



RICH PICTURE ANALYSIS OF THE UNIVERSITY ENTREPRENEURIAL ECOSYSTEM FOR GEN Z

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Abstract: This study maps the university-based entrepreneurship education ecosystem for Generation Z in Aceh using SSM and an RP approach. The aim is to uncover actors, flows, bottlenecks, and leverage points that turn learning into entrepreneurial action. Data were collected through document review, short questionnaires, semi-structured interviews, and RP workshops involving students, lecturers, incubator managers, university leaders, industry/SME partners, financiers, and government. The RP synthesis and reflexive thematic analysis identified four system leverage points and highlighted obstacles such as fragmented coordination, limited seed funding, misaligned calendars, and policy/administrative friction. The results show that aligning the curriculum with incubation milestones, codifying readiness rubrics, and applying evidence-based micro-grants strengthen the path from class to customer. This study suggests setting up an Entrepreneurial Ecosystem Council and quarterly RP reviews to coordinate cross-unit decisions and accountability.

Keywords: Rich Picture; Soft Systems Methodology; Entrepreneurial Ecosystem

Abstrak: Studi ini memetakan ekosistem pendidikan kewirausahaan berbasis universitas bagi Generasi Z di Aceh menggunakan SSM dan pendekatan RP. Tujuannya ialah mengungkap aktor, arus, bottleneck, serta titik pengungkit yang mengonversi pembelajaran menjadi aksi kewirausahaan. Data dihimpun melalui telaah dokumen, kuesioner singkat, wawancara semi-terstruktur, dan lokakarya RP yang melibatkan mahasiswa, dosen, pengelola inkubator, pimpinan universitas, mitra industri/UMKM, pelaku pembiayaan, dan pemerintah. Sintesis RP dan reflexive thematic analysis mengidentifikasi empat pengungkit sistem, serta menyoroti hambatan berupa koordinasi terfragmentasi, keterbatasan pendanaan awal, ketidakselarasan kalender, dan friksi kebijakan/administrasi. Hasil menunjukkan penyesuaian kurikulum dengan milestones inkubasi, kodifikasi rubrik readiness, dan penerapan mikro-hibah berbasis bukti memperkuat rute dari kelas menuju pelanggan. Studi ini mengusulkan pembentukan Entrepreneurial Ecosystem Council dan RP quarterly review untuk mengorkestrasi keputusan lintas unit dan akuntabilitas.

Kata Kunci: Rich Picture; Soft Systems Methodology; Ekosistem Kewirausahaan

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Introduction

The entrepreneurship education ecosystem in higher education is understood as a network of actors, institutions, regulations, and resources that interact to foster student entrepreneurial learning while encouraging sustainable entrepreneurial practices.¹ In the digital era, ecosystem boundaries are increasingly porous as information flows, cross-border networks, and the role of platforms (digital communities, marketplaces, and funding channels) shape how ecosystems coordinate, innovate, and orchestrate opportunities.² The literature on digital entrepreneurial ecosystems demonstrates that digitalization is not merely a tool but a factor that transforms governance structures, collaboration patterns, and value creation mechanisms within entrepreneurial ecosystems.³

This global context is relevant for Indonesian universities expanding entrepreneurship programs through experiential learning schemes and cross-actor partnership networks. The GEM indicator shows that Indonesia has a high Total Early-stage Entrepreneurial Activity (TEA) rate of 25.5%, indicating significant potential for early-stage entrepreneurship.⁴ At the higher education policy level, *Program Wirausaha Merdeka 2024* reportedly attracted the participation of more than 12,573 students from across Indonesia, indicating both strong enthusiasm and the need for ecosystem orchestration to ensure that learning experiences truly lead to business traction and sustainability.⁵

However, high interest and program participation do not automatically ensure the conversion of intentions into measurable entrepreneurial behavior.⁶ The entrepreneurial intention literature, including empirical findings on the intention-action relationship, suggests that strong intentions can still fail to translate into action due to contextual friction, resource constraints, and implementation barriers.⁷ Studies on the intention-behavior gap emphasize the need to consider moderators at the situational and system levels (e.g., network access, support availability, and procedural constraints) when the policy goal is to encourage concrete action, rather than increase intentions.⁸

¹ Kathrin Bischoff, Christine Volkmann, And David Audretsch, "Stakeholder Collaboration In Entrepreneurship Education: An Analysis Of The Entrepreneurial Ecosystems Of European Higher Educational Institutions," *The Journal Of Technology Transfer* 43, no. 1 (2018): 20.

