Business Incubation and Entrepreneurship Climate in Morocco
From Entrepreneurial intention to Business creation

5th MENAinc Workshop

Prepared by: Ilyas AZZIOUI
Coordinating Cell
I- Entrepreneurship Among Moroccan PhD students

II- Technology Based Start-ups Incubation Environment in Morocco
The framework for the study

Exogenous factors
- Person related factors
- Situational factors

Perceived desirability
Social Norms

Perceived feasibility

Entrepreneurial intent

190 PhD Students answered Properly The Questionnaire among 1200 Targeted
The framework for the study

External factors
- Exogenous factors
  - Person related factors
  - Situational factors

Perceptions
- Perceived desirability
- Social Norms
- Perceived feasibility

Intent
Entrepreneurial intent
External factors

Independent Variables

- Gender (56% Female, 44% Male)
- Entrepreneurs in the immediate Social Environment (Parents, Siblings or Friends)
- Nature of research (applied, fundamental, Patents application, Innovative results, expertise)
- Educational background (Scientific domains)
- Previous Trainings in Entrepreneurship, IP management
- Age
- Work experience
- Entrepreneurship experience
These Independent Variables have statistically significant effect on entrepreneurial intention:

1- **Gender**: Men are more entrepreneurial than Women
2- **Starting Business Experience** has a positive effect on entrepreneurial intention
3- **Work Experience** in an enterprise has a positive effect on entrepreneurial intention
The framework for the study

Exogenous factors
- Person related factors
- Situational factors

Perceptions
- Perceived desirability
  - Social Norms
- Perceived feasibility

Intent
- Entrepreneurial intent
The idea of starting a business based on results or research results or your research skills /competences appears to you:

- **Not attractive at all**: 2%
- **Not attractive**: 3%
- **Rather not attractive**: 4%
- **No the opinion**: 10%
- **Rather attractive**: 22%
- **attractive**: 36%
- **Very attractive**: 24%

**Mean = 1.49**

<table>
<thead>
<tr>
<th>Desirability</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not attractive at all</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Not attractive</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Rather not attractive</td>
<td>4%</td>
<td>9%</td>
</tr>
<tr>
<td>No the opinion</td>
<td>10%</td>
<td>19%</td>
</tr>
<tr>
<td>Rather attractive</td>
<td>22%</td>
<td>40%</td>
</tr>
<tr>
<td>attractive</td>
<td>36%</td>
<td>76%</td>
</tr>
<tr>
<td>Very attractive</td>
<td>24%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Incentives & Deterrents To start a business

- To widen your professional experience, your competences
- To put your research or your know-how at the service of the society
- To develop a network of contacts
- To allow an evolution of your career perspectives/opportunities
- To obtain the recognition of your work and your know-how
- To allow the creation of economic activities and jobs
- To earn more money
- To improve the image of research and university
- To develop the results of research which could remain on standby for a long time
- To take new responsibilities, to have more decision-making power
- To simplify technology transfer between research and economic sphere
- To raise challenges
- To be rewarded according to your commitment
- To be autonomous at work
- To be a self-employed
- Changement du cadre du travail (rompre avec l'environnement académique)
- To have an extra work (overloaded)
- To give up the safety of the public environment
- To have delicate human relations with your institution where your colleagues not taking part in the venture
- To lose contact with the academic world (students, researchers etc.)
- To be stressed and anxious about the success of the project
- Not to have spare time for your leisure, your family, your friends
- To live a very risky and dubious situation
- To incur an important risk of financial loss
Perceptions

Perceived desirability

- **Incentives:**
  1. Carrier Perspectives, Widening experience, Valuable contacts etc.
  2. Social impact (jobs, economical activity,) & Image of research and researchers as players in the socio-economic development
  3. Financial incentives (earn more money)

- **Deterrents:**
  2. Psychological risk (stress, anxiety regarding the success of the project)
  3. Social emotional risk (less time for family, friends, leisure activities)
Perceived desirability

