Background on Innovate Egypt

Innovate Egypt's Program Structure

Based on the research in innovation and commercialization for startups and the input received during the U.S.-Egypt S&T Joint Fund Global Lab to Market Forum, the following outline of the Innovate Egypt program will be implemented:

Curriculum development: The curriculum will focus on the customer development process, which includes:

- using a business model canvas (as a scorecard)
- stating initial hypotheses
- articulating value propositions
- conducting customer interviews, and inferring key insights from these interviews
- developing customer archetypes
- building a minimal viable prototype
- testing hypotheses
- articulating lessons learned

Teams, instructors, and teaching assistants: Each team will consist of an academic researcher, an entrepreneurial lead, and a mentor. The entrepreneurial lead will serve as the team spokesperson, lead team efforts for developing a business model, and interface with potential customers. The mentor will assist with developing IP strategy, connect with funders and other resources, and assist with customer discovery efforts. Teams will apply in response to the RFP, and will be selected through a series of interviews by program partners. The teaching team will consist of three "core" instructors with teaching experience in LSM and three adjuncts.

Accelerated training: The program will take place over an eight-week period. In-person attendance is required during the first and last week. The first week will include both lectures and teams conducting customer interviews. The next 4 to 5 weeks will focus on the customer discovery process, which requires getting out of the building and conducting interviews for a minimum of 15 hours per week. In addition, teams will be required to attend online sessions to report on their progress. In the final week, teams will share their "lessons learned" and state their go/no go decision regarding viability of products and services.

Proven Models for Fostering Innovation

A common definition of innovation is the introduction of something new, such as an idea, device, or method. However, it should be noted that simply having or generating an idea does not constitute innovation; the idea has to be implemented in a form such as a product or process, and it must generate value[1]. Acceptance and nurturing of ideas is important in any organization for innovation to emerge and to drive growth.

Design Thinking

Design Thinking is an approach frequently employed to increase the probability of breakthrough innovation, and to allow for innovation to thrive. The concept is a multi-step process that allows ideas to come to life based on how real users think, feel, and behave[2]. For the purpose of this paper, the widely used five-phase model proposed by the Hasso-Plattner Institute of Design at Stanford University is summarized below[2, 3].

Empathize: gain insight into users, particularly their needs and problems.

Define: create a meaningful and actionable problem statement by combining one's knowledge of the user and insights derived in the Empathize mode.

Ideate: identify new solutions to the problem statement created, and look for alternative ways of viewing the problem.

Prototype: build low-cost prototypes to investigate and discover limits of the proposed solutions, and acquire a better understanding of how real users would use the end product.

Test: test the product with the best solutions identified during the prototype phase. However, information gathered from this phase may inform another round of ideation and prototyping.

Lean Start-up Methodology (LSM)

Like Design Thinking, Lean Startup Methodology (LSM) is also a tool employed for disruptive and sustainable innovation[4]. The LSM consists of five principles[5, 6]:

1. Entrepreneurs are everywhere
2. Entrepreneurship requires effective management skills
3. Validated learning helps identify key risks in the proposed product/process, and make adjustments accordingly
4. Innovation accounting focuses on metrics to assess progress, planning

milestones, and prioritization
5. Build-Measure-Learn emphasizes speed for product development through accelerated feedback in every process step

Innovators and entrepreneurs learning LSM will be have a better understanding of:

1. how to evaluate their technologies
2. identifying core competencies
3. implications of their innovations from both the business model and technical perspectives[7]
4. the risks using the lean approach in an emerging economy
5. what works and what doesn't work
6. the importance of collaboration with industry/early partner identification for translation of their discoveries
7. the framework for go-to market strategy
8. "Systems Thinking," the process of understanding how things influence one another

Resources to Cultivate Innovative Ideas

Since ideation is a process by which ideas and solutions are generated, it requires an environment that provides and encourages the freedom to think, and promotes creativity amongst team members[8]. This need is especially prevalent and pressing in emerging economies where laws, structures, and institutions need to move toward embracing ideas and thoughts in order to enable effective ideation in the region.

Ideation Hackathons and Workshops

Ideation hackathons or workshops provide opportunities for teams to collaborate, explore and generate ideas, and receive feedback from mentors.

Incubators

Incubators offer early- or late-stage startups guidance and resources that typically include[9]:

- market research and assistance
- access to mentors, strategic partners, angel investors, and venture capital
- networking activities
- technology commercialization assistance

Accelerators

Accelerators support early-stage, growth-driven companies through immersive education, mentorship, and financing. However, several factors[10, 11] make accelerators unique from incubators:

1. fixed-term (typically 3-6 months)
2. cohort-based
3. highly competitive
4. mentorship-driven and intensive
5. focus on small teams, not individual founders

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