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Emily Udler

Abstract

Despite the burden of an enormous defense budget, the absorption of immigrants, its tiny size and the scarcity of natural resources, Israel's economy, albeit with considerable financial aid from abroad, was able to achieve impressive growth rates. This was to a great degree accomplished by putting a heavy emphasis on education and by rapidly achieving a high degree of industrialization through government policies and incentives. But in recent years, with increasing government deregulation and enormously altered global power structures Israel is faced with a dynamic new reality. Israel's ability to continue or even heighten its growth rate will be very much dependent on the ability of the individual businesses to adapt and adjust rapidly to these new realities. This study of organizational learning in Israel was undertaken in order to understand what factors and mechanisms are involved in Israeli companies' ability or lack thereof to successfully cope with the challenges of this rapidly changing environment. Top executives representing more than 55% of the companies employing 500 workers or more, were interviewed.

Two distinct patterns of learning, related to three basic elements, emerged from the data. These elements are the image of the individual employee, the organizational and decision-making structure of the company, and the specific corporate culture.

Of particular interest in Israel is the significant number of companies which exhibit mixed features of these two learning patterns. In these "hybrid" companies, which tend to have a history of centralized learning characteristics, there is a growing interest in the flexibility commonly associated with decentralization and the flattening of hierarchical pyramids of decision-making. The study also discusses factors that promote or hinder organizational learning such as crises and success.

Zusammenfassung

In den zurückliegenden Jahrzehnten hatte Israels Wirtschaft mit beträchtlicher finanzieller Unterstützung aus dem Ausland, einer starken Bildungsförderung sowie einer staatlichen Industriepolitik enorme Wachstumsraten erzielt. Seit den letzten 10-15 Jahren ist auch Israels Wirtschaft mit einer neuen weltpolitischen Situation und mit Deregulierungen im eigenen Wirtschafts-system konfrontiert. Ob Israels wirtschaftliche Wachstumsraten der Vergangenheit erhöht oder auch nur gehalten werden können, wird stark von der Fähigkeit der einzelnen Unternehmen abhängen, sich an diese neuen Bedingungen anzupassen.
Um die Lernfaktoren und Lernmechanismen in israelischen Unternehmen zu verstehen, wurden Topmanager in Firmen mit über 500 Beschäftigten befragt. Eine Analyse der Interviews ließ zwei charakteristische Lernmuster, nämlich das „zentralisierte" und das „dezentralisierte" Lernmuster, erkennbar werden.

Diese Lernmuster definieren sich jeweils über drei charakteristische Elemente: die Ausprägung des Menschenbildes, die Ausprägung der Organisations- und Entscheidungsstruktur und die Ausprägung der Unternehmenskultur.

Auffällig ist in Israel die beträchtliche Anzahl der Firmen, die Eigenschaften beider Lernformen in sich vereinen. Diese „hybriden" Unternehmen haben in der Regel eine Vergangenheit, die vom „zentralisierten" Lernmuster geprägt ist. Manager dieser Unternehmen äußern jedoch ein zunehmendes Interesse an einer Eigenschaften wie Flexibilität, die gewöhnlich mit Dezentralisierung und flachen Hierarchien in Unternehmen assoziiert wird.

Im Rahmen dieser Studie werden auch lernförderliche und lernhinderliche Faktoren – wie etwa Krisen und Erfolg – diskutiert.

Content

INTRODUCTION

General Background

The rebirth of the Jewish nation in May of 1948 was the culmination of a 2000-year diaspora. The founders of the state were a motley combination of idealistic pioneers. Survivors of the death camps and refugees from the "four corners of the earth." The Declaration of Independence was accompanied by all-out war on all borders. Miraculous, against all odds, this war was won and this embryonic nation had to get down to the business at hand of providing a home, not only for its present citizens but also for the "ingathering of the exiles" soon to arrive. This was no mean task considering the lack of a common language, necessitating the revival of an ancient tongue, the tremendous variance in the levels of education and, in general, the different cultures deriving from the host countries – the incomers being united only by their Jewish heritage and a longing for a homeland.

The 50 years since have been characterized by waves of immigration, an additional six wars and a huge defense budget. But, despite the suffocating defense burden, it was understood early on, that survival was no less dependent on economic independence than on military prowess.

The efforts of five decades to achieve peace with our neighbors have finally begun to bear fruit and there is tremendous hope in the air that arms will be laid down to rest and the area will enjoy tranquillity and economic prosperity enabling the implementation of the many contingency plans for economic cooperation in the region. Although at first, with the signing of the Oslo agreement in 1993, there was euphoria – skyrocketing the Tel Aviv Stock Exchange – this euphoria has now diminished to cautious optimism and a "wait and see" attitude both on the part of the general population and the business community.

The ability to rapidly adapt is nothing less than the ability to survive. This is true not only in the animal kingdom but also in business. It is true not only in Israel but worldwide. Never before in human history has change per se been such an all pervasive characteristic of society. The swifter the changes and the more intense, the greater the need for sophisticated methods to adapt. Many of the changes affecting the Israeli business community are common to the business communities of all countries; others are specific, resulting from its unique development within the historical, economic and geopolitical context.

To understand the current business environment in Israel within which organizational learning takes place, it is necessary to review the context in which the Israeli economy developed. A brief review of the factors influencing this economic development, leading up to the present, follows.
Israel is a **blend of old and new**. A tradition of thousands of years of being scattered in different countries mixed with the influence of long years of foreign

rule (the Ottoman Empire till 1917, the British Mandate from 1917 to 1948), and the rebirth of the new nation have led to a culture where old and new are intricately interwoven. The State, established as a Jewish nation, was based upon British law, on socialist ideologies and on ancient Hebrew laws from the Scriptures. These influences are very much alive today as can be witnessed by the complex legal structure often affecting the business community.