Social Norms

<table>
<thead>
<tr>
<th></th>
<th>Attitude (Means)</th>
<th>Importance of their opinion (means)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>1.74</td>
<td>1.82</td>
</tr>
<tr>
<td>Friends</td>
<td>1.50</td>
<td>0.63</td>
</tr>
<tr>
<td>Colleagues</td>
<td>1.75</td>
<td>1.45</td>
</tr>
<tr>
<td>Institution</td>
<td>1.41</td>
<td>1.03</td>
</tr>
</tbody>
</table>
The framework for the study

External factors
- Exogenous factors
  - Person related factors
  - Situational factors

Perceptions
- Perceived desirability
  - Social Norms

Intent
- Entrepreneurial intent
  - Perceived feasibility
If you had to, you think you would be able to start an innovative business based on research results or your research skills /competences?

-3 (Completely Unable) to +3 (Completely able));

Mean = 0.95

<table>
<thead>
<tr>
<th>Self efficacy</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely unable</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Unable</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Rather unable</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>Neither able nor unable</td>
<td>15%</td>
<td>29%</td>
</tr>
<tr>
<td>Rather able</td>
<td>33%</td>
<td>62%</td>
</tr>
<tr>
<td>Able</td>
<td>29%</td>
<td>91%</td>
</tr>
<tr>
<td>Completely able</td>
<td>9%</td>
<td>100%</td>
</tr>
</tbody>
</table>
To devote all your time and your energy to the project
To find qualified people to work with you/to form a team of managers
To handle intellectual property aspects
To find qualified people or organizations to help you/advise you (administrative, legal & commercial domains etc)
To carry out development activities (passage from the concept/idea to the product/service, prototyping etc)
To plan Company creation Process (to know what to do, when, how with whom?)
To obtain 3F funds (family, friends, etc.)
To manage and design the strategy of the company, management (motivation) of Men and teams
To identify relevant information on the markets, the customers and the competitors
To assess the financial needs of the project
To find prospective industrial partners, customers or suppliers
To obtain bank financing
To profit from the material resources of your laboratory (machines, computers, etc)
To take the administrative and legal steps related to the creation of a company
To have competences/skills in trade negotiation and sales,
To assess the risks of the project
To obtain a financial assistance (subsidy, free loan, etc)
To attract shareholders, to obtain seed capital or venture capital
The framework for the study

- Exogenous factors
  - Person related factors
  - Situational factors

Perceptions
- Perceived desirability
  - Social Norms
- Perceived feasibility

Intent
- Entrepreneurial intent
If you found commercial application for your research results/skills, would you consider seriously becoming an entrepreneur to commercialize the opportunity?

-3 (strongly disagree) to +3 (strongly agree)

Mean = 1.85

<table>
<thead>
<tr>
<th>Commercial application of R&amp;D</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>disagree</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Rather disagree</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>No opinion</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Rather agree</td>
<td>22%</td>
<td>34%</td>
</tr>
<tr>
<td>Agree</td>
<td>28%</td>
<td>62%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>38%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Entrepreneurial Intent

How probable is it that you will start your own business, based on an innovative technology/service, in the next 5 years?

-3 (Very improbable) to +3 (Certain);

Mean = 0.70

<table>
<thead>
<tr>
<th>Probability in 5 years</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>very improbable</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>improbable</td>
<td>5%</td>
<td>12%</td>
</tr>
<tr>
<td>rather improbable</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>Neither prob nor improb</td>
<td>18%</td>
<td>39%</td>
</tr>
<tr>
<td>rather probable</td>
<td>24%</td>
<td>63%</td>
</tr>
<tr>
<td>Probable</td>
<td>26%</td>
<td>89%</td>
</tr>
<tr>
<td>Certain</td>
<td>11%</td>
<td>100%</td>
</tr>
</tbody>
</table>
If you had to choose between creating your company or being an employee (on salary), What would you prefer?

