

Assessing the Entrepreneurial University Framework: A Model for Institutional Self-Sufficiency

Doli Muhammad Jafar Dalimunthe¹, R Hamdani Harahap², Ritha F Dalimunthe³, Yeni Absah⁴

Abstract

This study aims to explore the concept of the Entrepreneurial University at the University of Sumatera Utara, as it seeks to transition into an Independent University, known locally as Perguruan Tinggi Negeri Badan Hukum (PTNBH). A qualitative approach featuring interactive models was employed for the data analysis, drawing on contributions from the academic community and partners as key informants. The findings reveal that USU, in its capacity as a PTNBH, has not yet established specific mindsets or policies to govern entrepreneurial endeavors, resulting in a model that is neither integrated nor cohesive but rather operates in a fragmented manner. Obstacles to the USU's transformation include inadequate socialization and inconsistent policy implementation. Nonetheless, the USU's substantial human resource quality and quantity present significant strengths and opportunities for addressing its challenges. This research culminates in the development of an Entrepreneurial University Model designed to unify the academic community's involvement in all entrepreneurial programmes at the University of Sumatera Utara.

Keywords: *Entrepreneurial University, Entrepreneurship, Mindset, PTNBH.*

Introduction

In this study, the prevailing challenge for universities is that the Indonesian education system aims to expedite student graduations and secure employment rather than nurturing graduates equipped to create job opportunities. Entrepreneurial ventures within universities remain scarce. Consequently, various stakeholders have launched numerous initiatives to cultivate an entrepreneurial mindset among the youth. The government is actively promoting an entrepreneurial culture within the academic community (Amalia et al., 2021). This was facilitated by the Ministry of Education, Culture, Research, and Technology, which spearheaded the development of an entrepreneurship curriculum in higher education institutions.

One of the strategies adopted by Legal Entity State Universities (PTN-BH) in Indonesia is to evolve into Entrepreneurial Universities. This transformation aims to bolster the involvement of the younger generation in entrepreneurship (Saksono et al., 2023). The University of Sumatera Utara is among the institutions officially recognized as PTN-BH, as stipulated by Law Number 12 of 2012 concerning Higher Education, specifically Article 97 letter C, dated August 10, 2012. Transitioning to an Entrepreneurial University does not imply converting these institutions into purely profit-driven entities. Rather, it seeks to enhance entrepreneurial capabilities while maintaining social objectives and missions (Mudde et al., 2017).

The concept of entrepreneurial universities emerged because of an imbalance between society's very high demand (demand overload) for higher education and the limited response capacity of universities (Clark, 1998). Therefore, it is necessary to examine organizational components, high self-confidence in universities, and entrepreneurship. The University of Sumatera Utara as a Legal Entity State University, is required to become an "Entrepreneurial University" because it aims to increase competitiveness and adaptability to changes in the business and market environment. The University of Sumatera Utara must also encourage entrepreneurship programs by creating an atmosphere and culture of entrepreneurship by providing facilities and infrastructure, as well as a pleasant environment. Following this, the university has made various efforts to develop an entrepreneurial culture by establishing an institution that is expected to be

¹ Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia, Email: dolidalimunthe@usu.ac.id, (corresponding author)

² Faculty of Social and Political Sciences, Universitas Sumatera Utara, Medan.

³ Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia

⁴ Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia.

able to integrate all stakeholders and create an entrepreneurial climate in the context of transforming the USU into an Entrepreneurial University.

From 2021 to 2022, the Directorate of Student Achievement and Alumni Relations (DITMAWA) identified 2021 and 2022 graduate students, respectively, using the Tracer Study. There were 11,282 graduate students who completed the questionnaire and obtained data on the results of the University of Sumatera Utara Main Performance Indicators. The results showed that the achievements of key performance indicators (KPIs) are related to the quality of graduates from the University of North Sumatra over two years, 2021 and 2022. Specifically, it details the success rates of bachelor's degrees and diploma program graduates in three main areas: securing employment within six months of graduation, becoming entrepreneurs with sufficient income, and continuing their studies. In 2021, 17% of graduates secured jobs within six months, a figure that has improved to 20% by 2022. The percentage of graduates becoming entrepreneurs rose from 2% in 2021 to 5% in 2022, indicating a positive trend in entrepreneurial engagement. However, the rate of graduates continuing their studies has decreased slightly from 15% in 2021 to 12% in 2022. These data reflect a comprehensive performance evaluation based on the USU Chancellor's Performance Contract for the year 2022.

Professor Paul D. Hannon suggests that universities can adapt and react to their evolving contexts through entrepreneurship. Consequently, the concept of Entrepreneurial University is gaining recognition for its importance in devising innovative strategies to thrive in a volatile and unpredictable environment. It plays a crucial role in offering novel solutions to a variety of problems, thereby serving the public interest at both local and global levels (Hannon, 2013). There are three interpretations of entrepreneurial universities: (i) the institution itself must embody entrepreneurial qualities; (ii) the academic community within the university should foster an entrepreneurial mindset; and (iii) the university's interactions with governmental and private entities should be entrepreneurial in nature. Entrepreneurial universities are expected to cultivate a new generation of entrepreneurs who create jobs, positioning themselves as a viable means for universities to act as catalysts for economic growth (Mazzarol et al., 2016).

Unfortunately, universities are currently experiencing various obstacles, and according to Pucciarelli et al. (2013), they are currently facing high uncertainty and complexity within their own environment, which also applies to the development of entrepreneurship, which has very high pressure from within (Pucciarelli and Kaplan, 2016). Universities face various changes and dynamics as a form of adaptation to the new environment and conditions in society. In the future, a clear concept of Entrepreneurial University is needed in order to face various future challenges so that universities can determine the direction of their policies and strategies to face various global challenges in the future.

