The Islamic University of Gaza

IUG ICT Business Incubator

Project

Operation and Development for Islamic University IT Incubator

Study Identifying Trends and Future Directions ICT and Incubation

Quality Improvement Fund (QIF) – Ministry of Education and Higher Education

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Business & Technology Incubator
حاضنة الأعمال والتكنولوجيا

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Conditions for Effective Development of Knowledge Economy

- Market opportunities and access
- Availability of infrastructure
- Existence of appropriate legal framework
- Availability of adequate human resources
- Availability of Financial support

Managing an Incubation Program

- **ICT and outreach**: reach clients outside the incubator itself (distance training, e-learning, and business information systems)
- Awareness
- Cross border collaboration
- International Partnership

Introduction

- Today, national government put forth plans to develop their economy and create employment opportunities based on creating and developing new SMEs.
- The platform of entrepreneurship and incubation is the most important policy for governments in order to assist SMEs in technology innovation, entrepreneurial information diffusion, and operation fund access.
- The platform can be constructed by three elements: incubation services, entrepreneurial knowledge and financing support.

- The most attractive field for incubation is the information and communication technologies which depend mainly on the human capital and few infrastructures.
- Information and Communication Technologies (ICTs) are now widely accepted by developing countries as a critical tool in their efforts to eradicate poverty, enhance human development, and achieve development goals.
- Business incubators play an important role in reducing the risk and increasing the capacity of entrepreneurs to grow innovative competitive enterprises.
- It is the combination of infrastructure, enabling policies and regulations, appropriate financing, a culture of risk-taking, and

quality education that creates a nurturing environment where people can convert innovative ideas to social and economic value.

- In Palestine, educated unemployment rates rose from 21% in 1995 to 32% in 2005. The number of unemployed graduates doubled four times during that period, increasing from 20 thousand in 1995 to 80 thousand in 2005.
- The local market is not growing and the economy is crumbling.
- Therefore, the only chance is in creating micro and small ICT enterprises that will pick up the pieces and solve the unemployment problem, help in solving the poverty problem, and utilize the energy and power of youth.

- The Palestinian Authority has a relatively weak enterprise policy framework.
- Access to capital markets for SMEs is also still problematic and the availability of risk capital is very limited.
- Globally, there are over 4000 business incubators. In EU there are over 900 business incubators with an average incubated firms range from **28-40 per incubator**.
- Statistics show that **87% to 90% of all businesses that graduate out of incubator programs are still in business**; contrasted with approximately 20% to 30% of non-incubated businesses.
- Linking the incubator clients to the outside world are key individuals who are incubator managers.

The University-Based Incubators

- The incubators usually cannot directly invest money in the incubated project.
- The human resource of the university-based incubators is very limited to take care of the potential incubatees in all aspects. For every incubator, usually there are only one full-time manager and 1-2 full-time assistant managers in addition to a part-time incubator director who is a university professor. The full-time manager and assistant managers, usually with less than 3 years' incubation experience. Their daily work is to handle the routine operations, they don't have enough time, energy and experience to really get involved in solving the problems of the incubatee.

- Moreover, frequent personnel change of the incubator management team is another critical issue for the incubator to provide really creative incubation services for the incubatee. The reason for the high frequency in personnel change of the incubator management team is because there is no creative, entrepreneurial incentive program for them to stay and contribute.
- One issue even more crucial is that the university-based incubator cannot make profit enough to be self-sustainable without the university's financial support. It is a very common problem globally.

Funding

- Given the volatile political and economic situation in Palestine, banks are taking a risk-averse approach, providing essentially short-term credit facilities and asking for high collateral requirements, exceeding on average 200 % of the market value.
- A Loan Guarantee Facility was established in July 2007, through a joint arrangement involving the Aspen Institute, the Cooperative Housing Foundation and the Palestinian Investment Fund.
- The European Palestinian Guarantee Facility supported by the European Commission is also available and provides guarantees for over EUR 8 million.

