Development Of A Roadmap For Sustainable Research And Community Service As An Effort To Improve Quality

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Abstract. The Faculty of Economics and Business (FEB) has an important responsibility in developing economic and business knowledge and contributing to society and the business world. In an effort to increase its contribution, FEB continues to develop strategies that are relevant to its vision and mission. The development of a research and community service road map is an integral part of this strategy. The goal is to identify relevant and effective research and community service priorities. The problem-solving approach in developing a road map involves situation analysis, stakeholder engagement, priority identification, strategy development, and monitoring and evaluation. These steps help FEB develop a road map that is oriented towards solving problems, relevant to stakeholder needs, and able to provide significant contributions. The state of the art and innovation in road map development include an interdisciplinary approach, the use of digital technology, a focus on sustainability, active community involvement, and increased collaboration with industry. FEB can update its road map by integrating these aspects to ensure relevance, innovation, and significant impact in research and community service.

Keywords community service, roadmap, sustainable research

1.   INTRODUCTION

The Faculty of Economics and Business (FEB) Universitas Negeri Surabaya (UNESA) has a very important role in supporting the development of economic and business knowledge that provides significant contributions to society and the business world. FEB UNESA as part of a higher education institution, has a strategic responsibility to produce research that is not only academically oriented, but also relevant to the needs of society. However, to achieve this, focused and sustainable planning is needed in the form of a research and community service roadmap. In addition, FEB has a great responsibility in responding to the challenges faced by society, industry, and the economy as a whole.

In an effort to increase its positive contribution, FEB continuously evaluates and formulates strategies that are relevant to the faculty's vision and mission. To achieve this, focused and sustainable planning is needed in the form of a research and community service roadmap. The development of a research and community service roadmap is an integral part of the faculty's strategy in directing research and community service efforts according to existing needs and potential. The development of this road map will not only enable FEB to allocate resources efficiently, but also ensure that the research and community service efforts undertaken have a significant and relevant impact on the development of economic and business science and the welfare of society in general.

The problem-solving approach in developing a road map for research and community service at the FEB can be done through the following steps: (1) Situation Analysis: The first step is to conduct a comprehensive analysis of the current situation, including identifying the strengths, weaknesses, opportunities, and threats faced by FEB in the context of research and community service. (2)

Stakeholder Engagement: Involving various stakeholders such as lecturers, students, alumni, industry partners, and the general public in the road map development process. Open discussions with stakeholders will help obtain various perspectives and valuable input to enrich the road map; (3) Priority Identification: Based on the results of the situation analysis and input from stakeholders, identify research and community service priorities that will be the focus of the road map. These priorities must be relevant to the vision, mission, and values of FEB, and be able to overcome the challenges faced by society and the business world; (4) Strategy Development: After identifying priorities, the next step is to formulate strategies that will be used to achieve the goals that have been set. These strategies must be comprehensive, flexible, and can be implemented within a certain period of time. Strategy development must also take into account the allocation of available resources; and (5) Monitoring and Evaluation: It is important to ensure that the road map that has been developed can be implemented effectively and efficiently.

The current state and innovation in the development of research and community service road maps at the FEB include various strategic aspects that are relevant to the needs of the times. First, an interdisciplinary approach is increasingly becoming a major trend, combining disciplines such as economics, management, information technology, and sociology to face complex challenges. Interdisciplinary research has been shown to improve the quality of analysis and the effectiveness of the solutions produced (Choi & Pak, 2006). Second, the use of digital technologies such as big data analytics, artificial intelligence (AI), and blockchain opens up new opportunities in research and community service. This technology not only increases efficiency, but also allows for in-depth and accurate real-time analysis of various economic and business phenomena (Davenport & Harris, 2017).

In addition, the focus on sustainability is a priority in research in economics and business, with issues such as sustainable development, corporate social responsibility (CSR), and environmentally-based investment. This is in line with the global trend that encourages the adoption of sustainability practices in business (Elkington, 1997). FEB also prioritizes active community involvement through a participatory or co-creation approach, where the community is involved in every stage of research, from problem formulation to solution implementation (Prahalad & Ramaswamy, 2004). Finally, increasing collaboration with industry is an important element to ensure the relevance of research to the needs of the business world, as expressed by Perkmann et al, (2013), who highlighted the benefits of collaboration between academics and industry in producing applicable innovations. By integrating these approaches, FEB's road map is not only academically relevant, but also has a real impact on society and the industrial world.

