highest percentile rank of 39 having 28 counts of Instructor respondents followed by Assistant Professors at 37 percentile having 26 counts of Assistant Professors.

At the outset, comparing the respondent's academic rank to that of SSU total population per academic rank, the highest percentile rank belongs to Professorial ranks marked at 100 percentile together with the Executive Assistant. This was followed by the Assistant Professors marked at 63 percentile. Furthermore, the Instructors lag behind into fourth place marked at 24 percentile.

Table 4

Respondents' Academic Rank

Academic Rank	Respondent *f*	SSU Personnel *f*	Percentage of respondent per rank against the total respondents	Percentage Of respondents against the total SSU personnel per rank
Professor	7	8	11	88
Assistant Professor	23	35	36	65
Associate Professor	6	41	9	15
Instructor	27	110	42	25
Admin	1	2	1	50
EA	1	1	1	100
Total	**65**	**195**	**100**	

Table 5 presents that among the total respondents 50 percentile has local designation and the other half has no local designation. Along educational

background, bachelor's degree is dominated by science related preparation pegged at 92 percentile while non-science course which is only 8.00 percentile. But results show that as the respondents aspire to the post graduate studies there was

Table 5

Respondents' Local Designation and Educational Background

Variates		*f*	Percentage
With local designation		23	50
Without local designation		36	50
Total		72	100
Bachelor's degree	Science	66	92
Non-science		6	8
Master's degree			
Science		34	51
Non-science		33	49
Doctor's degree			
Science		2	8
Non-science		23	92

a sudden shift from pursing the science related preparations to the non-science related preparations. In the case of the master's degree almost half of the baccalaureate science degree holder shifted to the non-science degree. Worst still, when they took their doctoral studies only two of them remained in the science related degree. From the original science degree holder of 66, 34 pursued science

master's studies while five others did not pursue post graduate studies. From the remaining 34 only two finished their doctoral with a science related preparation.

This data is contrary to the argument of Goodall that leaders with high technical ability have developed expert knowledge about the organization's core business which is research and teaching.

Looking on the data in Table 6, the highest percentile on the length of service came from 17-12 years stint in the university while the lowest percentile came from category of 43-45 years, 38-42 years, and 18-22 years. Majority or 59 percentile belongs to the 17years of service and below. This data comprises that 25 percentile which belongs to 8-12 years stint in Samar State University. Followed by 3-7 year posted 19 percentile and 13-17 years posted at 15 percentile of the total respondents. The remaining 41 percentile comprises between 18 to 45 years of service.

Table 6

Respondents' Length of Service

Length of Service	*f*	Percentage
43-45	2	3
38-42	2	3
33-37	8	11
28-32	6	8
23-27	9	13
18-22	2	3
13-17	11	15
8-12	18	25
3-7	14	19
Total	**72**	**100**

If the university is gearing towards a transformative university where research and extension is viewed as the banner program in attaining the technology and innovation initiatives among the faculty, the faculty teaching loads, extra and regular hours is worthwhile revisiting and studied on. In the case of the University of the Philippines, faculty is allowed for 24 units per academic year or 12 units per semester but not less than six units is assigned except for those with administrative load (UPD Faculty Manual). Furthermore, the Commission on Higher Education and Development provides that faculty should not be assigned more than four different subjects within a semester. It further states that a faculty's teaching load is six hours per day and that an aggregate of 30 units shall only be allowed inclusive of overload (CHED Memo no. 52, s. 2007).

Gleaned from Table 7, 62 percentile of the respondents handles more than 20 hours teaching loads. Table 7, further reflects that 43 percentile of the respondents conducts more than 20 hours in regular teaching were 70.00 percent among them conducts six or more extra hours in teaching despite of the fact that 50 percentile among them has special designations as previously shown in Table 5.

Furthermore, the same subject has as much as nine preparations and the lowest of one pertains to the non-faculty researcher. Prominent number of preparations is five marked at 25 percent as reflected in Table 8.

Table 7

Respondents' Teaching Load

Teaching Load (Units)	*f*	Percentage
65-75	2	3
46-44	3	4
43-41	1	1
40-38	1	1
37-35	3	4
34-32	6	8
31-29	4	6
28-26	2	3
25-23	8	11
22-20	15	21
19-17	9	13
16-14	6	8
13-11	2	3
10-8	4	6
7-4	3	4
0-3	3	4
Total	**72**	**100**

Table 8

Respondents' Regular and Extra Load

Number of Hours	Extra Hours		Regular Hours	
	f	Percentage	*f*	Percentage
40	0	0	1	1
31	0	0	2	3
30	0	0	4	7
26	0	0	1	1
24	3	4	0	0
22	0	0	2	3
21	0	0	20	28
20	0	0	7	10
19	3	4	2	3
18	2	3	5	7
16	2	3	0	0
15	7	10	3	4
14	8	11	0	0
13	4	6	0	0
12	4	6	1	1
11	4	6	1	1
9	3	4	8	11
8	2	3	1	1
7	1	1	0	0
6	7	10	3	4
5	2	3	0	0
4	1	1	0	0
3	1	1	5	7
2	1	1	0	0
0	17	23	6	8
Total	**72**	**100**	**72**	**100**

This data gave us a glimpse that the faculty's time is almost consumed in teaching given the high loads that they handle and their extra load. The clamor of the faculty that they are full and considering the number of preparations (presented in Table 9) that they have to do is somewhat revealed in this data. It seems that what is left for research and extension and what holds them in doing it is because of the policy hence non utilization of research output is evident among researches.

Table 9

Respondents' Number of Preparations

Teaching Load (Units)	*f*	Percentage
9	2	3
8	1	1
7	7	10
6	5	7
5	18	25
4	5	7
3	15	21
2	14	19
1	2	3
0	1	1
No response	2	3
Total	**72**	**100**

All government employees are being regulated to render a minimum of 40 hours a week. Table 10 exhibits that about 47.00 percent of the respondents work below the required 40 hours a week and that only about 6 percent renders between 37-42 hours a week. However, 47.00 percent of the respondents extend beyond the minimum 40 hours requirement.

Furthermore, Table 10 displays that only 43.00 percent of the respondents render regular time for administrative work while 13.00 percent among them renders administrative work on overtime. Result is being attributed to respondents with special designations as shown in Table 5.

Looking further, the table reveals that majority of the respondents' time is consumed in regular and extra load in teaching with 92.00 percent marked for regular teaching hours. Also, 87.00 percent among them allot time for extra load teaching. This result is contrary to research and extension.

For research only 51.00 percent consciously allocate time for research activity with one to five hours a week. And only 11.00 percent of the respondents extend beyond the regular hours for research endeavor. This result explains the poor result/output of conducted researches of the University and the hand- in of some promissory notes when year ends come. Observations of cramming among researchers during submission most often compromise the output of the research thereby affecting the researcher's confidence in publishing and undergoing further utilization.

Table 10

Respondents' Number of Hours Rendered per Week and It's Uses

Number of hours	Number of hours rendered per week		Weekly hrs allotted to regular admin work		Weekly hrs allotted to overtime admin work		Weekly hrs allotted to regular teaching		Weekly hrs allotted to overtime in teaching		Weekly hrs allotted to regular research work		Weekly hrs allotted to overtime research work		Weekly hrs allotted to regular extension work		Weekly hrs allotted to overtime extension work	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
79-84	1	1																
73-78	0	0																
67-72	1	1																
61-66	5	7																
55-60	10	14																
49-54	6	8																
43-48	11	16																
37-42	4	6	4	6	1	1	1	1										
31-36	8	11	3	4	0	0	5	7										
24-30	13	18	3	4	0	0	8	11										
18-23	4	6	3	4	0	0	29	40	10	14								
12-17	3	4	1	1	1	1	4	6	23	32	2	3						
6-11	0	0	3	4	3	4	13	18	21	29	9	12	2	3	7	10	1	1
1-5	1	1	4	6	5	7	4	6	9	12	26	36	6	8	24	33	3	4
0	0	0	46	64	57	80	4	6	5	7	30	42	59	82	36	50	63	88
No response	5	7	5	7	5	7	4	6	4	6	5	7	5	7	5	7	5	7
TOTAL	**72**	**100**	**72**	**100**	**72**	**100**	**72**	**100**	**72**	**100**	**72**	**100**	**72**	**100**	**72**	**100**	**72**	**100**

On this note, the delivery of research output was likewise hampered due to the delayed in procurement of materials and supplies, and equipment needed in their conduct of study. This concern was also raised during the Focus Group Discussion. Same result showed in the researchers Project Procurement Monthly Plan. It was suggested that the Office of the Planning, Research and Extension need to intensify monitoring of research implementation.

Extension on one hand plays a vital role in SUCs. It is in this arena where the University has to transfer matured technology, inventions and innovations as contributor for economic growth. As revealed in Table 9, only 43 percent of the respondents consciously allocate time for extension work. And only 5 percent of them conduct overtime extension work.

Poor research may result to poor extension. No technology, innovation and invention, knowledge-based system or program developed mean no research-based extension will be conducted. At present, the university's extension most often are requested activities from partners. Other than that, piece meal activities such as skills training, literacy and information dissemination are being conducted for the sake of having extension. While these activities are good, the university is measured on the outcomes of these so many interventions.

