


UNIVERSITIES' INFLUENCE ON STUDENT DECISIONS TO BECOME ENTREPRENEURS: THEORY AND EVIDENCE

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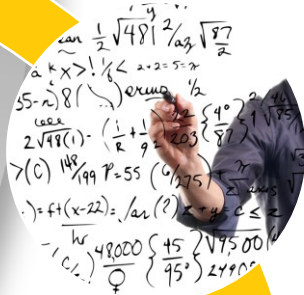
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Academy of Management Conference From Start-up to Scale-up:
Coping with Organizational Challenges in a Volatile Business Environment
Tel Aviv Dec. 17-19 2018

Creativity : “widening the range of choice” (Ruttenberg & Maital, 2014)

University



Teaching



Research



Innovation and
entrepreneurship

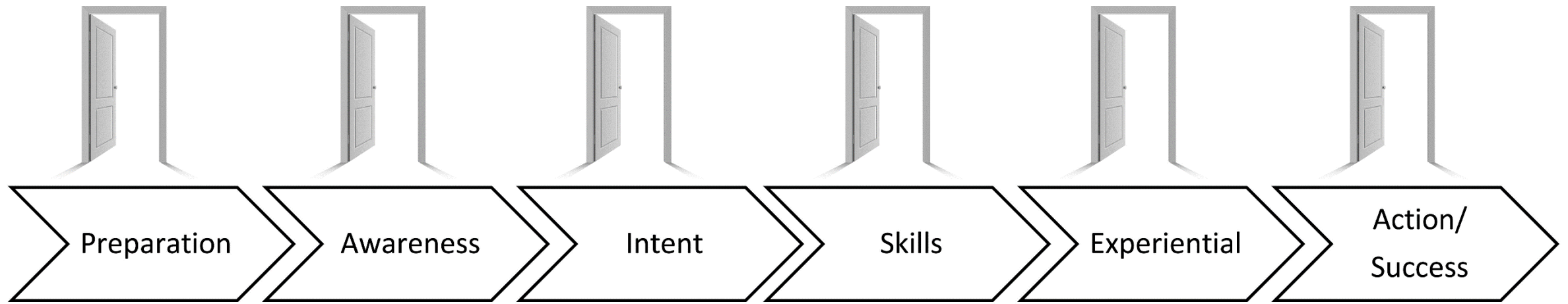
Universities are adding
“innovation and entrepreneurship”
as a third dimension to the
conventional two dimensions or
objectives: Teaching and
research.



How can universities influence students' choice to become entrepreneurs?

- It is well established that universities can influence INTENT – the intention to launch a startup.
- But does this *intent* lead to *action* – *startup launch*?
- And what influences not only the intent, but the action?*

We choose to address these fascinating questions in our study



**THEORY:
the stage-gate innovation process.**

- ▮ According to this model, students choose to open a series of startup “gates” from awareness through intention and skill-building to the post-graduation startup act itself.
- ▮ Universities help provide (and open) such gates.



Samuel Neaman Institute
for National Policy Research



Online Survey

METHODS

An on-line questionnaire was sent to around 10,000 Technion graduates who belong to the Technion Alumni Organization

Entrepreneurial activity was split into:

- **Biztech** - a year-long competition
- **3-Day Startup** - an intense 3-day simulation of the startup process
- **“Shechtman”** - the one-semester general studies course, initiated by Prof. Dan Shechtman in 1987/8, in which guest entrepreneurs tell their stories
- **other activities**



TECHNION
Israel Institute
of Technology

444 alumni's answered

Age

40 - average age



83% - males

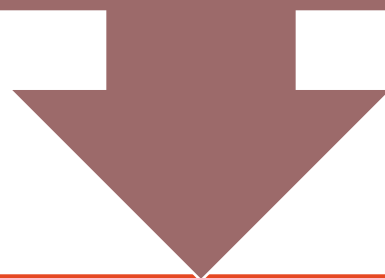


50% - participated in entrepreneurial activities



44% - participated in Prof. Schechtman's entrepreneurial course.