It is also characterized by the **heterogeneity of its population**. A basic premise of the State is expressed in the "Law of Return" enabling all Jews to return to their homeland and receive citizenship. This has resulted in mass waves of immigration since the state's inception doubling the 1948 population of 650,000 in three years and tripling it by 1961. The masses arriving from the Islamic countries, from Eastern Europe, from countries of the West and most recently from the former USSR and Ethiopia bring the total population to over 5.4 million. Israel is truly a melting pot and is comprised of Jews from close to 100 nations. In addition, there are sizable minorities such as Arabs, Druze and Christians. This colorful tapestry has led to a very diversified culture. Levels of literacy and education varied and much effort was made to achieve common standards while respecting and perpetuating the cultural differences.

An important aspect in the development of the Israeli economy is **government centralization**, to a far greater degree than in most western countries. Public institutions dating prior to the establishment of the State and immigration-related needs called forth heavy involvement in the country's economy. Priorities were dictated by the strategic goals as perceived by the government. Such goals were establishing towns in the sparsely populated south and north of the country and often along the borders, establishing industries in such areas so as to provide employment and especially to absorb the immigrants. This deep involvement of the government and a huge public sector and strong professional organizations, tenure in jobs and very comprehensive employment benefits are seen as having been responsible for stifling the economy. Only in the last 15 years has the government initiated structural reforms to diminish government involvement in the economy. These reforms, which are still going on, include a reform of the capital markets, the foreign currency policies, the liberalization of imports, the energy sector, agriculture, land use and construction and the privatization of government companies along with several changes in the tax system. They introduced a new spirit into the macro econmy, which was, on the one hand, buoyed by some of the companies that had been eager for the change and on the other hand filtered down to many of the others. Thus as of 1985 we witnessed a change in the business environment, which became much less protectionist and much more competitive.

Israel's **geopolitical location** has also been critical in its development. Israel lies at the "intersection" of three continents – Asia, Africa and Europe – and at the heart of a hostile Islamic World. The resulting wars, arms embargoes and boycotts have necessitated huge defense budgets and the development of defense-related industries. This need for self-sufficiency accounts for the high

standards in electronics and other sectors. In addition, the lack of border trade and the small local market served as the impetus for export-oriented enterprises.

The scarcity of natural resources has over the years imposed large scale imports of basic raw materials (mainly energy products) and components for industry. This foreign currency imbalance underscored the need for the development of processed products and services for export. Israel's highly educated population forged ahead in science and technology and placed great emphasis on the establishment of high technology, knowledge-based industries to make up for the lack in natural resources.

Financial aid from abroad has been instrumental in the development of the economy. The long standing economic aid both in the form of outright contributions and loans by the diaspora has been crucial to the country's economic growth and balance of payments. The Adenauer–Ben-Gurion agreement for holocaust reparations also channeled large sums received from Germany into capital investments. In addition, American aid (loans and grants) has been instrumental in helping Israel to maintain its military and economic independence

All of the above factors have played major roles in forming the Israeli economy, in general, and its industries and corporate cultures in particular.

The Structure of the Israeli Economy

Israel's modern industrialized economy is characterized by a growing industrial base, a small and highly capitalized agricultural sector and a fast growing service sector. Israel's Gross Domestic Product per capita in 1994 was US$ 13,728 (Source: Central Bureau of Statistics) which ranks with that of Singapore, is 10-15 times higher than that of its Arab neighbors but only about half that of the richest countries of Europe and North America.

As can be seen in Table 1, the public sector employs a total of 40% of all employees. Included in the public sector is Israel's federation of trade unions, the Histadrut. The holding company of the Histadrut retains control of some of the country's largest industrial and construction enterprises. It is in fact the country's largest single non-governmental employer, a constellation not known in most other industrialized countries.

Table 1   **Israeli Ownership Structure by No. of Industrial***
                  Establishments and Employed Persons 1992

	Number of Establishments	%	Number of Employed	% of Employed
Private Sector	17,261	96	206,500	60
Histadrut	497	3	49,300	14
Government	170	1	88,600	26
Total	17,928	100	344,400	100

(Source: Statistical Yearbook of Central Bureau of Statistics, 1993)

Table 2   **Israeli Industrial* Establishments and Employed**
                  Persons by Size Group 1992

Size Group (No. of Employees)	No. of Establishment	% of Total	Number of Employees	% of Total
1-49	16,843	94.0	135,800	39
50-9 9	592	3.3	40,600	12
100-299	364	2.0	58,400	17
300+	129	0.7	109,600	32
Total	17,928	100	344,400	100

(Source: Statistical Yearbook of Central Bureau of Statistics, 1993)

*   No data were available on non-industrial activity.

Growth Performance

Since the beginning of the 1990's, Israel's GDP growth averaged 6.4% a year compared to the OECD countries performance of 1% for the same period.

At present the economy is facing a period of adjustment resulting from massive immigration (in 1995, about 82,000 immigrants arrived in Israel, which was a 9% increase over the previous year) and the task of reducing inflation levels to those of developed economies since average annual inflation between 1990 and 1994 has been over 13%.

Industry in Israel

Industrial product (without diamonds), which accounts for 30% of the GDP of the business sector, increased by 7.6% in 1994. Growth characterized almost all of the industrial branches. Prominent among those were the rubber and plastics, chemical, electrical and electronic equipment industries. The fastest growing among these are the electrical and electronic industries with an increasing rate of export growth. See Tables 1 and 2 containing figures on establishments, employed persons, ownership and size group.