² Kelly Hewett et al., "Cross-Border Marketing Ecosystem Orchestration: A Conceptualization Of Its Determinants And Boundary Conditions," *International Journal Of Research In Marketing* 39, no. 2 (2022): 619.

³ Tati Handayani et al., "Business Digitalization: An Islamic Business Ethics Perspective With The Bmc Model," *FINANSIA: Jurnal Akuntansi Dan Perbankan Syariah* 8, no. 2 (2025).

⁴ Global Entrepreneurship Monitor, *Entrepreneurship in Indonesia (Country Profile)*, 2024.

⁵ Kementerian Pendidikan Tinggi Sains Dan Teknologi, "Program Wirausaha Merdeka Tahun 2024 Resmi Dibuka," <https://kemdiktisaintek.go.id/news/article/program-wirausaha-merdeka-tahun-2024-resmi-dibuka>, (06 October 2025).

⁶ Brownhilder Ngek Neneh And Obey Dzomonda, "Transitioning From Entrepreneurial Intention To Actual Behaviour: The Role Of Commitment And Locus Of Control," *The International Journal Of Management Education* 22, no. 2 (2024): 100964; Enny Puji Lestari, Nyimas Lidya Putri Pertiwi, Agus Alimuddin, And Danil Asbihani, "Minat Investasi Pekerja Migran Indonesia Dalam Meningkatkan Ketahanan Ekonomi Keluarga Di Lampung Timur," *FINANSIA: Jurnal Akuntansi dan Perbankan Syariah* 6, no. 1 (2023): 89.

⁷ Robyn Owen, Lakshmi Narasimhan Vedanthachari, And Javed Hussain, "The Role Of The University Entrepreneurial Ecosystem In Entrepreneurial Finance: Case Studies Of UK Innovation Knowledge Centres," *Venture Capital* 26, no. 3 (2024): 351.

⁸ Mark Conner And Paul Norman, "Understanding The Intention-Behavior Gap: The Role Of Intention Strength," *Frontiers In Psychology* 13, (2022): 923464.

Specifically, in the context of entrepreneurship education, program effectiveness is often reported as positive, but not consistently substantial or uniform across contexts.⁹ Meta-analyses based on more rigorous designs (pre-post with a control group) indicate that entrepreneurial education has a small to moderate positive impact on intentions and related outcomes. However, the magnitude of the effect is influenced by program design and institutional context.¹⁰ Literature on entrepreneurial education mapping in Indonesian higher education also emphasizes the diversity of learning practices, the disparity in program provision, and the need to strengthen more modern and contextual approaches so that learning truly impacts entrepreneurial competencies and practices.¹¹

At the meso-level, the entrepreneurial university framework positions universities not merely as curriculum providers but as orchestrators of entrepreneurship services and infrastructure (incubation, commercialization, networking, and start-up support) to connect learning with value creation.¹² However, without context-sensitive mapping, interventions often become stuck in fragmented programs, with self-paced curricula, self-paced incubators, limited initial funding, and disintegrated market access within a single service pathway. This situation widens the bottleneck in the crucial curriculum-to-venture transition for students, especially Gen Z, who tend to demand iterative, fast-paced, and market-feedback-driven learning.¹³

Recent developments even highlight an expansion toward the Quadruple/Quintuple Helix model, which integrates civil society and the environment, emphasizing the importance of multi-actor orchestration within the university ecosystem.¹⁴ While the literature on entrepreneurship ecosystems continues to grow, many authors call for more context-sensitive mapping, particularly in regions with diverse policy configurations, cultures, and economic structures, to ensure campus interventions are well-targeted for Generation Z students.¹⁵ Local contexts like Aceh require a comprehensive overview of actors, relationships, resource flows, and ecosystem constraints to support evidence-based program and policy decisions that can be designed incrementally.¹⁶

⁹ Judit Csákné Filep, Gigi Timár, And Áron Szennay, "Analysing The Impact Of Entrepreneurship Education On Early-Stage Entrepreneurship—Focusing On The Transitional Countries Of Central And Eastern Europe," *Administrative Sciences* 15, no. 2 (2025): 1.

¹⁰ S Martínez-Gregorio, L Badenes-Ribera, And A Oliver, "Effect Of Entrepreneurship Education On Entrepreneurship Intention And Related Outcomes In Educational Contexts: A Meta-Analysis," *The International Journal Of Management Education* 19, no. 3 (2021): 100545.

¹¹ Ria Amalia And Harald Von Kortzfleisch, "Entrepreneurship Education In Indonesian Higher Education: Mapping Literature From The Country's Perspective," *Entrepreneurship Education* 4, (2021).