The novelty of this research lies in the development of the FEB roadmap which is oriented towards collaboration, technology, and sustainability. An interdisciplinary approach that integrates disciplines such as psychology, environment, and information technology allows FEB to address complex issues comprehensively. In addition, the use of advanced digital technologies, such as big data analytics and artificial intelligence, will strengthen real-time data analysis that is relevant to economic

dynamics. A focus on sustainability, including corporate social responsibility, will be an integral part of all aspects of research and community service. Active community involvement through a participatory approach and strategic collaboration with the industrial sector will ensure that FEB research is not only relevant, but also applicable and has a real impact, making FEB an academic institution that is responsive to contemporary challenges in economics and business.

This study aims to identify and determine research priorities and community service that are relevant to the FEB, with the hope of increasing the faculty's contribution to society and the business world. In addition, this study will also formulate an implementation strategy and an effective monitoring and evaluation mechanism in the implementation of the research and community service road map at FEB. Thus, the results of this study will provide a significant contribution to the development of science and business practices that are more responsive to the needs of society in accordance with the 5-year research road map.

2.   LITERATURE REVIEW

Development of roadmap

A roadmap is a research roadmap, which includes topics that have been done and their gaps, and topics that will be done in the future within a certain period of time. Efforts to encourage the development of science and technology and increase the contribution of research to the economy have been made by the government by issuing a number of regulations and policies. However, the results of the evaluation of the White Paper on Research, Development, and Application of Science and Technology 2005–2025, the National Strategic Policy on Science and Technology (Jakstranas Iptek), and the National Research Agenda (ARN) show that these policies have not fully become references. Therefore, a more structured sectoral master plan with higher legal force is needed in the form of the National Research Master Plan (RIRN). RIRN has a time span of 2017–2045 (Presidential Decree, 2018). RIRN is designed to create synergy in research planning that is in line with national development planning. RIRN not only integrates research with long-term development goals, but also to meet the needs of the business world and society.

In this case, it is important to develop a sustainable research and community service roadmap so that it can improve the quality of research at FEB UNESA. The roadmap at FEB UNESA as one of the faculties that has made efforts to compile a clear research roadmap (Kistyanto et al., 2021), directed, and measurable which is stated in the Research Master Plan (RIP) for a period of five years. RIP is a formal document that contains a vision, achievement strategy and sustainable research themes, including research topics that must be considered by all Researchers at FEB UNESA. The preparation of the RIP FEB UNESA has considered strategic aspects, namely the Vision and Mission of FEB UNESA, research achievements and publications, research resources (lecturers, undergraduates,

postgraduates, research management units) and research potential that can be developed (Trisakti et al., 2020; Susanti et al., 2021).

Sustainable research

Sustainability in research is defined as an effort to create a sustainable research system through a systematic approach that integrates academic, industrial, and social aspects (Bettencourt & Kaur, 2011). According to Adiatma (2023), sustainable research must pay attention to the relevance of topics to global issues, ensure continuity of funding and resources, and utilize technology to support the development of science. Sustainability of research not only includes the continuity of studies in the long term, but also the integration of social, economic, and environmental aspects in the research agenda (Geuna, 2003). In the context of the FEB UNESA, research sustainability plays an important role in ensuring that every research conducted can provide sustainable contributions to the development of science and innovative business practices that are relevant to the needs of industry and society. The development of a sustainable research and community service roadmap is a factor that encourages improving the quality of research, including the relevance of research related to global and national issues, and collaboration between FEB with industry and society. The research conducted must be in line with strategic issues such as green economy, digital transformation, and sustainable development (Brundtland, 1987). Studies that integrate the concept of sustainability into the research agenda can produce contributions and improve the quality of research at the FEB UNESA.