Figure 1   **Production by Major Industrial Branches, 1994 percentage breakdown (estimate)**

Textiles & Clothing & Leather 8,7%
Polished Diamonds (net) 7,4%
Extractive Industries & Minerals 5,7%
Light Industries & Miscellaneous 11,5%
Metals, Machinery & Electronics 32,8%
Chemicals, Rubber & Plastics 16,7%
Food & Beverages 17,3%
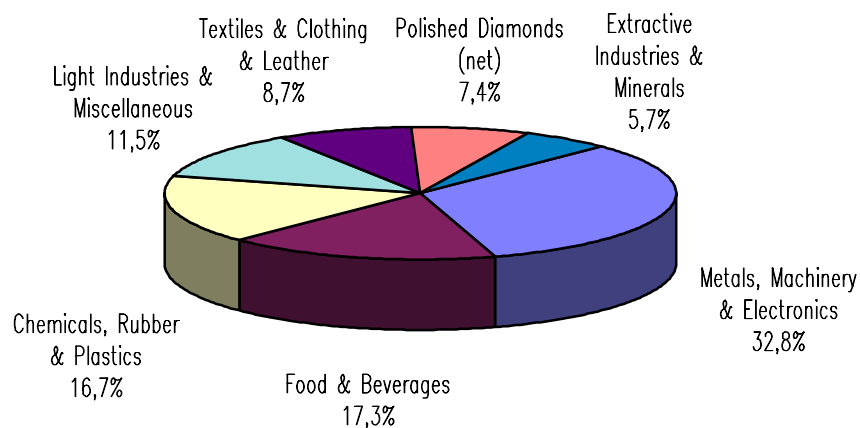
(Source: Economic & Planning Administration, Ministry of Industry and Trade)

Non-Industrial Branches

The non-industrial branches in Israel are agriculture, transportation and communication, construction and services. Once a major sector in the economy, and the leading export branch, agriculture has significantly declined over the years, and currently faces increased competition abroad. The transportation and communication sectors continue to grow rapidly – as a result of the continued huge demand for communication services, as well as the increase in the use of land transport. After tremendous growth in the construction sector during 1990-1992, there is currently a slow down. As in most industrialized countries the service sector is steadily increasing its share in Israeli economic activity, with the financial business and tourism services leading the way.

Exports

Israel has an open economy, with foreign trade playing a major role in its development. Its small local market led it to pursue export markets to improve the efficiency of production afforded by economies of scale and to improve its foreign currency balance. These additional resources enabled the economy to maintain high investment levels, along with relatively large welfare and defense expenditures. Initially exports of agricultural products, in particular citrus and polished diamonds, accounted for most of Israel's exports. In recent years the export of agricultural products has been on the decline. However, machinery, metal, electronic products, chemical products and services account for the majority of exports approximating about one-third of the GDP. As can be seen in Figure 2, the electronics industry contributed the largest share to the growth in industrial exports in recent years.

Figure 2   Contribution of Specific Industrial Branches to the
**   Growth in Industrial Exports (%)**

1980 compared to 1994	
Electronics	29.3
Diamonds	21.1
Rubber, Plastics and Chemicals	17.8
Metal and Machinery	14.7
Miscellaneous	6.9
Textiles	5.3
Food	2.7
Mining	1.6
Light Industries	0.6

Total Industrial Export 1980: Millions of US$ 4,749.5
Total Industrial Export 1994: Millions of US$ 14,915.4

(Source: Central Bureau of Statistics, Foreign Trade Department)

Export Markets

Israel's main export markets are still North America and the European Community, which in 1994 absorbed together US$ 11,2 Million worth of goods, accounting for almost 60% of Israel's goodsexport. However, recent data reveal a shift towards other markets, particularly in South-East Asia, the Far East and Eastern Europe. Exports to countries other than the US and the European Community are expected to increase significantly in the next few years.

Free Trade Agreements

Since 1975 Israel has signed several trade agreements with most of the leading Western countries. Israel is, therefore, the only nation in the world that has concurrent Free Trade Area (FTA) agreements with the United States of America, the European Community (EC) and the states of the European Free Trade Association (EFTA). By virtue of these agreements, the majority of Israel's products are no longer subject to customs duty or tariffs upon import into either the US, the EC or the EFTA states. As a result, exports from Israel to these markets have preferred status over most third countries exports.

**Figure 3   Export of Goods by Destination, 1994
               Total Export 16,884 Millions of US$**
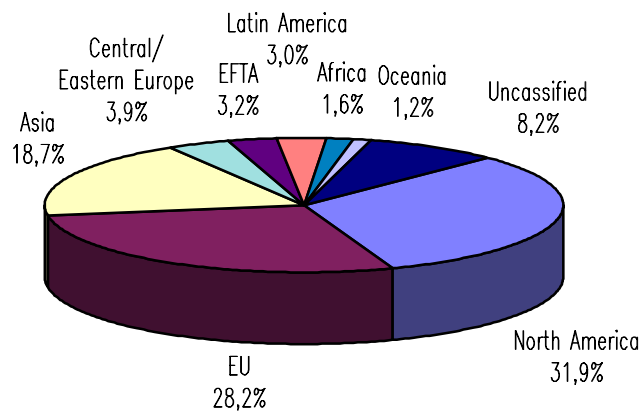
(Source: Central Bureau of Statistics, Foreign Trade Department)

FROM MACRO TO MICRO – A METHODOLOGICAL APPROACH

Although here in Israel we have come to expect and have even become accustomed to the government's solving of economic problems by comprehensive programs and macro-economic decisions such as fixing the exchange rate, interest rates, cost-of-living allowances, etc., it has become increasingly clear in recent years that changes at the micro level of organizations are no less relevant to the competitive advantage of the nation. As Porter pointed out, it is the result of numerous struggles in individual industries that determines the state of a nation's economy and its ability to

progress.[1] The current study is predicated on the assumption that the ability of companies to successfully manage periods of significant changes in their environment is to a great degree determined by the capacity for organizational learning.