-3 (Be an employee) to +3 (Be an entrepreneur));
Entrepreneurial Intent

Do you intend to create or take part in the creation of a Start-up based on research results or research skills/competences?
-3 (Not the intention at all) to +3 (Completely the intention);

<table>
<thead>
<tr>
<th>Intention to create or participate in the creation of a Spin-off</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not the intention at all</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Not the intention</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Rather not the intention</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>No opinion</td>
<td>11%</td>
<td>25%</td>
</tr>
<tr>
<td>Rather the intention</td>
<td>30%</td>
<td>56%</td>
</tr>
<tr>
<td>The intention</td>
<td>30%</td>
<td>86%</td>
</tr>
<tr>
<td>Completely the intention</td>
<td>14%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Mean = 1.10
I- Entrepreneurship Among Moroccan PhD students

II- Technology Based Start-ups Incubation Environment in Morocco
Incubation Context

1. Generate Ideas
2. Development Projects
3. Start Enterprises
4. Consolidate

Research Results → Value/wealth Creation

**University culture**
- « publish or perish »
- Foster Entrepreneurship
- Promotion System

**Prospecting**

**Evaluation**
- Technological
- Commercial
- Managerial

**Protection/Patent**
- IP management
- Share of royalties

**Development**
- Technological (prototype)
- Commercial (business plan)

**Funding**
Development grants
Seed Capital

**Access to resources**
- Intangibles
- Tangibles
  - Material
  - Finances

**Relations between University…**
- …Spin-off
- …Professor, business creator

**Risks:**
- Delocalization
- Change of Trajectory
- Commercial dependence

Source: Prinay (2000)
Incubation Context

1. Generate
2. Development
3. Start
4. Consolidate

Research Results → Ideas → Projects → Enterprises → Value/wealth Creation

<table>
<thead>
<tr>
<th>University culture</th>
<th>Protection/ Patent</th>
<th>Access to resources</th>
<th>Risks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- « publish or perish »</td>
<td>- IP management</td>
<td>- intangibles</td>
<td>- Delocalization</td>
</tr>
<tr>
<td>- Foster Entrepreneurship</td>
<td>- Share of royalties</td>
<td>- tangibles</td>
<td>- Change of Trajectory</td>
</tr>
<tr>
<td>- Promotion System</td>
<td>- Technological (prototype)</td>
<td>+ material</td>
<td>- Commercial dependence</td>
</tr>
<tr>
<td>prospecting</td>
<td>- Commercial (business plan)</td>
<td>+ finances</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>Funding</td>
<td>Relations between University…</td>
<td></td>
</tr>
<tr>
<td>- technological</td>
<td>Development grants</td>
<td>-…Spin-off</td>
<td></td>
</tr>
<tr>
<td>- commercial</td>
<td>Seed Capital</td>
<td>-…professor, business creator</td>
<td></td>
</tr>
</tbody>
</table>
Incubation Context

1. Generate
2. Development
3. Start
4. Consolidate

Research Results → Ideas → Projects → Enterprises → Value/wealth Creation

University culture
- « publish or perish »
- Foster Entrepreneurship
- Promotion System

prospecting

Evaluation
- technological
- commercial
- managerial

Protection/Patent
- IP management
- Share of royalties

Development
- Technological (prototype)
- Commercial (business plan)

Funding
Development grants
Seed Capital

Access to resources
- intangibles
- tangibles
  + material
  + finances

Relations between University...
- …Spin-off
- professor, Business creator

Risks:
- Delocalization
- Change of Trajectory
- Commercial dependence

Source: Prinay (2000)
Incubation Context

1. Generate
   - Ideas

2. Development
   - Projects

3. Start
   - Enterprises

4. Consolidate

Research Results

Value/wealth Creation

<table>
<thead>
<tr>
<th>University culture</th>
<th>Protection/ Patent</th>
<th>Access to resources</th>
<th>Risks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- « publish or perish »</td>
<td>- IP management</td>
<td>- intangibles</td>
<td>- Delocalization</td>
</tr>
<tr>
<td>- Foster</td>
<td>- Share of royalties</td>
<td>- tangibles</td>
<td>- Change of trajectory</td>
</tr>
<tr>
<td>- Entrepreneurship</td>
<td></td>
<td>- material</td>
<td>- Commercial dependence</td>
</tr>
<tr>
<td>- Promotion System</td>
<td></td>
<td>- finances</td>
<td></td>
</tr>
<tr>
<td>prospecting Evaluation</td>
<td>Development</td>
<td>Relations between University…</td>
<td></td>
</tr>
<tr>
<td>- technological</td>
<td>- Technological (prototype)</td>
<td>-…Spin-off</td>
<td></td>
</tr>
<tr>
<td>- commercial</td>
<td>- Commercial (business plan)</td>
<td>-…professor, Business creator</td>
<td></td>
</tr>
<tr>
<td>- managerial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td>Development grants</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seed Capital</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Prinay (2000)
Presentation of RMIE

