KAIDEC-UNESCAP

Implementing SDGs in Korea: Sustainable Partnership Formation in University Start-Up

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Entrepreneurship in Technology Policy

- Entrepreneurship is defined as “adoptions of new economic activities by individuals triggering changes to the world.”
- Search for “new ideas” or implementing “new activities” has been the source for innovation, which drives development and growth.
- Entrepreneurship is a solid building block for science and technology (S&T) policies in the world.
- Entrepreneurship is the nexus between S&T and business.
Entrepreneurship in Urban Competitiveness

• Start-ups are a major driver for innovation, which automatically leads to competitiveness for the locations.

• Determinants for urban competitiveness include: R&D activities, local eco-system building and the possibility of nationwide expansion, firm-led innovation community network, open network among the university-industry-research institute, and urban life environment and multiculturalism.

Source: Startup Genome (2022)
Entrepreneurship in Sustainable Development Goals (SDGs)

- SDGs, initiated by the United Nations, value entrepreneurship: most saliently for Decent Work and Economic Growth (Goal 8) and Industry, Innovation, and Infrastructure (Goal 9), and supporting other goals for example, Good Health and Well-Being (Goal 3), Quality Education (Goal 4), Clean Water and Sanitation (Goal 6), Affordable and Clean Energy (Goal 7), Sustainable Cities and Communities (Goal 11), and Responsible Consumption and Production (Goal 12).

- Start-up should own sustainable business model and be supported by robust eco-system which circulates human resources, market, and capital.

- Most fast-growing start-ups tend to experience growth bottleneck, getting constrained from regulations and the institutions established in the age of industrialization.
  - The old regulations and the institutions outdatedly apply corporate discipline mechanism in dimensions of labor law, financial regulations, labor supply, and conflict resolution instrument.
• University is a source of creative, innovative mindsets: Faculty start-up, student (undergraduate) start-up and workstation.

• Student workstation expects experiences and a channel to student start-up; student start-up leads to corporate growth.

• Not only curriculum changes are required (particularly at School of Business), but university support is also necessary for nurturing start-ups: It used to focus on the seed money and space but now the support expands into networking and mentoring.
The Korean Context

• Population decrease has made it urgent to find an alternative growth model: what will happen to consumption, production, and employment?
• Despite the culture of uncertainty avoidance, start-ups are being perceived more favorable among the gen-Zers
• Universities are transforming the curricular, targeting entrepreneurship
• Faculty-founded ventures are encouraged and the start-up eco-system is being implemented
• Seoul is attractive for start-up:
  o The average education level is high, as universities are clustered.
  o Large population is good at handling and managing digital devices.
  o Public transportation and telecommunication infrastructure function speedily and effectively, so that ideas and collaboration expand into nearby Provinces.
  o Venture capital is abundant particularly for bio and data technologies and the value chain is accessible.
  o Culturally ‘hip’, known as globalizing K-Pop music, drama, and movies.
Support for Social Enterprises and Start-Up at Yonsei...

• Jejungwon, the first hospital in Korea and the medical school externality effects
• Mission school and the Christian culture: Volunteering and community engagement is maximally emphasized in the entire campus.
• Institute of Global Engagement and Empowerment and GEEF (Global Engagement and Empowerment Forum) as a coordinator and planner
• Start-up Center for technology-based business models (located in School of Engineering)
• Institute for Higher Education Innovation: Social enterprise start-up, workstation, grant for social projects (credit and non-credit)
• School of Business: Action learning courses at graduate level and USET (Undergraduate Sustainability Engagement Training) at undergraduate level
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<th>Firm</th>
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<th>Business</th>
<th>School Help</th>
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<tbody>
<tr>
<td>Ecube Labs</td>
<td>2011</td>
<td>Solution for more efficiency in waste collection</td>
<td>Start-up Center</td>
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<td>FitMEDi</td>
<td>2019</td>
<td>Health management service to recommend customized exercises</td>
<td>School of Medicine</td>
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<td>vLook</td>
<td>2019</td>
<td>Platform where vintage, second-hand, or used fashion items and clothes are traded and slow-fashion contents are presented and shared</td>
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<td>Poveo</td>
<td>2020</td>
<td>Kneecap guard for puppies</td>
<td>Start-up Center</td>
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Start-Up: ECUBE LABS

- Solar energy-driven trash compression tech & IoT-based locations
- Start-up path: *Social enterprise consulting club* -> partnership formation -> *grant at start-up center* -> KIBO (government support) -> venture capital investment

Founder: Kwon, Industrial Engineering Major
Start-Up: FITMEDI

- App service providing physical exercise treatment for the diabetes patients
- Start-up path: Medical School mentoring -> start-up idea competitions -> Collaboration with firms and universities -> accelerator participation -> D.Camp -> government award -> VC Hana Ventures seed investment

Founder: Kim and Kim, Medical School Major
Start-Up: VLOOK

- “Reduce, Reuse and Recycle”: Second-hand fashion open-market platform
- Start-up Path: Social Venture Start Up (course) -> KIBO competition -> Work station -> Seoul Metropolitan Social Venture Hub
- As an open-market platform, VLOOK offers optimized environment with preference-based recommendation, special events, or coupons.
- It tries to build trust between sellers and buyers so that recommendation will work better.