Innovation and Entrepreneurship

- The Palestinian Authority's innovation policy is still very much in its infancy. No innovation strategy exists, legislation is prepared (for instance on intellectual property rights) but not enforced.
- Actions have been taken to promote cooperation on innovation among enterprises and research centers in local universities, funded by international donor institutions (ANERA).
- Entrepreneurial education and training does not feature in national education policy.
- For the last two years, a course on entrepreneurship was introduced in Palestinian universities and was funded by ANERA.

ICT Industry

- Palestine's software and information technology services industry is small, fragmented and mostly inward-oriented.
- Compared to many other countries, the Software and Information Technology Services industry in Palestine is at the very early stages of development.
- At present, there are handful companies primarily engaged in software, Internet web site and content development and related services; of these, perhaps only two or three may be considered software developers.
- The industry is predominantly selling to the domestic market and export sales are low.

- Most of companies were established based on developing an idea was 62.1%.
- The companies said that political circumstances are the most difficult conditions that they encountered at the beginning of the company's establishment **75.9 %**, then followed by the lack of capital, where the percentage of companies that have faced a lack of sufficient capital are **27.6%.**

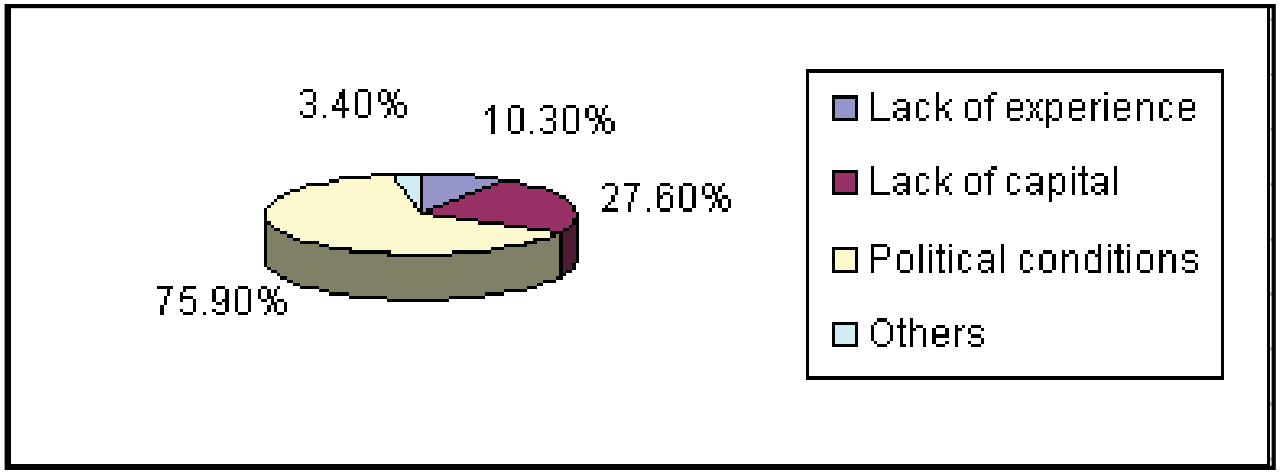


Table 6.2 Summary of IT fields of which companies are involved in

#	Company work interest	No. of Company	Percent
1.	Software Development	16	55.2 %
2.	Database	10	34.5 %
3.	Networking &Communications	17	85.6 %
4.	Network Security	15	51.7 %
5.	Wireless Network	11	37.9 %
6.	Web Developer	14	48.3 %
7.	Training	10	34.5 %
8.	Consultant	10	34.5 %
9.	Multimedia	6	20.7 %
10.	Cartoons	4	13.8 %
11.	Computer Games	2	6.9 %

Management Fields for Employees Training

- **Feasibility studies: 24.1%** of companies consider this field as first priority, **10.3%** the second priority, **20.7 %** the third priority, **6.9 %** the fourth priority, **6.9 %** the fifth priority, **10.3 %** the sixth priority, and **20.7 %** not a priority

  Feasibility studies are important skills 60.75%.