¹² Marta Arroyabe, Martin Schumann, And Carlos F. A. Arranz, "Mapping The Entrepreneurial University Literature: A Text Mining Approach," *Studies In Higher Education* 47, (2022): 1.

¹³ Leon Marquardt And Aki Harima, "Digital Boundary Spanning In The Evolution Of Entrepreneurial Ecosystems: A Dynamic Capabilities Perspective," *Journal Of Business Research* 182, (2024): 114762.

¹⁴ Maria Abreu And Vadim Grinevich, "The Entrepreneurial University: Strategies, Processes, And Competing Goals," *The Journal Of Technology Transfer* 49, (2024): 1991.

¹⁵ Melissa Bejjani, Lutz Göcke, And Matthias Menter, "Digital Entrepreneurial Ecosystems: A Systematic Literature Review," *Technological Forecasting And Social Change* 189, (2023): 122372.

¹⁶ Hendra Halim, Rahmat Fadhil, And Sayyid Afdhal, "Model Of University Entrepreneurial Education Development Strategy For Preparing The Golden Generation Toward 2045: Islamic Entrepreneurship Perspective," *Asian Journal Of Management Analytics* 3, (2024): 1185.

Aceh is an important case study that warrants explicit study due to its unique governance and economic structure, which can exacerbate frictions in policy implementation and in the design of campus entrepreneurship programs. Regarding employment, the Aceh Statistics Agency (BPS) reported that Aceh's Open Unemployment Rate (TPT) in February 2024 was 5.56%, with 63.19% of the working population engaged in informal employment.¹⁷ This policy emphasises the urgency of youth entrepreneurship pathways that are feasible, low-cost, and quickly market-tested.¹⁸ Thus, Aceh is not simply a "research location," but rather a context that demands a systemic understanding of how campus and external actors (local government, industry/MSMEs, funding communities, and alumni) interact, and where structural barriers prevent the conversion of intentions into action.

Quantitative survey-based approaches are often inadequate to capture this complexity. Surveys are powerful for estimating relationships between variables (e.g., intentions, self-efficacy, or attitudes). However, they cannot often explain relational dynamics—who coordinates with whom, what rules/procedures inhibit small-scale experiments, how resource flows (mentoring, microgrants, market access) are blocked, and why specific policies do not "scale down" to operational services.¹⁹ Therefore, methods are needed that can externalize multi-actor perceptions while visually mapping the interconnectedness of system elements to generate actionable diagnoses.

Hence, this article proposes using Rich Pictures from Soft Systems Methodology (SSM) to map complex problematic situations by externalizing stakeholder perspectives into a unified visual representation. As a visual technique in SSM, rich pictures are effective for externalizing stakeholder perceptions, mapping relationships/tensions, and facilitating sensemaking in complex situations at low cost.²⁰ Recent applications have shown that rich pictures help clarify concepts and unify actor logics through participatory workshops, making them relevant as a bridge from qualitative data to intervention design.²¹ In the context of higher education, rich pictures have been used to holistically map student learning issues and experiences, providing a visual basis for institutional decision-making.²²

Recent literature shows that rich pictures are effective at uncovering hidden assumptions, causal relationships, and tensions among actors, as well as at facilitating interdisciplinary dialogue before designing interventions. In higher education settings, rich

¹⁷ Badan Pusat Statistik Provinsi Aceh, *Keadaan Ketenagakerjaan Aceh Februari 2024*, (Badan Pusat Statistik, 2024).

¹⁸ Badan Pusat Statistik Provinsi Aceh, *Indikator Tenaga Kerja Provinsi Aceh Februari 2024*, (2024).

¹⁹ Nicolas Fuentes, Jana Schmutzler, And Andrés Vargas, "Unpacking The Multilayered Nature Of Entrepreneurial Ecosystems: A Conceptual Complex Adaptive System Model," *International Journal Of Innovation Studies* 8, (2024).

²⁰ Alison Gisby et al, "The 'Rich Pictures' Method: Its Use And Value, And The Implications For HRD Research And Practice," *Human Resource Development Review* 22, no. 2 (2023): 204.

²¹ Carl Marnewick, Alejandro Romero-Torres, And Julie Delisle, "Rich Pictures As A Research Method In Project Management – A Way To Engage Practitioners," *Project Leadership And Society* 5 (2024): 100127.