Despite these efforts, there is a notable gap in the understanding of how universities can systematically transition into Entrepreneurial Universities, particularly in the context of Indonesia. Research has not extensively covered the internal mechanisms and cultural shifts required by universities to support this transformation. Therefore, this study aims to investigate the processes and strategies that facilitate the evolution of Indonesian universities into entrepreneurial ones. It will explore how the University of Sumatera Utara responds to these challenges and what steps are taken to embed an entrepreneurial ecosystem into its framework. The objective is to provide a blueprint that can be used by other institutions to make a similar transition and contribute to the broader discourse on entrepreneurship in higher education.

Literature Review

Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA). The TPB is suitable for explaining various behaviors in entrepreneurship. The TPB is suitable for explaining any behavior that requires planning, such as entrepreneurship. The theory of reasoned action states that the intention to carry out a behavior has two main predictors: attitude toward the behavior and subjective norms. The development of this theory, the planned behavior theory, finds other predictors that also

influence the intention to carry out a behavior by including the concept of perceived behavioral control. Therefore, there are three main predictors that influence an individual's intention to carry out a behavior: attitude towards a behavior (attitude toward the behavior), subjective norms about a behavior (subjective norm), and perceptions about behavioral control (Montano and Kasprzyk, 2015)

Attitude toward the Behavior and Subjective Norm

Ajzen (2005) explains that attitudes towards a behavior are a function based on beliefs that are called behavioral beliefs; namely, individual beliefs regarding the positive and/or negative consequences that an individual will obtain from carrying out a behavior or salient outcome beliefs, which are the most prominent and influential beliefs, heavily dictate this attitude. For example, if an individual strongly believes that exercising will improve well-being and value health highly, they are likely to have a positive attitude towards exercising (Ajzen, 2005).

Subjective norms are a function based on beliefs, which are called normative beliefs, that beliefs regarding the approval and/or disapproval of a person or group are important for an individual regarding a behavior (salient referent beliefs). In general, the more an individual perceives that his social reference recommends him to carry out a behavior, the more likely he is to feel social pressure to carry out that behavior (Pryor, 2022)

Perceived Behavioral Control

Conceptually, perceived behavioral control is expected to moderate the influence of intentions on individual behavior; thus, a strong intention will produce behavior only if the individual's perceived behavioral control is strong (Hagger et al., 2022). Furthermore, intention and perceived behavioral control influence the behavior carried out by individuals, but in general, intention and perceived behavioral control do not have a significant relationship (Hagger et al., 2022). Specifically, perceived behavioral control is determined by a combination of an individual's beliefs regarding the supporting and/or inhibiting factors for carrying out a behavior and the strength of the individual's feelings about each supporting or inhibiting factor. In general, the more an individual feels that there are many supporting factors and few inhibiting factors in being able to carry out a behavior, the more they tend to perceive themselves as being easy to carry out that behavior. Conversely, the fewer individuals feel that there are few supporting factors and many inhibiting factors in being able to carry out a behavior, the more individuals will tend to perceive themselves as difficult to carry out that behavior (Ajzen, 2020).

Learning Organization

According to Peter Senge theory, a pioneer in learning organization theory, organizations are places where new patterns and comprehensive thinking grow, collective tendencies and will become free, and people continue to learn how to learn together. It is clear that organizations are not only physical buildings or corporate entities, but also dynamic ecosystems where new patterns of behavior and holistic thinking thrive. These surroundings function as breeding grounds for the emancipation of communal desires and the cultivation of a common determination, promoting a culture where ongoing education and reciprocal advancement are not just promoted, but essential to organizational values. The core of this concept revolves around the notion that a learning company prioritizes the comprehensive learning process, which includes individuals, teams, and the organization as a whole. This method highlights the significance of a synergistic learning model in which the interaction between individual and group learning processes amplifies the total aptitude for innovation, adaptability, and resilience. In such companies, the relentless quest for knowledge and development at every level becomes a motivating force that drives the organization towards accomplish its strategic objectives and maintain its competitive advantage in a constantly changing business environment. (Dochy et al., 2021).

Entrepreneurship

Entrepreneurs are people who have started new business ventures. Alternatively, managers seek to improve organizational units through a series of productive changes. According to the Organization for Economic Cooperation and Development (OECD), entrepreneurs can be defined as agents of change that are needed for the economic growth of a nation or country. This change agent or individual is central to a growing entrepreneurship. Entrepreneurship is fundamentally characterized by the initiation of new business ventures and the strategic transformation of existing organizational units through innovative and productive changes. Drawing upon the definition of the Organization for Economic Cooperation and Development (OECD), entrepreneurs are identified as pivotal agents of change whose roles are indispensable for the economic advancement of nations. They serve as linchpins in the machinery of economic growth, acting as catalysts for development, and vectors for innovation. Such individuals embody the essence of entrepreneurship, catalyzing progress through their central involvement in the inception, development, and maturation of entrepreneurial activities. Their ability to recognize opportunities, mobilize resources, and drive transformational change positions entrepreneurs at the heart of a thriving economy. As such, fostering an environment that nurtures entrepreneurial spirit and acumen becomes a priority for policymakers and business leaders alike in their quest to propel their nations or organizations toward greater prosperity and competitiveness in the global marketplace (Mazzarol et al 2019; Abdesselam et al., 2018).

Entrepreneurial University

Entrepreneur universities have an entrepreneurial spirit, which is why they become independent, autonomous, and not dependent on government subsidies (Etzkowitz, 2016). Entrepreneurship here means a profit-oriented activity carried out by the campus to strengthen financial aspects so that it becomes an independent university without losing its function as an educational institution where the main business is learning, which is carried out with full quality assurance, oriented to the satisfaction of the university's internal and external customers (Etzkowitz, 2016).

