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Survey of Foreign Investment Firms in Egypt

By

Survey conducted by Alia El Mahdy
Report prepared by Maryse K. Louis
(Report Supervisor: Heba Handoussa)

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Klaus E Meyer, Copenhagen Business School

This research project explores the relation between institutions in emerging markets and the entry strategies chosen by foreign direct investors. The merits of alternative strategies from investors' perspective as well as the impact on the host economy are investigated. For this purpose, FDI strategies are investigated and compared in four important emerging markets India, Egypt, South Africa and Vietnam.

Project working papers no 1 to 12 present the field research reports, cases and data collected by the country teams. The "*Background Paper: Institutional Development and FDI*" outlines the economic and institutional context in the country. The "*Case Studies of FDI*" explore in depth the three case companies with respect to investor strategies and interaction with the local environment. The "*Survey of FDI*" summarizes and interprets the main results of the questionnaire survey.

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Survey of Foreign Investment Firms in Egypt

1. INTRODUCTION

Egypt adopted the Structural Adjustment and Economic Reform program in 1991 to overcome the instability and the decrease of growth rates of the economy. Despite the 'apparent' success of the program in quantitative terms, there were discrete qualitative weaknesses. The economy was somewhat vulnerable to shocks and the effect of the Asian and Latin American financial crises 1997-98, was reflected in many aspects by end of 1998. The economy was undergoing a recession towards the end of 2000 and was challenged by a devalued local currency, an increase in imports, a slow growth and an increasing inflation. The 11th September attack on the US came at a time when the economy was already suffering as a result of the global slowdown, and in particular because of the unfavourable internal conditions. Egypt was directly affected by the shock in a general context of vulnerability of the exchange rate. Tourism revenues (which normally represents an average of 25% of total exports receipts and represent the second large source of foreign exchange) fell by 26% in 2001/2002 and were accompanied by an increase in unemployment within this sector. The authorities are expecting a large financing deficit that will not be met by portfolio and direct investment inflows. Initial estimates of GDP growth rate drops to 0.8% in 2002; inflation is estimated to reach 4.3% while the budget deficit would jump to 6.2% of GDP.

Despite the instabilities of the market, the investment climate in Egypt is still attracting to foreign investors. In 1999 the FDI flows to Egypt reached almost $3 billion. Foreign investors invest in Egypt in Greenfields, Acquisitions, Partial Acquisitions or in Joint Ventures. It was worth studying what is the preferred mode of entry to the Egyptian market and what are the main characteristics of the foreign firms and their parent firms that invest in Egypt.

A survey of *Foreign Investment Firms in Egypt*, was conducted in Egypt between November 2001 and January 2002. Since the end of 2000 and up until the survey period, the Egyptian economy had been undergoing a severe recession in response to unstable internal conditions and a global slowdown, as briefly described. The downturn was observed in the following:

- A decrease in the annual GDP growth rate; an increase in the inflation rate and the overall instability of the macroeconomic environment;
- An increase in bankruptcy levels among large and small firms;
- A high unemployment rate, estimated at between 8% - 15% in early 2000;
- A visible reduction in the amount of FDI flowing into the country, which fell by two thirds, from US$1,500 million in 2000 to about US$500 million in 2001.

The downturn from the 11 September tragedy added to the existing negative conditions of the economy. In consequence, a pervasive feeling of pessimism prevailed, not only in the business community, but also among ordinary people and the population at large. This mood of general depression was reflected in the survey:

- First, the response among companies was relatively low, with a response rate of about 10 percent, or 150 companies out of a total of 1500.
- Second, responses tended to be biased towards negative opinions, reflecting the current situation and not the potentially more positive longer-term picture.

The results of the survey must therefore be interpreted very carefully, keeping these background details in mind.

2. Framework and Methodology

The survey target was to reach 150 filled questionnaires of foreign investors in Egypt. The base population from which the sample was drawn met the following criteria:

i. firms that were established between 1990 and 2001,
ii. with a minimum of 10% of foreign investment, and
iii. with a minimum of 10 employees.

According to the listing from Egypt's General Authority for Free Zones and Investment (GAFI), there were 3824 foreign investment firm operating in Egypt as of June 2001. This number rose to 4035 firm by June 2002. However, the exact number of firms that followed the above criteria was not available. Hence we assumed that the total number of firms was our base population.

Several databases were used to identify these firms and their contact details. Directories such as those produced by foreign chambers of commerce and other business directories gave basic information about the firms, such as year of establishment, nationality of investment, number of employees, field of investment, …etc.

From this basic information we identified 2000 firms that potentially could meet the required criteria. A sample of 350 firms was randomly selected from the 2000 firms and a contact was made with them in order to confirm that they follow the required criteria and to arrange for interviews with a senior member of their personnel. The response rate was very low, so we enlarged the sample size to include all the 2000 firms. All 2000 firms were then contacted by phone to ensure that the firm met the criteria, following which an interview was arranged with a senior staff member when the firm was eligible. In some instances only positive or negative responses were given on whether the criteria were applicable or not, rather than exact figures. Firms that did not fill the criteria were excluded. We ended up with 1500 firms, which represent the sample size, in order to get the 150 filled questionnaires, with a response rate of 0.1.

Table 1a. Questionnaire Return: Base Population versus Sample

	June 2002[1]
Firms in the base population fulfilling the criteria (except for the age criteria)	4035
Firms contacted	1500
Completed questionnaires	150
Return rate	0.1

Source: GAFI, 2001 and 2002

Notes:1. the total number of foreign firms as of June 2001 is 3824.

2. The figures given for the total number of firms is the cumulative number of foreign firms and not just those that followed the three criteria.

A confirmation on the applicability of the firms to the criteria was then made from the replies of the filled questionnaires:

i) Year of establishment: All 150 replied to the question concerning the year of operation, only one firm started operation in 1989.
ii) Number of employees: Question 21.1 of the questionnaire confirms the number of employees. Eleven of the surveyed firms did not reply to this question, however, a confirmation that the number of employees meets the minimum of 10 was given[1].
iii) Equity share: The minimum of 10% foreign equity share was confirmed in question 4 of the questionnaire on the modality of investment. All firms replied to this question, except two (67 and 115) where one of them (67) is a joint venture so it should have a reply of '3' in the database.

2.1 Distribution of the Sample versus the Base Population.

It should be noted that, while the figures given on the distribution of the base population according to sectors and location are those of June 2002 with a total number of 4035 foreign firms, the survey was performed in late 2001 where total number of foreign firms was 3824. Data of foreign firms distributed by sector and location was not available for 2001 but only for 2002. Hence, distribution of firms in 2001, the year when the survey was performed, could be slightly different than that of 2002 (with a difference of 211 foreign firms).

[1] In an attempt to fill-in the blanks, we managed to get more data on the number of employees for nine of the 11 firms, either from other sources or directories or by contacting the firm again. The two remaining firms confirmed to have more than 10 employees.

Table 1b. FDI Distributed by Sector and Origin **(Values in LE million)**

Sector	FDI						No. of Projects	Investment Costs
	June 2000			June 2002			June 2002	
	Arab	Foreign	Total	Arab	Foreign	Total		
Manufacturing	3191	5202	8393	4150	6412	10562	2176	59107
Agriculture	499	211	710	626	242	868	344	7405
Construction	338	1782	2120	382	1958	2340	181	19519
Tourism	3377	1363	4740	3140	1881	5021	360	22766
Financing	2953	2222	3175	4356	3264	7620	629	34325
Services	342	515	857					
Sub-total	10700	11295	21995	12654	13757	26411	3690	143122
Free zones	2666	2926	5592	3373	2441	5814	345	81594
Total	13366	14221	27587	16027	16198	32225	4035	224716

Source : GAFI, 2002

In terms of sectors

It is important to note while making comparison between the sectoral distribution of firms in the sample with that of the base population that there are differences in the definitions of the sectors. The survey defines the sectors according to the ISIC UN Rev.2 Classification, while the general authority of investment (GAFI) is using its own definition to the sectors of the economy. The base population sectors are aggregated in a way that is not possible to compare it to the sample sectors, which are quite detailed. The typical example of this is the services sector, as will be noted below.

Table 2a. Sample Properties: Industry in Base Population versus Sample

Sector	Base population June 2002		Sample	
	No. of firms	percent	No of firms	percent
Agriculture & Mining	344	8.5	5	3.4
Manufacturing[1]	2176	53.9	60	40.3
Construction[2]	181	4.5	21	14.3
Tourism[3]	360	8.9	7	4.7
Financing & insurance	na	na	16	10.7
Services[4]	629	15.6	19	12.8
Trade & distribution[5]	na	na	13	8.7
Transport, storage & comm.	na	na	7	4.7
Total	3690	91.4	149	100
Free zones [6]	34 5	8.6	0	0
Total	4035	100	149	100

Source: GAFI, 2002

Notes: This distribution of the foreign firms according to sector of investment is for all foreign firms and not only those established since 1990.

Problems of definitions and sectoral bias.

1. Manufacturing: The manufacturing sector in the base population represents 54% of total foreign firms in Egypt while in the sample it represents about 40%. Beside the fact that the base population includes all foreign firms, including those established before 1990, whereas the sample only includes those established after 1990, there is a problem of definition within this sector. As will be noted, some sectors that are presented in the sample are not available in the base population, which means that the base population sectors could include more sub sectors than that included in the sectoral distribution of the sample. The FDI directed to the manufacturing sector represents 33% of total FDI stock (Table 1b)

2. Construction: The number of foreign firms that work in the construction sector is 21 representing 14.3% of total firms surveyed. In the base population the number of foreign firms in this sector represent only 4.5% of total foreign firms. These firms include infrastructure, contractors and construction activities. It is to note that in 2001, this sector represented 7% of total FDI stock in Egypt (Table 1b). In the sample, this sector (having the ISIC code of 500) is distributed as follows:
    - five firms are involved in infrastructure (gas, water, power, electricity, elevators, …etc.) (4.7%);
    - nine firms are contractors and consultants in construction (6.1%);
    - nine firms are tourist development projects (building tourist villages) (2.7%);
    - and the remaining three are involved in other construction activities like restoration and other services to the construction sector (2.0%).