²² Sinead Katherine Kado, Simon A Clarke, And Sandra E Carr, "I Would Have Never Told You That' – Using Rich Pictures As A Qualitative Tool To Uncover Tacit Perspectives On Leadership," *International Journal Of Qualitative Methods* 22, (2023).

pictures have also been shown to facilitate reflective learning and decision-making when socio-technical complexity is high.²³

Based on these arguments, the purpose of this study is to map the university-based entrepreneurship education ecosystem for Gen Z through Soft Systems Methodology and Rich Picture to: First, identify key actors, relationships, resource flows, and policy/administrative frictions; Second, problematizing the intention-action gap in the curriculum, incubation, initial funding, and market access pathways; and third, formulating leverage points for ecosystem improvement that can be operationalized as policy recommendations for campuses and partners. The research's primary contribution is providing a contextual visual map as a basis for orchestrating cross-campus and cross-helical policies, which is difficult to achieve when research relies solely on survey-based measurement of psychological variables. The structure of this article includes a literature review, methods, results, discussion, and conclusions.

Methods

This study uses SSM as a systemic approach to understanding and improving complex socio-organizational situations where problems cannot be reduced to technical or mathematical models alone.²⁴ We chose SSM because it can capture the diversity of actor perspectives, relationship dynamics, and the negotiation of meaning in messy, multi-actor situations. Therefore, this research design is positioned as a systemic exploratory study that aims to produce an integrated understanding and recommendations for desirable and feasible changes, rather than testing causal or statistical hypotheses. Operationally, the study utilized Rich Pictures as the primary visual tool to externalize stakeholder perceptions, map the interrelationships between actors, rules, and resources, and identify tensions and bottlenecks in the curriculum-to-venture pathway. Rich Pictures effectively bridge qualitative data (interviews and discussions) into easily understood system artifacts that serve as the basis for cross-unit dialogue in formulating ecosystem interventions.

The SSM process in this study focused on the initial phase leading to the formation of the Rich Picture, which served as the primary output. This included: stage 1: recognizing the problematic situation through the identification of relational, procedural, and resource barriers in the curriculum, incubation, seed funding, and market access domains through document review, an initial mapping questionnaire, and semi-structured interviews; and stage 2 consolidation of findings through participatory workshops to develop a Rich Picture that displays actors, relationships, resource flows, policy/administrative frictions, and feedback that strengthen or weaken the conversion of learning into entrepreneurial practice, as well as a shared artifact for sensemaking validation and language alignment across units.

Participants were purposively selected to represent key ecosystem actors and expanded through snowball sampling to capture networks not always visible on formal maps, including Gen Z students, lecturers/entrepreneurship mentors, entrepreneurship

²³ Noor Fadzlina Mohd Fadhil, "Using Rich Picture To Understand The Issues And Challenges In E-Learning Environment: A Case Study Of Students In Higher Education Institution," *World Journal Of English Language* 12, (2022): 189.

²⁴ Peter Checkland And John Poulter, *Soft Systems Methodology*, (2020), p. 201.

unit/incubator/MBKM managers, faculty/university leaders, and external partners (MSMEs/industry, mentoring communities, and funding actors).²⁵ The research was conducted at several universities in Aceh Province to ensure regional representation, namely Syiah Kuala University and UIN Ar-Raniry (provincial capital region), Malikussaleh University (eastern region), Teuku Umar University (southwestern region), and IAIN Takengon (central region), with a data collection period of May–October 2025.

Result And Discussion

Stage One: Recognition Of Situations Considered Problematic

Referring to SSM, the initial stage maps problematic situations through three analytical lenses (role analysis (analysis one), social analysis, and political analysis) before the situation is expressed in a Rich Picture in the next stage. In the Gen Z entrepreneurship education ecosystem at a university in Aceh, this stage serves as a systems diagnosis to identify key obstacles on the curriculum-to-venture pathway, which are then used as material for Rich Picture workshop iterations. Based on discussions with key actors in the entrepreneurship ecosystem in Aceh, the following are some of the obstacles encountered:

Category	Obstacle
Regulation and Governance	- Fragmented regulations governing the curriculum, MBKM procedures, procurement sandbox mechanisms, and intellectual property/licensing flows limit the rapid experimentation student teams need for market validation. - Changing program calendars and unstable funding cycles add uncertainty to the execution of intersemester incubation sprints.
Support Resources and Infrastructure	- The availability of early-stage funding (micro-grants) for testing problem–solution fit and willingness-to-pay is still limited. Hence, the validation process often stops before generating minimal evidence of traction. - Service infrastructure (e.g., marketplace mentor systems, data room standards, and pilot administrative support) is not evenly distributed, leading to variations in the quality of support across faculties/classes.
Actor Capacity and Coordination	- The availability of early-stage funding (micro-grants) for testing problem–solution fit and willingness-to-pay is still limited, so the validation process often stops before generating minimal evidence of traction. - Service infrastructure (e.g., marketplace mentor systems, data room standards, and pilot administrative support) is not evenly distributed, leading to variations in the quality of support across faculties/classes.