Guerrero and Urbano (2015) define the characteristics of an Entrepreneurial University, namely (Guerrero and Urbano, 2015):

Organizational adaptation to environmental changes

The uniqueness of university governance and management

New activities oriented towards developing entrepreneurial culture at all levels

The contribution of universities to economic development through job creation

Research and research commercialization.

Organizational Adaptation and Governance Distinctiveness

Organizational adaptation refers to the capability of an organization to adjust and respond to environmental changes. Governance distinctiveness refers to the unique traits and practices of an organization's governing structure. Influential research on five European institutions has revealed significant transformations that require an understanding of their distinct evolutionary paths (Drennan et al., 2020). These transformations involve five critical aspects: strengthened steering core, expanded developmental periphery, diversified funding base, stimulated academic heart, and integrated entrepreneurial culture. These paths form a theoretical framework for university adaptation by consolidating decision making, broadening influence, diversifying income sources, revitalizing intellectual pursuits, and fostering an entrepreneurial mindset. Subotzky (1999) further explored adaptive mechanisms in Entrepreneurial Universities characterized by strong business partnerships, faculty-led external funding efforts, and a managerial approach in governance and planning. This aligns with Resource Dependence Theory, which emphasizes the proactive management

of resource dependencies and external connections to enhance independence and innovation (Subotzky, 1999).

Development of Entrepreneurial Culture

Entrepreneurial universities modify their structures to better adapt to external environments (Cameron, 1984) and to promote entrepreneurial actions at all levels (Puerta-Sierra et al., 2021; Wakkee et al., 2019). This was achieved through a combination of educational programs and practical support networks. According to the entrepreneurial ecosystem theory, multiple interconnected elements contribute to entrepreneurship growth. Incorporating entrepreneurial education into curricula at all levels fosters positive attitudes towards entrepreneurship. The Theory states that entrepreneurial intentions are shaped by attitudes, subjective norms, and perceived behavioral control. Early education in entrepreneurial skills and knowledge can positively influence these intentions, ensuring a steady stream of future entrepreneurs [Lourenço et al., 2013; Fayolle and Gailly, 2015]. Additionally, establishing support structures, such as incubators, accelerators, and access to capital, is crucial (Leitão et al., 2022). Theories such as social capital and the pecking order of finance emphasize the importance of networks and financing hierarchies. Providing mentorship, networking, and funding can turn entrepreneurial intentions into actions and create a lasting entrepreneurial culture (Zachary, 2005).

Commercialization of Research

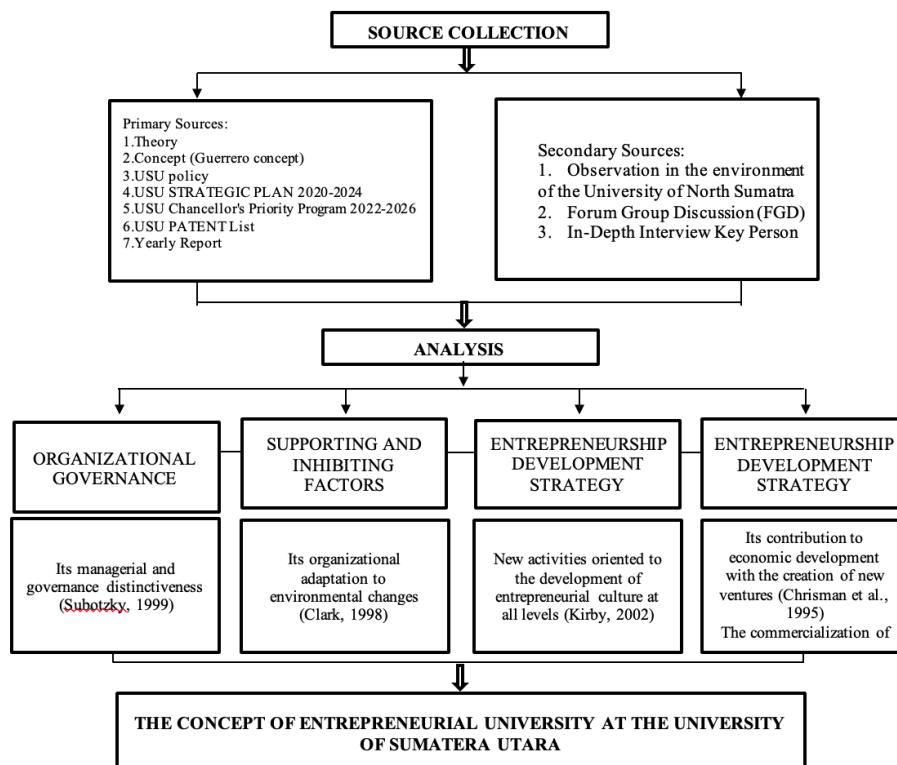
The concept of academic entrepreneurship is used to describe the various ways in which academics commercialize their knowledge (Perkmann, 2013). Thus, the term academic entrepreneur can be used to describe an academic who starts a company to commercialize his research, as well as a senior researcher who is good at arranging sizeable research grants; as a result, it has become the de facto employer of a large number of doctoral positions and other junior researchers.

Jacob et al. (2003) stated that the commercialization of research as a characteristic of the Entrepreneurial University requires the creation of a special agency for innovation as well as the concentration of resources on mechanisms to facilitate the commercialization and commodification of university-based knowledge, indicating that although the formulation is broad in interaction with other communities, there is a growing tendency to interpret the third task as essentially about commercializing and commodifying university knowledge (Jacob et al., 2003).