The field work on the Israeli businesses' perceptions of the changes in their environment and their strategies for learning was carried out during 1994. A criterion of at least 500 employees was set in selecting the firms and an attempt was made at choosing firms from different industrial and non-industrial branches as well as firms of different ownerships – government-owned, public, private and even one owned by a kibbutz (Israeli cooperative settlement).

Although the sample is not statistically representative on a sector by sector basis, it definitely affords an accurate picture of the large establishments in the Israeli industry and a somewhat less accurate picture of the non-industrial sectors. As indicated by the data provided earlier by the Central Bureau of Statistics, there are 129 companies in the category of 300 workers or more, employing 109,600 workers (of a total of 344,400). Our study of 43 companies (industrial and non-industrial) includes the largest companies, employing between 500 and 17,000 each and representing approximately 75,000 industrial employees and approximately 20,000 non-industrial employees, as can be seen by the following table.

Table 3   **Distribution of the companies whose top management was interviewed by sector and number of employees**

Industrial	No.	No. of Employees
Chemicals (including Pharmaceuticals)	4	6,500
Computers	2	2,200
Electrical & Electronics (including Defense)	13	45,000
Food	5	13,000
Metal products	1	700
Plastics & Rubber	1	500
Printing & Publishing	1	700
Textile & Fashion	2	4,000
Wood & Paper	1	2,000
Total Industrial Firms Interviewed	30	74,600

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[1] See Porter, Michael E. (1990): The competitive Advantage of Nations. New York, Free Press.

<u>Non-Industrial</u>

Energy & Infrastructure	2	1,600
Healthcare	1	2,000
Finance (Banks, Mutual funds, Insurance)	4	6,500
Telecommunications	2	4,800
Transportation	2	4,100
Construction	2	1,200
Total Non-Industrial Firms Interviewed	**13**	**20,200**

The heavy emphasis placed on the electrical and electronics sector is not accidental. This sector leads industry in terms of its overall revenues, its export volume and its rate of growth.

Letters explaining the purpose of this study were sent out to the CEO's of approximately 75 companies, many of which appeared in the 1993 Dun and Bradstreet list of 100 leading Israeli enterprises. Many of the CEO's agreed to be interviewed themselves and others delegated the interview to one of their top executives. The varying positions of the 43 executives interviewed were Chairman of the Board, President, Executive Vice President, Director General, Deputy Director General, Head of Strategic Planning, and Vice President of Global Marketing, allowing for different perspectives.

The interviews were almost always conducted in Hebrew, in person, using a thematic guide, with open questions developed by the WZB team in Germany. There was very little need for adjustment for Israel. Except for one case where the interviewee refused, the interviews were taped. They were then transcribed, summarized and translated into English.

The questions and therefore the answers were of a qualitative nature, so the data needed to be categorized and analyzed for patterns. We, therefore, constructed a matrix of the companies and the questions on an electronic spreadsheet. The qualitative answers were assigned a value (such as 1 = none, 2 = mild, 3 = significant). Where this was not possible we used keywords. The use of the spreadsheet was an aid in getting a snapshot view of all of the companies and the many parameters. During the interviews themselves and more so during the reading of the material, patterns emerged about the ability of companies to perceive change, to learn from different experiences and in general to adapt to their dynamic environments.

COMPANIES' PERCEPTION OF CHANGE – ONGOING AND EMERGING

The interviews confirm that the Israeli business environment can most definitely be characterized as dynamic, and with regard to some industries, even bordering on turbulent. The reasons for this are many. Israel's economy has become increasingly integrated into the world economy opening up many new opportunities but also exposing local industry to new threats. As a Director of Strategic Planning put it,

> "*our company's immediate business environment is not only Israel but the world. Seemingly unrelated events that happen in far away places have serious consequences for us.*"

The growing complexity of a global economic system, where product and even service life-cycles are increasingly shorter, presents new challenges to management. The fast pace of technological development is particularly felt in the electronics industry as expressed by an executive of a company in this sector*:*

> "*Our products tend to become obsolete very quickly. With one particular product we have seven models in five years and some of the changes are quite dramatic.*"

Organizational learning – as learning in general – begins with the capacity to perceive change. Our interviewees mentioned numerous forces of change, some affecting all industries, others affecting specific sectors. No attempt was made here to attach relative weights to the different forces as their importance was perceived differently by different industrial sectors and specific organizations.

The Impact of Mass Immigration

The influx of close to half a million former Soviet citizens was perceived as a major ongoing change. On the one hand, this huge number of immigrants, needing to be housed and employed**,** is a clear burden to the State but the high scientific and technical level of these newcomers is recognized as an asset. Their numbers have already changed the supply of qualified engineers and other technical professionals available and have to a degree begun to adjust the wage scale. One company developing, manufacturing and marketing telecommunication products is still suffering from a lack of engineers. The interviewee stated, however, that "*this has been alleviated somewhat by the Russian immigrants, some of whom we have had to retrain for our advanced systems.*" After their initial period of absorption they are also expected to be a major consumer body. The amount of advertising in Russian and marketing efforts being made to draw their purchasing power indicates that industry sees them as such.

The construction industry has also been seriously impacted by this wave of immigration with a period of high growth rate and then a slow down as the numbers of immigrants dropped drastically.

Government's Role

Another change of major concern to the businessmen interviewed is the government's ongoing role. Israel was founded on socialist principles brought by the pioneers and since the state's inception the government's depth of involvement and control of the economy has been tremendous. A great portion of the economic activities of the country are in public hands whether government-owned or Histadrut-owned. A good deal of activity is also carried out under monopolistic conditions as a result of the size of the local markets hitherto geopolitical standing.