    Following the same definition of the base population the sample construction sector should include items 1 and 2 only, which reduces its share to 10.8% of total number of firms.

    It is also to note that part of the government long term plan is to increase the habitable area of the country from 3% to 20% by the year 2020. This has encouraged newly established firms to engage in construction activities. Also the government has approved private sector investments in the form of Build Operate Transfer (BOT) projects in power generation, telecommunications, airports and highways that will substantially improve the number and the quality of the infrastructure projects.

3. Tourism: According to the ISIC UN Rev2 classification, "71" is the group of "transport and storage; 719 is the "services allied to transport"; travelling and ticketing agencies are classified under code 7191. In the sample there are 7 firms that are put under the code 719 where in fact 5 are travel agencies and only 2 in the shipping activities. This classification is different from "hotel and restaurants" which is classified under 632 and where we have another 2 firms in the survey. In the table we consider as tourism the 5 travel agencies and the 2 restaurants and hotels. The 2 firms in the transport sector are moved to the section on: Transport, storage and

Communication. In the sample the tourism sector, defined so forth, represents 4.7% of the total firms compared to a percentage of 8.9% in the base population. In the base population the tourism sector includes: hotels, tourist villages, tourist transportations, tourist management, entertainment and tourist development projects. In the sample it includes travel agencies, hotels and restaurants. It is recommended that the 4 firms working in the tourism development (firm ID: 51,52, 54 and 56) and that are categorized under construction would move to this sector as to make the comparison more valid. If so, the tourism sector in the sample would account for almost 8% of total firms which is comparable to the base population of 8.9%. It is to note that in 2001 FDI stock in tourism accounted for 17% of total FDI stock in Egypt.

4. Services: In the base population, this sector includes: financial services (excluding funding services: e.g. banks and investment firms), transportation, consultancy, health, petroleum services and other services. In the sample, this sector includes: business services and real estate. Hence, comparing the sample, as is, to the population is not possible. However if we add the firms in the sector on transportation and communication to the services (7 firms) the total number of services firms would be 26 representing 17% of total number of firms in the survey and it would be more comparable to the services sector of the base population accounting for 15.6% . It is to note that in 2001 the FDI stock that was directed to the services sector (excluding financial services) accounted for 3% of total FDI stock, while the financial services FDI stock accounted for 18% of FDI stock. This high percentage could give us an idea of the high participation rate of foreign investors in the financial sector and which is not clearly stated in the base population sectoral distribution.

5. Trade and distribution: These constitute a large sector in the sample accounting for 8.8%. It is not stated in the base population how much this sector represents. However, it is believed that those trading and distribution firms could be included in the sectors according to their traded good whether it is manufacturing or services. However this could not be tracked.

6. Free zones: As mentioned in the background paper, the free trade zones enjoy a number of incentives and tax exemptions. The total number of investment projects in free zones accounts for 851 firms where only 345 has a foreign investment equity share (40.5% of the total). Most of the firms in free zones are of small scale and with lower investment cost. In terms of sectors: 48% of the total firms (foreign and local) are manufacturing, 42% are storage and the remaining 10% are services. We tried to interview few firms from the free zones but they were reluctant in replying to our requests, hence this sector was not presented in the survey.

In terms of Nationality

In Egypt, more than half of the foreign investors are from neighbouring Arab countries amounting for 57.1% in 2001 and 57.6% in 2002. In the sample, only 31% of the total firms surveyed were Arabs. This could be due to the fact that given that most of the foreign firms in Egypt are from Arab origin, they are the most affected by the slowdown of the business and hence were more reluctant to reply to the questionnaires. The largest Arab investors are from Saudi Arabia with a share of 14 % of total foreign firms in the base population. Europe's share comes second amounting to 26.1% of total firms in 2001 and 25.7% in 2002, led by the British investors amounting for 5.7% of total firms. It is believed that with the signing of the partnership with the EU, the share of European investment in Egypt will increase. As for US investment in Egypt, it amounted to 8.4% of total FDI with a share of 6.7% of firms.

Table 2b. Sample Properties: Country of Origin in Base Population versus Sample

(% of total number of foreign firms)

	Base (2001)	Base (2002)	Sample
UK	5.8	5.7	9
Germany	4.1	4.1	3
Other Europe	16.2	15.9	31
USA and Canada	8.4	8.2	21
Japan and Korea	0.7	0.7	1
Other Asia/Oceania	2.8	3.4	3
Middle East/Africa (Arab)	57.1	57.6	31
Financial Haven Countries	0	0	1
Others	4.9	4.4	0

Source: GAFI, 2001 and 2002

Notes: This distribution of the foreign firms according to nationality of investment is for all firms and not only those established since 1990.

In terms of location

Table 2c. Sample Properties: Distribution of Firms Within the Host Country

(% of total number of firms)

Location	Base (2001)	Sample
Great Cairo[1]	25.6	
Alexandria	3.5	
New and Industrial Zones (6th October and 10th of Ramadan)	16.0	
Others	54.9	

Source: GAFI, 2002

Notes: Please note that the distribution of firms given in this table is the distribution of investment firms (local and foreign), a total of 10,338 operating firms, and not only firms that fulfill the required criteria, which was not available.

1. Great Cairo includes Cairo and Giza

Location bias : It is important to note that the base population data on the location include both foreign and local firms (with a total of 10338). In addition it is known that foreign investors, specially those involved in services activities, prefer to establish their main offices in Cairo due to the available facilities, the environment and the convenience that it entails.

A possible explanation of the high rate of firms located in Cairo in the sample is the high proportion of non-manufactured firms that is surveyed (89 firms out of the 149 are engaged in non-manufacturing activities, presenting more than 60% of the total firms) Most of the services firms are located in Cairo, while the location where the service is provided could change according to the project. In the construction sector for example, the location of 22 out of the 23 surveyed firms is in Cairo (i.e. the location of the construction office). Whereas the projects that are constructed by those firms could be located outside Cairo (in other cities, industrial zones, tourist zones, ..etc.). In the base population the locations given here are the locations of the projects themselves and not the locations of the firms that are managing those projects.

3. Interpretation of Data from the filled Questionnaire

In this section we will interpret some of the data that was collected from the 150 filled questionnaire. Going to the main results of the survey of FDI in Egypt one could draw several conclusions. The next part will present the results according to the following sections and their interpretation.

3.1. Introduction to the Firms in the Sample

The sample contained 150 companies, which operated in different economic sectors. Table 3 shows the distribution of the companies according to economic sectors and size of employment.

The highest frequency of firms is concentrated in three main sector: Infrastructure and construction, financial and business services and intermediate products respectively. Among those three sectors, the intermediate goods producing companies are the larger in size –in terms of number of workers, where 57% of these companies employ more than 100 workers. In the infrastructure firms, 50% of the surveyed firms were of small size (10 to 50 employees). This issue is due to the fact that most of construction firms, although they use a large number of workers, find it less costly to sub-contract workers in construction sites than employ them directly with the firm.

Table 3. Sector by Size (Employment) in Egypt

local sectors	Local employment categories: 10-50	51-100	101-250	251-1000	>1000	Total
1	1	1	0	1	0	3
2	1	4	7	2	3	17
3	6	3	5	7	0	21
4	4	4	2	3	0	13
5	12	3	4	4	1	24
6	13	1	2	1	2	19
7	10	6	1	5	0	22
8	1	1	1	1	0	4
9	2	1	0	0	1	4
Total	50	24	22	24	7	127

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

For the whole sample, the data reveal that 58% of the companies are of small and medium size (less than 100 workers). This phenomenon- though indicating similarity with the general economic structure of firms in Egypt- is unexpected due to the common belief that FDI companies are usually large in scale in terms of capital and labour.

Distinguishing the firms according to the home country indicates that the highest concentration of FDI originated from European countries (43%), followed by Arab countries (33%) and North American countries (19%) respectively (Table 4).

Table 4. Sector by Home Country Region in Egypt

Lcoal Sectors	home region 1	2	3	4	5	Total
1	0	4	0	0	0	4
2	3	8	1	7	0	19
3	2	13	0	7	0	22
4	1	4	0	8	0	13
5	5	13	0	8	0	26
6	2	12	0	6	2	22
7	10	4	2	9	1	26
8	4	2	0	2	0	8
9	1	3	0	1	0	5
Total	28	63	3	48	3	145

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals. Home Region categories are: 1: North America; 2: Europe; 3: Japan & East Asia; 4: MENA; 5: Other (include Australia).

The European firms are mainly concentrated in producing intermediate products; infrastructure and construction; and trade and tourism; furthermore, many firms in the pharmaceuticals sector are European. This concentration especially in the case of the first, second and last sectors is consistent with the fields of specialization and excellence, whereas the investment in tourist companies such as beach resorts and hotels is more related to the competitive advantage of Egypt in this respect.

The Arab FDI is on the other hand more evenly distributed among the different economic activities, with minor relative concentration in the financial sector, machinery and equipment and infrastructure and construction.