- **Proposal writing: 20.7%** of companies consider this field as first priority, **24.1%** the second priority, **3.4 %** the third priority, **20.7 %** the fourth priority, **15.8 %** the fifth priority, **3.4%** the sixth priority, and **13.8 %** not a priority.

  Proposal writing is important skills 64.53%.

- **Reports Writing: 10.3%** of companies consider this field as first priority, **13.8%** the second priority, 17.2**%** the third priority, **13.8 %** the fourth priority, **17.2 %** the fifth priority, **10.3%** the sixth priority, and **17.2 %** not a priority.

  Reports writing are important skills 55.17%.

- **Marketing planning: 20.7%** of companies consider this field as first priority, **10.3%** the second priority **24.1%** the third priority, **6.9 %** the fourth priority, **10.3 %** the fifth priority, **3.4%** the sixth priority, and **24.1 %** not a priority

  Marketing planning are important skills 59.57%.

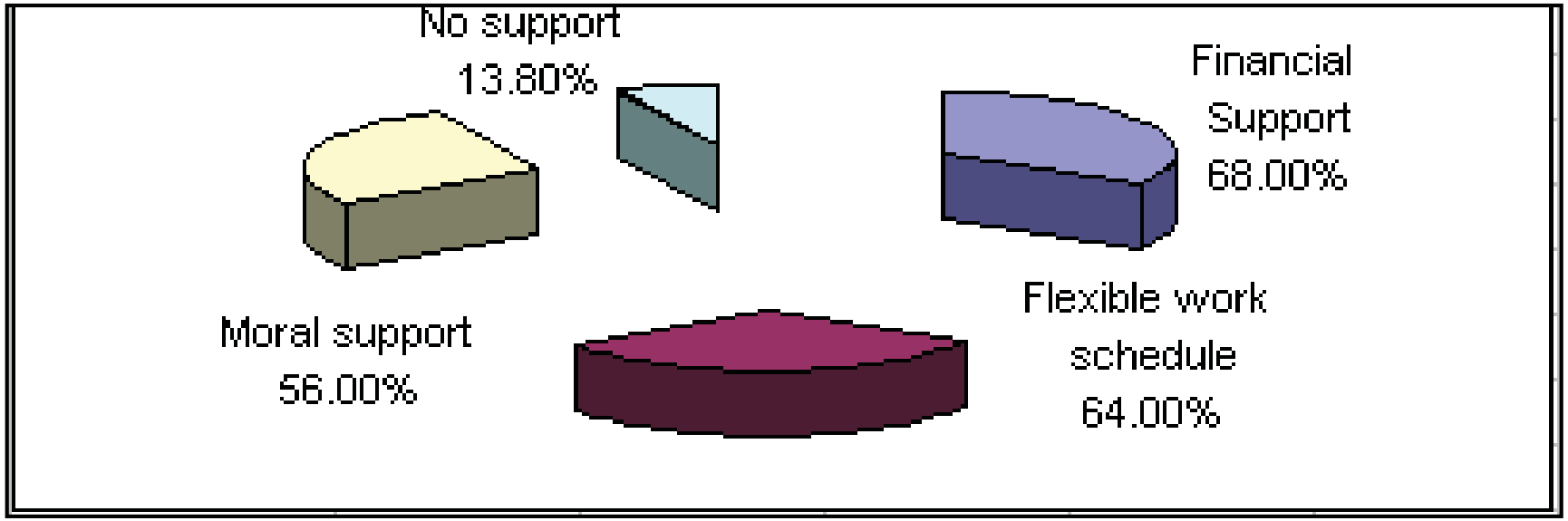
- **Business plans: 17.2%** of companies consider this field as first priority, **34.5%** the second priority, **10.3%** the third priority, **24.1%** the fourth priority, **6.9 %** the fifth priority, **0%** the sixth priority, and **6.9 %** not a priority

  Business plans are important skills 71.86%.

- **Management of Small Enterprises: 3.4%** of companies consider this field as first priority, **3.4%** the second priority, **13.8%** the third priority, **6.9 %**, the fourth priority, **10.3 %** the fifth priority, **34.5%** the sixth priority, and **27.6 %** not a priority

  Small enterprises are important skills 38.43%.

