Analysis of Scheme Types in the Focus of the Lecturer's Research Area Based on Tri Hita Karana Philosophy

I Ketut Sudiana[1*], I Made Sugiarta[2], Nia Erlina[3] (iD)

1,2,3 Ganesha University of Education, Singaraja, Indonesia

ABSTRAK

Universitas Pendidikan Ganesha mempunyai visi menjadi perguruan tinggi unggul berdasarkan falsafah Tri Hita Karana di Asia pada tahun 2045. Penelitian ini bertujuan untuk menganalisis jenis skema penelitian akademik Undiksha sepanjang tahun 2022 mengenai tujuh fokus penelitian. Jenis penelitian yang dilakukan adalah ex-post facto dengan metode meta-analisis yang menggabungkan berbagai data penelitian civitas akademika Undiksha sepanjang tahun 2022 lalu dirangkum secara kuantitatif. Subyek penelitian ini adalah seluruh dosen dan tenaga fungsional Undiksha. Data faktual publikasi hasil penelitian dosen diperoleh melalui dokumentasi, angket dan wawancara serta FGD. Hasil penelitian menunjukkan bahwa seluruh fokus bidang penelitian yang telah direncanakan dalam Renstra Undiksha periode 2022 – 2026 telah terisi lengkap, dengan penelitian mendominasi pada bidang penelitian pendidikan, sosial humaniora dan seni budaya sebagai fokus unggulan Undiksha. Penelitian ini merupakan penelitian evaluasi dengan jenis penelitian kualitatif. Penelitian ini menerapkan model evaluasi berorientasi tujuan yang dilakukan dalam tiga tahap yaitu merumuskan tujuan, mengklasifikasikan tujuan, merumuskan tujuan secara terukur, menentukan kapan pencapaian tujuan dapat ditunjukkan, memilih dan mengembangkan metode pengukuran yang tepat, mengumpulkan informasi atau data dan menganalogikan data atau informasi secara objektif. Implikasi penelitian ini berpotensi memperkaya khazanah keilmuan tentang bagaimana filsafat lokal, seperti Tri Hita Karana yang mengedepankan keharmonisan hubungan manusia dengan Tuhan, sesama manusia, dan alam, dapat menjadi dasar dalam menentukan skema penelitian.

ABSTRACT

Ganesha University of Education has a vision to become a superior university based on the Tri Hita Karana philosophy in Asia by 2045. This study analyzes the types of Undiksha academic research schemes throughout 2022, focusing on seven research areas. The type of research conducted is ex-post facto with a meta-analysis method that combines various research data from the Undiksha academic community throughout 2022 and then summarized quantitatively. The subjects of this study were all lecturers and functional staff of Undiksha. Factual data on the publication of lecturers' research results were obtained through documentation, questionnaires, interviews, and FGDs. The study results show that all research focus areas planned in the Undiksha Renstra for 2022-2026 have been filled, with research dominating in education, social humanities, and arts and culture as Undiksha's leading focuses. This research is an evaluation research with a qualitative research type. This study applies a goal-oriented evaluation model carried out in three stages: formulating goals, classifying goals, measurably formulating goals, determining when goal achievement can be demonstrated, selecting and developing appropriate measurement methods, collecting information or data, and analogizing data or information objectively. This study's implications can enrich the scientific treasury on how local philosophy, such as Tri Hita Karana, which emphasizes the harmony of human relations with God, fellow humans, and nature, can be the basis for determining research schemes.

1. INTRODUCTION

Higher education aims to brighten the nation's life, advance science and technology by applying human values as well as the sustainable acculturation and empowerment of the Indonesian nation. These

*Corresponding author
E-mail addresses: sudi.ana@undiksha.ac.id (I Ketut Sudiana)

goals are summarized in three national standards for higher education: national standards for education, research and community service. Universities as higher education institutions have an important role in community development both in the fields of science and technology, social or economic (Altintas & Kutlu, 2021; Klofsten et al., 2019; Leal Filho et al., 2019). Higher education institutions are increasingly expected to contribute to regional innovation and economic development through research and service service (Benneworth & Fitjar, 2019; Fonseca & Nieth, 2021; Sonita et al., 2021). Universities are also expected to be able to make breakthroughs by integrating social innovation into their vision and mission to reduce social problems such as sustainable development, inequality, humanitarian crises, and so on (Bayuo et al., 2020; Morawska-Jancelewicz, 2022). The results of research in higher education are directed at developing science and technology whose use or application is expected to have public value to improve community welfare and the nation's competitiveness (Gardner et al., 2021).