Launched start up
21%



Participate in entrepreneurial activity 60%

Shechtman
26%

Biztech
20%

3Day
6%

Other
48%

Did not launch start up

79%



Participate in entrepreneurial activity 52%

Shechtman
39%

Biztech
12%

3Day
10%

Other
39%

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Present	N	Present	N	Present
Q2 participate * Start-up1	301	67.80%	143	32.20%	444	100.00%

Q2_participate * Start-up1 Crosstabulation

	Count	Start-up1		Total
		0	1	
Q2_participate	0	113	25	138
	1	107	23	130
	2	19	14	33
Total		239	62	301

Chi-Square Test

	Value	df	Asymptotic Significance (2-Sided)
Person Chi-Square	10.803	2	0.005
Likelihood Ratio	9.249	2	0.01
Linear-by-Linear Association	5.123	1	0.024
N of Valid Cases	301		

Develop entrepreneurial thinking

Understanding which tools I need to acquire in order to move my entrepreneurial ideas ahead

Understand the business context

Choose possibilities for implementing my idea or invention

Understand how to promote your idea toward application

Reinforce belief in yourself and your abilities

Creating contacts that helped me make progress as an entrepreneur

The professional path I choose for myself

Develop my idea/ invention in a practical direction

Launching a startup

Commercialize an idea/technology

Submitting a patent application

Patent registration

Influence of Entrepreneurial Activities (scored 1 to 5)

13 Likert-scale items
with scores ranging from:
1-“Did not have influence” to
5-“Had great influence”

were used to scale the different entrepreneur activates according there contribution on their own entrepreneur behavior.



Self-evaluated impact of entrepreneurial activities
on the decision to launch a startup:
For those **who eventually launched a startup**



Self-evaluated impact of entrepreneurial activities
 on the decision to launch a startup:
 For those **who did not launch a startup**

CONCLUSIONS

Experiential events,
Students experience translation of ideas to business plans,
were influential;

The 'narrative' model,
Students hear the stories of entrepreneurs, was also
impactful, **mainly in building awareness;**

The stage-gate model,
Students progress from curiosity to awareness through
intention and decision, **appears valid;**

The wide variety of entrepreneurial activities appears
suitable for the wide variety of learning styles of
students.

Leading universities that generate large numbers of startup entrepreneurs have a varied, almost chaotic ecosystem of entrepreneurial activities on campus

Such ecosystems reflect many individual and faculty initiatives (a “thousand flowers bloom”) rather than a beautifully structured centrally-managed “magic garden”.



Recommendation



- Universities may best foster startup entrepreneurship among their graduates by:
 - fostering **awareness** that this is an option, over time, and by exposing students to entrepreneurs and their tales;
 - providing a **variety** of experiential activities that provide wet and dry simulations of the startup experience;
 - providing opportunities to acquire some of the basic **business skills** that startup entrepreneurship requires.

Shechtman” Course:

- “I heard lectures by Uziah Galil and Stef Wertheimer and others and I understand that is what I wanted to become”.
- “a general view of the world of entrepreneurship”

Biz-Tech:

- “Experience and deep understanding of the long process of launching a company”

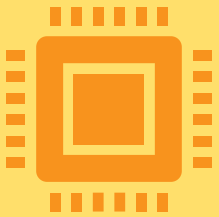
Three-Day Startup/Hackathon

- “Contributed a lot to understanding the business context, and finding and presenting to investors and entrepreneurs”
- “This is the first thing that really ‘stuck’ me on the idea of technological entrepreneurship”

Selected

Comments by
Respondents

The fundamental paradox of entrepreneurship education:



Technology-driven startups are based on science and engineering



Entrepreneurship is, however, an art - “the Art of the Start”*



Can scientific institutions impart the mindset of a design-based experiential art?