The North American companies are clearly concentrated in the financial sector. One possible explanation to the interest in the financial sector is that the banking, insurance and financial investment became a thriving and growing business since the beginning of the nineties.

As to the concentration of new foreign investments in infrastructure and construction, it could be explained by the fact that there is a growing demand on housing in Egypt especially with the government plan to enlarge the habitable area and to create new cities outside the high concentrated areas. As a consequence, foreign and local companies ventured into this sector to benefit from this momentum.

The distribution of the companies according to their age, as shown in Table 5, reveals that a large percentage (48%) started their business between 1995-1998. Several favourable conditions were behind this trend. First, this period of time coincides with the successful implementation of the ERSAP, the monetary and financial stability, and the excellent international standing as confirmed by international rating institutions. Moreover, the implementation of the privatisation program encouraged foreign inventors to buy firms' shares from the stock markets and enter the Egyptian market in brownfield and acquisition investments. Also, during this period, a new investment law was implemented giving more incentives to foreign investors and allowing full foreign ownership.

Table 5. Sector by Age (Start of Operations)

local sectors	Age categories 1990-1994	1995-1998	1998-2001	Total
1	0	3	1	4
2	7	9	3	19
3	9	9	4	22
4	5	6	3	14
5	7	14	6	27
6	4	9	9	22
7	5	13	8	26
8	0	5	3	8
9	1	3	1	5
Total	38	71	38	147

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

3.2. Introduction to the Investors

The sample reveals that the parent firms that have invested in Egypt have the following characteristics:

1. The majority of the parent firms (68%) have worldwide employment exceeding 1,000 workers and 40% of them employ more than 10,000 workers. This implies that a considerable number of the foreign companies are affiliated to relatively large parent companies, see Table 6a

Table 6a. Parent Sample by Sector and Global Employment

local sectors	parent firm's global employment				Total
	<=1000	1001-10000	10001-100000	>100000	
1	0	1	0	1	2
2	1	2	2	3	8
3	3	5	2	1	11
4	1	1	0	2	4
5	5	5	5	1	16
6	7	3	2	0	12
7	7	2	2	5	16
8	0	1	2	0	3
9	0	1	1	1	3
Total	24	21	16	14	75

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

2**.** Although 32% of the FDI parent companies generate no more than 0.1% of the global turnover of their parent companies, there are still 15% of the FDI companies that contribute more than 20% of their parent companies turnover. The latter group is mainly concentrated in companies that produce intermediate products and basic consumer goods, see Table 6b

Table 6b. Parent Sample: Sector by Percentage of Global Turnover

local sectors	Local Contribution to Global turnover					Total
	0-0.1%	0.1-0.5%	0.5-2%	2-5%	5-20%	
1	0	0	1	0	0	1
2	7	1	2	1	1	16
3	5	6	0	0	2	19
4	1	1	3	1	1	8
5	6	3	3	4	5	24
6	5	2	2	0	5	16
7	7	4	3	4	1	20
8	5	0	0	0	1	6
9	0	0	1	2	0	3
Total	36	17	15	12	16	113

local sectors	>20	Total
1	0	1
2	4	16
3	6	19
4	1	8
5	3	24
6	2	16
7	1	20
8	0	6
9	0	3
Total	17	113

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

3**.** According to the foreign investors that were included in the sample, the majority of the parent FDI companies (72%) allocate from 0 to 2% of the total sales to R&D, see Table 7a.

Expenditures allocated for R&D depend very much on the nature of the firm. In the sample, 59% of total parent firms are engaged in infrastructure, trade, tourism and financial activities, which normally do not require high investment in R&D. Other firms that are engaged in manufacturing representing 37.8% of total firms in the sample are spending more on R&D, of those, 38% spend more than 2% of global sales on R&D.

Table 7a. Parent Sample: Sector by R&D Expenditure (as % of global sales)

local sectors	0-0.05%	0.5-1%	1-2%	2-4%	4-8%	Total
1	0	0	0	1	0	1
2	8	0	3	1	3	15
3	13	1	2	2	1	19
4	3	1	0	2	2	8
5	15	2	1	3	1	24
6	10	0	1	2	1	16
7	11	2	0	3	1	20
8	5	0	1	0	0	7
9	0	1	0	0	0	1
Total	65	7	8	14	9	111

Local sectors	8-15%	>15%	Total
1	0	0	1
2	0	0	15
3	0	0	19
4	0	0	8
5	2	0	24
6	2	0	16
7	3	0	20
8	1	0	7
9	0	0	1
Total	17	0	111

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

4. Spending on advertising by parent foreign companies in Egypt is of a small value as percentage of global sales, see Table 7b.

Table 7b. Parent Sample: Sector by Advertising Expenditure (% global sales)

local sectors	parent advertising expenditure (%of global sales) 0-0.5%	0.5-1%	1-2%	2-4%	4-8%	8-15%	>15%	Total
1	0	1	0	0	0	0	0	1
2	13	1	1	0	0	0	0	15
3	16	0	2	0	1	0	0	19
4	1	0	3	2	1	0	0	7
5	15	3	3	1	0	1	0	23
6	10	2	1	2	0	1	0	16
7	12	0	3	2	0	1	1	19
8	3	0	3	1	0	0	0	7
9	0	0	1	0	0	0	0	1
Total	70	7	17	8	2	3	1	108

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

5. The majority of the parent companies (85.5%) have evident experience of investing in other regions especially Latin America and Africa, which lends them greater capabilities to adapt to developing countries' environment, see Table 8a

Table 8a. Parent Sample: Sector by Parent Experience (other areas of foreign direct investment regions)

local sectors	FDI regions 0	1	2	3	4	Total
1	0	0	0	3	1	4
2	4	5	2	0	8	19
3	5	6	1	3	6	21
4	4	4	4	0	2	14
5	1	8	4	6	8	27
6	2	7	5	4	4	22
7	3	8	5	0	10	26
8	1	1	2	0	3	7
9	1	0	1	0	3	5
Total	21	39	24	16	45	145

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

6. Most of the parent firms are either focused in one main business activity or diversified in related activities, see Table 8b. Only firms that works in the infrastructure and construction sector have more conglomerate industries. 50% of the firms that works in the intermediate sector have related industries, this could be due the fact that this sector includes several industries that requires access to other parts (e.g. electronics).

Table 8b. Parent Sample: Sector by Degree of Diversification

local sectors	Conglomerate	related	focused	Total
1	1	2	1	4
2	2	8	8	18
3	1	10	9	20
4	2	5	4	11
5	8	6	13	27
6	4	6	9	19
7	4	13	8	25
8	1	2	4	7
9	2	2	1	5
Total	25	54	57	136

Degree of Diversification

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

3.3. Mode of Choice

As noted in the background paper, and despite the fact that acquisitions and partial acquisitions (PA) represent an easier way of entry to the Egyptian market, greenfield is still considered the major mode of entry as confirmed by the sample. Table 9 reveals that both the Greenfield and the Joint Ventures investments are the major modes of entry in the sample (Greenfield investment represent 46.5% and JVs represent 36.8% of the total firms in the sample.

Table 9. Entry Mode Choice by Sector

Mode of entry

local_sect	Greenfield	Acquistion	JV	PA	Total
1	0	1	3	0	4
2	12	1	5	1	19
3	10	1	9	2	22
4	3	0	7	3	13
5	13	0	11	3	27
6	11	2	7	2	22
7	10	2	7	5	24
8	4	0	4	0	8
9	4	0	0	1	5
Total	67	7	53	17	144

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals. Entry Mode categories are: 1: Greenfield; 2: Acquisition a take over of at least 95% of equity; 3: JV new business with both local and foreign investment with the foreign investment with the foreign owning at least 10%; 4: PA: partial acquisition of at least 10% of a firm.

This phenomenon could be explained by several factors:

- Brownfield investment was mainly channelled through the privatisation process.
- Hence, when the privatisation program slowed especially in 1997, as most of the successful firms were already sold out, foreign investors started to engage in Greenfield investment.
- The growing market needs for new products and services drove the foreign investors into new economic activities.

- The new investment law No. 8 of 1997 gave several incentives to investors and treated the foreign investors as nationals allowing full foreign ownerships.

These explanations are confirmed by the fact that most of the Greenfield and Joint Venture companies in the sample started operations in the mid nineties or later (Table 10). Almost 47% of the firms established between 1990 and 1994 were Greenfields and another 47% were newly established JVs with a local partner. Almost half of the firms established in the period between 1995 and 1998 were also Greenfield, as the privatisation only included a small number of firms (only 134 firms were privatised) but the number of acquisitions and partial acquisitions newly established firms presented 17% of total firms established in this period.

Table 10. Entry Mode Choice by Age (start of company operations)

start age	Mode of Entry: Greenfield	Acquisition	JV	PA	Total
1990-1994	18	0	18	2	38
1995-1998	36	5	21	7	69
1998-2001	13	2	14	8	37
Total	67	7	53	17	144

Notes: Entry Mode categories are: 1: Greenfield; 2: Acquisition a take over of at least 95% of equity; 3: JV new business with both local and foreign investment with the foreign investment with the foreign owning at least 10%; 4: partial acquisition of at least 10% of a firm.

According to the survey, foreign firms producing basic consumer goods (including food processing) prefer to invest as Greenfield (63%) as Table 9 shows. Also, most of the pharmaceutical newly established firms surveyed (80%) prefer to invest in Egypt as Greenfield, though the small number of observations suggests caution in relying on this result. This was not the case in the 1980s where most of the pharmaceuticals firms entered the market as a result of a Joint venture or acquisition processes.