Research quality

The quality of research in higher education is a fundamental element in the development of science and increasing academic competitiveness. In the context of FEB UNESA, improving the quality of research is crucial to support the institution's vision as a center of academic excellence that is able to make real contributions to society and the business world (Kistyanto et al., 2022). Several main factors that influence research quality include human resource capabilities, academic and industrial collaboration, and sustainable funding. Human resource capabilities play an important role in determining the quality of research, where the competence of lecturers and researchers in designing methodologies, analyzing data, and producing highly reputable scientific publications are key factors in creating innovative and relevant research (Stephan et al., 2019). In addition, academic and industrial collaboration is also a strategic element in improving the quality and impact of research. Partnerships with various parties, both from other universities and the industrial sector, allow for the exchange of expertise, strengthening the relevance of research to market needs, and opportunities for implementing research results on a wider scale (Etzkowitz, 2008). The last factor that is no less important is research funding, where the availability of adequate funds is a determining factor in research productivity and the quality of scientific publications. With the support of sustainable funding, either through competitive grants, partnerships with the business world, or internal institutional funding, research at FEB UNESA can develop sustainably and provide significant impacts for academics, industry, and the wider community.

3.   METHODS

This research uses a qualitative approach with a case study design to deeply understand the context and dynamics that occur at FEB UNESA related to research and community service. Data collection will be carried out through several techniques, including in-depth interviews with stakeholders such as lecturers, students, alumni, and industry representatives, as well as Focus Group Discussions involving various parties to explore challenges, opportunities, and priorities in research and community service (Addo et al., 2024; Fitriana et al., 2023; Liutkevicius et al., 2022; McMahon et al., 2020; Key et al., 2019). Data obtained from interviews, discussions, and surveys will be analyzed using qualitative analysis methods, such as thematic analysis, to identify key themes, group information, and look for relevant patterns. To ensure the validity and reliability of the data, triangulation techniques will be used by combining several sources and data collection methods, as well as re-checking with respondents (member checking) to ensure the accuracy of the interpretation (O'connor et al. 2023; Ratna et al., 2024; Rossiter et al., 2023; Lai et al., 2023; Camarinha et al., 2006).
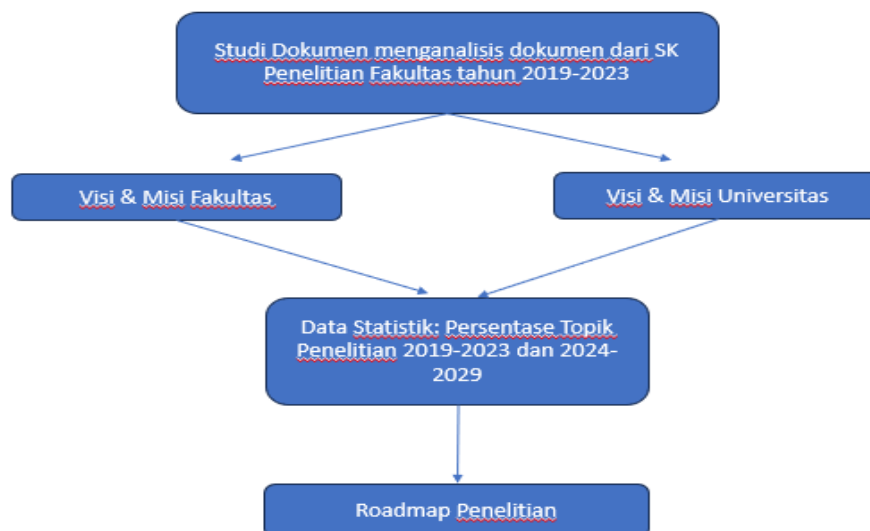

Figure 1. Research Concept

This study is based on previous policy outcome documents, namely research policy documents at the faculty and university levels, as well as previously established policy achievement documents. The analysis method used in this study is secondary data analysis or existing statistics (Moore et al., 2023; Shute et al., 2024; Caputo et al., 2024; Dominick et al., 2024). This study utilizes the document study method by utilizing data from the 2019-2023 FEB research decree. Documentation study is a method of collecting qualitative data by viewing and analyzing documents created by the subject himself or by others about the subject (Brookman et al., 2024; Jeelani et al., 2021; Hermawan et al., 2023; Barbosa et al., 2024). Based on these data sources, researchers collect information relevant to research needs, analyze relevant data, then construct data in the form of data presentations and connect several other relevant information to answer the proposed research problems, namely developing a FEB Unesa research roadmap.