The performance of higher education in society must be linked to the support of lecturers at the institution (Gardner et al., 2021)(Syahputra & Soesanti, 2021). Lecturers have a strategic position that determines the achievement of educational goals set by universities (Idris, 2021; Jasińska, 2020). A lecturer has three main duties, namely teaching, research, and serving the community. Regarding the importance of the role of lecturers in advancing higher education in carrying out the duties and obligations of lecturers, it is necessary to carry out evaluation and development in such a way that it is more optimal and relevant to existing needs (Idris, 2021; Rahmat, 2020; Watrianthos et al., 2021). Research and Community Service are included in the higher education dharma which lecturers must carry out every semester. LPPM (learning development and quality assurance institution) as an institution responsible for coordinating research and community service activities, takes the role of monitoring and evaluating the implementation of research and community service (Masnawati et al., 2021; Sari et al., 2020).

LPPM Undiksha plans to become Asia's leading university based on the Tri Hita Karana philosophy in 2045. LPPM Undiksha has the mission of providing dignified education and teaching to produce human resources who are competitive, collaborative and with character; carrying out competitive, collaborative and innovative research for the development and application of science and technology; and carry out competitive, collaborative, accommodating and innovative community service. LPPM Undiksha is aware of the various problems faced by the Indonesian nation, such as various issues related to the Covid-19 pandemic, food security and energy independence, the decline in environmental quality, and the erosion of the nation's integrity and character. , which has an impact on increasing poverty and vulnerability to conflict and natural disasters that Indonesian people still face. So, to realize its vision and mission, as well as contribute to solving the nation's problems, LPPM Undiksha has prepared an Undiksha Research Strategic Plan (Renstra) for the period 2022 – 2026 which is based on the Tri Hita Karana philosophy.

Tri Hita Karana is a concept that is reflected in the way of life of Balinese Hindu society (Adityanandana & Gerber, 2019; Anggana et al., 2022). Tri Hita Karana is a universal concept that grew without being formally mentioned in Balinese holy books for religious references such as the Gita, Veda, or Sarasamuscaya. Tri Hita Karana explains the concept of balance which is realized in parahyangan, pawongan, and palemahan (Solihin & Sumawidari, 2021; Sudama, 2020; Susiani et al., 2022). Parahyangan is the relationship between humans and God; pawongan is the relationship between humans and each other as social creatures; and palemahan is the relationship between humans and their natural environment (Marhaeni et al., 2023; Suminto & Kustiyanti, 2023). Previous research findings reveal that Tri Hita Karana teaches how to establish harmonious relationships with God, fellow humans and the natural environment (Anggana et al., 2022; Pramerta, 2023). Because Tri Hita Karana strengthens the education sector, schools and universities in Bali use Tri Hita Karana as an indicator of this vision. Including Tri Hita Karana in this vision can meet institutional demands, such as learning innovation and developing quality education.

The novelty of this research lies in the integration of local philosophy with academic research development strategies. In contrast to previous research which generally focuses on developing research schemes based on institutional interests or global scientific trends, this research offers a new perspective by utilizing the Tri Hita Karana principles as a basis for determining research focus. This philosophy emphasizes harmony between humans, nature and spirituality, which has not been widely used as a reference in designing scientific research. This approach provides a more holistic and contextual framework, where lecturer research not only aims to advance science, but also makes a real contribution to social, ecological and spiritual balance in society. In addition, this research emphasizes the importance of local relevance in a global context, thereby becoming a pioneer in combining traditional cultural values with modern academic approaches. The Undiksha Research Strategic Plan (Renstra) which was prepared based on the Tri Hita Karana philosophy has 7 (seven) research focus areas. Based on these seven focuses, Undiksha chose two focus areas as superior research areas, superior research in the fields of education, science and humanities and superior research in the fields of science and technology. Apart from considering local and national problems as well as the direction of national research policy, the preparation

of Undiksha's Strategic Plan for 2022 – 2026 also takes into account the competence of Undiksha's research staff. The strength of research produced by universities is largely determined by the presence of science and technology human resources, both quantity and quality. However, the limited expertise of Undiksha researchers causes the distribution of research focus to be uneven. Preliminary studies show that there is a significant gap between focus on leading areas and focus on non-leading areas

The results of the preliminary study indicate the need for an assessment of lecturers' research output that achieves national and international recognition. Achievement of lecturers' research targets has not been described in an evaluative and comprehensive manner. Supporting and inhibiting factors in achieving lecturer research results are important things that need to be studied by universities to determine future policy outcomes. Therefore, this research was conducted as an evaluation study of the research results of lecturers at Ganesha Education University. This research is expected to produce a collection of conclusions in the form of accurate information about the achievements of recognition of lecturers' research results which are ready to be disseminated to the public. Based on the background of the research needs, the researcher proposed a research title, namely an evaluation study of the research results of lecturers at Ganesha Education University. This research aims to analyze the focus of the research area based on the scheme; application of the Tri Hita Karana philosophical foundation based on a research scheme; variations in each research focus area; and 4) correlation between research schemes.