Because almost all extension activities are on call, no conscious efforts are inculcated in the researchers to allocate particular time for these activities. Unlike for example, if there is a crafted program packed for implementation then the activities are more defined and the outcome can be easily monitored. The timelines

then are projected and consciously imparted to the extension workers on the grounds of deliverables.

Gleaned from Table 11 data shows the respondents' year started in research where years 2010-2013 posted as the highest percentile at 17 followed by years 2012 and 2009 posted at 14 percentile. This result is being attributed to the gradual shift and imposition of clearance policy among faculty every end of school year. This came into realization upon the inclusion and approval of clearance policy in the Research and Extension Manual of Operations per Board Resolution No. 44 series of 2008.

Table 11

Respondents' Year Started in Research

Year started in research	*f*	Percentage
2014	3	4
2013	12	17
2012	10	14
2011	6	8
2010	12	17
2009	10	14
2008	4	6
2007	3	4
2006	3	4
2004	2	3
2002	1	1
2000	4	6
1992	1	1
1991	1	1
Total	**72**	**100**

The university on one hand, started to allocate budget for research operations and management in every college and external campuses to support this endeavor. Further, the awards/incentives for research and extension exemplary accomplishment were likewise included in the manual of operations. Hence, to entice researchers involved in research and its utilization.

Result in Table 12 reflects that the University initiated and encouraged attendance to research related trainings in tandem with trainings of the faculty

Table 12

Respondents' Entire Life Number of Trainings Attended

Number of Trainings Attended	Field of Specialization Related Trainings/Seminars Attended		Research Related Trainings/Seminars Attended	
	f	percentage	*f*	percentage
36	1	1	0	0
29	2	2	2	3
20	1	1	0	0
19	0	0	1	1
18	1	1	1	1
17	0	0	4	6
15	3	4	1	1
14	0	0	2	2
13	0	0	1	1
12	13	16	0	0
11	1	1	0	0
10	1	1	0	0
9	4	5	0	0
8	4	5	2	3
7	3	4	3	4
6	3	4	0	0
5	3	4	3	4
4	8	10	10	14
3	5	6	9	12
2	9	11	13	18
1	5	6	7	10
0	16	19	14	20
TOTAL	**83**	**100**	**73**	**100**

field of specialization during the later years of the respondents. This purports that the University is serious in capacitating the faculty in conducting research and hopeful of coming up with publishable, patentable, and ready for commercialization quality of researches.

Levels of Research Output of Samar State University

The University high utilization of research output over the period of three years commencing from 2010-2014 pulled and surpassed the aggregate score of the University into level four accredited SUC sometime in October this year. If only it were so, but because of the provision on the minimum requirement of all core functions of SUCs must be met, the University remain a level three accredited SUC in the region.

This year and beyond was the domino effect of the initiatives done by the Office of the Planning, Research & Extension Services. To cite examples are the eight papers published sometime in 2012 to 2014 got cited 34 times in year 2015 and 2016.

There were 130 completed researches from 2010 to 2014. Table 11 depicts that level one got the highest utilization level marked at 42 percent. Close to level one, level two rank second at 38 percentile and no action made after completion rank third at 25 percentile. The lowest rank is on level 5 which is commercialization. The result on time allocation to extension and this result tied together. In fact, the trends of the result confer with that of previous tables. Level

0 for instance can be attributed to the 82 percent of respondent exerting extra hours.

If we add up the frequency on the sub-fields under level one and divide it by the total number of papers presented that of 55 we will arrive at 52 percent on the average. This would mean that on the average one paper were utilized twice within the study period.

On the publication, the eleven utility model registrations and three patent applications were deducted from the total fifty publications giving the difference of 36. The total frequency of the sub-fields for level 2 on purely publication is 77. This means that out of the 36 papers some were published twice or more particularly those that were published locally at first.

The level on the policy formulation and technology adaptation needs further validation except for some like the commercialization of value added tahong products which is now in the market. The study output entitled "Modernization of the College of Graduate Studies Curricular Programs Towards International Comparability" were likewise used as the basis for the approved revision of its curricular programs. However, studies like the enhancement and development of the financial management system requires revisiting considering that such project/s was in its fifth year of continuous updating/enhancement.

One of the beauties of research collaboration is the amount of funding that goes into the project. It gives the breadth and depth on project implementation

Table 13

Respondents' Levels of Research Output Utilization

Levels of Utilization		*f*	Percentage
Level 0 no action made after completion		32	25
Level 1	**Dissemination/Promotion/Presentation**	55	42
	Classroom discussion/lecture	27	
	Presentation		
	Local	26	
	Regional	27	
	National	10	
	International	8	
	Skills Training		
	In-campus	7	
	Brgy Level	0	
	Municipal	0	
	Inter-agency	0	
Level 2	**Publication**	50	38
	Local		
	Journal ISI	0	
	Journal Not ISI	1	
	Journal No	46	
	indexing		
	Book	0	
	Pamphlet	0	
	Leaflets/flyers	0	
	National		
	Journal ISI	0	
	Journal Not ISI	3	
	Journal No	11	
	indexing		
	Book	0	
	Pamphlet	0	
	Leaflets/flyers	0	
	International		
	Journal ISI	5	
	Journal Not ISI	10	
	Journal No	0	
	indexing		
	Book	1	
	Pamphlet	0	

Levels of Utilization			*f*	Percentage
	Leaflets/flyers		0	
	Utility Model Registration		11	
	Patent Application		3	
Level 3	**Policy Formulation/Technology Adaptation**		19	15
	Policy Intended use			
	SSU		6	
	Local		4	
	Regional		0	
	National		0	
	Technology Adaptation			
	Personal Use		3	
	Adapted in the Univ		5	
	Adapted by other stakeholder		1	
Level 4	**Citation**		2	2
	Local ISI		1	
	Non-ISI		0	
	Non indexed		0	
	No idea		0	
	Regional ISI		0	
	Non-ISI		0	
	Non indexed		0	
	No idea		0	
	National ISI		0	
	Non-ISI		0	
	Non indexed		0	
	No idea		0	
	International ISI		1	
	Non-ISI		0	
	Non indexed		0	
	No idea		0	
Level 5	**Commercialization**			.8
	Net income generated			
	Less than 1k/yr	Active	0	
		Not Active	0	
		Regular	0	
		Not Regular	0	
	More than 1k but less than 10k/yr	Active	0	
		Not Active	0	
		Regular	0	

Levels of Utilization		*f*	Percentage
	Not Regular	0	
More than 10k but less than 50k	Active	1	
	Not Active	0	
	Regular	1	
	Not Regular	0	
Above 50k	Active	0	
	Not Active	0	
	Regular	0	
	Not Regular	0	

such is the case of the Fruit Slicing Machine project. From the external fund money, the university was able to transfer the enhanced technology on banana chips production in one of the cooperative beneficiaries in Paranas, Samar. Through this project, the University with its counterpart implementer was able to develop a mechanical cum electric powered fruit slicer machine to enhance productivity of the banana chips industry in the locality of Paranas, Samar.

Relationship Between Research Output Utilization and the Following Characteristics of Researches: Category; Type of Research; Funding, and Researcher

Reflected in Table 14 shows that the p-value of researches from 2010-2014 in terms of category, type of research and funding posted at 0.172, 0.566, and 0.361 which proved to be greater than £ = 0.05, hence the null hypotheses stating that "there is no significant relationship between the level of research output utilization and the researches category, type of research and funding" is reflected.

Moreover, results further shows that among the researchers characteristics the p-value of Age, Length of Service, Number of Papers with Utility Model Registered, Number of Patent Registration posted to be 0.028, 0.031, 0.005 and 0.030 which is proved to be lesser than the £ = 0.05, hence the null hypotheses stating that "there is no significant relationship between the level of research utilization and respondents' age, length of service, number of papers with utility model registered and number of patent registration" is void. This means that the younger the respondent, the shorter the length of service, the number of papers with utility model registered and the number of patent registration the higher the level of research output utilization is conducted.

Consequently, the table further shows the linear regression of the researchers' profile towards the level of utilization. It reflected that every increase of age there is a decrease of -0.079 in the level of utilization, an every increase of the length of service there is a decrease of -0.018 in the level of utilization, every increase of papers with utility model registered there is an increase of 0.186 in the level of utilization and every increase of patent of registration there is an increase of 0.363 in the level of utilization.

Since the p- value of the age, length of service, number of papers with utility model registered and number of patents of registration is lesser than the alpha of 0.05 therefore there is a significant relationship between the above aforementioned variables to the level of research output utilization.