Source: Interviews With Key Informants (2025)

Three key stakeholders were mapped to serve as references for developing the Rich Picture: clients (initiators/intervention taskers), practitioners (research team/SSM-Rich

²⁵ J W Creswell And C N Poth, *Qualitative Inquiry And Research Design: Choosing Among Five Approaches*, (New York: SAGE Publications, 2017).

Picture facilitators), and issue owners (actors most impacted).²⁶ In this study, first, clients include university/faculty leaders and policy partners driving ecosystem improvements. Second, practitioners are the research team facilitating workshops, extracting meaning, and synthesizing situational models. Third, Issue owners are Gen Z students and supporting units (incubators/entrepreneurship centers), including external partners impacted by service changes.

Following SSM guidance, the social analysis focuses on norms, values, and professional roles that shape mentoring intensity and cross-faculty collaboration, while the political analysis maps power, resources, and formal authority over curriculum, budgets, and IP/procurement that condition feasible change.²⁷ These three analyses collectively frame the second-stage activity in which the problematic situation is *expressed* and organized into a Rich Picture as a shared artifact for sensemaking and design of desirable and feasible changes.

Social Analysis

In Stage Two of the SSM process, we focus on whether proposed actions for improvement are acceptable and culturally feasible, so building a rigorous understanding of the social situation is essential before moving to modeling and change (roles, norms, and values). Following this guidance, the social analysis in our study concentrates on three elements: roles (social positions that differentiate members of a group/organization), norms (expected behaviors attached to those roles), and values (standards/criteria used to judge behavior-in-role).

These elements are interrelated and dynamic; shifts in academic calendars, funding windows, and partnership routines can quickly reconfigure expectations and appropriate conduct across the ecosystem.

Actors and role framing in our context (entrepreneurial education ecosystem for Gen Z in Aceh universities): Gen Z student founders act as issue owners whose learning, experimentation, and venture outcomes are directly affected by the ecosystem; faculties/departments and the entrepreneurship center/incubator operate as service providers and gatekeepers of readiness; lecturers/mentors function as knowledge brokers; provincial government and industry/UMKM partners supply enabling policy and market access; angel/seed investors and banks provide early finance and non-financial value; the rectorate/policy units, intellectual property/legal office, and procurement/finance office create the institutional rules that enable (or constrain) curriculum-to-venture pipelines.

²⁶ Timothy David Dixon And Jiuchang Wei, "Business Ecosystem Dynamics In The Chinese Electric Vehicle Market: Co-Evolution Of Capabilities And Dynamics," *Asian Journal Of Technology Innovation* 33, (2024): 244.

²⁷ Lorelli Nowell et al, "Thematic Analysis: Striving To Meet The Trustworthiness Criteria," *International Journal Of Qualitative* 16, (2017).

Table 2. Analysis Two: Norms And Values Of Actors

Actor	Role	Norm	Values
Issue Owners (Gen Z Students/Student Founders)	Conduct opportunity discovery, validation, and venture building through course projects and incubation sprints	Academic integrity; RP/portfolio documentation; compliance with MBKM and research ethics	Curiosity, agency, resilience, customer-centricity
Faculties/Departments	Design and deliver entrepreneurship curriculum; align learning outcomes with venture milestones	University academic regulations; syllabus governance; assessment rubrics; MBKM guidelines	Learning relevance, coherence, accountability
Entrepreneurship Center / Incubator	Run pre-incubation and incubation services; coordinate selection, mentoring, and demo days	Service standards/SLA; selection/readiness rubric; confidentiality and data-room SOP	Impact orientation, transparency, founder-first support
Lecturers / Mentors	Coach teams on problem-solution fit, effectuation, and unit economics	Mentoring code of ethics; conflict-of-interest disclosure; meeting cadence	Professionalism, competence, integrity
Rectorate / University Leadership	Set strategic direction, allocate budgets, and steward partnerships	Strategic plan & budgeting SOP; MoU/MoA protocols; KPI alignment	Stewardship, fairness, sustainability
Provincial Government / Agencies	Provide enabling policies, procurement sandboxes, and access to regional programs	Public procurement rules; grant guidelines; compliance with regional regulations	Public value, inclusivity, ease of doing business
Industry / UMKM Partners	Offer problem statements, pilots, internships, and market access	MoU/MoA; NDAs; supplier onboarding requirements	Reliability, practicality, mutual benefit
Angel/Seed Investors & Banks/Non-bank Finance	Provide micro-grants/seed funding and non-financial support (governance, networks)	KYC/AML; investment policy; term-sheet norms; risk disclosures	Professionalism, integrity, long-term orientation
IP & Legal Office	Manage intellectual property disclosure, licensing, and spin-out pathways	Intellectual property policy; licensing/royalty rules; publication clearance	Protection, fairness, clarity
Procurement & Finance Office	Operate challenge-based purchasing, micro-grant	Procurement SOP; grant disbursement SOP; audit requirements	Compliance, transparency, timeliness

	disbursement, and audit trails		
Alumni Association / Entrepreneur Network	Mentor matching, market introductions, and peer learning	Volunteer/mentoring guidelines; event and data privacy rules	Reciprocity, trust, community ethos