4.   RESULTS

FEB UNESA has a vision to become a faculty with a global reputation in the field of economic education, economics, and business based on entrepreneurial leadership in 2040. To realize this vision, FEB UNESA has set a mission to improve the quality of reputable research and contribute to the development of science, technology, and art. In this context, the development of a sustainable research and community service roadmap is a very important strategic step to increase the relevance, quantity, quality, and innovation of research in the field of economic education, economics, and business. Furthermore, to achieve these goals and based on the results of self-evaluation, the following research implementation targets are formulated. Increasing the quantity and quality of research for the application of science, technology and arts; Increasing quality research activities to support the implementation of national development; Increasing the utility value and down-streaming of research; Increasing the quantity and quality of research support facilities; Increasing the capacity of the academic community in the field of research; Developing cooperation with international institutions in the field of research to increase research funding; and Increasing the number of publications in national and international journals.
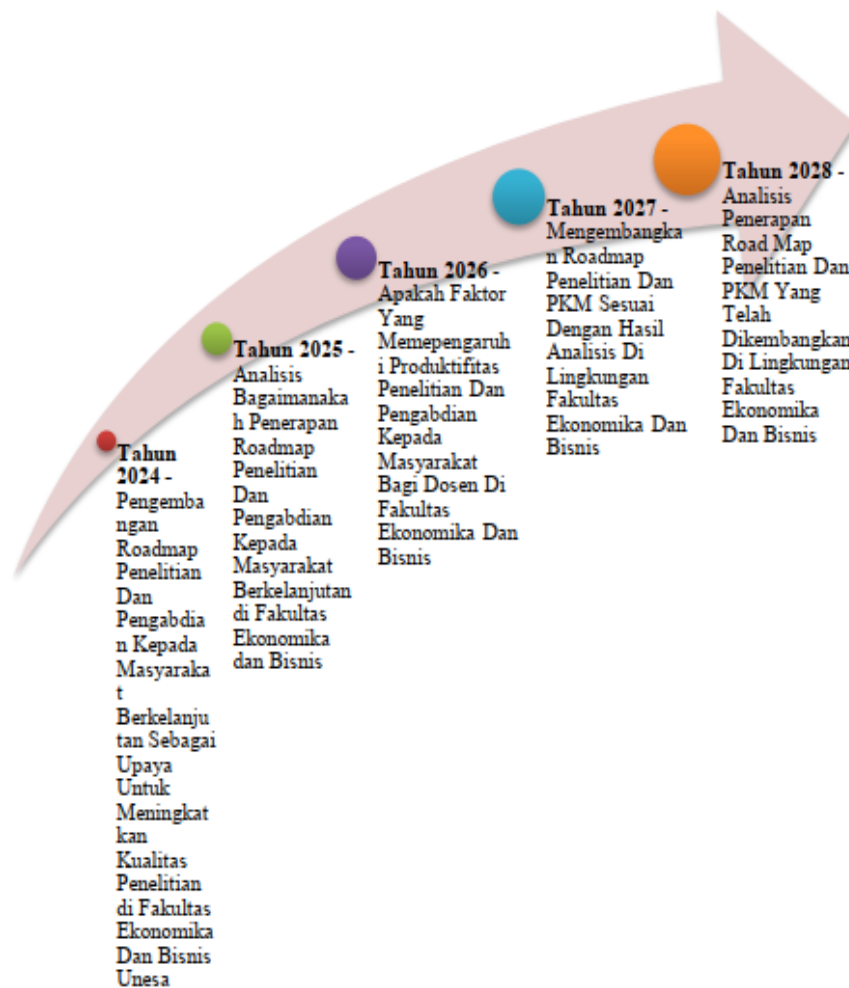

Figure 2. Research Road Map

Research and community service performance

The results of research and community service activities (PKM) are scientific products that are one of the indicators of the excellence of higher education, especially if they are used as references by academics at the national and international levels. And it is a step in solving community problems, namely the decision-making process that includes a series of actions that are expected to change the condition of society to be better than before.