Financers & pilots:
- Ministry of Higher Education
- Ministry of Commerce & Industry
- CNRST (Prime Contractor)
- French Embassy

Training & Expertise:
- Association R&D Maroc
- FBPCE
- OMPIC

6 Incubators (active)

Post-creation Financing
- Seed Capital Sindibad
Presentation of RMIE

**International Vision** to technology transfer Policy (RETIS, MENAinc)

**Financial support to the projects** hosted in incubators (members of RMIE) 25,000 US $

**Development of innovative enterprises creation** in Morocco (assistance + expertise)

**Raising awareness of entrepreneurship**

**Training of human resources** involved in the emergence of spin-offs

**Professionnalization of incubators** Promoting Best Practices (training)
RMIE in numbers

- **Global amount**: 6,500,000 dh grants for projects
- **72 months**: allowances living expenses Incubatees
- **26 Training days**: Incubatees
- **14 Training days**: Incubators Assistants
- **10 Structures members**
- **6 Active Incubators**
- **70 Submitted Projects**
- **29 Supported Projects**
- **23 Projects under incubation**
- **6 projects finished incubation**
- **26 Training days Incubatees**
- **72 months allowances living expenses Incubatees**
- **10 Structures members**
- **6 Active Incubators**
- **70 Submitted Projects**
- **29 Supported Projects**
- **23 Projects under incubation**
- **6 projects finished incubation**
Incubation Context

1. Generate
2. Development
3. Start
4. Consolidate

Research Results

Value/wealth Creation

Financial Sector

Universities

Technology

Clusters

Incubators

Business

Clusters

Entrepreneurship centers

Authorities

Source: Prinay (2000)
Incubation Context

Universities

Levers of improvement

- Clarification of relations between researcher-creator-Spin-off & university
- Development of the entrepreneurial culture
- Alleviation of the administrative burden –
- Enhancing the quality of economic evaluation
- Improvement of the IP management
Incubation Context

Levers of improvement

- Diversification of financial tools (One seed Capital, No business angels, venture capitalists)
- Easing access to credit (Doing business World bank- ranked Morocco 143\textsuperscript{rd} place regarding access to credit).

Source: Prinay (2000)
Incubation Context

Levers of improvement

- Reinforcing autonomy towards universities (Inadequate management)
- Recruiting experienced professionals in business support ⇒ Provide adequate business assistance
- Incubation and business creation definition?
Incubation Context

1. Generate Ideas
2. Development Projects
3. Start Enterprises
4. Consolidate

Research Results → Value Creation

Universities → Financial Sector

Technology Clusters → Incubators → Business Clusters

Put In place national & Regional Clusters

Source: Prinay (2000)
Incubation Context

1. Generate Ideas
2. Development Projects
3. Start Enterprises
4. Consolidate

Research Results ➔ Value Creation

Financial Sector

Universities

Technology Clusters

Incubators Business Clusters

Entrepreneurship centers

Encourage Research on entrepreneurship.

Courses/training on Business creation

Source: Prinay (2000)
Incubation Context

1. Generate Ideas
2. Development Projects
3. Start Enterprises
4. Consolidate

Research Results

Value Creation

Financial Sector

Universities

Technology

Incubators

Clusters

Business

Clusters

Entrepreneurship centers

Authorities

Source: Prinay (2000)
Incubation Context

Basic Research

Invention

“Valley of Death”

RMIE

No Capital

Innovation & New Business

The Darwinian Sea

Viable Business
"I call my invention 'The Wheel', but so far I've been unable to attract any venture capital."

Contact information

email: aazzioui@cnrst.ma ; rmie@cnrst.ma
Tel : +212 (0) 37 68 14 98/ +212 (0) 37 77 09 87
Website: www.rmie.ma