2. METHOD

The type of research used is ex-post facto, hypothesis testing without treatment or manipulation. The method used in the research is meta analysis by combining various research data from the Undiksha academic community throughout 2022 which is summarized quantitatively. Meta-analysis is a systematic review method with statistical techniques to calculate conclusions from several research results. Data analysis techniques were carried out using homogeneity tests and product moment correlation. The subjects of this research were all Undiksha lecturers and functional staff.
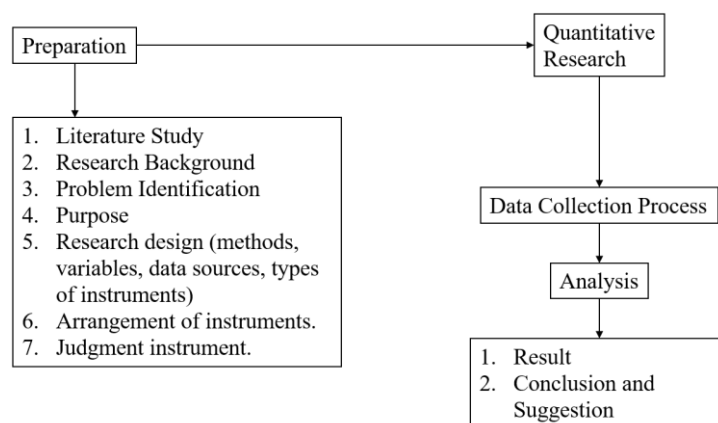

Figure 1. Research Steps

This research aims to descriptively evaluate the output aspects and level of research technology readiness of Ganesha Education University lecturers. The type of research carried out was qualitative. Qualitative research is carried out by creating a comprehensive and complex picture that can be presented in words, reporting detailed views obtained from informant sources. It is done in a natural setting. Through qualitative research, exploration and evaluation will be carried out on the output and level of research technology readiness of Ganesha Education University lecturers. This research uses a descriptive analysis method by combining research data search, review, and analysis of research data from various previously existing findings so that the data results are more inclusive. Descriptive analysis is a research method by collecting data according to its truth, then the data is compiled, processed and analyzed to provide an overview of existing problems.

This research is evaluation research that uses a goal-oriented evaluation model. Evaluation is a tool or procedure used to find out and measure something in an atmosphere using predetermined methods and rules. Evaluation research aims to collect information about the results that have been achieved by a program that is implemented systematically using scientific methodology so that accurate and objective data can be produced (Bithara et al., 2020; Masnawati et al., 2021). Goal-oriented program evaluation is designed to describe the achievement of a program's goals (Burbules et al., 2020; K. Chen et al., 2021). The

gap between expectations and what is observed in the Ganesha Education University lecturer research program is an input or consideration for the lack of orientation program activities that focus on the specific objectives of research and how research results are achieved.

The research stage procedure adopted Tyler's evaluation steps which consisted of; formulate goals clearly; carry out goal classification; formulate measurable goals; determining when goal achievement can be demonstrated; select and develop appropriate measurement methods; collect information or data; and analogizing data or information with goals (X. Chen et al., 2019; Darmawan et al., 2020). Next, the data obtained is compared with the objectives that have been set. Determine how successful the program is and analyze several factors that influence the success of the program.

The problems studied in this research discuss the evaluation of output and the level of research technology readiness of lecturers based on the focus area in the research strategic road map based on the characteristics of the study program and year of research. Researchers will explore various information related to supporting and inhibiting factors in achieving research results among lecturers at Ganesha University of Education.