Methodology

The analysis in this research uses qualitative methods with an interactive model, as offered by Saldana (2014), namely through the process of data collection, data condensation, data display, and conclusions through verification [30]. The research was conducted at the USU by collecting data through observation, interviews, FGD, and documentation studies. The information taken contains the USU's transformation into an Entrepreneurial University, sourced from lecturers, students, educational staff, and partners. The key instruments (Key Informants) in this research were the USU Chancellor, Deputy Chancellor III in charge of Research, Community Service and USU Cooperation, Director of Educational Development, Head of the USU Research and Innovation Development Agency (BPRI), Head of the Curriculum and Learning Innovation Institute, Head of Entrepreneurship Study Program, and informants for PTN-BH and other universities. Data sources are also supported by documents, namely, all documents related to research, in the form of archives, official documents, brochures, and work/activity programs. The research framework is illustrated in figure 1.

Figure 1. Research framework



Discussion

Efforts to Transform into an Entrepreneurial University

The various efforts and considerations involved in the transformation of the USU into an Entrepreneurial University. It details the initiatives undertaken, the level of awareness and knowledge among the university community, the impact of entrepreneurial programs, the obstacles faced during the transformation, the collaborative efforts with external institutions, the governance and policy changes introduced, and the suggested improvements to foster entrepreneurial culture. This comprehensive approach reflects the multifaceted strategy required to cultivate an entrepreneurial mind-set within an academic institution. The identified USU's efforts to transform into an Entrepreneurial University are presented in Table 1.

Table 1: Efforts and considerations involved in the transformation of USU into an Entrepreneurial University

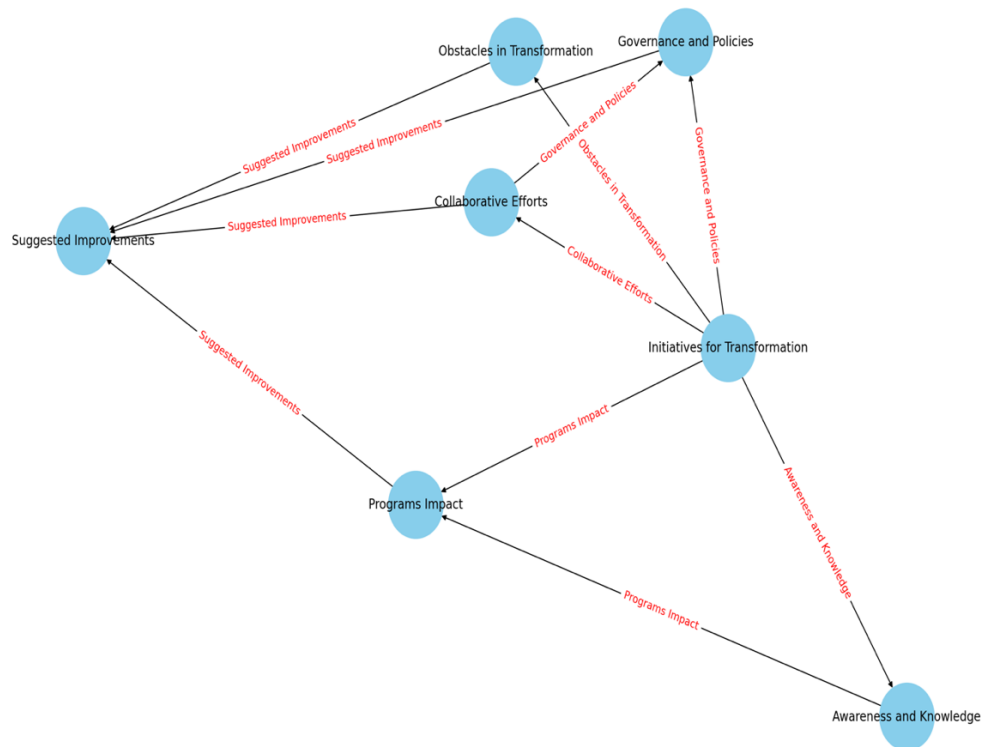
Area	Details
Initiatives for Transformation	Establishment of BPRI to manage entrepreneurship-related matters; Entrepreneurial University programs like PKMK, PMW, Entrepreneurship Student Center.
Awareness and Knowledge	High awareness among students, lecturers, and academics about the Entrepreneurial University at USU, understanding of various programs and innovation products.
Programs Impact	Programs have had an impact on entrepreneurial mindset and intentions, encouraging creativity and innovation.
Obstacles in Transformation	No specific regulations for the Entrepreneurial University; low active participation and enthusiasm among the academic community; distractions from other responsibilities; lack of human resources; limited space for business management.

Collaborative Efforts	Collaboration with Babson College USA for various programs; Babson Collaborative Membership; PKM Center; participation in P2MW and KMI Expo; entrepreneurship courses in curriculum.
Governance and Policies	New Entrepreneurship Study Program at Faculty of Economics and Business; need for clear regulations on business units management; educational hospitals, InterCoffee, Indomaret for revenue generation.
Suggested Improvements	Increase socialization and entrepreneurial design; form regulations/policies; improve human resource quality by supporting study abroad; introduce competency certification for lecturers in entrepreneurship.

To transform the USU into an Entrepreneurial University, it is necessary to integrate all stakeholders in a holistic manner. To accomplish this, the USU formed the Innovation Research Development Agency (BPRI) to oversee entrepreneurship-related endeavors and foster an entrepreneurial ecosystem. The results of the Forum Group Discussion reveal that there is a broad understanding of the Entrepreneurial University concept among students, instructors, and academics in the USU. Existing programs, such as PKMK, PMW, and the Student Entrepreneurship Center, have already been established. Nevertheless, certain participants expressed the opinion that the USU lacks explicit guidelines for conducting these programs and that efforts to promote sociability require enhancement.

The USU has launched a range of activities, including partnerships with industries, organizations focusing on entrepreneurship, and enterprises owned by the university. These activities have had a positive influence on the entrepreneurial mind-set and goals within the academic community, promoting creativity and innovation. Nevertheless, there is a belief that these initiatives are inadequate and require additional improvement to effectively stimulate entrepreneurial activity. Figure 2 displays a schematic of the USU's Entrepreneurial University program.