In terms of size, Table 11 shows that it is more common in the Greenfield investment to start with a small number of employees (43% of the Greenfield investments are small in size -between 10 and 50 employees), and it is rare that a Greenfield would start with more than 1000 employees (only 5% of Greenfield firms in the survey start with more 1000 employees). 35% of joint ventures are small size (between 10 and 50 employees), and 24% are of a medium size (101 to 250 employees).

Table 11. Entry Mode Choice by Size of Employment

local_empl	Mode of Entry: Greenfield	Acquisition	JV	PA	Total
10-50	26	1	17	5	49
51-100	13	1	8	2	24
101-250	10	0	11	1	22
251-1000	9	0	9	5	23
>1000	3	1	1	2	7
Total	61	3	46	15	125

Notes: Entry Mode categories are: 1: Greenfield; 2: Acquisition a take over of at least 95% of equity; 3: JV new business with both local and foreign investment with the foreign investment with the foreign owning at least 10%; 4: partial acquisition of at least 10% of a firm.

3.4. Resources for Success

When the affiliates were asked about the most crucial resources behind their successful performance, each firm had to choose and rank the three most important ones. Tables 12-15 reflect their answers:

i. Key resources by sector

Technological know-how was identified to be one of the most important resources of success by companies working in producing primary goods, IT, intermediate products, machinery and equipment industries and pharmaceuticals. This result is understandable since one of the main advantages of FDI is its ability to introduce new technologies to emerging markets. The technical know-how helps the incoming companies in securing a niche in the Egyptian market and thus becomes a source of success. This confirms another survey that was conducted on the business environment in Egypt and where most of the businessmen agreed that the most important gain in their linkage with their parent firm was in technology acquisition. The second most important is the brand name, training came third and managerial capabilities came fourth[2].

Managerial capabilities in Egypt ranks second and this applies to almost all companies, while the influence of using Brand names comes in the third position. It is especially important to pharmaceutical companies, consumer goods producing companies, tourism and trade, and financial and business services (Table 12).

All firms of the primary sector agreed that the technological know-how was one of the most important resources of their success, 25% of them found it is considered their first choice for success, while 50% of those firms find that ”business networks” is the most important resource of success. Also, technological know-how is the most important resource of the success of 26% of the firms producing basic consumer goods and of 50% of the firms working in the intermediate sector. “Brands’ and “Technology know-how” were each considered the first choice for 21% of the firms working in machinery and equipment sector. In the infrastructure and construction sector, 63% of the firms agreed that the “managerial capabilities” was one of the most important resource of success, 26% of those had this resource as their first choice. 50% of the firms working in the trade and tourism sector considered that brands was one of the most important resource of their success, 35% of those considered it to be their most important resource. In the financial and business sector, Managerial capabilities and Business networks were chosen to be important resources of success by 58% and 54% of the firms respectively. 75% of the IT firms choose the technology know-how as one of the most important resource and 50% of those considered it to be their first choice, while 50% of the firms choose the business network as one of the most important resource where only 23% of those choose it as their first choice. In the Pharmaceutical sector, 60% of the firms choose Brands, Managerial capabilities and technology know-how to be three most important resources of success and 60% of those choose Brands to be their most important source of success.

[2] UNCTAD. 1999. Investment Policy Review of Egypt. Geneva.

Table 12. Percentage Respondents Selecting the Resource as Necessary for Success, (by industrial sector of the respondent)

	1	2	3	4	5	6	7	8	9	
Resources	Primary	Basic consumer goods	Intermediate	Machinery & equipment	Infrastructure & construction	Trade, tourism & recreation	Financial & business services	IT	Pharma	Total
Brands	0%	42%	23%	29%	28%	50%	31%	25%	60%	32%
of which 1st choice	0%	21%	18%	21%	19%	35%	19%	13%	60%	22%
Business networks	50%	5%	32%	7%	30%	30%	54%	50%	20%	30%
of which 1st choice	50%	0%	9%	7%	7%	10%	23%	25%	0%	12%
Distribution network	0%	11%	18%	43%	4%	10%	12%	13%	0%	13%
of which 1st choice	0%	5%	0%	7%	0%	0%	0%	0%	0%	1%
Equity	0%	5%	5%	7%	15%	15%	19%	13%	0%	11%
of which 1st choice	0%	5%	5%	0%	0%	5%	4%	0%	0%	3%
Machinery & equipment	25%	26%	32%	36%	22%	15%	0%	0%	20%	19%
of which 1st choice	0%	11%	0%	14%	7%	10%	0%	0%	0%	6%
Managerial capabilities	50%	42%	36%	50%	63%	30%	58%	25%	60%	47%
of which 1st choice	0%	11%	5%	0%	26%	0%	27%	0%	20%	12%
Marketing capabilities	0%	32%	27%	33%	44%	45%	31%	25%	0%	33%
of which 1st choice	0%	5%	5%	7%	11%	10%	8%	0%	0%	7%
Technological know-how	100%	53%	82%	43%	44%	20%	35%	75%	60%	50%
of which 1st choice	25%	26%	50%	21%	7%	0%	8%	50%	0%	19%
number of obs	4	19	22	14	27	20	26	8	5	145

ii. Key resources by mode of entry

The results of the survey showed that, whereas both greenfield and JV firms depended primarily on technological know-how as their sources of success (followed by managerial capabilities, marketing capabilities, brands and business networks), acquisitions and partial acquisitions depended primarily on brand names (followed by technological know-how, managerial capabilities, marketing capabilities and business networks). These results were somewhat expected since as new projects (greenfield and Joint ventures) it is very important to introduce new technology to the markets and to have a good managerial staff in the initial phase of the operation, while as an acquisition or partial acquisition investment, the most important resource would be to get hold of the already existing brand and the distribution network. In the Egyptian case successful partial acquisition in pharmaceutical, beverages, tobacco companies and hotels depended mainly on getting hold of famous and successful brand names (Table 13).

Table 13. Percentage of Respondents Selecting the Resource as Necessary for Success ***(by mode of entry of the respondent)***

	1	2	3	4	
Resources	Greenfield	Acquisition	Joint venture	Partial acquisition	Total
Brands	30%	50%	29%	53%	33%
of which 1st choice	24%	17%	17%	35%	23%
Business networks	33%	50%	21%	29%	29%
of which 1st choice	10%	50%	10%	6%	11%
Distribution network	4%	0%	15%	12%	13%
of which 1st choice	1%	0%	2%	0%	1%
Equity	13%	0%	8%	18%	11%
of which 1st choice	3%	0%	4%	0%	3%
Machinery & equipment	25%	0%	17%	12%	20%
of which 1st choice	10%	0%	2%	0%	6%
Managerial capabilities	45%	17%	54%	35%	46%
of which 1st choice	12%	17%	8%	18%	11%
Marketing capabilities	30%	33%	33%	41%	32%
of which 1st choice	7%	0%	6%	12%	7%
Technological know-how	52%	33%	58%	33%	51%
of which 1st choice	18%	17%	25%	12%	20%

iii. Key resources by source of resource

As to the sources of the major resources data reveal that Brand names and Technological know-how mostly originate from parent firms, while managerial capabilities skills relied significantly on foreign sources, all other resources were offered by the local firms.

The availability of several resources in the Egyptian market represents a major source of attraction to FDI (Table 14).

Table 14. Percentage of Firms that Selected Resource as of Primary Importance ***(by source of resource)***

Resources for success:	Brand	Business network	Distribution network	Equity	Machinery & equipment	Managerial capabilities	Marketing capabilities	Technological know-how
Ranked in importance:	1	1	1	1	1	1	1	1
Source of resource								
local firm	15	70	75	48	55	35	62	18
parent firm	80	19	0	21	41	23	28	73
local source	0	10	25	6	4	3	10	1
foreign source	5	1	0	25	1	40	0	8
other	0	0	0	0	0	0	0	0

iv. Key resources by size

The same importance and ranking of the resources of successful performance becomes evident when the companies are distributed according to size of employment. One element seems to be growing in importance as the size of company increases, namely, the Brand names. 83% of the firms with more than 1000 employees consider that the Brand names are the most important resource of success and 67% of those consider it to be their number one choice. Business networks are only important for small size firms. Machinery and equipment becomes an important source as the size of the firm increases (except for very large firms of more than 1000 employees). All size firms agree that managerial capabilities are important resources of success. Technology know-how is most important for all firms but more specifically for those size from 10 to 1000 employees. No specific patterns are observed relating distribution network, equity and marketing capabilities to the size of the firms (Table 15).