Company supporting continued education and self learning



Necessary Training Period

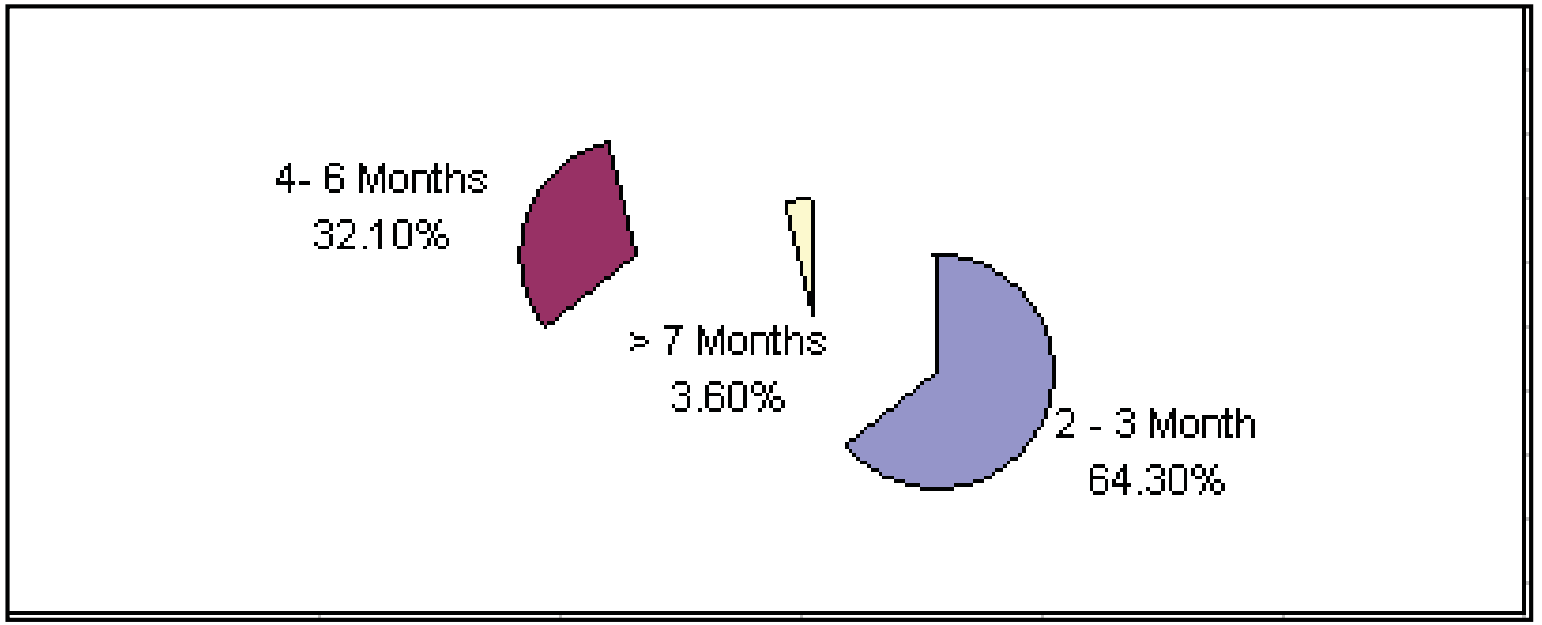


Table 6.3 Summary of Employment Criteria

#	Criteria	V. important	important	Not sure	Not important	Never import	Percent
1.	**cumulative rate**	10.3 %	65.5 %	10.3%	13.8%	0%	74.48%
2.	**Practical experience**	69 %	27.6 %	0 %	3.4%	0%	92.41%
3.	**ICT skills**	58.6 %	41.4%	0%	0%	0%	91.72%
4.	**English language**	37.9 %	48.3%	10.3%	3.4%	0%	84.14%
5.	**Training courses**	24.1 %	69 %	3.4%	3.4%	0%	82.76%
6.	**Certification**	17.2 %	44.8%	17.3%	20.7%	0%	71.72%
7.	**Recommendations**	6.9 %	31 %	20.7%	24.1%	17.2%	57.24%