In recent years, with a growing awareness across the political spectrum of the need to compete in the global marketplace, it became clear to many that government intervention is detrimental. This has brought about a trend towards deregulation, liberalization and privatization of government-owned companies. While this trend seems solid it has raised many questions amongst industrialists as to the pace and character of implementation. Deregulation, liberalization and privatization are all seen as opportunities and threats. As one interviewee put it, "*deregulation makes it more difficult for us but on the other hand we have more customers (...) the potential is enormous."* Most of the interviewees perceived these changes as new opportunities, for example, to enter a field such as telecommunications which was previously a virtual monopoly: "*new niches have been opened up (...) we can now compete on mobile phones, on international calls, etc. (...) This has been made possible because of a general policy of liberalization."* For others, particularly the established companies in the food sector, it means exposure of previously protected industries to imported goods. Several companies expressed their concern about the more competitive business environment they expect in the future as a result of liberalization and deregulation. The CEO of a paper mill said,

> "*in terms of the company there is heightened competition and we continue to be influenced by the world paper market. (...) Regulations have virtually disappeared and customs duties were dropped years ago giving the local industry no protection."*

Government-owned companies also emphasized the difficulty anticipated in adapting to the new ownerships. One interviewee of a government-owned company, however, said that he "*couldn't see how a government company would work under the new reality of globalization."* In his view, privatization should be pushed in spite of all constraints in order for companies to be able to adapt to this new reality.

The expected introduction of direct marketing in the insurance sector, as well as the plans to permit banks to sell insurance policies in their branches are both expected to affect the insurance and banking industry and are an example of liberalization in policy. In all cases, the shift from centralist control to a quasi laissez-faire approach is seen as having far-reaching implications and requiring adaptation.

Pace of Technological Developments

Lacking natural resources, Israel has staked its future on "brain power." This has led to a relatively high percentage of high-tech industries which more than others are dependent upon technological developments. Much concern was expressed about the need to keep abreast of technological developments. As a vice president of marketing put it:

> "*Technologies change constantly. You have to watch what your competitors are doing, what your component manufacturers are capable of doing, etc. The customers know what's going on and they're being bombarded with information so they want to get the best at the lowest possible price.*"

With product life-cycles becoming shorter and shorter, the R&D budgets are increasing and competition is fierce both in terms of cost-effective quality and the speed at which the product reaches the market. Indeed, some executives in high-tech companies interviewed for this study concluded that this fast paced environment forced upon them a continuous monitoring or learning process.

Marketing

Of no less concern to those interviewed is marketing. Over the years Israeli firms, endowed with talented engineers and innovative products have discovered that marketing is the "name of the game." It was found that many strategic plans were built around large R&D budgets, with very little left over for marketing, leading to failure. This has been remedied in recent years by serious allocations to marketing and the study of marketing, usually of American marketing techniques. Marketing divisions of most of the enterprises in this study have a much more central position in their companies than in the past and it appears that they will continue to do so.

Nevertheless, global competition is quite fierce and although Israel enjoys free trade agreements, the regional blocs forming are seen by the interviewed executives as difficult to penetrate. In addition, both on the local and the global scene there is heightened consumerism. With competition on the rise, a vast availability of products, and greater access to information, consumers are considered to be much more selective and knowledgeable about their needs. Whether this is the private consumer who demands a higher cotton count in his shirt or the telecommunication company that demands a better electronic

component, industry finds itself needing to reckon with a more sophisticated market.

Many interviewees perceive strategic alliances as the wave of the future. Some of these have already entered into joint ventures with previously avowed rivals, joining forces on one project and continuing to compete on others. They stressed that this is something that could not have happened a few years ago since they only recently recognized the need to work together in order to penetrate world markets.

The Middle East Peace Process

Optimism was expressed by most industrialists regarding the effect of the peace process on future markets. Despite the fact that most of the neighboring countries were not seen as willing to open their markets in the short run, the relaxation of the Arab boycott on the secondary level is expected to open hitherto closed markets. Some perceive the introduction of products from lower wage countries and the Palestinian Autonomy as a threat. Most companies pointed to the possibility of achieving a sustainable peace in the Middle East as a major business opportunity. It was expected that the decline in uncertainty and risk associated with the region would encourage investment. One marketing director pointed out that alertness and flexibility are required to take advantage of these changes:

> "*Here we feel that there are opportunities and we are already making contact with different groups of Arabs – regarding the possibility of joint plants or developing exports to their countries. (...) I think that no one recognized the possibility of peace and its impact. This is not something that someone forecast or planned for. Even today I don't know how much you can actually plan (...) So it's necessary to be very alert.*"

Dismantling of the Eastern Bloc

The markets of the Eastern European countries are perceived as holding tremendous potential. These markets are large and they hold opportunities in terms of inexpensive labor and natural resources for Israeli companies wishing to manufacture there. However many expressed fear of entering the Commonwealth of Independent States (CIS) because of instability in those nations.

Ecology

Another issue mentioned repeatedly is the growing concern about ecological considerations. This issue has been largely neglected in Israel but has recently come into focus both because of global attention, a strong minister heading the Israel Ministry of Environment and stricter regulations. A Director General in the chemical industry said that as a result of environmental concerns becoming a "*real issue*" his company

> "*will open up new markets and invest in R&D so as to develop new processes and products that are environmentally friendly.*" Another executive in the same industry stated that, "*we describe ourselves as a company that contributes to the environment (...) We want to stay in the core business but to diversify in the direction of ecology.*"

Regulations, to go into effect by the end of the century (e.g., requiring waste water to be treated and made fit for agricultural use), are seen as seriously impacting many industries. Interviewees in the chemical industry expressed concern regarding the implications of environmental regulations and their ability to maintain competitiveness on world markets, considering the high costs of observing the regulations.