Table 15.1. Percentage of Respondents Selecting the Resource as Necessary for Success ***(by employment size of the respondent)***

	0	1	2	3	4	5	
Resources	<10	10-50	51-100	101-250	251-1000	>1000	Total
Brands		24%	42%	36%	33%	83%	34%
of which 1st choice		18%	29%	18%	25%	67%	24%
Business networks		47%	25%	14%	13%	0%	28%
of which 1st choice		22%	4%	5%	0%	0%	10%
Distribution network		8%	13%	9%	33%	0%	14%
of which 1st choice		0%	4%	0%	4%	0%	2%
Equity		14%	13%	5%	13%	0%	11%
of which 1st choice		2%	4%	5%	0%	0%	2%
Machinery & equipment		16%	17%	23%	25%	0%	18%
of which 1st choice		6%	13%	0%	4%	0%	6%
Managerial capabilities		47%	50%	55%	42%	50%	48%
of which 1st choice		8%	13%	14%	17%	17%	12%
Marketing capabilities		33%	13%	36%	42%	33%	31%
of which 1st choice		8%	0%	9%	8%	0%	6%
Technological know-how		45%	67%	73%	42%	17%	52%
of which 1st choice		10%	25%	36%	21%	0%	19%
number of obs		49	24	22	24	6	125

3.5. Institutional and Market Environment

i. ***Issues.***

A look at the results of the survey evaluating the institutional and market set-up, in which the FDI companies operate brings to light several issues *(for a more details evaluation on the institutional aspect and how it effect the FDI environment, check Background paper, section II):*

(a) The labour market offers the foreign investors most of their needs of professionals, operational management personnel, and skilled non-managerial labour. According to the last Population Census conducted by the Government, in 1996, the distribution of the major occupations is as follows:

Table 15.2. Total Employment by Occupational Category and Type of Employment in 1996
(In thousands)

Occupational Category	Public	Gov't	Private	Total	%
Administrative Officials & Directors	224.5	46.9	463.5	734.9	9.0
Accountants	250.8	40.9	51.9	343.6	4.2
Engineers	186.4	114.9	422.4	723.7	8.9
Doctors & Nurses	229.3	6.3	51.8	287.4	3.5
Teachers	987.1	-	-	1,045.20	12.9
Social Scientists	55.3	1.2	12.6	69.1	0.9
Government Executives	347.1	-	-	347.1	4.3
Clerical Staff	822.8	132.7	450.8	1,406.30	17.3
Cashiers & Record Keepers	29.4	5.5	3.7	38.6	0.5
Typists & Secretaries	139.8	15.1	270.2	425.1	5.2
Internal Security	213.8	17.6	20.1	251.5	3.1
Building Superintendents	433.2	63.3	105.2	601.7	7.4
Production Workers	150.3	224.5	688.2	1063	13.1
Drivers	125.3	51.8	511	688.1	8.5
Other Services	24.6	1.7	74.5	100.8	1.2
TOTAL	4,219.7	-	-	8,126.1	100

Sources: Prepared by ERF based on CAPMAS: Population Census, 1996

Admin officials and managers as well as professionals (engineers and technical experts) represent each about 9 percent of total employment. Most of the workers in these two categories are in the private sector.

(b) Most of the local inputs are "mostly available" to foreign investors, except for the machinery and equipment, which in many cases are only either rarely or sometimes available. It is to note that the machinery and equipment industry in Egypt represent only 9% of total manufacturing output. This represents one of the challenges to FDI. However, data indicates that there is some kind of improvement developing in this sector.

(c) On the other hand, investment in infrastructure is becoming a government's priority. A diligent effort is made by the government to improve the local physical and service infrastructure. These efforts have to be stressed upon and continued, if the FDI is to be encouraged to settle and operate in Egypt.

(d) Despite the government's efforts in improving on the institutional environment to be more attractive to FDI, it is still the main hindrance in front of FDI. The different processes of acquiring the business license, visa and work permits, general legal framework, central and local government approvals, environmental regulations are still not quite conducive. This set-up and the changing laws hinder to a great extent the level of predictability. The institutional environment has not improved during the last year.

ii. Labour Market by Sector and Mode of Entry

Table 16 indicates that recruiting executive management is difficult and is only' sometimes available' for all sectors at the initial phase but there is an improvement over time. However, most of the sectors agree that professionals, operational management and skilled labour are 'mostly available' and improving.

Table 16. Change in Evaluation of Local Labour Market by Industrial Sector of the Respondent (on scale from 1 to 5, 5= readily available)

	Labour markets	Executive management		Professionals		Op. management		Skilled non-mngt labour		obs
	Sector	Initial	2001	Initial	2001	Initial	2001	Initial	2001	
1	Primary	3.50	3.75	3.75	4.25	3.75	4.00	4.25	4.75	4
2	Basic consumer goods	3.32	3.84	4.42	4.68	3.74	4.42	4.21	4.42	19
3	Intermediate	3.59	3.82	4.05	4.23	3.73	3.82	4.05	4.18	22
4	Machinery & equipment	4.21	4.50	4.07	4.29	4.07	4.36	4.07	4.57	14
5	Infrastructure & construction	3.44	3.54	3.92	4.27	3.81	4.19	4.00	4.15	26
6	Trade, tourism & recreation	4.18	4.50	4.36	4.59	4.18	4.55	4.33	4.57	22
7	Financial & busin services	3.42	3.92	3.77	4.19	3.65	4.15	4.23	4.50	26
8	IT	3.50	4.25	4.25	4.38	3.43	4.14	4.29	4.57	8
9	Pharma	4.20	4.60	4.20	4.60	4.60	5.00	4.60	5.00	5

iii. Labour Market by Mode of Entry

Table 17 confirms these facts: when the availability of labour markets is classified according to the mode of entry, results show that for all modes of entry, except the Partial Acquisition (PA), executive management is only 'sometimes available'. In PA firms, recruiting executive managers is found to be 'mostly available' since in most of those cases the staff have operated for a long time and thus succeeded in building capacities in this area over time. All firms find that other labour markets classifications are mostly available with a visible improvement reflecting an improvement in the labour markets quality.

Table 17. Change in Evaluation of Local Labour Market by Mode of Entry (on scale from 1 to 5, 5= readily available)

	Labour markets									
	mode of entry	Exec management		Professionals		Op. management		Skilled non-mngt labour		obs
		Initial	2001	Initial	2001	Initial	2001	Initial	2001	
1	Greenfield	3.42	3.91	4.02	4.36	3.67	4.19	4.12	4.45	66
2	Acquisition	3.86	3.71	4.29	4.29	4.14	4.00	4.57	4.43	7
3	Join venture	3.72	4.08	4.11	4.40	3.86	4.31	4.15	4.42	52
4	Partial acquisition	4.29	4.35	4.24	4.47	4.29	4.35	4.35	4.47	17

Notes: "Initial" refers to the initial year of establishment, in the period 1990-2000

iv- Input Market by Sector

The input market in Egypt could be described as offering sufficient reliable utility services such as electricity, water, sewage, telecommunication and IT, professional services and real estate. A still visible deficiency is apparent in the availability of machinery & equipment, and raw materials & components, as expressed by companies operating in the production of basic consumer goods, intermediate products and pharmaceuticals. The need to import these items can cause drawbacks due delays, shipping problems and discontinuity caused by unpredictable changes in the exchange rate (Table 18).

Table 18. Change in Evaluation of Local Inputs by Industrial Sector of the Respondent (on scale from 1 to 5, 5= readily available)

	Local inputs													
	Sector	Utility		IT & telecom		Professional serv.		Real estate		Machinery & equip.		Raw materials		obs
		Initial	2001	Initial	2001	Initial	2001	Initial	2001	Initial	2001	Initial	2001	
1	Primary	4.00	4.25	3.75	4.00	4.00	4.25	4.25	4.25	3.75	4.00	3.00	3.00	4
2	Basic consumer goods	3.79	4.11	3.68	4.58	4.21	4.37	4.25	4.00	1.79	2.11	2.74	3.00	19
3	Intermediate	3.77	4.27	3.73	4.18	3.91	3.73	3.35	3.53	2.14	2.27	2.71	2.86	22
4	Machinery & equipment	4.07	4.43	3.64	4.36	4.00	4.25	3.69	4.31	3.07	3.29	2.92	3.31	14
5	Infrastructure & construction	3.82	4.37	3.19	4.22	3.96	3.92	3.88	4.16	2.62	3.23	3.31	3.69	26
6	Trade, tourism & recreation	4.14	4.48	3.86	4.50	4.05	4.41	4.21	4.32	3.24	3.57	2.25	2.25	22
7	Financial & business services	4.50	4.81	3.69	4.62	4.00	4.31	4.12	4.31	3.91	4.36	3.60	3.80	26
8	IT	4.25	4.63	3.75	4.63	3.88	5.88	4.14	4.14	3.86	3.71	3.33	3.00	8
9	Pharma	5.00	5.00	4.60	4.80	4.80	4.40	5.00	5.00	2.60	2.60	2.20	2.20	5

Notes: observation means for c11 are skewed by c11p6 (raw materials), as raw materials are not relevant in certain sectors, therefore observations are missing

v. Input Markets for Real Estate by Mode of Entry

According to the survey results, real estate as an input is considered mostly available for Greenfield, Joint ventures and partial acquisition firms, however it is less available for acquisition firms. Maybe because of the fact that acquisition firms are normally already existent and they do not require having access to real estate resources.

Table 18a. Change in Evaluation of Local Inputs (on scale from 1 to 5, 5= readily available), by Mode of Entry of the Respondent

T18a	Local imputs			
	mode of entry	Real estate		obs
		Initial	2001	
1	Greenfield	4.16	4.38	56
2	Acquisition	3.20	3.40	5
3	Join venture	3.84	4.00	50
4	Partial acquisition	4.15	4.39	13

Notes :"Initial" refers to the initial year of establishment, in the period between 1990-2000

vi. Institutions by Sector

In most sectors, producers found that the institutional framework as a whole is "somewhat conductive". There was an overall discontentment with certain procedures:

- Business licenses are not easy to obtain.
- The legal framework has also been criticized for its slowness in resolving business disputes and commercial matters such as unpaid checks…etc.
- Rules and regulations are unstable and hard to predict
- The role of central government in facilitating establishment procedures, determining economic policies that influence business operations and decisions

such as the exchange rate policies, import and export regulations, transfer of profits….etc.

- The role of the local governments especially in granting approvals, business licenses and real estate titles;

The overall feeling of pessimism due to the recession that affected the economy during the time of the survey was very much reflected in the investors' evaluations of the institutional framework to the extend that some institutional environment's components did not improve over time, but either remained unchanged or deteriorated according to the investors' statements (Table 19).