3. RESULT AND DISCUSSION

Result

Four hundred and sixty-nine studies by Undiksha lecturers throughout 2022 from eight schemes were then grouped into seven research focuses. First Focus appears to have the highest percentage, with an average of 68.02%, and Sixth Focus has the lowest percentage, with an average of only 1.41%. The various research focuses prepared in the Undiksha strategic plan for 2022 – 2026 are mapped into relevant scientific fields and adapted to the majors available at the Ganesha University of Education. The observation results show that the research focus areas have the most scientific branches. On the other hand, the research focus has at least two scientific branches. Mapping the focus of research areas in the scientific fields of the Undiksha academic community is presented in Figure 1.
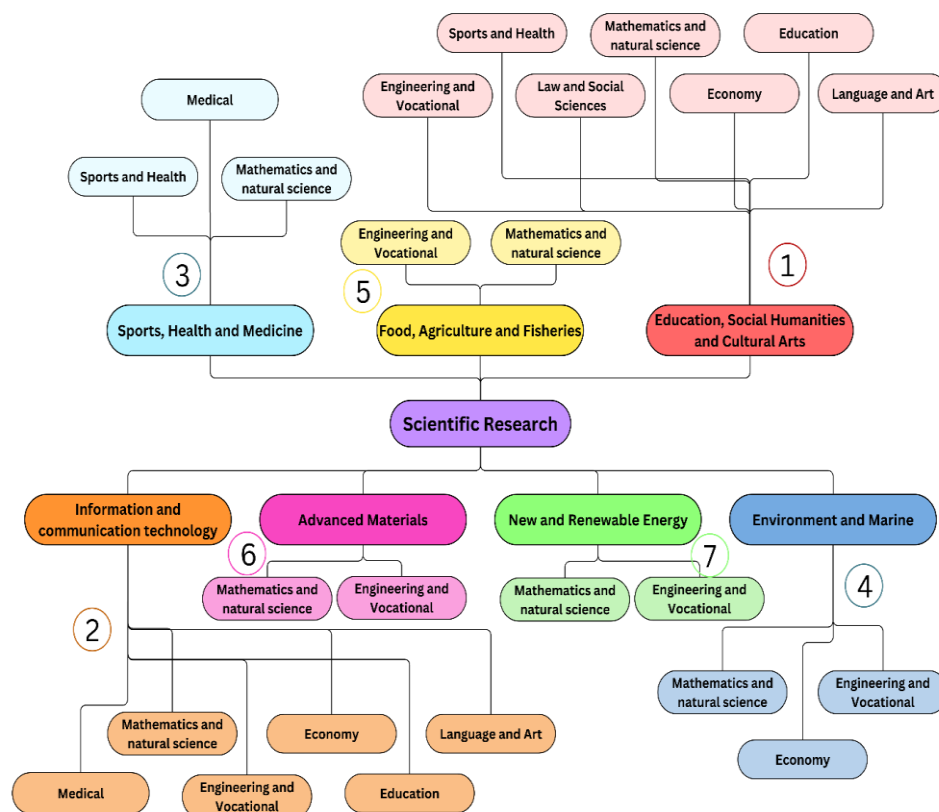

Figure 1. Mapping of Research Focus in Academic Science at Undiksha

Apart from being grouped into several research focuses, the research of this Ganesha Education University lecturer was studied based on the application of the Tri Hita Karana philosophy. The research results are shown in Figure 2.
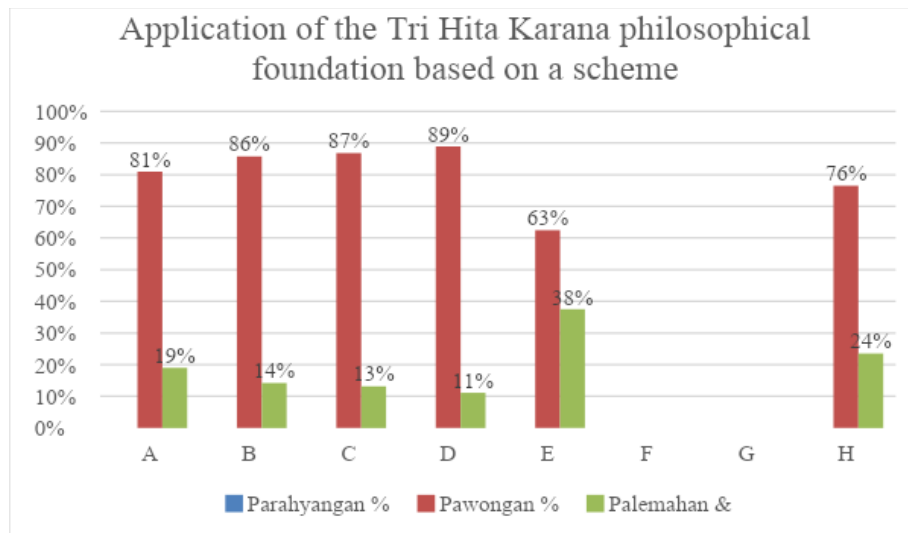
Figure 2. Graph of the Percentage of Implementation of the Tri Hita Karana Philosophy

Based on Undiksha's research strategic plan for the period 2022 – 2026, Undiksha's research focus is divided into seven focuses. The distribution of research focus was analyzed using the homogeneity test presented in Table 1.