International Standards

In addition to the ecological regulations set on a national level there are regulations or standards set internationally which have brought about and are still bringing about change in local industries. The ISO 9000 standard (series of standards for quality management and quality assurance set by the Geneva-based International Organization for Standardization) and the requirement by many customers including the US defense forces and others to abide by Total Quality Management (TQM) has dictated higher quality requirements. Although implementation of such programs require dedication, most executives felt that it was not only a constraint but a "blessing in disguise" that probably would not have been accomplished had it not been imposed from the outside. In general, concern was expressed about achieving levels of international quality. As one interviewee pointed out:

> "*Firstly it's important for our ability to compete, secondly, certain customers such as the Defense Ministry will soon require it and thirdly it prepares us for export.*"

Diminishing Defense Expenditures

A major issue of serious consequence to the Israeli economy is the upheaval occurring in the defense and armament industry in the country. Although many countries have encountered changes in this area, they have been particularly significant in a small country where a large percentage of its employed persons is employed in a defense related industry. The dismantling of the USSR has resulted in a decrease in the East-West arms race and no Soviet support of Arab arsenals. It has also caused a tremendous excess supply of weaponry worldwide. A decrease in the Israeli defense budget has exacerbated the problem for the defense industries since they previously could rely on their local market. Now both their local and foreign markets have shrunk forcing them to seek other markets, develop civilian products with their military technologies and at the same time downsize their huge organizations despite

the strong opposition of the labor unions. This is no mean task and these companies are in the throes of crisis. The situation poses major restructuring, technological and marketing challenges that the defense-related industries will have to cope with. The executive vice president of a company whose business was previously ninety percent contracted by the defense sector described the situation as follows:

> "*This was very difficult because in the defense business people think big - big budgets. Armies are willing to pay large sums of money. (...) Therefore the engineers, marketing people and others in a company that deals mainly in defense also think along these lines and go from this kind of thinking to the civilian market where one cent on a product is significant. (...) The importance of this is (1) that we used a military technology to develop civilian products and (2) that we were able to transfer personnel from military to civilian business. Most defense industries didn't do this which made them heavy, inflexible and less able to compete. As a result of our reorientation not only were we able to sell at lower prices, our defense sales even increased because we were much more competitive and thereby won tenders that we could not win previously.*"

From Employment to Profit

Of major concern to the majority of the managers interviewed, especially of the government-owned and Histadrut-owned companies, is the challenge facing them due to the need to downsize their companies. The government-owned companies are on the way to being privatized and the Histadrut is being radically reformed. With changing policies and a profit-driven economy there is no longer tolerance for hidden unemployment and bloated organizations. The managers interviewed were keenly aware of a need for examination and redefinition of the roles of the organization, the individual workers and especially of the labor unions within the context of the changing business environment. One managing director of a high-tech firm said,

> "*were it not for the militant union, the company would be a lot more profitable. The current situation is such that a young engineer costs the company less than half what a veteran technician costs, who can't be fired. I predict that the situation will come to a head soon and you'll see us in the headlines.*"

Although this review of perceived changes is certainly not comprehensive, it serves to emphasize the types of changes that are occurring and are anticipated by the majority of businessmen interviewed. It also serves to show the volatility occurring, exacerbating the need to adapt quickly. This is no doubt dependent upon the organizations' ability to learn and act. The starting point for this process is an awareness of the need, and the ability to take advantage, on an organizational level, of the learning experiences afforded.

LEARNING MODELS AND THEIR MAIN DIFFERENCES

As varied as the learning experiences sketched in the interviews were, an analysis of the data accrued during our study in a majority of industries employing 500 workers or more indicates that there are effectively two basic learning models used by companies to perceive and manage change in Israel. The models are differentiated according to common threads in the role of the individual, the key features of the corporate culture, and core structural elements.

The first model can be called "centralized" in that the company is characterized by a clear and strict hierarchy of authority and control, there are many rules, knowledge and information are centralized at the top of the organization, tasks are rigidly defined and broken down into specialized separate parts and communication is mainly vertical.

The second model, which we call "decentralized", is less hierarchical – as the name implies. There are few rules, much adjustment and redefinition of tasks through employee teamwork, and knowledge, control and information are found anywhere in the organization just as communication is multidirectional.

We have found in Israel that a large number of companies can best be described as "hybrids". These companies are characterized by differing mixtures of the traits of the centralized and decentralized models. Most hybrid companies appear to be in a state of transition towards the decentralized model, although many have been in this state of transition for a period of years and may, therefore, be stabilized in their present state. The companies we have identified as hybrid are those that have made conscious efforts to disperse control and authority away from the top. Their initial steps were mainly structural in terms of redefining organizational charts by moving the decision-making processes down the pyramid. But an awareness was also expressed of the need for change in the corporate culture. As one vice president said, "*all our organizational changes will prove futile unless there is a total revamping of the value system, in essence, the company's culture.*"

The Individual

From our interviews it appears that the individual employee in a centralized organization generally has a clearly defined job. Management expects tasks to be performed according to specifications and productivity is valued over creativity. The employee is considered a resource and the attitude towards him is rather patriarchal. There appears to be a clear dichotomy between employees and management. The hierarchy in the organization is clear and authority is maintained at the upper echelons. The effect on employees is usually what in Israel we call a "small head", meaning that he does his job and although he is part of the organization, he is generally not concerned with the larger picture. He is concerned with getting his job done within his work day. He

is rewarded, usually, according to length of employment at the company rather than for merit.

The individual in the decentralized organization also has a job description but the boundaries are much less defined, so a zealous individual can easily expand his duties. Individual creativity is highly valued and "quality circle" teamwork is rewarded. Although employees are considered resources, they are regarded as partners and are treated with greater equality. Their opinions and their feedback regarding signs of change are considered extremely valuable. Knowledge of "what's going on" is important to the individuals in the decentralized organization. They are eager to have information and to disperse it through the organization and ideologically believe in being "big heads." They tend to find unconventional solutions by way of improvizing because it is important to them not to just do their job, but to contribute to the organization. They tend to take responsibility which is generally rewarded, perpetuating their behavior.