Beyond role descriptions, each actor is expected to uphold norms consistent with their mandate, e.g., university regulations, mentoring ethics, MoU/MoA cooperation rules, procurement/IP policies, and data-privacy practices, while enacting values such as collaboration, professionalism, integrity, competence, inclusivity, timeliness, and market orientation. Mapping roles, norms, and values in this way helps SSM practitioners anticipate where tensions may arise (e.g., assessment schedules vs. accelerator timelines, confidentiality vs. publication, compliance vs. experimentation) and ensures that the change proposals developed later are socially acceptable and “desirable and feasible” for the ecosystem. Table 2 clearly shows these values.

Political Analysis

Political analysis in SSM maps the power and authority structures that determine what can and cannot be done in system change. In the campus entrepreneurship ecosystem, power is not only about formal leadership but also about who controls the curriculum, budget, IP regulations, procurement procedures, and access to partnerships.²⁸

Summary of key political findings:

University leadership holds agenda-setting and cross-unit policy legitimacy (budget, KPIs, collaboration mandates).

Faculties/study programs control curriculum design and faculty incentives (which determine the intensity of entrepreneurial practices in the classroom).

Incubators/entrepreneurship centers control service gateways (selection, mentor matching, readiness standards).

Legal/intellectual property and finance/procurement units control the “transaction speed” (pilots, small grants, licenses/spin-outs) that determines the agility of execution.

Local governments and MSME/industry partners control the pilot and initial market access.

This finding confirms that ecosystem improvements will be practical if changes are directed at authority mechanisms (rules, budget lines, SOPs) rather than simply adding activities.

Second Stage: Expressing The Problematic Situation And Organizing Rich Picture

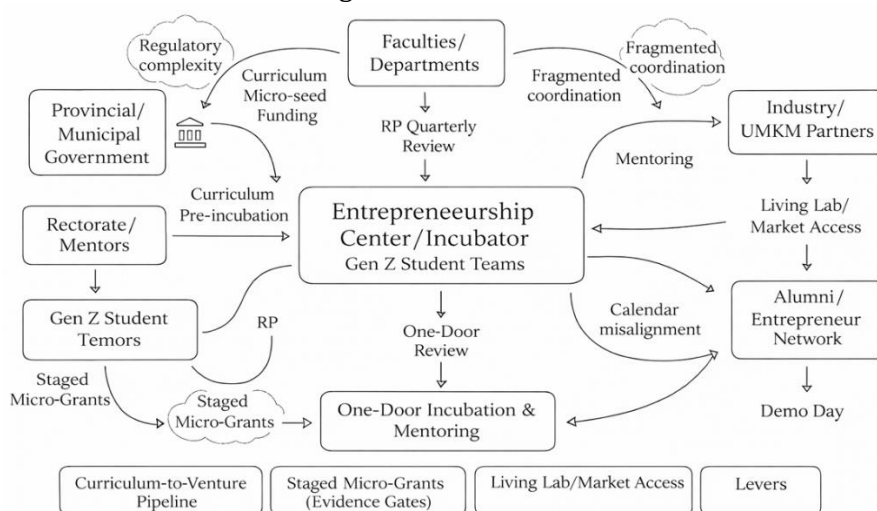
The second stage expresses the problematic situation in a Rich Picture, a shared artifact that brings together actors, resource flows, tensions, and opportunities for change in a single visual map. The Rich Picture in this study was developed from a synthesis of

²⁸ Ben Spigel, “The Relational Organization Of Entrepreneurial Ecosystems,” *Entrepreneurship Theory And Practice* 41, no. 1 (2017): 49.

documents, interviews, a short questionnaire, and a Rich Picture workshop. It was subsequently validated reflectively to reflect the logic of internal and external actors.

Following SSM convention, three roles guide Rich Picture compilation: client (rectorate/faculties and provincial partners commissioning the intervention), practitioner (research team and Rich Picture facilitators), and issue owner (Gen Z students and venture teams most affected by changes).