Table 1. Homogeneity Test Results On Research Focus

Based on Average	Levene Statistics	df1	df2	Say.
First Focus	16.205	7	208	0.000
Second Focus	8.155	7	224	0.000
Third Focus	11.454	7	136	0.000
Fourth Focus	7.070	7	176	0.000
Fifth Focus	10.480	7	112	0.000
Sixth Focus	8.808	7	80	0.000
Seventh Focus	27.370	7	256	0.000

The relationship between each research scheme was analyzed using the product moment correlation test, presented in Table 2.

Table 2. Product Moment Correlation Test Results

		A	B	C	D	AND	F	G	H
A	Pearson Correlation	1	0.792**	0.515**	0.620**	0.157	.B	.B	0.633**
	signature. (2-tail)		0.000	0.000	0.000	0.051	.	.	0.000
	N	156	156	156	156	156	156	156	156
B	Pearson Correlation	0.792**	1	0.565**	0.645**	0.120	.B	.B	0.674**
	signature. (2-tail)	0.000		0.000	0.000	0.137	.	.	0.000
	N	156	156	156	156	156	156	156	156
C	Pearson Correlation	0.515**	0.565**	1	0.482**	0.339**	.B	.B	0.728**
	signature. (2-tail)	0.000	0.000		0.000	0.000	.	.	0.000
	N	156	156	156	156	156	156	156	156
D	Pearson Correlation	0.620**	0.645**	0.482**	1	0.215**	.B	.B	0.535**
	signature. (2-tail)	0.000	0.000	0.000		0.007	.	.	0.000
	N	156	156	156	156	156	156	156	156
AND	Pearson Correlation	0.157	0.120	0.339**	0.215**	1	.B	.B	0.220**
	signature. (2-tail)	0.051	0.137	0.000	0.007		.	.	0.006
	N	156	156	156	156	156	156	156	156
F	Pearson Correlation	.B	.B	.B	.B	.B	.B	.B	.B
	signature. (2-tail)	.	.	.	.	.		.	.
	N	156	156	156	156	156	156	156	156
G	Pearson Correlation	.B	.B	.B	.B	.B	.B	.B	.B

		A	B	C	D	AND	F	G	H
	signature. (2-tail)	.	.	.	.	.	.		.
	N	156	156	156	156	156	156	156	156
H	Pearson Correlation	0.633**	0.674**	0.728**	0.535**	0.220**	.B	.B	1
	signature. (2-tail)	0.000	0.000	0.000	0.000	0.006	.	.	
	N	156	156	156	156	156	156	156	156

Discussion

Throughout 2022, there will be 469 research conducted by Undiksha lecturers and education staff. Two of the eight research schemes, F and G, had to be left blank. This means that there are no lecturers conducting research in these scheme categories, Scheme F (overseas collaborative research scheme) and Scheme G (accelerated research scheme for professors). LPPM Undiksha facilitates collaboration between research groups, both domestic and foreign universities, to reduce the quality gap between universities in the research field. The lack of research collaboration abroad is very unfortunate, even though international collaboration should be able to help researchers find colleagues in fields of expertise that are rarely found domestically, as well as various other resources that are difficult to obtain through domestic collaboration so that they can produce superior innovation (X. Chen et al., 2019; Fry et al., 2020).

Undiksha lecturers and educational staff conducted the most basic research on scheme B totaling 190 studies, then research on scheme A as many as 100 beginners. Basic research schemes are categorized as research that produces basic principles of technology, formulates concepts and applications of technology, and proves functional concepts and important characteristics analytically and experimentally to produce new theories, methods or policy principles used for the development of science. Beginner Lecturer Research is intended as a research activity to develop and direct novice researchers to improve their abilities in carrying out research and publishing their research results in scientific journals, both national and international (Darmawan et al., 2020; Dinh & Nguyen, 2017).

Undiksha's research focus is divided into seven focuses: focus on educational research, social humanities and arts and culture; research focus in the fields of food, agriculture and fisheries; focus on research in the fields of sports, health and medicine; research focus on the field of information and communication technology; research focus in the field of advanced materials; focus on research in the field of new and renewable energy; and focus on environmental and marine research. Based on this graph, in general focus 1 occupies the highest percentage. This is in line with the superior research focus that Undiksha has established in the fields of education, science and humanities. Undiksha's superior research focus in the fields of social humanities and education is divided into values and character education based on local wisdom, social conflict and harmonization. Research on values and character education, which is one of Undiksha's superior research, is directed at instilling national values by targeting the role of three educational centers, namely school, environment and family, which are synergized with Balinese local wisdom values to produce human resources with noble character. positive character. Then Undiksha's superior research on conflict and social harmonization based on Tri Hita Karana values and local Balinese culture was carried out as an effort to find the root of the problem to answer conflict management strategies and maintain social harmonization within the framework of strengthening the integrity of a country. multicultural nation.