Corporate Culture

Corporate culture is to a great degree a reflection of the culture of the society within which the company operates. The heterogeneity of Israel's population offers a possible explanation, therefore, for the large number of organizations that we call hybrid, having a mixture of both the traits of the centralized as well as the decentralized learning model.

We found that the outstanding features of corporate culture in many of the centralized companies were an acceptance of centralized control, loyalty to the company and leadership (exhibited also by low turnover), a reliance on traditional objectives and practices (usually as set forth by the founders), stability, order, forthrightness and a general focus inward rather than to activities external to the company. One of the manager's of a clearly centralized company stated,

> *"unlike the modern trends towards sacrificing sacred cows, that are occurring in many companies today, we maintain our respect and adherence to our traditional ways."*

In the decentralized organizations we were able to identify clearly different features of corporate culture. The values that were emphasized as permeating through the organizations were amongst others described as empowerment of the employees, customer-responsiveness, flexible-thinking, risk-taking (by making the penalty for error low) and above all a general openness to change both in terms of strategic goals and in methods to achieve them. Most of these decentralized organizations were found to be privately owned and usually not bound by labor unions. Their *"raison d'etre"* more pronounced than in centralized organizations, was to make a healthy profit. The culture of competition vis-a-vis the outside world was imbued in the internal cultural as well, resulting in serious competition amongst the workers whose renumeration

and advancement depends on performance. This culture was well described by a vice-president of strategy who said:

> *"We are convinced, that in our business at least, the fewer the rules, the more room for creativity and non-conformism, the better the business will fare. In a world of such fierce global competition, the rules of the game need to be redefined constantly in order to survive."*

The culture of the hybrid companies was found to be different combinations of these two models. Since most of the companies were originally centralized the corporate culture generally exhibits a good many centralized values and an ongoing effort to introduce a new value system common to the decentralized companies. They were in most cases patriarchical in terms of authority, but at the same time, were encouraging open and informal communication as well as rewarding initiative on different levels.

While this hybrid situation can probably be found in most societies, it appears not only particularly pronounced here but in a state of transition towards greater decentralization. If one reviews historical factors of Israel's economy and society one can see the strong centralistic government role along with socialist ideologies contributing to the highly centralized hierarchical firms with strong labor unions. One can also see the tremendously important role that the army has played. Although mention of the military generally congers up strict discipline, rigidity, obeying rules and power at the top, in the case of the Israeli army additional values have played an important role since its inception. The lack of a long history of military tradition and training, the sparse budgets and the constant threat led to the need for initiative and improvisation on all levels. The expression "big head" was born of this ability to take responsibility, be creative and find ways out of impossible situations. Since senior officers retiring at the age of 40-45 are considered excellent candidates for business and are quickly recruited as CEO's of major industries, they per force bring with them their strong leadership, rigid training, their hierarchical approaches, but along with them their initiative and improvisational approach, which are adapted to the different realities of the business world. These factors may account to some degree for a mixture of contradictory features in many of the hybrids.

Structure

Although the structure of the company is generally related to as what appears on the organizational chart, our interviewees' responses indicated the need to expand the definition of company structure to include behavioral aspects and information and communication channels within the company. Major differences emerged between the learning models that we have identified.

Managers of the centralized organizations preferred classic organizational charts with many layers. They then described their organizations as having strict timetables where employees were expected to clock-in and clock-out at

specific times (e.g. 7:30 - 4:30, 8-5). Order was stressed as important and the dress code (although informal compared to other countries) was quite specific. The pyramid of authority was clear and this pyramid also affected the information and communication channels. Information was mostly concentrated at the top and communication was generally written and vertical, mostly top-down or ineffectively bottom-up. A propensity to sub-cultures was described, explained by the fact that tasks and job definitions are clear and strict with very little overlap. In general, it was expressed that people within the organization were less competitive, possibly resulting from tenure, the strong labor unions and automatic advance by lapse of time. As previously mentioned, this also resulted in a very low turnover of employees which promotes strong identification with the company and its traditional practices.

In the decentralized organizations the organizational charts shown appeared quite different. The interviewees described with pride the flattened pyramids, the matrices, the rotation policies and the strategic business units (SBU's) set up to decentralize their organizations. One particular organization's chart showed the staff vice-president at the bottom of the chart servicing the production units. Particular emphasis was placed on the importance of a diversified product range. One vice-president stated that

> *"in order to effectively compete, we have gone over to dedicated product marketing, lean production and small series. This requires flexible thinking and quick decision-making, made possible by decentralization."*

Also in terms of behavioral aspects and information and communication, the interviewees of the decentralized companies drew a picture quite different from their colleagues in the centralized companies. They described high employee mobility within the industry accounting for high employee turnover and serious competition amongst the workers whose remuneration and advancement depends upon performance. Flexitime was the norm and people would be found at their computers at all hours of the day or night, the dress code was generally informal, even to the point where one CEO of a major electronics firm greeted me in a T-shirt, jeans and sneakers. Order was a matter of individual preference and habit and in some offices disorderly piles of paper were related to as a sign of creativity. Much emphasis was placed on the dissemination of information through the company and communication was not only vertical, but horizontal and diagonal with little regard for "proper" channels. Much information and communication was verbal but in many of the decentralized companies there were also internal electronic mail networks facilitating speedy interaction. One executive described this as a *"new organization"* where

> *"as a result of the rapid changes in technology there is an ever-increasing need for recently educated employees. (...) In addition, the work itself has changed rapidly and is much more creative and requires greater ability on the part of the worker to adjust to new*

> *situations. This has led and will continue to lead to a preference for brillant and creative people whose tendency is more towards individualism and away from discipline. (...) In these new organizations, productivity is assessed by achievement and not by work hours and labor control is output rather than input oriented."*

determinig role in the learning models. The older companies and those that are government-owned or Histadrut-owned were found to be centralized in terms of decision-making. Conversely, the younger It is worth noting that the age of the company and its ownership, as companies and the privately owned were found to be decentralized. Hybrid companies were found in both age and ownership groups, but it was clear that the shift or transition occuring was unidirectional towards the decentralized.