Figure 1. Rich Picture



The finalized Rich Picture for this study is shown in Figure 1. Rich Picture, which visually integrates stakeholders, levers, processes, problems, and opportunities to support shared understanding and to organize subsequent desirable-and-feasible change experiments.

The Rich Picture in Figure 1 illustrates the general orchestration of the university entrepreneurship education ecosystem for Gen Z in Aceh, designed to ensure a seamless curriculum to venture pathway from classroom to incubation, seed funding, and market access. Universities (rectorates and faculties), entrepreneurship centers/incubators, local governments, industry/MSMEs, alumni/entrepreneur networks, financing institutions, and IP-legal and procurement/finance units emerge as key actors determining the ease of doing business for aspiring students. Campus business actors need to accelerate internal regulatory adjustments, increase service flexibility, transform fragmented work patterns, and hone cross-unit collaboration skills. Local governments can strengthen supporting regulations through licensing simplification, procurement sandboxes for student projects, the provision of funding channels/public programs, and monitoring startup development based on clear achievement indicators. To broaden impact, joint programs between the central government, regional governments, and universities need to be aligned with the needs of the campus ecosystem to open further access to pre-incubation, incubator sprints, and local markets.

External changes are primarily influenced by actors increasing access and collaboration through policies and partnerships. Support from local governments and MSME/industry associations impacts market expansion and smooth project execution

(living labs, challenge-based procurement, and pilot contracts). Student teams' resilience and growth capabilities will improve if they receive the right encouragement (managerial training, structured mentoring, and financial literacy) accompanied by staged, evidence-based micro-grants. Beyond these key actors, there are also interconnected factors and processes (curriculum flow, readiness standards, intellectual property licensing SOPs, partnership governance, and the rhythm of the academic calendar) that collectively form a dynamic ecosystem.

The findings from stages 1–2 indicate that the primary obstacle to the curriculum-to-venture pathway for Gen Z in Aceh is better understood as an issue of ecosystem architecture (relationships, regulations, and service mechanisms) rather than a simple deficit in individual motivation. Empirically, the Rich Picture demonstrates that the entrepreneurship learning process often stops at academic outputs (assignments, proposals, presentations) without a consistent operational bridge to market validation, initial traction, and venture formation, resulting in an "implementation gap" between learning outcomes and actual entrepreneurial action. This finding broadens the understanding of the impact of entrepreneurship education, which tends to be small to medium, and suggests that it will be difficult to sustain without the support of an ecosystem that reduces execution friction, provides minimal resources for experimentation, and provides tangible market access.

Interestingly, the research findings demonstrate how three sets of barriers (regulation/governance, resources, and actor capacity) interlock through a recurring feedback mechanism. First, fragmented regulations (e.g., MBKM procedures, intellectual property, and procurement/pilots) hinder rapid, small-scale experiments; as a result, market testing is delayed, and evidence of traction is insufficiently gathered. Second, the lack of traction evidence undermines the trust of market partners and funding providers, further limiting access to pilot opportunities, high-value mentoring, and early-stage capital support. Third, resource constraints and low partner engagement further increase the burden on internal actors (lecturers/incubators), whose capacity is not always commensurate with the size of the student teams. This leads to uneven mentoring and increasingly fragile cross-unit coordination. In other words, the problem is not simply a "program shortage," but an "orchestration failure" that results in a recurring cycle: high friction, slow pilots, minimal traction, declining external support, and increasingly burdened internal capacity.

A Rich Picture also helps explain why approaches predominantly based on quantitative surveys are often inadequate for guiding ecosystem improvement. Surveys can estimate relationships between variables such as intentions, attitudes, and self-efficacy. However, they struggle to capture relational dynamics: who coordinates with whom, which procedures hinder small experiments, how resource flows (mentors, microgrants, market access) are blocked, and how cross-unit decisions produce unintended consequences. Through visualization, RP reveals "conversion" points previously invisible in participation metrics, such as the transition from class projects to pre-incubation studios, from mentoring to pilots, and from pilots to intellectual property/licensing schemes or pilot contracts.

In addition to structural barriers, mapping roles, norms, and values reveals potential value conflicts that are essential prerequisites for change. The most prominent conflicts are between compliance (audits, SOPs, accountability) and agility (rapid experimentation), and between academic openness (dissemination, publication) and business confidentiality (customer data, strategy). These value conflicts are not anomalies but rather relatively standard features of multi-actor situations. If left unmanaged, they can give rise to latent resistance: the compliance unit views innovation as a risk, while the entrepreneurship team views governance as an obstacle. Therefore, the implications of this discussion emphasize the need for explicit operational compromises, such as standard evidence gates and data rooms that remain auditable while enabling small, rapid experiments.