Different results are shown in research scheme E (functional personnel research scheme), where the fourth focus occupies the highest percentage, followed by the first focus. The fourth focus area raises research topics in the field of information and communication technology. Along with the rapid development of technology, many technology-related studies have emerged that develop new technologies such as augmented reality, virtual reality, extended reality, robotics and artificial intelligence, IoT (Internet of Things), blockchain technology, and so on (Fonseca & Nieth, 2021; Fuller et al., 2021). Comprehensive information and communication technology studies are important, especially for higher education institutions, to keep up with these developments (Duarte et al., 2019; Fauzi et al., 2020).

However, there appears to be a significant gap between the first focus and the focus of other research areas. The first focus, which is one of Undiksha's leading focus areas, has a total of 319 research, while the fourth focus, the second largest, only has 59 research, and the number of research in other focus areas is much less. The first focus is the dominant focus of Undiksha's research field. Nearly 70% of research makes the topic the first focus. Undiksha, which was previously an educational institution for educational staff (LPTK), now has an expanded mandate to manage the non-educational sector. Therefore, further efforts are needed to equalize scientific and research fields. Then, the lowest research percentage is occupied by the sixth focus area of new and renewable energy research, namely only three studies throughout 2022. Research that focuses on this area comes from novice lecturer research schemes and applied research schemes.

If we look more specifically at the research theme level, not all themes are included in each research scheme, but at least one is included in each theme. The research themes set by LPPM Udiksha have been spread but not evenly distributed. If you look at the percentage of each theme, it can be seen that there are certain themes that are still dominant. In the first focus and fourth focus with the largest number of studies, for example, it can be seen that in the first focus the research is dominated by theme 1 (Strengthening Post-Pandemic Learning in Supporting Learning Freedom). Furthermore, in the fourth focus, research is dominated by theme 4 (Information Technology for Industry and Education), so that there is a significant gap in the amount of research between themes.

The largest average percentage of research is shown in theme 1 in the first focus on strengthening post-pandemic learning in supporting independent learning. The year 2020-2022 is a pandemic that is driving massive changes in various sectors (Gardner et al., 2021; Gielen et al., 2022; Hernandez et al., 2022). Scientists try to explain various issues related to the causes and spread of the pandemic as well as its impact in various sectors, including the various recovery and adaptation policies needed (Jasińska, 2020; Klofsten et al., 2019). Especially in the education sector, the distance restriction policy has disrupted the learning process that has been carried out in schools, so that significant changes are needed regarding the implementation of learning activities (Kumar et al., 2018; Langer et al., 2020). Concerns about the decline in the quality of education have caused educational scientists, including academics at the university level, to carry out various innovations and research, redesigning learning and assessment systems with alternative breakthroughs such as distance learning and digital learning(Law et al., 2018; Lee et al., 2020). Meanwhile, on average The smallest is shown in theme 4 in the seventh focus on the degradation of aquatic biota. If viewed from a scientific perspective, research on this theme can be carried out by academics in the fields of marine, aquaculture, biology and science within the faculty of mathematics and natural sciences.

In the focus of level 1 research topics, theme 1 (learning in the digital era) has the largest research percentage. Meanwhile, topic 3 (Global Village) has a percentage of 0%, meaning that research has not addressed this topic. Moreover, the research topics in the first focus appear to be evenly distributed. However, if you look at each scheme, scheme E only contains two topics. This is considered normal because the number of studies in scheme E is only 8 so it cannot cover all existing research topics.

Only a few studies focus on food, agriculture and fisheries research. Scheme B has the most topic variations, namely five topics filled in. Of the total 29 topics, ten topics were filled in. Undiksha does not have a special department directly related to agriculture and fisheries; only has one major related to food: culinary arts vocational education. This has an impact on research relevant to food, agriculture and fisheries. The number of departments will be related to the number of human resources who have skills relevant to the focus of the research area. Another trend is that researchers more often discuss popular research topics (Loseva et al., 2021; Lu & Zheng, 2019), so that other important topics are often overlooked.

Of the 18 topics in the third focus, a total of 12 topics were filled. The third focus, relating to sport, health, and medicine, should be one of the most widely used areas of research focus. Undiksha has a medical faculty with B accreditation. Research relevant to health topics is expected to improve the quality and accreditation of the faculty. LPPM Undiksha plans to focus on strategic issues related to sports, health and medicine, including the need for a sports culture, public awareness of nutrition, and the lack of sovereignty over the drug and pharmaceutical industry.