Figure 2: Relationship diagram for USU entrepreneurial University Program



The university faces several obstacles in its transformation efforts, including the absence of specific regulations for Entrepreneurial University at the USU. This lack of regulation affects the formation of an entrepreneurial mindset and participation of the academic community. Additionally, other responsibilities are distracted from entrepreneurship programs, resulting in poor implementation and limited understanding of the Entrepreneurial University concept. There is also a shortage of professional staff to guide and develop entrepreneurial activities, and universities have limited space to manage their businesses. To address these issues, the USU collaborates with Babson College USA. University leaders and staff will participate in various entrepreneurship programs, conduct benchmarking visits to Babson College, and send three lecturers to Babson College Pedagogy and Symposium for Entrepreneurship Educators. As part of the Babson Collaborative Membership, the USU joined 37 universities worldwide. This collaboration allows the USU to nominate representatives for the Babson Global Student Challenge, supporting student entrepreneurship activities and engagement.

Since 2022, the USU Alumni Ditmawa has established the PKM Center to boost the number of Student Creativity Program (PKM) proposals submitted by the Ministry of Education and Culture. The PKM program includes two categories: PKM-K (entrepreneurship) and PKM-KC (Karsa Cipta), both of which foster business ventures and product prototypes for commercialization. Additionally, the USU participates in the Entrepreneurial Student Development Program (P2MW) with early stage and development programs. In 2022, three USU student groups advanced in the initial-stage category, and in 2023, the four groups were the same. These groups exhibit their products at the KMI Expo where they are evaluated. Ditmawalumni support students in entrepreneurial activities, aiming to foster an entrepreneurial mindset and culture. The USU has seen six startups participating in pitching events organized by the Indonesian Ministry of Cooperatives and SMEs, attracting investors from Japan, South Korea, Australia, China, and locally. The BPRI offers training and business incubation for students, lecturers, and startups, facilitating the commercialization of innovative products and enhancing the USU's revenue generation.

Based on the results of interviews with key informants, researchers found that there is a common opinion that the entrepreneurial mindset at USU is currently still considered low and that the programs that are currently running are not being implemented comprehensively, as can be seen from the absence of regulations governing the EU among the staff. This is because many lecturers and staff members are still happy in their comfort zones and lack self-confidence. In an effort to improve this, new policies are needed that are related to entrepreneurial values that are agreed upon by all stakeholders and that are able to stimulate innovation and creativity from lecturers, staff, and students to build an entrepreneurial mindset among the academic community.

In response to the obstacles and threats faced by USU in transformation, it is by increasing socialization, building a design that leads to an Entrepreneurial University, forming regulations or policies, which is in line with the opinions of respondents in interviews. To improve the quality of human resources at the USU, it is necessary to support its lecturers to study abroad and increase cooperation and collaboration with internal and external parties who will be able to help USU later in the downstream stage of commercial products. However, despite this, USU has strength in terms of human resources in terms of quantity and quality, and our lecturers and alumni have already reached the national and international stages.

In addition, another effort made by the USU in transformation is to provide entrepreneurship courses in the learning curriculum as courses in various faculties, although there are several faculties that do not have it, one of which is the law faculty; however, the law faculty itself still has a curriculum in which law courses lead to entrepreneurship, even though it is not clearly stated that these courses are entrepreneurship courses. The establishment of an entrepreneurship study program in the faculty of economics and business as a form of effort made by the USU to support transformation, it is hoped that this study program can create innovative and creative mindsets and behavior not only among students but also indirectly in the lecturer's environment. The development of the Entrepreneurial University Model, as proposed in this research, aims to leverage these human resources to promote a unified approach to entrepreneurship in the USU. The Entrepreneurial University Model envisaged by researchers has the potential to act as a blueprint for integrating entrepreneurial activities across a university's various functions. By engaging the entire academic

community in entrepreneurial programmes, the USU can harness its collective expertise and innovation potential to drive sustainable growth and competitiveness.

This proposed model aligns with the theoretical framework suggested by Etzkowitz (2004) and Clark (1998), who argue for the transformation of universities into entrepreneurial entities. It also resonates with practical insights from institutions such as Stanford University and MIT, which have successfully embedded entrepreneurship in their academic and operational ethos (Rothaermel, 2007). In moving forward, it is imperative for the USU to consider the findings of this study and strategically implement policies that are conducive to entrepreneurship. This involves a comprehensive socialization process to embed an entrepreneurial mindset among stakeholders and the establishment of governance structures that support and incentivize entrepreneurial activities.