Table 1. Fields of Research and PKM FEB UNESA

No	Undergraduate Study Program	Research Theme
1	Economic Education	Learning Planning and Strategy
		Media and Teaching Materials
		Evaluation
		Development Planning
		Monetary Economics
		Public Economics
2	Office Administration Education	Learning Planning and Strategy
		Media and Teaching Materials
		Learning Evaluation
		Office Administration
		Office Automation
		Communication Science
3	Business Education	Learning Planning and Strategy
		Media and Teaching Materials
		Evaluation
		Marketing
		Human Resources
		Operational
		Entrepreneurship
4	Accounting Education	Learning Planning and Strategy
		Media and Teaching Materials
		Evaluation
		Financial Accounting
		Management Accounting
		Auditing and Accounting Information Systems
		Public Accounting
5	Management	Marketing Management
		Human Resource Management
		Financial Management
6	Accountancy	Financial Accounting
		Management Accounting
		Public Sector Accounting
		Auditing
		Accounting Information Systems
		Sharia Accounting
		Taxation
7	Islamic Economics	Sharia Economics
		Sharia Institutions and Finance
		Sharia Business
8	Economy	Development Planning
		Public Economics and Resource Economics
		Monetary
9	Digital Business	Digital Marketing
		Technopreneur
		Information Technology / Information Systems

Research and PKM are forms of implementation of the Tridharma of Higher Education that are absolutely carried out by a lecturer as a means of developing science and profession. Various efforts have been made by institutions in order to improve research and PKM activities carried out by lecturers, both in terms of quantity and quality. So that the achievements of research and PKM activities are not only in the form of reports but have been published in accredited national journals and reputable international journals.
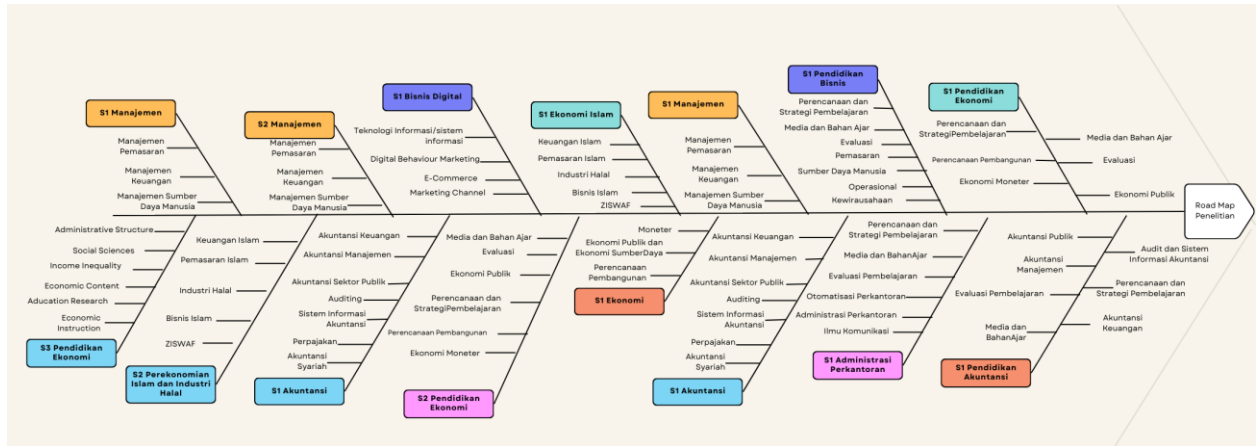

Figure 3. Fishbone Research and Community Service

This research roadmap is a concrete step in developing research and community service sustainably at FEB UNESA. With this roadmap, research can be more focused, systematic, and have a broad impact, so as to improve the quality of research and academic contribution to society.