The fourth focus is the most research focus after the first focus. Even though the percentage is much smaller than the first focus, many topics are discussed. The topic most frequently taken is topic g in theme 4 regarding media and technology-based learning. Topics related to learning will certainly receive more attention among the Undiksha academic community because they are one of Undiksha's superior focus areas. Technology trends in learning, as previously explained, influence the amount of research on this topic.

The fifth and sixth focuses are the areas that are least used as research topics. The Fifth Focus Area focuses on advanced materials. Research outputs developed in this field can include energy storage materials, functional materials and nanomaterials, catalyst materials, as well as raw materials for the iron and steel industry. Undiksha hopes that research output in this field can be applied to industry, the environment, sensors, medicine and electronics. The Fifth focus is on advanced materials, and the sixth is new and renewable energy related to science and engineering. However, social science fields such as management must also be able to study further the socio-economic factors and impacts associated with the use of new and renewable energy, even though the focus on these six fields has become the focus of national and even global governments. in recent years (Marhaeni et al., 2023; Maulidia et al., 2021; Pokhrel & Chhetri, 2020). Apart from that, Indonesia's natural resource potential must also allow it to be developed as a study for new and renewable energy (Pramerta, 2023; Putra et al., 2019).

The seventh focus has many topics, 19 out of 33. This focus raises research topics in the environmental and marine fields. Various problems arise related to the natural environment and marine environment and how sustainable development requires strategic targets in environmental and marine

management, maintaining the quality of the living environment and marine environment to increase environmental carrying capacity, water security and public health (Rahman et al., 2020; Scott et al., 2021).Development of research topics that focus on environmental and marine research is carried out to respond to developing strategic issues both at the local and national levels while still paying attention to the competence of Undiksha research staff.

In Undiksha's vision formulation "To Become a Superior University Based on the Tri Hita Karana Philosophy in Asia by 2045", there are two key words, namely the words superior and Tri Hita Karana. The word superior describes the excellence that Undiksha wants to achieve in Asia as a state university. In this case, Undiksha's superiority is seen from three indicators, namely competitiveness, character and culture. The term Tri Hita Karana explains the philosophical foundation that was used as the basis for building Undiksha. These local wisdom values are a source of prosperity, peace and harmony in life. There are three sources, namely the relationship between humans and the Almighty God (Parhyangan), the relationship between humans and other humans (Pawongan), and the relationship between humans and the environment (Pabelasan). Based on this philosophy, it can be stated that to achieve prosperity, peace and harmony, humans must always maintain relationships with the Creator (God Almighty), with fellow humans, and with the natural environment in which humans exist.

Based on Figure 3, most of the research raises the concept of pawongan in the research field being developed. The concept of pawongan is a relationship between humans that is closely related to Undiksha's superior focus areas: education, science and humanities. The concept of palemahan or the relationship between humans and the environment is also raised in research by Undiksha academics. Unfortunately, there is no research that still integrates the concept of parhyangan or the relationship between humans and God. Parhyangan is a form of human expression of gratitude offered to God through praise and prayer because of God's faithful, loving and merciful love (Sharifi & Khavarian-Garmsir, 2020; Shen et al., 2019). The concept of parhyangan will certainly appear more often in community worship activities. Tri Hita Karana appears valuable in the activities carried out by the Balinese people. Research states that in the practical realm, Tri Hita Karana has little impact so it is necessary to implement Tri Hita Karana in the form of strategies and action plans that can be integrated into various scientific practices (Sudama, 2020; Sukawati et al., 2020). Undiksha has taken the right step by integrating Tri Hita Karana into its vision and mission.

The diversity of research indicates that the research fields developed by the Undiksha academic community during 2022 are already widespread. Even though the distribution of Undiksha's research focus areas is still not evenly distributed, all the research focus areas that have been planned in Undiksha's Strategic Plan for the period 2022 – 2026 have been filled, with most of the research focused on education, social humanities, and arts and culture, and least of all on the new and renewable energy.

Considering that Undiksha is part of the Educational Personnel Educational Institution, Undiksha has many study programs related to education in almost all scientific fields. This is one of the reasons why education, social humanities, arts and culture are the focus of most research, especially on the theme of strengthening post-pandemic learning in supporting independent learning. LPTK is important in strengthening educational research on modern educational innovation and traditional knowledge, local wisdom and culture. Research trends in the field of education must be different from the important role of education in determining the quality of human life and world sustainability (Tarba et al., 2023; Valverde-Berrocoso et al., 2020). Therefore, higher education institutions continue to innovate education and learning both inside and outside the classroom to meet the diverse needs of students.