Table 14

Relationship and Simple Linear Regression Results on Level of Research Output Utilization and the Research/Researcher Characteristics

Variables	r-value	P-value	R-square	Interpretation
Sex	-0.037	0.655	0.001	NS
Age	-0.186	0.028	0.035	S
Civil Status	-0.065	0.439	0.004	NS
Family Size	-0.079	0.343	0.006	NS
Length of Service	-0.18	0.031	0.033	S
Educational Background	-0.038	0.648	0.001	NS
Science/Non-science	0.071	0.397	0.005	NS
Academic Rank	-0.103	0.217	0.011	NS
Local Designation	0.037	0.660	0.001	NS
Teaching Load	-0.004	0.962	0.000	NS
No. of Preparations	0.107	0.202	0.011	NS
Number of research trainings attended	0.11	0.190	0.012	NS
Year Started in Research	-0.063	0.450	0.004	NS
Number of Completed Researches	0.05	0.552	0.002	NS
Number of Paper Presentation	0.092	0.271	0.008	NS
Number of Paper Published	0.068	0.413	0.005	NS
Number of Papers with Utility Model Registered	0.231	0.005	0.053	S
Number of Patent Registration	0.18	0.030	0.032	S
Research type	0.048	0.566	0.002	NS
Research funding	0.077	0.361	0.006	NS
Research category	0.114	0.172	0.013	NS

Issues and Concerns of the Researchers Toward Research Utilization

To determine the problems, issues and concerns among the respondents in the utilization of their respective researches two method were applied. One, it was made part of the questionnaire and two a focused group discussion were conducted.

Gleaned in Figure 2, the highest frequency of 35 counts pegged at 18 percent came from organizational concerns, issues and perceived problems among the researchers. They pointed out lack of funding for project utilization and the time allotment for the study were the major concerns they shared. Some faculty-researchers who are conducting science and technology projects shared that funding plays a big factor in the utilization and commercialization phase. They even pointed out that project duration should be greatly considered to come up with quality output.

Subject unit overload was the second highest frequency of 27 counts marked at 14.00 percent. The faculty researcher pointed out the subject loading and subject preparations must be considered. This result conforms to the data in Table 7 showing a majority of 20-22 teaching load and Table 9 showing a majority of the five preparations in a semester.

The issue on financial incapability came in as a hindering factor in research output utilization on the grounds that in most of the researchers requests for

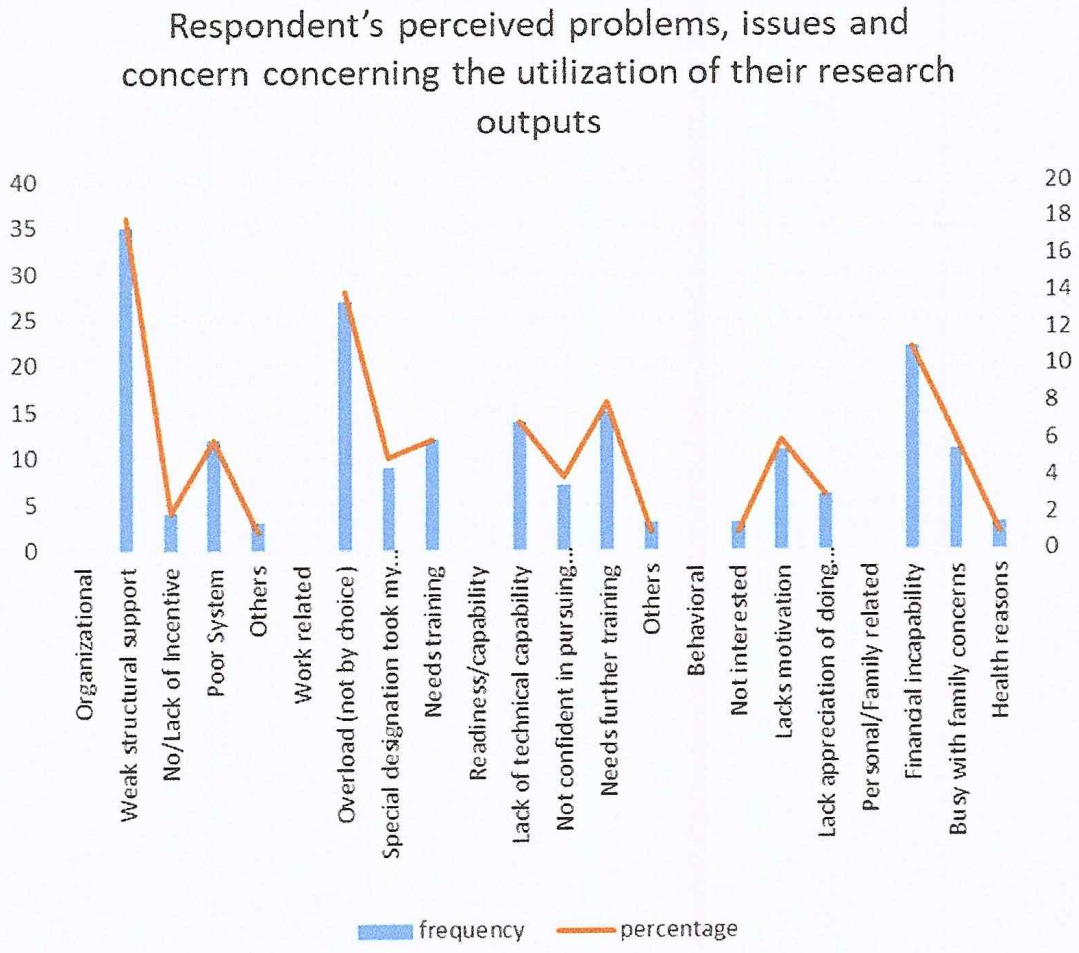

Figure 2. The Graph of the Respondent's Perceived Problems, Issues and Concern Concerning the Utilization of Their Research Outputs

procurement are not being delivered or purchased some tend to shell out personal money just so to have their project/study finished on time. Pre-payments to cover cost for presentations, and cost for publication fees are also among the constraints the faculty experience in research productivity.

For issues related to work and readiness, major issue lies on the need for capability building in doing research work. They also cited that because of their lack of technical writing ability they felt less confident and lack motivation.

Results of the Focused Group Discussion were presented using the word cloud in Figure 3.

Generally, issues on funding, incentives, technical writing abilities, level of confidence in conducting research, subject loading, and family time were shared by the faculty-researchers during the focus group discussion.

In the words on one of the faculty-researchers:

> *"Our researches are focused on developmental, lack of support on the part of management especially along project fund allocation for production, presentation, publication, and deployment of the project. In most instances, it is still on the part of model (development), stage for proto type only, (and) no budget for another stage, for deployment project beneficiaries."*

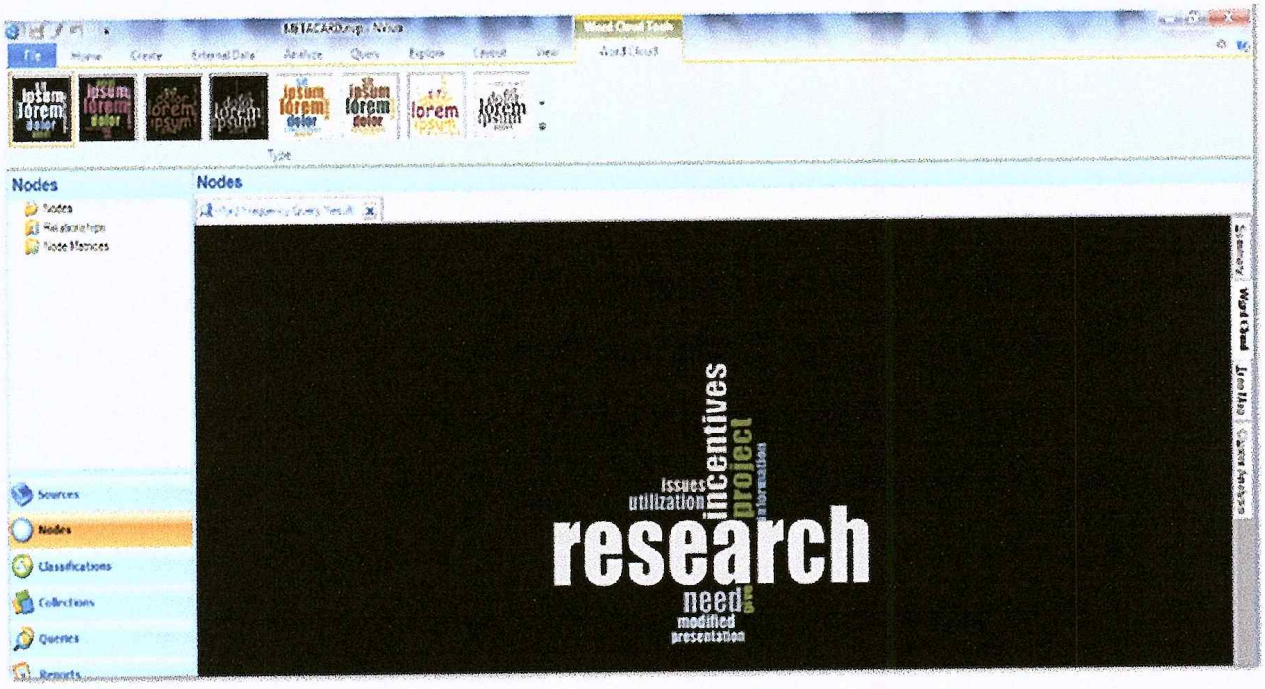

Figure 3. World Cloud on General Problems, Issues and Concerns

Another participant said:

"Our research project as I have noticed, the moment we submitted the terminal report that's it. It always end up on that stage, my problem is I always ask myself what happened to my research? so there is a lack of motivation on my part to continue on to the utilization aspect considering that I received no feedback from the management and they are not encouraging us anymore to on what to do next... in that case it dies in a natural death.... I am looking forward, I want to I have a project, I want this one to be deployed, to be commercialized and to be transferred, but then again I don't have the capability to do that one alone. "

Summary, Conclusion and Recommendation

The overall objective of this study was to enhance the levels of research output utilization of SSU by determining the levels of utilization and its association to the research profile anchored on the determining the problems, issues and concerns of the respondents along research utilization.