Table 2. Development Strategy Map

No	Target	Input	Process	Output	Outcome
1	Increasing the quantity and quality of research and community service for the application of science, technology and art	Lecturers' understanding of research and community service programs is still uneven	Socialization of research and community service programs	Implementation of socialization of research and community service programs	Lecturers' understanding of research and community service programs has increased
		Lecturers' ability to prepare research and community service proposals that have the potential to be funded is still uneven	Training on research and community service proposal methods and clinics	Implementation of training on research proposal methods and clinics and community service	Lecturers' ability to prepare research and community service proposals that have the potential to be funded has increased
		Research and community service budgets are still low	Increasing the research and community service budget	Faculty increases budget ceiling for research and community service	Increased research and community service budgets

2	Increasing quality research and community service activities to support the implementation of national development	The number of research and community service grants for national competitive purposes is still low.	Increasing the socialization of the national competitive grant program	Implementation of socialization of national competitive grant program	The number of research and community service grants for national competitive grants has increased
			Training on community service methods and research proposal clinics and community service for national competitive grants	Implementation of research method training and research proposal clinics and community service for national competitive grants	The ability of lecturers to prepare national competitive grant proposals that have the potential to be funded has increased
3	Increasing the utility value and downstreaming of research and community service	The amount of research utilized by the business/industry world is still low	Collaboration with the business world and industry to carry out research and community service	Establish cooperation with the business world, industry and the community	The amount of research and community service utilized in the business/industrial world is increasing
4	Increasing the quantity and quality of supporting facilities for research and community service	The quantity and quality of facilities (rooms, reference books, journals and laboratories) supporting research and community service are still low	Adding facilities (rooms, reference books, journals and laboratories) to support research and community service	The number of facilities (rooms, reference books, journals and laboratories) has increased	The quantity and quality of supporting facilities for research and community service have increased
		The IT network and information system for research and community service are inadequate	Improving IT networks and research information systems	The IT network and information systems for research and community service are adequate	The quantity and quality of supporting facilities for research and community service have increased
5	Increasing the capacity of the academic community in the fields of research and community service	There is no special team that handles research and community service	Forming a team to handle research and community service	Formation of a team that handles research and community service	There is a special team that handles research and community service
		There is no allocation of research and	Transplanting research and	Implementation of research and community	Increasing research and community

		community service funds between senior and junior lecturers	community service funds	service between senior and junior lecturers	service between senior lecturers and young lecturers
6	Developing cooperation with international institutions in the field of research to increase research funding and community service.	The number of research and community service collaborations is still low	Initiation of research and community service collaboration with stakeholders	Implementation of research and community service collaboration initiatives with stakeholders	The number of research and community service collaborations has increased
7	Increasing the number of publications in national and international journals	The number of publications in reputable journals is still low	Clinic and assistance in compiling scientific articles	Implementation of clinics and mentoring	The number of publications in reputable journals is increasing

Based on Table 2, the development strategy map can be seen that one of the main focuses in this development strategy is increasing the quantity and quality of research and community service, which is carried out through socialization of research programs, training in proposal preparation methods, and optimization of research budgets. These steps aim to improve the ability of lecturers to produce competitive research that has the potential to obtain funding. In addition, this roadmap also encourages the development of international cooperation to increase funding and expand the impact of research at the global level. As part of the strategy to improve academic quality, this roadmap also targets an increase in the number of scientific publications in national and international journals through clinics and assistance in compiling scientific articles.

5.   CONCLUSION

This study confirms that the development of a sustainable research and community service roadmap at the FEB of Surabaya State University (UNESA) is a strategic step in improving the quality of research and its relevance to academic, industrial, and community needs. With an interdisciplinary approach, utilization of digital technology, and integration of sustainability in research, this roadmap is expected to increase the effectiveness and impact of research in the fields of economics and business. The results of the study show that FEB UNESA has established a vision and mission that supports improving the quality of research and scientific publications. In an effort to achieve this goal, FEB implements various strategies, including increasing human resource capacity, optimizing research funding, and academic and industrial collaboration. In addition, active community involvement through

a participatory approach is also an important aspect in ensuring the relevance and usefulness of research. With the implementation of this roadmap, it is hoped that research at FEB UNESA can continue to develop systematically, contribute to the development of science, and provide real benefits to society and the business world.

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