In contrast to the amount of research in the education sector, research on new and renewable energy in Undiksha is very limited. In fact, Indonesia's natural wealth has great potential to provide various kinds of new and renewable energy sources such as wind, water, biomass, geothermal, solar and ocean waves .(Watrianthos et al., 2021; Werdhiastutie et al., 2023). However, in reality, research on renewable energy in Indonesia still has many limitations, such as research that cannot yet be applied on a national scale, limited data on natural resources such as wind and sea data, and the absence of mapping of the application of renewable energy. alternative energy throughout Indonesia.

The connectedness of research in each research scheme is shown through the results of correlation tests. The correlation coefficient value obtained shows a measure of the closeness of the two research schemes(Marhaeni et al., 2023; Yana et al., 2020). Almost all schemes are interrelated with each other. Schemes A and B are related to each other with a strong correlation, as well as scheme D and scheme H which are strongly correlated with schemes A, B, and C. Strong correlation indicates high similarity between the research topics chosen in each scheme. scheme. The similarity of research topics shows that Undiksha lecturers' research is uniform and synergistic with each other. This is important in efforts to realize Undiksha's vision and mission. In an organization, high synergy between departments and each component

can strengthen the impact of teamwork on organizational success (Altintas & Kutlu, 2021; Susiani et al., 2022).

A moderate degree of correlation is demonstrated between scheme C and schemes A, B, and D, as well as between scheme D and schemes C and H. The expected output of Scheme C (applied research) and Scheme D (development research) is real. the product is different from the output of novice lecturer research schemes and basic research. This shows that whatever form of output is produced, in general the Undiksha academic community has been able to synergize and adapt research topics to Undiksha's vision and mission. Achieving the vision and mission of an organization is determined by the human resources within it, so human resources with competencies that suit the organization's needs are needed (Bithara et al., 2020; Darmawan et al., 2020).

A weak level of correlation is shown between schemes E and C, D, and H. In addition, scheme E is not correlated with schemes A and B. Scheme E is a functional power research scheme. This research scheme is carried out by university education staff, such as administrative staff, librarians, laboratory assistants, technicians, etc. Research scheme E is not able to keep up with other research schemes. It is necessary to manage the quality of Undiksha's human resources for functional staff appropriately and professionally in order to achieve balance with Undiksha's needs (Fauzi et al., 2020; Tarba et al., 2023).

The implications of this research can have a significant impact in several aspects. Academically, this research has the potential to enrich the body of knowledge regarding how local philosophy, such as Tri Hita Karana which prioritizes harmonious relationships between humans and God, fellow humans and nature, can be the basis for determining research schemes. By understanding research schemes that are in line with this principle, it is hoped that lecturers can develop research that is not only based on scientific results, but also reflects sustainable local wisdom values. From a practical perspective, this research can help educational institutions in directing and facilitating lecturers' research to make it more relevant to the needs of local communities, especially in areas that have similar cultures and philosophies. On the other hand, the social implications of this research are the emergence of research that is more oriented towards ecosystem balance and community welfare, so that it can support sustainable regional development and strengthen existing social values. These limitations lie primarily in the philosophical and cultural nature on which this approach is based. The Tri Hita Karana philosophy is a specific local concept of Balinese culture, so its application and relevance in academic research contexts outside Bali or areas that do not have similar cultural connections may be limited. In addition, this philosophy has a spiritual dimension that is sometimes difficult to measure or integrate quantitatively within a more general scientific research framework. Other limitations may arise in terms of methodology, as combining philosophical and cultural elements with modern scientific approaches requires care so that the results obtained remain valid and unbiased. This research may also face challenges in terms of generalizing the results, because the research scheme based on Tri Hita Karana may not be universally applicable, given the complexity and diversity of socio-cultural contexts in various regions.

4. CONCLUSION

Research carried out by the Undiksha academic community throughout 2022 integrates the scientific fields studied with the values of Tri Hita Karana in accordance with the vision of the Ganesha University of Education. The concept of pawongan or human relations is the THK concept that is most widely integrated into research, considering that most research is carried out in fields related to education and social humanities. Even though it dominates one particular field, Undiksha's academic research throughout 2022 is heterogeneous and spread across various research focuses according to Undiksha's Strategic Plan for 2022 – 2026. Each of Undiksha's research schemes correlates with each other at a weak and medium or strong level, except for schemes F and G because it has not been researched. LPPM Undiksha's strategic plan in the research sector is expected to increase the status of LPPM Undiksha, which is currently at the main level, to become an independent level. Evaluation of the LPPM Undiksha strategic plan must be carried out periodically to ensure the continuity of planning and implementation of community service. Regular evaluation is also needed to maintain the relevance of Undiksha's community service to the real problems faced by the community and future trends in the development of science and technology.

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