In particular, producers of the intermediate goods and IT were the most unsatisfied with the institutional framework.

Table 19. Change in Evaluation of Institutional Environment by Industrial Sector of the Respondent (on scale from 1 to 5, 5= not conductive at all)

Institutional environment	1		2		3		4		5	
	Primary		Basic consumer goods		Intermediate		Machinery & equipment		Infrastructure & construction	
Category	Initial	2001	Initial	2001	Initial	2001	Initial	2001	Initial	2001
business license	3.00	2.50	2.74	2.47	3.86	3.32	2.86	2.64	2.77	2.89
real estate	2.25	2.00	2.36	2.29	3.65	2.94	2.75	2.58	2.65	2.55
visa & work permit	2.75	2.50	1.94	1.88	3.11	2.84	2.70	2.70	2.58	2.63
evironmt regs	3.00	2.75	2.21	1.89	2.64	2.64	2.14	2.14	2.57	2.65
general legal frmwk	2.25	2.00	2.42	2.42	3.50	3.32	3.21	3.50	3.19	3.08
predictably	2.50	2.50	2.74	2.74	3.25	3.50	3.00	3.07	3.31	3.35
central government	3.00	3.75	2.68	2.47	3.33	3.52	3.00	2.93	3.30	3.35
provincial government	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
local government	3.00	3.00	2.47	2.47	3.36	3.36	2.93	3.14	3.00	3.05

Institutional environment	6		7		8		9		Average for All sectors	
	Trade & tourism		Financial services		IT		Pharma			
Category	Initial	2001	Initial	2001	Initial	2001	Initial	2001	Initial	2001
business license	2.8	3.3	2.7	2.6	3.1	2.8	2.0	3.6	2.9	2.9
real estate	2.5	2.3	2.3	2.2	2.0	2.0	2.0	2.0	2.5	2.3
visa & work permit	2.6	2.7	3.0	2.9	2.7	2.6	1.7	1.7	2.6	2.5
evironmt regs	2.1	2.1	2.6	2.6	2.7	3.3	1.6	2.0	2.4	2.5
general legal frmwk	3.2	3.4	2.9	3.0	3.0	3.1	3.0	3.0	3.0	3.0
Predictability	3.2	3.7	3.0	3.2	3.4	3.4	4.0	4.0	3.2	3.3
central government	2.9	3.1	3.0	3.1	3.9	3.6	3.2	3.2	3.2	3.2
provincial government	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
local government	2.9	3.0	3.1	3.2	4.2	3.7	3.0	3.2	3.1	3.1
average	2.8	3.0	2.8	2.9	3.1	3.1	2.6	2.8	2.8	2.8

Notes: "Initial" refers to the initial year of establishment, in the period between 1990-2000
** - n.a. for Egypt; Provincial government are not applicable for Egypt*

vii. Institutions by mode of entry

Looking at the institutional framework from the perspective of the FDI companies according to the mode of entry indicates that institutional framework was stagnant. Greenfield marked the only (slight) improvement in the environment regulations while acquisition and partial acquisition marked a slight deterioration. Joint ventures found the environment to be stagnant (Table 20)

Table 20. Change in Evaluation of Institutional Environment by Mode of Entry of the Respondent **(on scale from 1 to 5, 5= not conductive at all)**

Institutional environment	1		2		3		4	
	Greenfield		Acquisition		Joint venture		Partial acquisition	
Category	Initial	2001	Initial	2001	Initial	2001	Initial	2001
business license	3.04	3.16	3.57	3.43	2.96	2.65	2.06	2.17
real estate	2.38	2.22	3.00	3.00	2.82	2.62	2.43	2.00
visa & work permit	2.68	2.54	2.86	2.71	2.58	2.65	2.25	2.25
evironmt regs	2.69	2.56	2.29	2.14	2.13	2.28	2.00	2.00
general legal frmwk	3.22	3.21	3.67	3.83	2.90	2.90	2.65	2.82
predictabily	3.27	3.34	3.83	4.17	2.97	3.13	3.35	3.59
central government	3.27	3.24	3.43	3.57	3.02	3.06	2.63	2.75
provincial government	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
local government	3.11	3.13	3.29	3.43	3.00	3.08	2.67	2.80
average	2.96	2.92	3.24	3.29	2.80	2.80	2.50	2.55
obs	61		6		49		16	

Notes:"Initial" refers to the initial year of establishment, in the period between 1990-2000
** - not applicable for Egypt*

viii. Institutions by Home Country

Table 21 indicates that both the North American and the Arab (MENA) companies reflect a relatively better opinion of the institutional environment especially, where the business license, real estate acquisition, work permits and environmental regulations are concerned. This phenomenon could be clarified by having resourceful business partners or management staff on one hand and by knowing the language and traditions on the other (in case of Arab investors there is no problem with the language and in the case of American investors, English is considered the first foreign language in Egypt)

Table 21. Change in evaluation of institutional environment by home country of the foreign parent company **(on scale from 1 to 5, 5=not conductive at all)**

	Institutional environment	1		2		3		4		5	
		North America		Europe		Japan & East Asia		MENA		Other (incl. Australia)	
	Category	Initial	2001	Initial	2001	Initial	2001	Initial	2001	Initial	2001
c13p1	business license	2.81	2.74	3.00	3.03	3.67	3.67	2.87	2.68	3.33	4.00
c13p2	real estate	2.26	2.21	2.57	2.40	3.00	3.00	2.67	2.40	3.67	2.67
c13p3	visa & work permit	3.04	2.92	2.45	2.46	3.67	3.67	2.59	2.25	2.33	2.33
c13p4	evironmt regs	2.71	2.43	2.32	2.34	2.67	3.00	2.34	2.36	1.50	1.50
c13p5	general legal frmwk	3.07	3.07	3.06	3.02	4.00	4.00	2.93	3.09	3.67	3.33
c13p7	predictability	3.29	3.36	3.06	3.24	3.00	3.00	3.12	3.35	3.33	4.33
c13p8	central government	3.04	3.00	3.05	3.07	3.33	3.33	3.20	3.28	3.00	3.00
c13p9	provincial government	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c13p10	local government	2.92	2.84	2.97	3.05	3.33	3.33	3.13	3.26	3.00	3.00
	obs	25		59		3		44		3	

Notes: "Initial" refers to the initial year of establishment, in the period between 1990-2000
** - not applicable for Egypt*

3.6. Firm Level Performance

i. Degree of Fulfilled Expectation by Affiliate

The main target of this section was to estimate the degree to which the affiliate fulfilled its expectations in terms of original objectives. Four criteria were chosen to reflect performance: productivity, profitability, revenue growth and domestic market share. Due to the high correlation between profitability and revenue growth they were used to calculate the ”new performance”. The index is the average of those two variables and is scaled from 1 to 5 where 1 reflects low performance while 5 indicates high performance compared to the original objectives. In the following tables (22 to 25) 1 represents the value of the index of 1 and 2; 2 is the values 2.5 and 3.5; and 3 is the values 4 and 5.

ii. Performance by mode of entry

Data in the table indicates that Greenfield and JV companies enjoy relatively higher performance compared to Acquisitions and PA companies. This note is very important since it confirms the fact that newly establishment firms either in a form of a Greenfield or partial acquisition, are more capable of adapting to the market, despite the difficulties they may face in the installation phase. In addition to the fact of the usage of new technologies, and the introduction of new products and services to the market, which extends their market share and thus ameliorates their performance. This explanation is confirmed when we look into the market share of the Greenfield and JV companies. (see Table 22).

Table 22. Performance Relative to Entry Mode Choice

New Performance	Mode of entry: Greenfield	Acquisition	JV	PA	Total
1-2	15	1	8	3	27
2.5-3.5	25	4	16	9	54
4-5	25	0	25	5	55
Total	65	5	49	17	136

Notes: Entry Mode categories are: 1: Greenfield; 2: Acquisition a take over of at least 95% of equity; 3: JV new business with both local and foreign investment with the foreign investment with the foreign owning at least 10%; 4: partial acquisition of at least 10% of a firm.

iii. Performance by sector

Four local sectors seem to enjoy high performance relative to the rest of sectors. The four sectors include: basic consumer goods, intermediate products, infrastructure and construction and financial and business sectors companies. These sectors witnessed rapid growth during the nineties with the improvement in the different economic variables and GDP growth rate, which helped in boosting the expansion in the construction sector and the exceptional development in the IT and telecommunication sector. (see Table 23).

Table 23. Performance Relative to Sector

new performance	local sectors 1	2	3	4	5	6	7	8	9	Total
1-2	0	2	2	4	5	8	4	0	2	27
2.5-3.5	2	7	7	5	9	6	14	4	1	55
4-5	1	10	12	5	12	5	7	3	2	57
Total	3	19	21	14	26	19	25	7	5	139

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

iv. Performance by market focus

Data demonstrate a direct relationship between higher performance and domestic market focus. The table is classifying the domestic market share (from total sales) into 5 categories: 1 (0%); 2 (0-25%); 3 (25-75%); 4(75-100%) and 5 (100%). This relationship is reciprocal as the share of domestic market focus increases, the performance of the firm increases and vice versa. This confirms the fact that focusing on the domestic market can play a major role in increasing the performance of the firm. The performance improves due to the large market that is available in Egypt and which is considered a major source of attraction of FDI..(See Tables 24 and 26c).