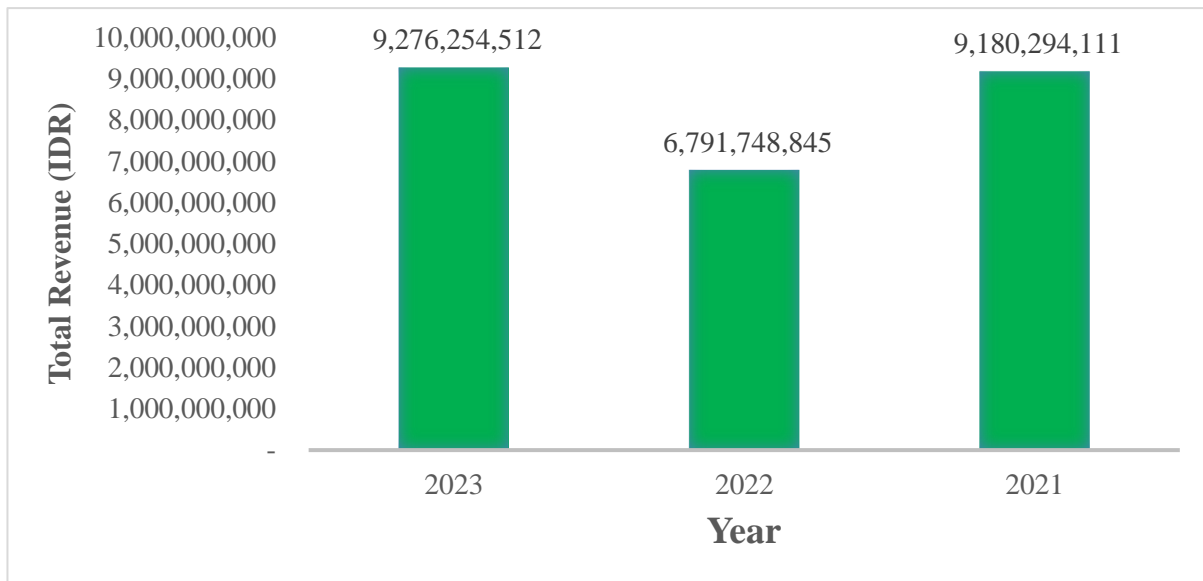
Output Entrepreneur Program Of USU

According to data on total private funding revenue for Universitas Sumatera Utara (USU), the institution generated Rp 9,180,294,111 in 2021. This figure decreased to Rp 6,791,748,845 in 2022 before rising again to Rp 9,276,254,512 in 2023. These fluctuations in private funding highlight the dynamic nature of financial support from private sources and underscore the importance of strategic initiatives to stabilize and enhance revenue generation through entrepreneurial activities and partnerships. data are presented in Table 2 and Figure 3.

Table2: Total Private Funding Revenue of Universitas Sumatera Utara 2021-2023

No,	Business Unit Name	Total Revenue Per Year (IDR)		
		2023	2022	2021
1	Canteen	397,981,484	148,978,000	38,000,000
2	Sports Field	33,482,500	32,520,400	14,400,000
3	Building			
	A, BANK			
	1)Bank Mandiri Jl, University			519,000,000
	2)BTN Bank			879,282,000
	B, Meeting House	544,595,584	225,805,000	
4	Space			
	A, Killiney Building	51,333,337	51,333,337	41,999,994
	B, ATM			
	1) BNI Bank	34,020,000	64,800,000	
	2) BANK MANDIRI RS	33,750,000	84,723,600	
	3) BANK MANDIRI ACADEMIC COMMUNITY	33,750,000		
	4) Bank SUMUT	38,178,000		
	C, Cobra Dental		35,000,000	
	D, Photocopy			
	1) Pharmacy	12,630,000	6,946,500	
	2) Faculty of Law	14,615,554		13,652,756
	3) Library	7,770,000	14,500,000	
	4) Library (somok solin)	1,500,000		

	5) Faculty of Dentistry	8,200,000	10,302,700	
	E, Computer Rental	11,459,920	16,404,000	
5	Mess Berastagi	25,164,000	34,762,000	4,650,000
6	Land			
	A, Parking Lot	101,736,850	77,086,072	
	B, Flower Board	41,736,000	23,500,000	
	C, TOWER			
	1) Gametraco (PT PPSU)		240,000,000	
	2) Rector Bureau (Telkomsel)			120,600,000
	3) Faculty of Engineering (Gametraco)			153,446,400
	4) USU Hospital (Erabangun)			135,098,271
	5) Library (IBS)			225,000,000
	6) Faculty of Law (Solusindo)			180,000,000
	7) Dayamitratel Tower	126,630,000		
	D, Metro		579,804,000	
	E, Bank Sumut	54,540,000	36,000,000	
	F, Bank Syariah Indonesia	166,680,800		
	G, BNI KCU USU MEDAN	230,000,001		
	H, Auditorium Courtyard (PEMA USU)	4,000,000		
7	Office House	155,461,449	22,265,000	
8	Dormitory	483,450,000	573,425,000	
9	Laboratory	1,311,131,626	503,243,366	
10	Work Unit Revenue	93,340,000	179,576,336	
11	Intercoffee	741,409,500	698,018,100	218,686,500
12	Pharmacies	145,575,100	106,435,700	42,094,350
13	USU <i>Shop</i>	4,562,000	8,343,000	
14	USU Experiment Station Tambunan A	1,738,549,857	3,017,976,734	6,594,383,840
15	Language Center	1,897,650,000		
16	CV USUMART	265,430,200		
17	USU Bus	699,500		
18	International House	23,051,250		
19	OTHER BUSINESSES	442.190.000		
	TOTAL (IDR)	9,276,254,512	6,791,748,845	9,180,294,111

Figure 3: Total USU's revenue in 3 Years

Facility Development

The Universitas Sumatera Utara (USU) has also undertaken the development of various facilities to support the university's revenue-generating initiatives. Among these is Prof. Dr. Chairuddin P. Lubis Hospital, which provides comprehensive healthcare services while contributing to the university's financial sustainability. Additionally, the establishment of the USU Enterprise serves as a hub for entrepreneurial activities, fostering innovation and commercialization of research outputs. The university has further expanded its infrastructure by creating social and communal spaces such as the Temu Tengah Café at the Faculty of Social and Political Sciences (FISIP), Cafenomics at the Faculty of Economics and Business (FEB), and Inter Café USU. These facilities not only enhance the campus experience for students and staff but also play a significant role in generating additional revenue streams for the university.

Students' Entrepreneurial Activity

Ditmawalumni USU organizes the Student Entrepreneurship Program (PMW)/USU Pitching annually, which aims to foster various student-owned enterprises. In addition, since 2022, Ditmawalumni USU has established a new unit called the PKM Center. This center is dedicated to supporting an increase in the number of proposals for the Student Creativity Program (PKM) from the Ministry of Education, Culture, Research, and Technology. The PKM program itself includes two categories: PKM-K (entrepreneurship) and PKM-KC (Creative Initiative). There is also another entrepreneurship-related program from the Ministry, the Student Entrepreneurship Development Program (P2MW), which is divided into two categories: the initial and development stages. These student enterprises are systematically provided with training and business incubation at the Research Innovation Development Agency (BPRI/USU Enterprise).