Founder: Kim, German Literature Major
Start-Up: POVEO

- Kneecap guard for puppies
- Start-up path: grant and mentoring service at start-up center -> Seoul Metropolitan Start-up Supports -> Cloud Funding -> KIBO (government support)

Founder: Suh, Mechanical Engineering Major
Pre-Start Up
University-Industry Link: PADONG

• CU (Convenient store) works with the Yonsei undergraduate social innovation program PADONG for finding missing children in the 10th anniversary.

• 13 children in 11 subway stations
Pre-Start Up University-Industry Link: COLOR

- NAVER Happy Bean works with COLOR, the Yonsei undergraduate innovation club INACTUS members for cloud funding disabled people job training.
- For hand-made chocolate production, COLOR collaborated with Dong’an Welfare Center
Discussion: The Role of University for Entrepreneurship and Sustainable Development

- Entrepreneurship and sustainable development, combined together, proceeds to social innovation. Therefore, social innovation means efforts to make better world at the individual or organizational level in order to overcome the failure of existing policies or market.
  - The problem is, from the perspective of the old generation, people are so busy with own lives, and thus rarely enter voluntarily the road of social innovation.

- Generation changes, mindset changes...What can university do for them, in a way that the world continues to develop sustainably??
  - What if universities become a testing lab for such experiment?
Discussion: “Sustainable” Development Partnership for the Korean Cities

• The society should be clearly aware that the people with community spirit rather than smart people are more valued for social innovation.
  o Extelligence, which is based on creativity and imagination rather than Intelligence, which is based on the internal vision and knowledge has been highlighted.
  o Nurturing dynamic innovators rather than nurturing elites may be the goal for upcoming age.

• University is the center for the partnership and networking: alums, demands, faculty, firms on the start-up eco-system (accelerator, funds, tech firms, or user firms), and the government.

• Certain cities may be better endowed with the networking capital (partnership formation) but, ultimately, the urban (national) competitiveness will be determined by the connection and sharing with the innovative ideas and activities.
Discussion: “Sustainable” Development Partnership for the U.S. Cities

- Continuous education per life cycle
  - K-12 nurtures fundamental mindset for entrepreneurship
  - STEM education nurtures blended approach to create start-up
  - Universities lead systematic and specialized start-up education
  - University start-up center is an essential part for start-up eco-system building in the local community

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<th>K-12</th>
<th>STEM</th>
<th>Private Sector</th>
<th>University</th>
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<tr>
<td>Experimental, learning: Learning by doing</td>
<td>STEM Literacy building; Nurturing STEM talents</td>
<td>Varying institutions offer relevant education; free STEM learning</td>
<td>Business school major; start-up center; gov-Community-linkage</td>
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<tr>
<td>- Meeting start-up founders</td>
<td>- STEM eco-systemization</td>
<td>- Starter high: targeting teens</td>
<td>- Internship in start up</td>
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<td>- Company visits</td>
<td>- Digital platform for instructors and learners</td>
<td>- Microsoft Minecraft</td>
<td>- Entrepreneurship club</td>
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<td>- Business mapping for local communities</td>
<td>- Entrepreneurship learning with active use of STEM</td>
<td>- VentureLab home startup</td>
<td>- Mentor group</td>
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<td>- One day one business</td>
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<td>- Tinkergarten outdoor program</td>
<td>- Business ideas, and plan</td>
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Source: Asan Nanum Foundation
Discussion: “Sustainable” Development Partnership for the Chinese Cities

- University as a hub and a center for networking with alumni
  - Structured education system accessible to those who are interested in entrepreneurship and start up
  - Mentoring and business networking

Peking University Start-Up Support Center: Comprehensive Operation Platform
Source: Asan Nanum Foundation
Conclusion

• We will see lots of changes in the upcoming future:
  o Population change
  o Emergence of new generation with different mindsets
  o Sustainable development, which society itself is a big demand

• The new role of university is urgently necessary and the universities should find the space that they can do better than other actors.

• The link should be discussed not only as technology policy but also as the business, economics, and social policy.