To address the objectives laid out in Chapter 1, we developed a set of hypotheses to test the research profile over their level of research output utilization. And also try to capture their sentiments in pursuing higher utilization of their researches.

Only four research profiles was determined to have association to the different levels of research utilizations: age, length of service, number of paper

with utility model registered and, number of patent registration. This indicates that the observed values as viewed in Table 6 are dependent to the levels of research utilization. This means that the utilization of research output is decreased as the length of services increases. Perhaps this may be inferred to the lack of motivation among those faculties that have aged in the University considering that the association on the special designation resulted to a null hypotheses. While this proposition stands, it is worth mentioning that the need for training and technical capability enhancement surfaced in the survey and focused group discussion. Re-tooling may be more appropriate for the older counterpart and capability building for the younger counterpart.

Moreover, the low number of completed research and its utilization may likewise be attributed to the lack of technical writing capacity and low of confidence in presentations. Furthermore, the very low uptake in patent and utility model registration is being attributed on the grounds that such level of utilization is highly technical and also boils down to the skills capability of the respondent.

Time is a critical factor in research. One way to accelerate research utilization is by regulating the assigning of regular and extra loads among faculty. It has been found out that number of teaching load as viewed in Table 7 are dependent to the levels of research utilization. This means that the utilization of research output is decreased as the number of teaching load increases.

On the sex or gender and type of research as mentioned shows association on the levels of utilization however determining the proportion how many female or male is dependent to level 0, 1, 2,3,4 and 5 requires another statistical tool. The same is true to the category on the type of research.

The foregoing suggests that while university policy on incentive and benefits of higher utilization is explicitly provided. There is a need to provide more funds to increase utilization of socio-cultural researches leading to publication in Thompson Rueters' indexed journals and eventually be cited by top authors in the fields. There is also a need to re-visit technologies that are funded considering potential commercialization. Financing the commercialization of the registered technologies needs to be considered. Strategies that may improve industry utilization of these registered technologies be explored. Lastly, providing ample time to researchers in the conduct of their research project may lead to better utilization of projects.

Chapter 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of findings, conclusions and recommendations of the study which can provide bases for the enhancement of the research output utilization of the university.

Summary of Findings

From the data collected, analyzed and interpreted, the following are the salient findings of the study:

1. **Profile of SSU researches from 2010-2014**

   1.1 The research category within the study period (2010-2014) was evenly distributed to 65 researches under socio-cultural and another 65 researches under technology, engineering and science.

   1.2 Among the research type, institutional researches got the highest rank marked at 95 counts or 73 percentile, followed by college-based research type of 30 counts or 23 percentile, and collaborative research of five counts or 4.0 percentile respectively.

   1.3 Most of the researches were internally funded marked at 126 counts or 96 percentile.

   1.4 **Researchers' profile**

1.4.1 Most of the researchers are younger than 47 years old comprising 52.31 percentile among respondents. Female respondents are slightly higher of about 1.00 percent over than their male counterpart showing a result of 33 female and 32 male.

1.4.2 Majority of the respondents are married marked at 56 counts or 86 percentile over the single respondents marked at nine counts only or 14 percentile. Among the married respondents, female marked 29 counts or 51 percentile compared to male counterpart marked at 27 counts or 49 percentile.

1.4.3 Among the educational background of the respondents, the highest rank of 58.00 percent belongs to the master's degree holder and the lowest rank of 8.00 percent belonging to the baccalaureate degree holder. The second rank of 34.0 percent belongs to doctoral degree holder.

Predominant choice of course is science related under baccalaureate degree marked at 90.8 percent and only 9.20 percent for non-science related courses.

From the total 65 respondents 60 of them pursued master's degree where their predominant choice of course is science related marked at 53.00 percent.

Among the total 59 science related baccalaureate degree holder only 32 of them opted to pursue science related master's degree courses while the other 27 chose non-science related master's degree.

Among the total master's degree holders, only 22 of them pursued doctoral degree. And among the doctoral degree holder, only one opted to choose science related course and 21 of them took up non-science doctoral degree courses.

There were only two non-academic personnel, out of 65 respondents who conducted research during the study period, one male and one female.

1.4.4 Seventy-three and 84.00 percent among the respondents have a family size of not more than five members.

1.4.5 On the population size, the Instructors posted as the highest rank of 40 percentile while the lowest is 9.2 percentile or six counts for professorial rank. Assistant Professor marked second with 38 percentile followed by Associate Professor marked at 10.8 percentile.

1.4.6 On the population size, only about 15 percentile higher among the respondents had no local designation.

1.4.7 Majority among the respondents have seven and below length of service posted as the highest percentile of 21.54

percent or 14 counts while the lowest percentile is 3.08 belonging to those 38-42 years of service.

1.4.8 About 57.00 percent among the respondents have a teaching load of more than 21 units.

1.4.9 About 34 percent among the respondents have more than five preparations. And there were 43 faculty researchers or 66 percentile among the respondents handle 21 hours and more in a week's time.

There were 53 faculty researchers or 82.00 percent among the respondents having an average of 12.45 hours extra load.

There were about 47.00 percent among the respondent who works below the required 40 hours a week and that only about six percent renders within the bracket of 37-42 hours a week.

There were about 43.00 percent among the respondent renders regular time for administrative work while 13.00 percent among them renders administrative work on overtime.

Majority among the respondents' time was consumed in regular and extra load in teaching with 92.00 percent

marked for regular teaching hours while 87.00 percent was allotted for extra load teaching.

Only 51.00 percent among the respondents allotted time for research activity with one to five hours a week.

Only 11.00 percent among the respondents extended beyond the regular hours to accommodate research work.

Only 43.00 percent among the respondents allocated time for extension activity. And only 5.00 percent among them conducted overtime extension work.

1.4.10 Majority among the respondents started to engage in research in 2010 and onwards.

1.4.11 There was about 12.30 percent among the respondents who have not attended trainings relative to their field of specialization. And only about 13.85 percent among the respondents who have not attended research related trainings/seminars.

1.4.12 Majority among the respondents have only one professional affiliation marked at 44.62 percentile or 29 counts. And Majority among the respondents have zero non-professional affiliation marked at 84.61 percentile of 55 counts.

2. **As to the levels of research output utilization of Samar State University from 2010-2014 pertaining to:**

2.1 There was about 25.00 percent of the research conducted were not utilized.

Majority of the research utilization fell on level 1 which is on dissemination/promotion/presentation marked at 42 percentile.

Predominant in level 1 is local presentation and classroom discussion as the highest form of venue where the output was disseminated/presented/promoted.

2.2 Second to the research utilization fell on level 2 which is publication.

Predominant in level 2 utilizations belonged to local publication pegged at 46 counts belonging to journal no indexing followed by national publication 11 with journal no indexing and utility model registration respectively. And thirdly, international publication of journal not ISI pegged at 10 counts.

2.3 Level 3 pegged at 15 percentile in level of utilization. These pertained to research outputs used in the policy formulation/technology adaptation. Researches intended for policy use with six counts marked as the highest rank, while in the technology adaptation five ranked as the highest percentile for technology adapted by the university.

2.4 For level 4 which is citation only 2.00 percent of the researches conducted were cited one in local ISI journal and the other is international ISI journal within the study period.

2.5 For level 5 which is commercialization got the lowest percentile of among the levels of utilization marked at 0.80 percent only.

3. **As to determining the significant relationships between research output utilization and to the characteristics of researches:**

3.1 The following are the predictors of research output utilization: age, teaching load, length of service and types of research showing a result of strong dependency as shown in Table 15.

3.2 There is no significant association between research category, funding, civil status, educational background, family size, academic rank/position, local designation, number of preparation, year when respondents started research and organizational affiliations as to the levels of research utilization.

4. **As to the perceived issues and concerns of the researches toward research utilization:**

Perceived organizational problems, issues and concerns among the respondents were as follows: weak structural support ranked 1st; poor system ranked 2nd; no/lack of incentive ranked 3rd; and others ranked 4th.

Perceived work-related problems, issues and concerns among the respondents were as follows: overload ranked 1st; needs training ranked 2nd and special designation took my time ranked 3rd.

Perceived readiness/capability problems, issues and concern among respondents were: lack of technical capability ranked 1st; needs further

training ranked 2nd; not confident in pursuing utilization ranked 3rd; and lastly others.

Perceived behavioral problems, issues and concern among the respondents were: lacks of motivation ranked 1st; lack appreciation of doing R&D ranked 2nd; and not interested ranked 3rd.