Table 24. Performance relative to Domestic Market Focus

new performance	Domestic Market focus 0	0-25	25-50	75-100	100	Total
1-2	2	3	6	4	12	27
2.5-3.5	4	3	15	6	23	51
4-5	2	3	16	12	21	54
Total	8	9	37	22	56	132

v. Performance by business environment

Table 25 summarizes the relationship between the performance level and the business environment as given by:

a-Availability of a labour market;
b-Availability of the necessary inputs to the production including physical infrastructure and financial services;
c-working in a market where the local industry is relatively inferior to that of the affiliate;
d-availability of an encouraging institutional environment

The first three conditions seem to be highly correlated to high performance, while the last one does not seem to differ among the various performance levels. This is somewhat understandable since dealing with the institutional environment is usually done in the initial phase of establishing the firm, hence, it does not really affect the performance of the firm in a later stage, except in the case of extending the business or getting involved in new producing new products.

Table 25. Change in Evaluation by Performance

T26	Performance						
		Rank 1-2		Rank 2.5-3.5		Rank 4-5	
	Category	Initial	2001	Initial	2001	Initial	2001
	Labour markets						
c10p1	Exec management	3.26	3.74	3.65	3.96	3.88	4.23
c10p2	Professionals	3.81	2.19	4.02	4.36	4.23	4.46
c10p3	Op. management	3.56	4.04	3.71	4.18	4.07	4.43
c10p4	Skilled non-mngt labour	3.96	4.44	4.11	4.35	4.33	4.49
	obs	27		55		56	
	Local inputs						
c11p1	Utility reliablility	3.89	3.45	3.98	4.47	4.63	4.50
c11p2	It & telecom reliability	3.44	4.07	3.54	4.46	4.25	4.38
c11p3	Competent professionals	3.85	3.92	4.19	2.20	4.13	4.25
c11p4	Real estate	4.04	4.16	3.79	3.93	4.13	4.13
c11p5	Machinery & equipment	3.11	3.36	2.42	2.76	3.88	4.29
c11p6	Raw material & components	2.67	2.93	2.76	2.95	3.50	3.75
	obs	25		50		47	
	Local industry						
c12p1	Quality & range of products	2.44	2.62	2.60	2.59	2.09	2.35
c12p2	Management capabilities	3.04	3.04	2.73	2.60	2.00	2.25
c12p3	Marketing capabilities	3.15	2.23	3.00	3.02	2.19	2.15
c12p4	Level of technology	2.3	2.4	2.38	2.61	2.09	2.29
c12p5	Labour productivity	3.00	2.96	2.67	2.75	2.16	2.23
	obs	26		53		55	
	Institutional environment						
c13p1	business license	3.11	3.31	2.82	2.54	3.00	3.13
c13p2	real estate	2.67	2.5	2.49	2.34	2.25	2.43
c13p3	visa & work permit	2.56	2.73	2.49	2.49	2.63	2.63
c13p4	evironmt regs	2	2.04	2.58	2.58	2.50	2.57
c13p5	general legal frmwk	3.19	3.15	2.96	2.98	2.63	2.71
c13p7	predictabily	3.37	3.7	2.86	3.00	2.63	2.71
c13p8	central government	3.44	3.5	2.98	2.98	2.88	3.00
c13p9	provincial government	no obs	no obs	no obs	no obs	no obs	no obs
c13p10	local government	3.37	3.42	2.81	2.87	2.75	2.86
	obs	26.1875		52.1875		54.8125	

vi. Performance by competition

High performance corresponds to absence of competitors or their limited number. Data also reveal that the number of competitors diminished in the present time as compared to the time of starting operations. This could be taken as an indication of change in the structure of the local industry towards more concentration of production in a small number of firms. The performance of these firms improves as their market share grows. This phenomenon is evident in several industries in Egypt such as steel, cement, financial services and pharmaceuticals (see Tables 26a-c)

Table 26a. Performance Relative to Domestic Competition

new performance	Number of local competitors None	1-2	3-5	5-10	>10	Total
1-2	2	2	9	4	10	27
2.5-3.5	3	9	9	11	23	55
4-5	4	9	13	10	20	56
Total	9	20	31	25	53	138

Table 26b. Performance Relative to Competitors

new performance	Number of import competitors None	1-2	3-5	5-10	>10	Total
1-2	9	3	5	6	3	26
2.5-3.5	16	7	7	10	6	46
4-5	20	9	7	6	8	50
Total	45	19	19	22	17	122

Table 26c. Performance Relative to Domestic Market Share

market share	new performance index 1-2	2.5-3.5	4-5	Total
0-5	1	8	2	11
5.1-10	4	7	1	12
10.1-20	3	4	7	14
20.1-30	4	2	3	9
30.1-50	1	6	6	13
50.1-75	0	1	2	3
75.1-100	1	5	5	11
Total	14	33	26	73

vii. Performance by age

The affiliates that were established in 2001 were excluded, since the companies did not operate in the market for a reasonable number of years. It is expected that the longer the affiliate operates in the market the more chances it gets to raise its performance. This remark is confirmed by the data in Table 27. Half of the surveyed firms that started operating in the period between 1990 and 1994 have the highest performance index of 4 to5 (see Table 27).

Table 27. Performance Relative to Age (start of company operations)

new performance	age categories 1990-1994	1995-1998	1998-2001	Total
1-2	5	14	8	27
2.5-3.5	14	27	14	55
4-5	19	27	11	57
Total	38	68	33	139

3.7. Impact of the Host Economy

i. Domestic market competition and global market integration

a) Domestic market orientation by sector

On average, the domestic market attracts the major share of sales for all sectors. However, there is a clear trend of deviating sales from the domestic to the regional and global markets. This could be due to the fact that firms in the initial establishment phase concentrate more on the domestic markets to gain more experience and as the performance of firms increases, they start to direct their products towards the export markets. This trend also could represent a positive note on the efforts of the government to encourage and promote exports. More orientation to the export market represents an important incentive to FDI investment in Egypt (see Table 28).

Table 28. Change in Market Focus by Industrial Sector of the Respondent

	Markets									
	Sector	Domestic market		Regional market		Global market		Other affls of parent		obs
		Initial	2001	Initial	2001	Initial	2001	Initial	2001	
1	Primary	62.50	52.50	0.00	10.00	37.50	37.50	0.00	0.00	4
2	Basic consumer goods	81.47	68.39	1.29	10.78	10.18	13.61	7.06	7.22	18
3	Intermediate	86.29	80.07	6.81	12.89	6.90	7.05	0.00	0.00	22
4	Machinery & equipment	79.58	79.00	9.17	6.83	10.83	11.25	0.42	2.92	12
5	Infrastructure & construction	82.31	76.73	12.50	12.46	1.35	2.88	3.85	6.92	26
6	Trade, tourism & recreation	69.05	68.43	9.29	11.33	19.29	17.86	2.38	2.38	21
7	Financial & business services	69.75	68.00	22.13	21.00	4.38	4.40	3.75	4.20	25
8	IT	90.80	89.17	0.00	1.43	8.33	7.86	0.83	0.00	6
9	Pharma	78.00	68.20	0.00	1.80	20.00	26.00	2.00	4.00	5
	average	77.75	72.28	6.80	9.84	13.20	14.27	2.25	3.07	

b) Domestic market share by sector

The market share of the affiliates varies with large segment concentrated in companies producing intermediate products, machinery and equipments, infrastructure and construction, and pharmaceuticals (though in this last case the number of observations is a bit low). The relatively high degree of market control is usually in these cases a result of the nature of technology used, which is usually associated with large-scale production (see Table 29).

Table 29. Domestic Market Share Relative to Industry Sectors

market share	local sectors 1	2	3	4	5	Total
0-5	0	0	1	1	2	11
5.1-10	0	0	3	2	1	12
10.1-20	1	4	3	1	2	14
20.1-30	0	1	1	1	1	9
30.1-50	0	1	2	2	5	14
50.1-75	0	0	1	1	0	3
75.1-100	0	2	2	3	2	12
Total	1	8	13	11	13	75

market share	local sectors 6	7	8	9	Total
0-5	2	4	0	1	11
5.1-10	2	4	0	0	12
10.1-20	1	1	1	0	14
20.1-30	1	3	0	1	9
30.1-50	2	1	1	0	14
50.1-75	0	1	0	0	3
75.1-100	2	0	0	1	12
Total	10	14	2	3	75

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

c) Domestic market share by mode of entry

Most of the firms have a domestic market share that is less than 50%. Almost 35% of Joint Ventures firms have more than 50% of the domestic share while only 12% of Greenfield firms have this share. This is somewhat expected since having local partners can facilitate to some extent the marketing process and hence increase the market share. There is no significant control of the affiliates over the local market in the case of Acquisition (see Table 30).

Table 30. Domestic Market Share Relative to Entry Mode Choice

market share	Mode of entry: Greenfield	Acquisition	JV	PA	Total
0-5	6	0	4	1	11
5.1-10	7	0	3	2	12
10.1-20	7	0	4	2	13
20.1-30	6	0	2	1	9
30.1-50	9	2	2	1	14
50.1-75	1	0	2	0	3
75.1-100	4	0	6	1	11
Total	40	2	23	8	73

Notes: Entry Mode categories are: 1: Greenfield; 2: Acquisition a take over of at least 95% of equity; 3: JV new business with both local and foreign investment with the foreign investment with the foreign owning at least 10%; 4: partial acquisition of at least 10% of a firm.

d) Local industry change by sector

It is apparent that the local industries are relatively inferior compared to the affiliates in all economic activities. This represents a major source of attraction to foreign investors. The inferiority applies to all aspects of comparison such as the quality and range of products, management and market capabilities, and technology and labour productivity. The inferiority is clearer in the case of companies producing intermediate, where the quality and range of products, technology and labour productivity of the affiliate are significantly superior to that of the local industry. The same applies to the pharmaceutical and IT companies, where the affiliates' marketing strategies, technology and labour productivity were advanced compared to the local industries (Table 31).