Table 6.7: Enterprise overall assessment

#	Evaluation	Degree					Percent
		V. Large	Large	Not Sure	Little	V. Little	
1.	satisfy with their market share	14.8%	51.9%	14.8%	14.8%	3.7%	71.85%
2.	satisfy with their annual sales	11.1%	29.6%	22.2%	33.3%	3.7%	62.22%
3.	have enough financial support	14.8%	63.0%	7.4%	11.1%	3.7%	74.81%
4.	able to generate new ideas	48.3%	48.3%	3.4%	0%	0%	88.97%
5.	have creative skills to do their job	44.8%	44.8%	6.9%	3.4%	0%	86.21%

Table 6.8: Summary of the best ICT fields

#	The Best ICT Fields	No. of Company	Percent
1.	Software Development	15	51.7 %
2.	Database	4	13.8 %
3.	Networking &Communications	15	51.7 %
4.	Network Security	11	37.9 %
5.	Wireless Network	5	17.2 %
6.	Web Developer	9	31.0 %
7.	Consultancy	3	10.3 %
8.	Multimedia	8	27.6 %
9.	Cartoons	5	17.2 %
10.	Computer Games	6	20.7 %

IUG ICT business incubator is facing challenges such that:

- Most students and graduates were unaware of the incubator and its activities;
- Potential entrepreneurs are few;
- Most of the participants do not have the skills that are necessary to develop feasibility studies or work plans; the place is not attractive enough and is not suitable for incubation;
- The management of the incubator is not stable, suffered change and its employment contact is project-based;
- Funding for start-ups is not available;
- Networking is suffering due to difficulties in travel;
- Training programs for staff and incubatees are insufficient.

Suggested ICT Fields for Incubatees

- Educational and entertainment software.
- Arabic versions of software for international companies.
- Software outsourcing and exporting.
- Creative arts workshop
- Industrial control solutions
- Accounting solutions
- Consulting and training
- Animation
- Web solutions
- e-real state
- e-yellow pages

The Recommendations

- Solicit the help of international experts for short-term technical support.
- Conduct workshops and activities concentrating on idea scanning, project conceptualization and business modeling; industry and market study/consumer survey; fundraising support; management oversight, coaching and mentoring etc.
- Train Incubator managers by traveling abroad to learn from other incubators.
- Organize a contest with financial awards for university students and private firms. The goal of the contest is to identify, support and launch new business proposals that are from the ICT sector.

- Form a board and consulting teams to assist the emergence of SMEs, and host training workshops about developing business plans, financial modeling, marketing, strategic planning, and entrepreneurship.
- Focus on sustainability (incubator financing)
- Develop and disseminate promotional material, the activities of network members and country stories (recognize success).
- Start determining own future structure and look at future sustainability, possibly developing its own funds.
- Create a training program for incubator practitioners.
- Facilitate exchanges of experience, twinning and sharing programs.

Seed Capital Financing Facilities for SMEs (targeting newly established ICT firms)

- Morocco's Fonds sindibad (< $400,000)
- Egypt Ideavelopers (as small as $200,000)
- Tunisia Espaces Partenariat

Donor Organization

- Intel (over 1000 investment totaling over $1 billion)
- Microsoft
- Alcatel
- PROPARCO - France

Monitoring Evaluation and Impact Assessment Instruments

Level of Process

- Evaluation of incubatees and their progress
- Evaluation of services provided and incubatees' satisfaction
- Evaluation of incubator manager/management system
- Profitability

World Bank – Knowledge Assessment Methodology (KAM)

- ☒ Calculations of two indexes:
  - Knowledge economy index
  - Knowledge index
- ☒ 80 basic indicators related to economic system, education system, and availability of human resources; innovation system; ICT sector
- ☒ Indexes allow track progress at the country level

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