Perceived personal/family problems, issues and concerns among the respondents were: financial incapability ranked 1st; busy with family concerns ranked 2nd; and lastly health reasons ranked 3rd.

5. **As to policy that may be introduced to address level of utilization of the Samar State University research outputs**

Generally, issues on funding along project duration and lack of fund allocation to developmental projects, technical writing abilities, poor procurement system, level of confidence in conducting research, subject loading and family time were among the identified factors that affect in the levels of utilization.

Conclusions

In the light of the findings arrived at in this study, the following conclusions were drawn:

1. The following are the predictors of research utilization: research category did not hamper the level of research output utilization.

2. There was a very limited out-sourced funded researches being conducted.

3. The dominance of younger faculty researcher (aged 47 and below) among their other counterpart showed a positive sign for sustained research endeavor.

4. It was noted that as the science related course graduates pursued higher educational attainment many among them opted to transfer to non-science related courses such that only one among the 59 science related course graduate finished a science related doctoral course.

5. Conversely, the trend on non-science related courses tend to increase overtime as the respondents pursed higher education.

6. There was a poor involvement among non-teaching personnel in conducting research.

7. The involvement of Instructor on research may be influenced on the ground of getting a permanent position and the clearance policy.

8. High participation rate among respondents with seven years and below tenure in service maybe influenced by the clearance policy and of getting a permanent position among the new entrants.

9. There is a need to institutionalize a regular research activity monitoring among the colleges/campuses in their actual conduct of research.

10. The respondent needs to be sent to relevant trainings on R&D and skills development. Further, specialized trainings and intervention are also needed to address respondents with 18-22 and 38-42 brackets on length of service.

11. The low on paper presentation maybe attributed to the fact that most of the researchers are Instructors and some of them are new. Thus, the confidence level may be still low. However, the low in presentation may also be attributed to the lack of confidence as shown in result of the Invivo due to lack of technical writing capability.

12. Increase in research participation between 2010 to 2012 may be attributed to clearance and incentive policy.

13. The very low uptake in patent and utility model registration was attributed to lack of technical/skills capability among the respondents.

14. The very low uptake in commercialization is attributed to prototype and lab scale development of project where pilot testing and higher funding requirement is necessary as perceived by the Engineering researchers.

Recommendations

1. There is a need to provide more funds to increase utilization of socio-cultural researches leading to publication in Thompson Rueters' indexed journals and eventually be cited by top authors in the fields.

2. There is a need to re-visit technologies that are funded considering potential commercialization. Financing the commercialization of the registered

technologies need to be considered. Strategies that may improve industry utilization of these registered technologies be explored.

3. There is a need to re-visit faculty loading to balance researchers' time in the conduct of their research projects which may lead to better utilization of projects.

4. There is a need to structure and institutionalize different avenues to support the different levels of research output utilization.

5. There must be continuous capability enhancement among the researchers both in their field of specialization and research.

B I B L I O G R A P H Y

_____. *Administration and governance of higher education in Asia patterns and implications.* Philippines: Publication Stock No. RPS124842 All rights reserved, May 2012 ISBN 978-92-9092-762-4.

Artwell, P. (1992). Technology diffusion and organizational learning: The case of business computing. *Organization Science, 3*(1).

Albert, M. A., Fretheim, A., & Maiga, D. Factors influencing the utilization of research findings by health policy-makers in a developing country: The selection of Mali's essential medicines. *National Center for Biotechnology Information.*

Alcala, A. C., Padua, R. N. & Lachica, O. D. Evaluation of the national higher education research agenda 1: 1997-2008 and NHERA 2 responses. *CHED PPT.*

Araya, D. (2015). *Rethinking US education policy paradigms of the knowledge economy*. 1st edition. New York, US: St. Martin's Press.

Beyer, J. M. & Tice, H.M. The utilization process: A conceptual framework and synthesis of empirical findings. *Administrative Science.* Cornwell University.

Cororato, C. (1999). Study on public and private expenditures on R&D: An integrative report. *Philippine Institute for Development Studies.*

Coyle, P., Gibb, A. & Haskins G. (2013). The Entrepreneurial University: From conception to action. *The National Centre for Entrepreneurial in Education.*

Dobbins, M., Ciliska, D., Cockerill, R., Bamsley, J. & Dicenso A. A framework for the dissemination and utilization of research for health-care policy and practice. *National Centre for Biotechnology Information.*

Dunn, S., Creibton, N., Roe, B., Seers, K., & Williams, K. (1998). Using research for practice: A UK experience of a barrier scale. *Journal of Advance Nursing,* 26(6).

George, P., Jolly, A. J., & Cregihton, W. J. (1978). The linkers contribution to technology transfer. *The Journal of Technology Transfer,* 3(1).

Goodall, A. H. (2010). Why Socrates should be in the boardroom in research universities. *Leverhulme Fellow.*

Gomba, F. F. & Pacolor, E. T. (2014). Transforming research and development culture from a tech-vocational based institution to a research university: Samar State University, Philippines case. *The Countryside Development Research Journal*, 2(2).

Gowan-Moody, D. (2010). Research perceptions and utilization among massage therapists in Saskatchewan, Canada.

Hemsley-Brown, J.V. (2004). Facilitating research utilization: A cross sector review of the research evidence. *International Journal of Public Sector Management, 17(*6).

Hemsley-Brown, J.V. & Oplatka, I. (2005). Bridging the research-practice gap: Barriers & facilitators to research use among school principals from England and Israel. *International Journal of Public Sector Management*, 18(5).

http://krex.kstate.edu/dspace/bitstream/handle/2097/505/ChandraMohanReddyMetla2007.pdf?sequence=1&isAllowed=y

http://www.ched.gov.ph/wp-content/uploads/2013/07/CMO-No.52-s2007.pdf

http://www.ovcrd.upd.edu.ph/wp-content/uploads/2012/04/1.-Faculty-Manual-Interim-Edition-2011.pdf

Huang, M. H. (2011). A comparison of three major academic ranking for world university from a research evaluation perspective. *Journal of Library and Information Studies,* 9(1).

Kenway, J., Bullen E., & Robb, S. (2004). The Knowledge economy, the techno-preneur and the problematic future of the university. *Policy Futures in Education,* 2(2).

Landry, R., Amara, N. & Lamari, M. (2001). Climbing the ladder of research utilization. *Science Communication,* 22(4).

National Higher Education Research Agenda-2 2009-2008 (2009). Republic of the Philippines, Office of the President, Commission on Higher Education (CHED).

National Statistic Coordinating Board 2012, Highlight of the 2012 Full Year Official Poverty Statistics. Retrieved at: www.nscb.gov.ph/poverty/2012/highlights_fullyear.asp

Nordflors, D., Sandred, J., & Wessner, C. Commercialization of Academic Research Results. *VINNOVA Verket for Innovations System: Swedish Agency for Innovation Systems.* ISBN 91-89588-94-0

Oduwaiye, R.O., Owolabi, H.O., & Onosanya, S.A. (2009, August 20). *Research dissemination, utilization and commercialization by academic staff of a Nigerian University.* Paper presented at HERPNET-KIU International Conference on Research in African Higher Education for Sustainable Development Kampala.

Rhoades, S. & Slaughter, S. (2004). Academic capitalism and the new economy market, state and higher education. *The John Hopkins University Press*.

Rogers, E. M. (2003). *Diffusion of innovations.* 5th edition. New York, NY 10020: Fress Press. A Division of Simon & Schuster, Inc. 1230 Avenue of the Americans.

Weinberg, G. The haclet. *The George Washington University*, 112.

Weiss, C. (1979). The many meanings of research utilization. *Public Administration Review,* 39(5). Retrieved at http://www.jstor.org/stable/3109916.

World Intellectual Property Organization (WIPO) Global Innovation Index 2011-2014- National Competitiveness Councils Philippines. Retrieved at: www.competitive.org.ph/ranking/wipo-global

www.openthesis.org/documents/Researc-utilization-registered-nurses-in-372669.html.

www.dissertations.wsu.edu/thesis/spring2006/h_schoonover_033106.pdf

APPENDICES

APPENDIX A

Request for Final Oral Defense

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

January 27, 2016

MARILYN D. CARDOSO, Ph.D.
Dean, CGS/VP Academic Affairs
Samar State University
Catbalogan City

Madam:

The undersigned respectfully apply for her thesis Pre-Oral Defense titled "The Levels of Research Output Utilization of Samar State University" on the date convenient to your office.

Thank you very much.

Yours truly,

MARIA RUBI M. PARROCHO
MPM Student

Recommending Approval:

FELISA E. GOMBA, Ph. D.
Adviser

APPROVED:

MARILYN D. CARDOSO, Ph.D.
Vice President Academic Affairs/
Dean, College of Graduate Studies

Date of Oral Defense: February 21, 2016
Time: 4:00 PM

APPENDIX B

Request for Final Oral Defense

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

February 28, 2016

MARILYN D. CARDOSO, Ph. D.
Vice President for Academic Affairs/
Dean, College of Graduate Studies
Samar State University
Catbalogan City

Madam:

The undersigned respectfully apply for her Final Oral Defense of her thesis titled "The Levels of Research Output Utilization of Samar State University" on the date most convenient to your office.