Lecturers' Entrepreneurial Activity

The BPRI program not only offers training and business incubation for students, but also extends these services to various innovative products resulting from lecturers' research and lecturer-owned startups. This program provides comprehensive training, mentorship, and business incubation aimed at the commercialization of these innovative products. These efforts were undertaken with the objective of enhancing the revenue-generating capabilities of USU. The diverse outcomes of lecturers' research, which include a range of innovative products, include incubation processes that span from prototype development to product commercialization. These products subsequently became entrepreneurial ventures under the

USU's ownership. To date, there are over 30 market-ready lecturer-research-derived startups. The commercialization of these innovative products significantly contributes to the USU's revenue generation, reflecting the institution's commitment to leveraging research outputs for financial sustainability.

Research Implications

In an effort to transform into an Entrepreneurial University, it must have governance and a model for the entrepreneurial system itself. Without a model, the Entrepreneurial University development process will run partially and will not be integrated into the entire academic community at the university. USU, which is one of the PTNBHs that is currently trying to transform, has an Entrepreneurial University model, but it is still partially running and is still massive. Therefore, with this research, it is hoped that it will be able to provide an Entrepreneurial University model that is able to integrate the entire academic community at USU, and the goal of transformation will be increasingly

Conclusion And Recommendation

This study highlights the transformative potential of the University of Sumatera Utara (USU) as it transitions into an Entrepreneurial University under the PTNBH framework. Despite the presence of several challenges, including the lack of an integrated entrepreneurial model and specific policies, as well as inconsistent regulations and inadequate policy dissemination, USU shows considerable promise owing to its robust human resources and the remarkable achievements of its academic community. The entrepreneurial spirit is alive within the institution, but it requires a cohesive, university-wide strategy that aligns with the USU's vision and aspirations. Therefore, it is imperative that the USU develop a comprehensive and integrated model that encapsulates the principles of entrepreneurialism across all facets of university life. This model should foster an environment in which the entrepreneurial mindset can thrive, transforming students from job seekers into job creators, and leveraging the university's strengths to meet and surpass the challenges of a competitive global landscape.

Acknowledgement

We express our sincere gratitude to all those who contributed to the development and completion of this manuscript. Our heartfelt thanks go to the leadership and faculty of Universitas Sumatera Utara (USU) for their support and encouragement.

Glossary

Term	Definition
Entrepreneurial University	A concept where a university actively fosters innovation and entrepreneurship within its education and research activities.
PKMK	Stands for "Program Kreativitas Mahasiswa Kewirausahaan," an Indonesian term referring to a student creativity program for entrepreneurship.
Pitching Competition	An event where entrepreneurs present their business ideas to a panel, often for the purpose of securing investment or winning a prize.
Ditmawa	An acronym or term that likely refers to a department or division within the university that deals with student affairs, possibly student welfare or development.
PMW	An acronym for "Program Mahasiswa Wirausaha," which is an entrepreneurial program for students.

PT Pembangunan Almamater Sejahtera (PAS)	This refer to a commercial enterprise or entity associated with the university of Sumatera Utara
Intercafe, Indomaret	Brands or commercial outlets, where Indomaret is a well-known convenience store chain in Indonesia. Intercafe is likely a cafe or similar establishment on campus.
CPPBT Proposal Assistance	This refer to a specific program or initiative for assisting with proposals in a context related to creativity, technology, or entrepreneurship.
BPRI	An agency or body within the university context, potentially standing for "Badan Pengembangan Riset dan Inovasi", which manages entrepreneurship and employment.
PKM Center	A center supporting the creation and submission of Student Creativity Program Proposals; PKM stands for "Program Kreativitas Mahasiswa."
PKM-K (Entrepreneurship) and PKM-KC (Karsa Cipta)	Categories within the PKM program, focusing on entrepreneurship and creative work, respectively.
P2MW	An acronym that is likely related to a student development program in entrepreneurship, possibly Indonesian-specific.
KMI Expo	An exhibition event related to student entrepreneurship, possibly an acronym for an Indonesian term like "Karya Mahasiswa Indonesia" (Indonesian Student Works Expo).

References

- Abdesselam, R., Bonnet, J., Renou-Maissant, P., & Aubry, M. (2017). Entrepreneurship, economic development, and institutional environment: evidence from OECD countries. *Journal of International Entrepreneurship*, 16(4), 504–546. <https://doi.org/10.1007/s10843-017-0214-3>
- Ajzen, I. (2005). *Attitudes, personality and behaviour*. McGraw-hill education (UK).
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314–324. Portico. <https://doi.org/10.1002/hbe2.195>
- Amalia, R. T., & von Korfflesch, H. F. O. (2021). Entrepreneurship education in Indonesian higher education: mapping literature from the Country's perspective. *Entrepreneurship Education*, 4(3), 291–333. <https://doi.org/10.1007/s41959-021-00053-9>.
- Cameron, K. S. (1984). Organizational Adaptation and Higher Education. *The Journal of Higher Education*, 55(2), 122. <https://doi.org/10.2307/1981182>
- Clark, B. R. (1998). The entrepreneurial university: Demand and response1. *Tertiary Education and Management*, 4(1), 5–16. <https://doi.org/10.1080/13583883.1998.9966941>
- Dochy, F., & Laurijssen, J. (2021). Systems Thinking and Building Learning Organisations. *Theories of Workplace Learning in Changing Times*, 173–198. <https://doi.org/10.4324/9781003187790-10>
- Drennan, J., Clarke, M., Hyde, A., & Politis, Y. (2020). Academic Identity in Higher Education. *The International Encyclopedia of Higher Education Systems and Institutions*, 35–40. https://doi.org/10.1007/978-94-017-8905-9_300