This study complements empirical findings on entrepreneurship education and the ecosystem by providing a visual diagnosis sensitive to the Aceh context and proposing an orchestration logic that can serve as a policy hypothesis for testing in subsequent research. This means that the recommendations that emerge are not positioned as "final solutions," but rather as the most systemically plausible leverage points, grounded in the consistency of patterns across actors in the RP. Within this framework, the four identified levers of change (curriculum-incubation pipeline, one-door mentoring, evidence-based micro-grants, and market access living lab) can be understood as "bridging mechanisms" to close the intention-action gap by reducing coordination costs and accelerating the accumulation of evidence of traction.

Theoretically, this study contributes to the entrepreneurial university and helix orchestration literature by demonstrating that the quality of cross-actor orchestration is not simply a "supporting context" but rather a plausible causal mechanism explaining why entrepreneurship education often generates intentions without leading to action (the intention-action gap). Through the RP-SSM, this study clarifies that this gap arises when the university-government-industry/MSME-funding community relationships are not connected within an operational service architecture (shared readiness rubrics, evidence gates for seed funding, and living labs as first customers), resulting in misaligned norms, authority, and resource flows to accelerate market experimentation. Thus, the primary contribution lies not in examining individual intentions but in modeling the mechanisms that orchestrate learning into entrepreneurial behavior by reducing institutional friction and creating auditable yet agile transaction pathways.

The managerial implications of the Rich Pictures findings emphasize that strengthening the campus entrepreneurship ecosystem for Gen Z in Aceh should focus on reducing execution friction and standardizing learning-to-market conversion mechanisms, rather than adding stand-alone programs. For the short term (0–6 months), implementation priorities are: (1) establishing a shared readiness rubric across faculties and incubators to ensure a uniform definition of "ready for incubation/pilot"; (2) implementing incremental, evidence-gate-based micro-grants to ensure that validation experiments are minimally resourced and targeted; and (3) establishing a mentor marketplace with minimum service standards to ensure more equitable and auditable mentoring quality. For the medium term (6–18 months), priorities shift to stabilizing governance: (1) standardizing procurement sandboxes and small, compliant pilot schemes to create repeat "first customers"; (2)

streamlining fast-track intellectual property/licensing/spin-outs to reduce legal uncertainty; and (3) institutionalizing orchestration forums (e.g., the Entrepreneurial Ecosystem Council) that conduct quarterly RP reviews to ensure cross-unit decisions (curriculum, budget, KPIs, partnerships) are consistent across academic cycles. Methodologically, Rich Pictures can be reused as a qualitative monitoring instrument sensitive to changes in relationships, so that ecosystem improvement is assessed not only by the number of activities but also by changes in mechanisms that accelerate initial student traction.

Conclusion

The results of this study produced several interesting conclusions, including: Research findings indicate that strengthening the Gen Z entrepreneurship education ecosystem in Acehese universities is primarily determined by the campus's capacity to orchestrate core processes (curriculum, incubation/mentoring, intellectual property governance, and pilot/procurement mechanisms) to more closely integrate and execute the curriculum-to-venture pathway. The four most prominent levers of change are the curriculum-incubation pipeline, one-stop incubation/mentoring services, evidence-based, graduated micro-grants, and living labs/market access through local partners. This study's findings are consistent with the entrepreneurial university and helix orchestration frameworks, which emphasize that relational and institutional configurations (rules, resource flows, and cross-actor coordination) are key mechanisms bridging the intention-action gap. The RP-SSM model reinforces this explanation by revealing feedback loops that lock the ecosystem in (regulatory friction slows pilots, pilot delays weaken evidence of traction, and minimal traction reduces market engagement/funding).

the limitations of this study are its systemic exploratory nature and its heavy reliance on participant representation and perception-based data during the study period, thus it has not tested the effectiveness of the intervention causally or relied on quantitative indicators of traction; therefore, further research is recommended to conduct comparative studies across campuses/regions and longitudinal or quasi-experimental designs to test the impact of intervention packages (e.g., phased micro-grants, procurement sandboxes, and funding readiness programs) on traction metrics and sustainability of student businesses, while also deepening the dimensions of inclusion and environmental sustainability in ecosystem value creation.

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Author Contributions Statement

HH is responsible for the research design, data collection, and writing the initial draft of the article. MDS contributed to the data analysis and provided input in the preparation of the article. KA and MZH assisted in the development of the methodology and the final revision of the article. All authors have read and approved the final version of this manuscript

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