Thank you very much.

Very truly yours,

MARIA RUBI M. PARROCHO
MPM Student

Recommending Approval:

FELISA E. GOMBA, Ph. D.
Adviser

APPROVED:

MARILYN D. CARDOSO, Ph.D.
Vice President for Academic Affairs/
Dean, College of Graduate Studies

Date of oral Defense: March 4, 2016
Time: 2:00 PM

APPENDIX C

Letter Request to Access the Personal Data Sheet of the Faculty Researchers

Republic of the Philippines
SAMAR STATE UNIVERSITY
College of Arts and Sciences
Catbalogan City

February 10, 2016

MS. EVELYN D. ABAIGAR
Head, Human Resource and Management Office
This University

Dear Ms. Abaigar:

Greetings!

The undersigned is currently conducting a research study titled *"The Levels of Research Output Utilization of Samar State University"*.

In view hereto, the undersigned respectfully ask permission from your good office to be allowed to have access of the identified faculty researchers from 2010-2014 on their personal records particularly: trainings attended, organizations affiliations, length of service in the university, educational background and their specialization.

It is with full understanding that these data will be treated with outmost confidentiality as part of research ethics. Attach are the lists of faculty researchers who was identified as respondents of this undertakings.

Thank you very much for your usual support.

Sincerely yours,

NECASIO D. ABUDA
Researcher

Noted:

MARILYN D. CARDOSO, Ph.D.
Vice President for Academic Affairs

Approved:

EUSEBIO T. PACOLOR, Ph.D.
University President

APPENDIX D

THE LEVELS OF RESEARCH OUTPUT UTILIZATION OF SAMAR STATE UNIVERSITY

Questionnaire

FOR SCIENCE/TECHNOLOGY & ENGINEERING RESEARCHES

A. Research Profile

Name of Respondent: _____

Sex: _____ Age: _____ Civil Status _____ Family Size _____ Length of service_____

Membership in organization:

Name of Professional Scientific Organizations	Name of Other Organizations
i.e. Philippine Institute of Chemical Engineers	i.e. Ladies of Charity, PTA/GPTA,

Educational background: Baccalaureate BS ☐ BA ☐ Specialization:_____

Masters Science ☐ Non-Science ☐ Specialization: _____

Ph. D. Science ☐ Philosophy ☐ Others: _____

Academic Rank/Position: _____ Local designation: _ _____

Local designation: _____ Teaching load: _____ No. of preparation_____

Year started in conducting research: _____

Time allotted per week (40hrs/week) on the following functions:

_____Admin duties _____ Classes _____ Research _____Extension

(Including lecture preparations & other class activities)

_____Local Designation

Subjects handled: ☐ socio-cultural inclined ☐ technology/engineering/science inclined

☐ Both % of time allotted to _____ socio cultural inclined subjects

% of time allotted to _____ tech/eng'g/science inclined subjects

Total number of completed researches: _____	No. of Technology, Engineering, or Science related: _____	No. of science related researches: _____

Total no. of papers presented: _____ Number of papers w/ Utility Model registered _____

Total no. of papers published: _____ Number of paper w/ Patent registration _____

Research Related Trainings/Seminars Attended:

Title of Training/Seminars Attended	Inclusive Dates Conducted	Host/Venue

Title of the study:_____

The foregoing questions pertains to the above study

Research Type:	☐ 1. College based	☐ 2. Institutional	☐ 3. Collaborative ***with internal partners***
Research Funding:	☐ 1. Internal	☐ 2. External	
Research Category:	☐ 1. Socio-Cultural Research	☐ 2. Development or Technology Research	

1. Levels of Research Output Utilization of Technology/Development Research

2.1	☐ **Level 0 no action done after project completion**			
2.2	☐ **Level 1 Promotion/Dissemination/Technology Diffusion**			
2.2.1	☐ Classroom discussion/lecture			
	☐ Presentation			
2.2.2	☐ **Local** Conference/Activity Title:			
		Date:	Organizer:	Venue:
2.2.3	☐ **Regional** Conference/Activity Title:			
		Date:	Organizer:	Venue:
2.2.4	☐ **National** Conference/Activity Title:			
		Date:	Organizer:	Venue:
2.2.5	☐ **International** Conference/Activity Title:			
		Date:	Organizer:	Venue:

2.2.2	☐ Skills training				
	☐ In-campus	☐ Barangay level	☐ Municipal	☐ Inter-agency	
2.3 ☐	**Level 2 Publication/UM/Patent Registration**				
2.3.1 ☐	**Book/Journal Publication**				
2.3.1.1 ☐	**Local** Title of the Book/Journal:				
	☐ Book	☐ Journal	ISI# Vol. _____issue____	Non ISI# Vol. ___issue____	
	☐ Flyers/leaflet	☐ Pamphlete			
2.3.1.2 ☐	**National** Title of the Book/Journal:				
	☐ Book	☐ Journal	ISI# Vol. _____issue____	Non ISI# Vol. ___issue____	
	☐ Flyers/leaflet	☐ Pamphlete			
2.3.1.3 ☐	**International** Title of the Book/Journal:				
	☐ Book	☐ Journal	ISI# Vol. _____issue____	Non ISI# Vol. ___issue____	
	☐ Flyers/leaflet	☐ Pamphlete			
2.3.2 ☐	**Patent or Utility Model Registration**				
	☐ UM Registration No. _____		Date:		
	☐ Patent Reg. No. _____ ☐ w/in Phils ☐ International		Date:		
2.5	**Level 4 Citation**				
	☐ Local	☐ ISI	☐ Non-ISI	☐ Non index	☐ No idea
	☐ Regional	☐ ISI	☐ Non-ISI	☐ Non index	☐ No idea
	☐ National	☐ ISI	☐ Non-ISI	☐ Non index	☐ No idea
	☐ International	☐ ISI	☐ Non-ISI	☐ Non index	☐ No idea
2.3.3 ☐	**Part of prior art document of other patent/cited in a publication** **Patent title: _____ Reg. No. _____ Date: _____**				
2.4 ☐	**Level 3 Policy formulation**				
	Intended use:		Implementing Agency:		
	☐ SSU	☐ Local	☐ Regional	☐ National	
2.6 ☐	**Level 5 Commercialization (book selling, copyright, i.e.)**				
	Income generated				
	☐ Less 1k /year	☐ Active	☐ Regular	☐ Not regular	☐ Not active
	☐ More than 1k but less than 10k / year	☐ Active	☐ Regular	☐ Not regular	☐ Not active
	☐ More than 10k but less than 50k	☐ Active	☐ Regular	☐ Not regular	☐ Not active
	☐ Above 50k	☐ Active	☐ Not active		☐ Not active

		☐ Regular	☐ Not regular	

2. What are the problems, issues, and concerns you encountered in utilizing your research output?

☐ Organizational
1.
2.
3.
4.
5.

☐ Work related
1.
2.
3.
4.
5.

☐ Readiness/Capability
1.
2.
3.
4.
5.

☐ Behavioral
1.
2.
3.
4.
5.

☐ Personal/Family related
1.
2.
3.
4.

MARAMING SALAMAT

APPENDIX E

THE LEVELS OF RESEARCH OUTPUT UTILIZATION OF SAMAR STATE UNIVERSITY
Questionnaire

FOR SOCIO-CULTURAL RESEARCHES
(SOCIAL SCIENCES/EDUCATION/ECONOMICS/HEALTH/AGRICULTURE)

Part I

A. Researcher Profile

Name of Respondent: _____

Sex: _____ Age: _____ Civil Status _____ Family Size _____ Length of service_____

Membership in organization:

Name of Professional Scientific Organizations	Name of Other Organizations
(i.e. Philippine Institute of Chemical Engineering)	*(i.e. Ladies of Charity, Rotary Club)*

Educational background:

Baccalaureate ☐ BS ☐ BA Specialization: _____

Masters ☐ Science ☐ Non-Science Specialization: _____

Ph. D. ☐ Science ☐ Philosophy ☐ Others: _____

Specialization: _____

Academic Rank/Position: _____ Local designation: _ _____
Teaching load (unit): _____ No. of preparation _____Year started in conducting research _____
(including overtime/extra hours per week)

Total number of allotted hours per week including Saturdays and Sundays _____hours as distributed as follows:

Admin duties	Classes*(Including lecture preparations & other class activities)*	Research	Extension
_____Regular	_____ Regular	_____ Regular	_____ Regular
_____Overtime	_____ Overtime	_____ Overtime	_____ Overtime

Subjects handled: ☐ socio-cultural inclined ☐ technology/engineering/science inclined

☐ Both % of time allotted to _____ socio cultural inclined subjects

% of time allotted to _____ tech/eng'g/science inclined subjects

Total number of completed researches: _____

No. of Technology, Engineering, or Science related: _____

No. of socio-cultural related researches: _____

Total no. of papers presented: _____ Number of papers w/ Utility Model registered _____
Total no. of papers published: _____ Number of paper w/ Patent registration _____

Research Related Trainings/Seminars Attended:

Title of Training/Seminars Attended (*i.e. research writeshop, scientific conventions, R&D In-house Reviews, Contests & Exhibits, etc.)*	Inclusive Dates Conducted	Host/Venue

B. Research Profile

You were specifically choosen to fill-up this questionnaire because your research project was conducted within the study period years 2010-2014. This part of the questionnaire (Part B Research Profile) will be filled-up per research study that you have completed.