Table 31. Change in Local Industry Evaluation by Industrial Sector of the Respondent (on scale from 1 to 5, 1= local industry far inferior to affiliate and 5=local industry stronger than the affiliate)

	Local industry											
	Sector	Quality & range of products		Management capabilities		Marketing capabilities		Technology		Labour productivity		obs
		Initial	2001	Initial	2001	Initial	2001	Initial	2001	Initial	2001	
1	Primary	3.00	3.00	3.25	3.00	3.00	2.75	2.25	2.25	3.50	3.50	4
2	Basic consumer goods	2.24	2.22	2.35	2.28	2.50	2.41	2.29	2.33	2.29	2.33	17
3	Intermediate	1.68	2.18	2.18	2.14	2.50	2.59	1.86	2.23	1.86	2.18	22
4	Machinery & equipment	2.38	2.62	2.31	2.31	2.31	2.31	2.67	2.67	2.30	2.10	12
5	Infrastructure & construction	2.44	2.68	2.64	2.04	3.00	3.24	2.24	2.40	2.46	2.83	25
6	Trade, tourism & recreation	2.47	2.26	2.56	2.56	2.79	2.68	2.24	2.29	3.06	2.89	18
7	Financial & business services	2.71	2.75	2.72	2.76	2.71	2.75	2.21	2.67	2.50	2.67	24
8	IT	2.29	2.00	2.29	2.14	2.14	2.43	2.00	2.71	2.57	2.29	7
9	Pharma	3.00	2.80	2.75	2.50	2.25	2.00	3.20	3.00	2.60	2.40	5
	Average	2.47	2.50	2.56	2.41	2.58	2.57	2.33	2.51	2.47	2.50	

e) Local industry change by mode of entry

No visible differences seem to exist with regards to the evaluation of the local industry by foreign investors with different modes of entry. Generally speaking the local industry is relatively inferior to the new affiliates (Table 32).

Table 32. Change in local industry evaluation by mode of entry of the respondent (on scale from 1 to 5, 1= local industry far inferior to affiliate and 5=local industry stronger than the affiliate)

	Local industry											
	Sector	Quality & range of products		Management capabilities		Marketing capabilities		Technology		Labour productivity		obs
		Initial	2001	Initial	2001	Initial	2001	Initial	2001	Initial	2001	
1	Greenfield	2.13	2.37	2.18	2.33	2.66	2.68	2.00	2.25	2.28	2.46	61
2	Acquisition	2.83	2.17	2.83	3.00	2.83	2.67	2.67	2.33	2.50	2.50	6
3	Joint venture	2.42	2.58	2.70	2.66	2.65	2.84	2.29	2.44	2.63	2.65	49
4	Partial aqcuisition	3.00	2.75	3.00	2.88	2.73	2.40	2.93	3.07	2.71	2.79	15

ii. Human Capital Accumulation

a) Training expenditures by sector

Spending on training is one of the advantages of FDI to developing economies. However, the majority of affiliates (64%) spend less than 2% of their total sales on training. Some economic activities allocate to training more than 2% of total sales and reach in some cases 15% or more. The Primary commodities sectors (100% of the companies), IT companies (75% of the companies) and the Financial and Business services (57% of the companies) spend more than 2% of their sales on training (Table 33). The IT and Primary goods companies allocate on the average 3.76% and 3.33% of their total sales to training, which is relatively higher than the rest of the sectors, but still relatively low with respect to international standards (Table 34).

Table 33.Training Relative to Industry Sector

Training (%of sales)	local sectors 1	2	3	4	5	6	7	8	9	Total
0-0.5%	0	9	6	5	11	12	7	1	1	52
0.5-2%	0	4	8	5	7	4	3	1	3	35
2-4%	2	4	4	1	0	4	6	2	0	23
4-8%	1	0	3	1	2	0	0	3	1	11
8-15%	0	2	1	0	1	1	4	0	0	9
>15%	0	0	0	0	2	0	3	1	0	6
Total	3	19	22	12	23	21	23	8	5	136

Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

Table 34. Total Training Expenditures as Percentage of Sales

T34b	Training		
		Training	
	Sector		obs
1	Primary	3.33	3
2	Basic consumer goods	2.05	19
3	Intermediate	2.32	22
4	Machinery & equipment	1.83	12
5	Infrastructure & construction	2.17	23
6	Trade, tourism & recreation	1.76	21
7	Financial & business services	3.00	23
8	IT	3.76	8
9	Pharma	2.20	5

b) Training expenditures by size

The small and medium enterprises (10 to less than 250 workers) are major contributors to training. This observation may be due to the need of workers in small and medium scale companies to get training to become more capable to deal with new and advanced technologies. Another explanation of this could be that large firm's sales are very high, hence their expenditure on training would appear very small when taken as proportion of their sales (Table 35).

Table 35. Training Relative to Employment Size

Training (% of sales)	local employment 10-50	51-100	101-250	251-1000	>1000	Total
0-0.5%	16	10	6	11	5	48
0.5-2%	10	6	6	7	2	31
2-4%	9	2	3	4	0	18
4-8%	5	2	2	1	0	10
8-15%	3	1	2	1	0	7
>15%	3	0	0	0	0	3
Total	46	21	19	24	7	117

c) Training expenditures by Parent R&D

The majority of enterprises (65%) seem to be allocating limited funds to training (less than 2%). The parent firms to which these affiliates belong do not designate more than 0.5% of their total sales to R&D. However, one cannot correlate high R&D expenditures with increased spending on training (Table 36).

Table 36. Training Relative to R&D Expenditure

Training (%sales)	R&D expenditure (%of sales) 0-0.5%	0.5-1%	1-2%	2-4%	4-8%	8-15%	>15%	Total
0-0.5%	30	4	1	3	0	0	1	39
0.5-2%	15	1	1	4	7	1	1	30
2-4%	8	1	3	2	1	1	1	17
4-8%	6	0	0	0	1	0	0	7
8-15%	4	0	2	2	0	1	0	9
>15%	1	1	1	0	0	0	1	4
Total	64	7	8	11	9	3	4	106

d) Training expenditures by performance

One of the results of this sample is the fact that companies with lower performance expectations spent relatively more on training, then higher performance affiliates (Tables 37a&b).

Table 37a. Training Relative to Performance

Training (%of sales)	new performance 1-2	2.5-3.5	4-5	Total
0-0.5%	8	21	20	49
0.5-2%	6	13	14	33
2-4%	6	7	9	22
4-8%	3	4	4	11
8-15%	2	5	2	9
>15%	2	1	3	6
Total	27	51	52	130

Table 37b. Total Training Expenditures as % of Sales
(by categorised performance sector)

	Performance		
		Training	
	Category		obs
1	1-2	2.67	27
2	2.5-3.5	2.25	51
3	4-5	2.29	52

iii. Technology Acquisition

a) Technology transfer by sector

The main goal of this part is to investigate the role of the parent firm in supporting the affiliate with its needs of the different technological resources. The majority of affiliates (68%) 'rarely' or 'never' receive technological resources of the parent firms. Only small percentages of machinery and equipment producers (38%), trade and tourism sector (41%), financial and business sector (31%) 'always' or 'usually' receive technical support (Table 38).

Table 38. Technology Acquisition Relative to Industry Sector
(on scale from 1 to 5, 5=never)

local_sect	1	2	3	4	5	Total
1	0	0	1	2	1	4
2	2	0	1	4	11	18
3	1	0	0	6	15	22
4	4	1	0	4	4	13
5	2	0	6	2	17	27
6	6	3	1	4	8	22
7	4	4	5	5	8	26
8	0	1	0	3	3	7
9	2	0	2	0	1	5
Total	21	9	16	30	68	144

Notes: Local Sectors categories are: 1: Primary; 2: Basic Consumer; 3: Intermediate; 4: Machines and Equipment; 5:Infrastructure (including Construction); 6: Trade, Tourism, etc; 7: Financial and Business Services; 8: IT; 9: Pharmaceuticals.

b) Technology transfer by mode of entry

Data indicate that Greenfield and Joint ventures receive more technological support than the PA companies. This could be due to the fact that the foreign shares in PA are rather limited or that most of these companies are still new (see table 11) and thus they did not get the whole support from their parent firms yet. In addition, the last few years Egypt went through a period of recession and thus the parent firms postponed injecting new investments and introducing new technologies. This view has been ascertained by the discussions with several foreign investors (Table 39).

Table 39. Technology Acquisition Relative to Entry Mode Choice (on scale from 1 to 5, 5=never)

c4	1	2	3	4	5	Total
Greenfield	9	2	5	16	32	64
Acquisition	1	0	1	2	3	7
JV	8	5	4	9	27	53
PA	3	1	6	2	5	17
Total	21	8	16	29	67	141

c). Technology transfer by performance

The table shows that the best performing firms have limited access to parent firms' technology. This is somewhat strange since it was expected that there will be a strong positive correlation between high performance and the transfer of technology by the parent firms It is to conclude that the fact that availability of technological support does not necessarily lead to high performance, as the data indicate (Table 40).

Table 40. Technology Acquisition Relative to Performance (on scale from 1 to 5, 5=never)

new performance	1	2	3	4	5	Total
1-2	5	2	1	6	13	27
2.5-3.5	10	4	7	11	22	54
4-5	5	3	6	11	30	55
Total	20	9	14	28	65	136