- Etzkowitz, H. (2004). The evolution of the entrepreneurial university. *International Journal of Technology and Globalisation*, 1(1), 64. <https://doi.org/10.1504/ijtg.2004.004551>
- Etzkowitz, H. (2016). The Entrepreneurial University: Vision and Metrics. *Industry and Higher Education*, 30(2), 83–97. <https://doi.org/10.5367/ihe.2016.0303>
- Fayolle, A., & Gailly, B. (2013). The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention: Hysteresis and Persistence. *Journal of Small Business Management*, 53(1), 75–93. <https://doi.org/10.1111/jsbm.12065>.
- Guerrero, M., & Urbano, D. (2019). A research agenda for entrepreneurship and innovation: the role of entrepreneurial universities. *A Research Agenda for Entrepreneurship and Innovation*. <https://doi.org/10.4337/9781788116015.00012>
- Hagger, M. S., Cheung, M. W.-L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioral control moderating effects in the theory of planned behavior: A meta-analysis. *Health Psychology*, 41(2), 155–167. <https://doi.org/10.1037/hea0001153>
- Hannon, P. D. (2013). Why is the Entrepreneurial University Important? *Journal of Innovation Management*, 1(2), 10–17. https://doi.org/10.24840/2183-0606_001.002_0003.
- Jacob, M., Lundqvist, M., & Hellsmark, H. (2003). Entrepreneurial transformations in the Swedish University system: the case of Chalmers University of Technology. *Research Policy*, 32(9), 1555–1568. [https://doi.org/10.1016/s0048-7333\(03\)00024-6](https://doi.org/10.1016/s0048-7333(03)00024-6).
- Leitão, J., Pereira, D., & Gonçalves, Â. (2022). Business Incubators, Accelerators, and Performance of Technology-Based Ventures: A Systematic Literature Review. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 46. <https://doi.org/10.3390/joitmc8010046>
- Lourenço, F., Jones, O., & Jayawarna, D. (2012). Promoting sustainable development: The role of entrepreneurship education. *International Small Business Journal: Researching Entrepreneurship*, 31(8), 841–865. <https://doi.org/10.1177/0266242611435825>.
- Mazzarol, T., & Reboud, S. (2019). Entrepreneurship as a Social and Economic Process. *Entrepreneurship and Innovation*, 1–34. https://doi.org/10.1007/978-981-13-9412-6_1.
- Mazzarol, T., Battisti, M. A. R. T. I. N. A., Clark, D. E. L. W. Y. N., Clark, D., McKeown, T., & Battisti, M. (2016). The role of universities as catalysts within entrepreneurial ecosystems. *Rhetoric and Reality: Building Vibrant and Sustainable Entrepreneurial Ecosystems*; Clark, D., McKeown, T., Battisti, M., Eds.
- Montano, D. E., & Kasprzyk, D. (2015). Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. *Health behavior: Theory, research and practice*, 70(4), 231.
- Mudde, H., Widhiani, A. P., & Fauzi, A. M. (2017). Entrepreneurial university transformation in Indonesia: a comprehensive assessment of IPB. *GSTF Journal on Business Review (GBR)*, 5(1). https://doi.org/10.5176/2010_4804_1.4.
- Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'Este, P., Fini, R., Geuna, A., Grimaldi, R., Hughes, A., Krabel, S., Kitson, M., Llerena, P., Lissoni, F., Salter, A., & Sobrero, M. (2013). Academic engagement and commercialisation: A review of the literature on university–industry relations. *Research Policy*, 42(2), 423–442. <https://doi.org/10.1016/j.respol.2012.09.007>
- Pryor, B. W. (2022). Understanding Belief, Attitude, and Behavior: How to Use Fishbein and Ajzen's Theories in Evaluation and Educational Research.
- Pucciarelli, F., & Kaplan, A. (2016). Competition and strategy in higher education: Managing complexity and uncertainty. *Business Horizons*, 59(3), 311–320. <https://doi.org/10.1016/j.bushor.2016.01.003>
- Puerta-Sierra, L., Montalvo, C., & Angeles, A. (2021). University-industry collective actions framework: societal challenges, entrepreneurial interactions and outcomes. *Technology Analysis & Strategic Management*, 33(12), 1377–1388. <https://doi.org/10.1080/09537325.2021.187512923>.

- Rothaermel, F. T., Agung, S. D., & Jiang, L. (2007). University entrepreneurship: a taxonomy of the literature. *Industrial and Corporate Change*, 16(4), 691–791. <https://doi.org/10.1093/icc/dtm023>
- Saksono, L., & Aji, R. N. B. (2023). Strategy for Developing a Blue Print for Community Service to Strengthen University with Legal Entity. *Advances in Social Science, Education and Humanities Research*, 1511–1518. https://doi.org/10.2991/978-2-38476-008-4_163
- Saldana, J. (2015). *Thinking Qualitatively: Methods of Mind*. <https://doi.org/10.4135/9781071909782>
- Subotzky, G. (1999). *Higher Education*, 38(4), 401–440. <https://doi.org/10.1023/a:1003714528033>.
- Wakkee, I., van der Sijde, P., Vaupell, C., & Ghuman, K. (2019). The university's role in sustainable development: Activating entrepreneurial scholars as agents of change. *Technological Forecasting and Social Change*, 141, 195–205. <https://doi.org/10.1016/j.techfore.2018.10.01324>.
- Zachary, L. J. (2006). Creating a Mentoring Culture: The Organizations Guide. *Development and Learning in Organizations: An International Journal*, 20(4). <https://doi.org/10.1108/dlo.2006.08120dae.003>.