Title of the study:_____

Research Type:	☐ 1. College based	☐ 2. Institutional	☐ 3. Collaborative *with internal partners*
Research Funding:	☐ 1. Internal	☐ 2. External	
Research Category:	☐ 3. Socio-Cultural Research	☐ 4. Development or Technology Research	

3. Levels of Research Output Utilization of Socio-cultural Research

2.1	☐ **Level 0 : no action done after project completion**			
2.2	☐ **Level 1 : Dissemination/Promotion/Presentation**			
2.2.1	☐ **Classroom discussion/lecture**			
2.2.2	☐ **Presentation** _____ **Total number of venues where this paper was presented**			
2.2.2.1	☐ **Local** Conference/Activity Title:			
		Date:	Organizer:	Venues:
2.2.2.2	☐ **Regional** Conference/Activity Title:			
		Date:	Organizer:	Venue:
2.2.2.3	☐ **National** Conference/Activity Title:			
		Date:	Organizer:	Venue:

2.2.2.4	☐	**International** Conference/Activity Title:			
		Date:	Organizer:	Venue:	
2.3	☐	**Level 2 : Publication** _____**Total Number of publication this paper was published** ***(Note: ISI means indexed in institute of science information such as thompson rueters. Non ISI are those online journals but not included in the ISI. Non indexed journals are those that are not available online.)***			
2.3.1	☐	**Local** Title of the Book/Journal:			
		☐ Journal	☐ ISI vol__issue__	☐ Not ISI Vol. ___issue____	☐ No indexing
		☐ Book	☐ Pamphlete	☐ Leaflets/flyers	
2.3.1.1	☐	**National** Title of the Book/Journal:			
		☐ Journal	☐ ISI vol__issue__	☐ Not ISI Vol. ___issue__	☐ No indexing
		☐ Book	☐ Pamphlete	☐ Leaflets/flyers	
2.3.1.2	☐	**International** Title of the Book/Journal:			
		☐ Journal	☐ ISI vol__issue__	☐ Not ISI Vol. ___issue__	☐ No indexing
		☐ Book	☐ Pamphlete	☐ Leaflets/flyers	
2.4	☐	**Level 3 :Policy formulation**			
		Intended use:			
		☐ SSU	☐ Local	☐ Regional	☐ National
		Agecies implemting the policy:			
2.5	☐	**Level 4 :Citation**			
		☐ Local	☐ ISI	☐ Non-ISI	☐ Non indexed ☐ No idea
		☐ Regional	☐ ISI	☐ Non-ISI	☐ Non indexed ☐ No idea
		☐ National	☐ ISI	☐ Non-ISI	☐ Non indexed ☐ No idea
		☐ International	☐ ISI	☐ Non-ISI	☐ Non indexed ☐ No idea
2.6	☐	**Level 5 Commercialization (book selling, copyright, i.e.)**			
		Net Income generated:			
		☐ Less 1k /year	☐ Active ☐ Regular ☐ Not regular		☐ Not active
		☐ More than 1k but less than 10k / year	☐ Active ☐ Regular ☐ Not regular		☐ Not active
		☐ More than 10k but less than 50k	☐ Active ☐ Regular ☐ Not regular		☐ Not active
		☐ Above 50k	☐ Active ☐ Regular	☐ Not active ☐ Not regular	☐ Not active

4. What are the problems, issues, and concerns you encountered in utilizing your research output?

Organizational

_____1. Weak structural support
_____ 2. No/Lack of incentive
_____3. Poor system

Others pls specify: _____
_____

Work related

_____1. Overload (not by choice) Others pls specify: _____
_____ 2. Special designation took my time _____
_____3. Needs training

Readiness/Capability

_____1. Lack of technical capability Others pls specify: _____
_____ 2. Not confident in pursuing utilization _____
_____3. Needs further training

Behavioral

_____1. Not interested Others pls specify: _____
_____ 2. Lacks motivation _____
_____3. Lack appreciation of doing R&D

Personal/Family related

_____1. Financial incapability Others pls specify: _____
_____ 2. Busy with family concerns _____
_____3. Health reasons

MARAMING SALAMAT PO.

APPENDIX F

THE LEVELS OF RESEARCH OUTPUT UTILIZATION OF SAMAR STATE UNIVERSITY

Focus Group Discussion Guide

In a focus group discussion participated in by some faculty-researchers, they pointed out some problems, issues, and concerns within the organization along research output utilization. Lack of funding for project utilization and the time allotment for the study were the major concerns they shared as gleaned in Figure _____. Some faculty-researchers who are conducting science and technology projects shared that funding plays a big factor in the utilization and commercialization phase. They even pointed out that project duration should be greatly considered to come up with quality output.

The following statements were shared by the faculty-researchers…

_____

_____

_____

_____

Figure 4 shows the word cloud on the behavioral problems, issues, and concerns the faculty-researchers experienced along research output utilization. They shared that the primary problem they experienced was the lack of motivation from the concerned University administrators and personnel. With this, they further shared that it lessened their self-confidence in conducting research projects. Also, they observed that follow up is needed and must be observed.

A sharing from one of the faculty-researchers:

> _____
>
> _____
>
> _____

As gleaned in Figure 5, it presents the personal issues and concerns the faculty-researchers experienced. Lack of time to family obligations is one of the primary issues they shared. Because of their research projects, their time for their families is greatly affected. Sometimes this issue on family time is the cause of marital arguments.

Another personal issue they shared was on their writing abilities. They further shared that they need training on technical writing. They added that subject loading and subject preparation must be considered.

A sharing from one of the faculty-researchers:

_____

_____

_____

Generally, issues on funding, incentives, technical writing abilities, level of confidence in conducting research, subject loading, and family time were shared by the faculty-researchers during the focus group discussion.

In the words of one faculty-researcher:

_____

_____

_____

Another participant said:

_____

_____

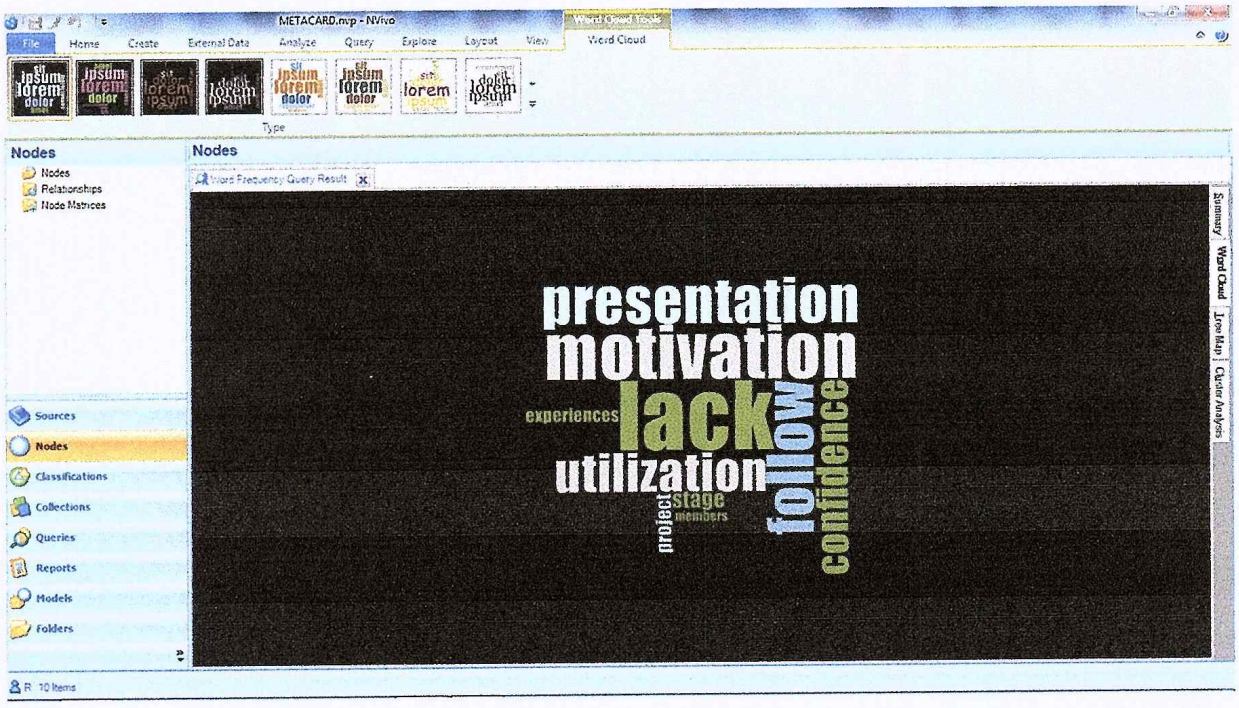

Figure _____. Word Cloud on Organizational Problems, Issues, and Concerns

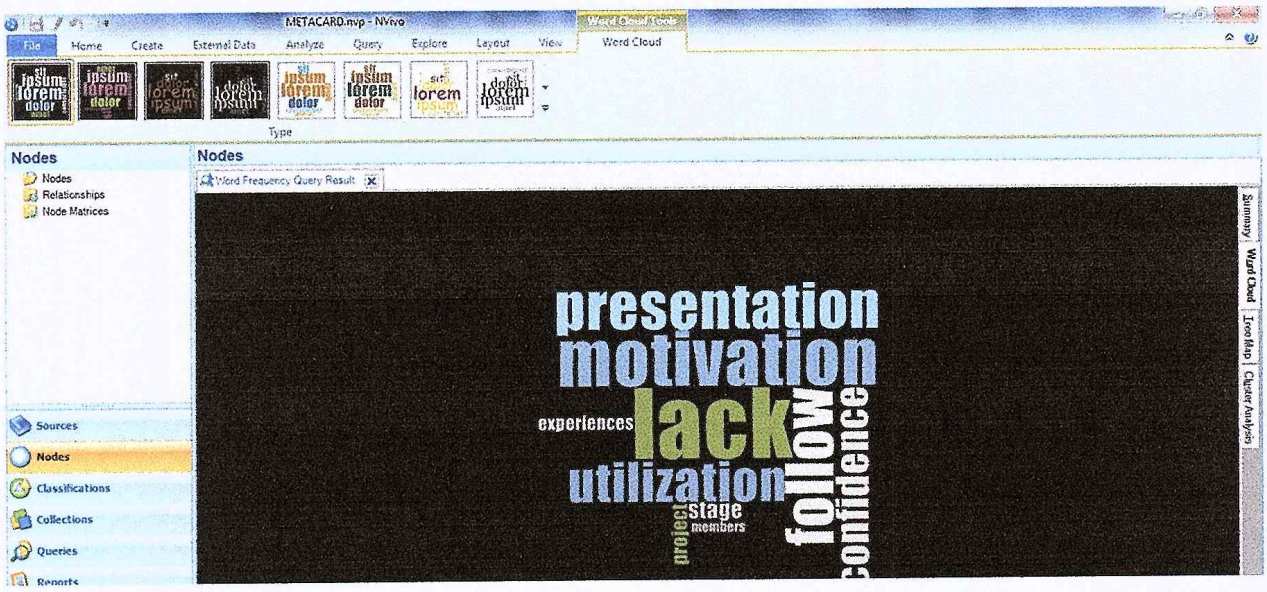

Figure _____. Word Cloud on Behavioral Problems, Issues, and Concerns

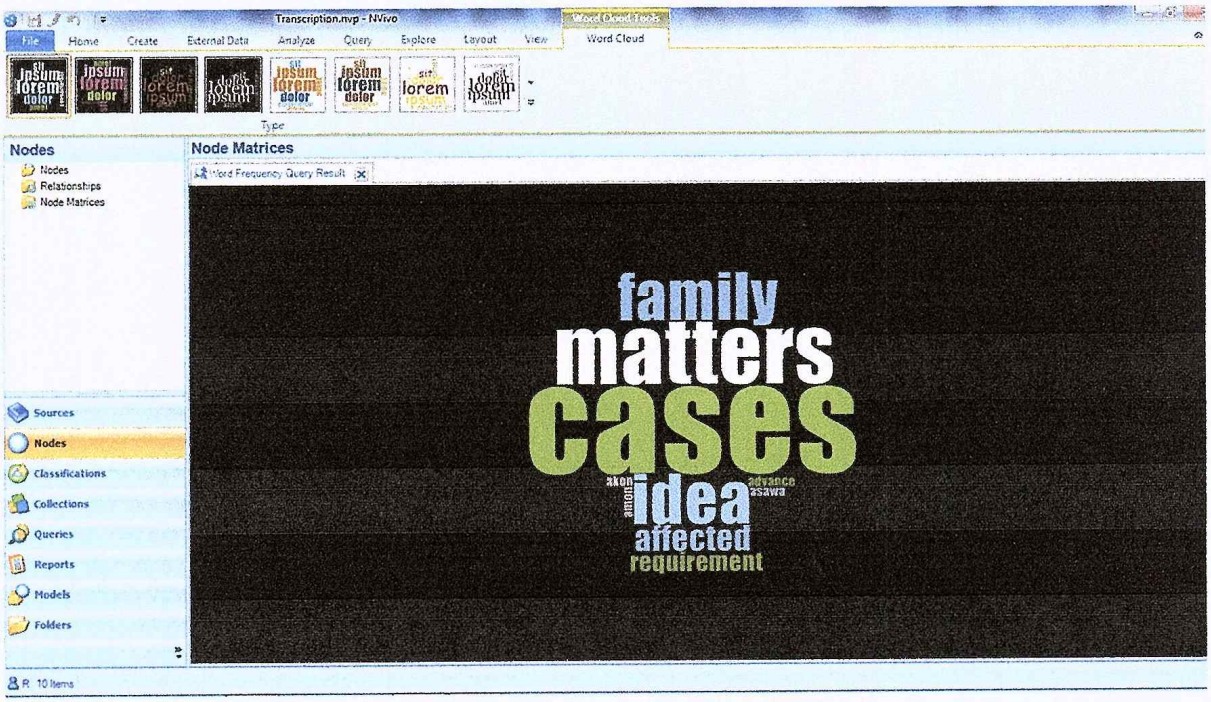

Figure _____. Word Cloud on Personal or Family Issues and Concerns

C U R R I C U L U M V I T A E

CURRICULUM VITAE

Name	:	MARIA RUBI M. PARROCHO
Address	:	117 5th Street, Barangay 11, Catbalogan City, Samar
Date of Birth	:	December 9, 1966
Place of Birth	:	Catbalogan City, Samar
Civil Status	:	Married
Wife	:	Virgilio Pacheco Parrocho
Children	:	Michael Shan, Kristia Marice, Hanna Mae, Mark Paolo, Matthew Alexie, Marc Gabriel, Ma. Angelica, Johanna Marie, Merci Dione
Father	:	Teodoro Velarde Macalalad
Mother	:	Julia Cerdeña Macalalad
Brothers	:	Wilfred, Nestor, Renato, Raul and Alex
Sisters	:	Nadia and Olive

EDUCATIONAL BACKGROUND

Elementary	:	Catbalogan III Central Elementary School, Brgy.10, Catbalogan City, Samar 1973 to 1979
Secondary	:	Samar State Polytechnic College 1979 to 1983 2001 to 2004
College	:	Philippine School of Business Administration Catbalogan City 1983 to 1987

Graduate Studies	:	Samar State University, Catbalogan City 2010 to 2016
Degree	:	Master of Public Management
Major	:	Public Management

AWARDS AND DISTINCTIONS

Elementary	:	Achiever, Grades I to V First Honorable Mention, Grade VI

SEMINARS/TRAININGS ATTENDED

Level 2 Cluster 3 Inter-agency RDE Review, July 28, 2015

Training Workshop on Communication Research Design, June 17, 2015

Seminar Writeshop on Data Mining & Theory Building, October 6, 2014

Seminar Wirteshop on Modelling & Simulation Models, September 10, 2014

Seminar Wirteshop on the Preparation of Scientific Articles for Peer-Reviewed Journal, August 13, 2014

Level 2 Cluster 3 Inter-agency RDE Review, October 27, 2014

Administration of Surveys and FGD with Qualitative Data Analysis, July 14, 2014

Orientation on CHED Memorandum Order No. 13, Series of 2014 "Revised Guidelines for the Implementation of Student Financial Assistance Programs (StuFAPs), May 22, 2014

Higher Education Institutions Product's Fair 2014, May 19, 2014

Level 2 Cluster 3 Inter-agency RDE Review, July 16, 2013

23rd National Convention, April 16, 2013

Understanding Qualitative Research, October 16, 2012

2012 Visayas Cluster Science & Technology Fair & Exhibits, September 24, 2012

Inter-agency Research & Development/Extension Review for Cluster 3, June 14, 2012

Data Analysis Workshop using Computer Software, February 10, 2011

Data Encoding Seminar, November 23, 2010

Research Team-Workshop on CHED GIA Funded Project, September 30, 2010

Disaster Risk Reduction Training, August 26, 2008

Child Protection Training, May 27, 2008

Gender Sensitivity and Analysis Training, June 17, 2006

Business Planning, May 18, 2006

Deepening the Anchors of Your Personal Life, November 19, 2004

Orientation/Re-orientation Seminar Workshop on Cooperative Development, October 20, 2003

DISOP Partners Entrepreneurship Workshop, March 16, 2004

Career Workshop, October 20, 2003

Computer Training I, August 6, 2003

Personal Efficacy Training, July 3, 2003

Effective Oral and Written Communication Skills Training, September 3, 2002

Empowering Decision to Change, September 24, 2002

Financial Monitoring and Evaluation Course, November 24, 2002

Information Technology Awareness Seminar, July 17, 2002

Frontline Customer Service, May 16, 2000

Internal Financial and Management Audit, June 24, 1995

Financial Monitoring and Evaluation, February 18, 1995

ELIGIBILITY

Professional Civil Service Examination, July 26, 1992, rating 85.26%

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