THE LEARNING PROCESS

Although learning is done by individuals, organizational learning is not the sum total of the learning done by the individual, but rather a synergism of the individuals' learning within a specific structure and corporate culture. As such it is an on-going process that involves perceiving and interpreting changes in the organization's environment, and communicating internally about these developments and possible responses to them. The two learning models showed striking differences in various dimensions of the learning process. They used different organs of perception and different modes of information and communication. The types of mechanisms that catalyzed or blocked change also varied depending on the model, as did several other factors.

Organs of Perception

In the centralized organization, we found that in most cases the individuals responsible for and attuned to recognizing change were the CEO himself and/or his top management. The CEOs expressed feelings of being well-informed through their general reading and professional literature, through their colleagues, international conferences they attend and through their personal contacts with highly placed people. One CEO said,

> *"I don't need to attend business forums, I've got my own club. At 5:30 a.m. every morning, I run along the shore with the Head of the Industrialists Association and the Minister of Health. Those morning runs supply me with more information than any formal conferences."*

It seems that in these organizations, the ability to perceive changes is very dependent upon the personality of the CEO. The example given here is of a highly dynamic individual whose sensors are very sensitive to change, but in cases where the CEO is set in his ways and feels he knows all there is to know about what's to come, the signals are often not detected or picked up rather late. One particular CEO stated that,

"I feel that my own antenna and the input I get from the people closest to me help me keep on top of things, but frankly speaking, often a major change is so difficult to undertake, involving so many aspects (e.g., workers' committee, etc.) that the 'writing on the wall' is ignored until a crisis approaches. That may sound like poor management but in today's reality it has been unavoidable in more than one case."

Both the hybrid and decentralized companies described their organs of perception as being their field people. They stressed the tremendous importance of the feedback from their marketing people and their service department and although the CEOs of the companies also felt well informed, they wanted additional reinforcement from the people in contact with the customer. One executive pointed out the effectiveness of a de-centralized marketing group:

"I could not put my finger on any one or any group as being the first to perceive change. But now each division has its marketing group which helps recognize changes earlier than a central marketing group."

More of the hybrid and decentralized than the centralized companies had established business intelligence units which are becoming quite popular. In addition to having highly trained information specialists who retrieve information from electronic databases, Israel has an abundance of highly-trained people who during their army service were engaged in military intelligence. Many of these people are now applying their know-how in this analysis of the data for civilian use. It should be stressed here that only legal means are used and this should not be confused with industrial espionage, which is highly discouraged. Although some of the centralized organizations have also set up business intelligence units recently, they generally report only to the CEO and they were related to as rather marginal in importance. In the more decentralized companies, the unit provides information for all departments requesting its services and the attitude towards the unit is very serious. Their ability to analyze seemingly unrelated events and forecast directions or trends was described as extremely useful and in one case even decisive. In addition, since in these companies responsibility is placed at lower levels, specific units are able to initiate a learning process (e.g., through TQM) and later bring it to the top for implementation throughout the organization.

Another process being used by only two of the companies interviewed (one hybrid and one decentralized) is benchmarking. Although not widespread, the managers of these two companies found it such a powerful learning device that it deserves closer examination here. Benchmarking is a complex process requiring permission from and coordination with a host company, generally from outside the guest company's field of activity, but identified as having

certain processes worth emulating. The guest company goes about learning and systematically applying the analogous features to its own company. This is a very time-consuming approach that requires a number of dedicated employees on both sides and is engaged in by companies having a keen awareness for the need to learn and a corporate culture supportive of the entire approach.

Communication and Information

The communication and information dissemination in the different models was markedly different. Let us start by mentioning that not only all interviewees stated that communication and information were necessary and important in recognizing change and in the ability to actually implement it, they almost all felt that this was a complex problematic area that needed improvement.

The more centralized organizations had formal established channels that run in mostly one direction top-down or rather slowly ineffectively bottom-up, but more problematically it was stated that often the employees did not trust what was being communicated. The CEO of a major defense industry engaged in downsizing of the company said,

> "*information is kept solidly at the top of the company, partially for security-related reasons, but I can honestly say that it's also because of the nature of this beast. I'm rather new so I don't feel responsible for all that has happened and although I don't want to bad-mouth my predecessors, cards have traditionally been kept very close to the chest. This is sometimes very necessary but often serves to promote distrust because the employees have not been aware of the processes and see the decisions as decrees. This has unfortunately fostered a 'them and us' attitude which we now have to work hard to change.*"

He added that the head of the workers committee just left, saying that, *"we feel we're being fed what they want us to believe."* This distrust led to strikes and serious disputes which, in the view of management, slowed down the pace necessary for quick recovery.

The more decentralized organizations who stressed "free-flow" of information as critical were diligent in disseminating information including difficulties or threats to the company and related to the employees as partners. This, in turn, was met with greater cooperation and better negotiations between management and employees but also longer drawn-out timetables.

Understanding this, some CEOs made cognitive efforts at adopting decentralized features. A strong CEO of a veteran, mature industry was able to clearly change his company's culture by means of eliminating the managers' dining room, initiating "quality circles," promoting employee communication towards the top and thereby winning the trust of the workers. He engaged in

serious information dissemination, gathering all the workers and relating to them information they had never been exposed to before, such as would be presented to the Board of Directors. This turnabout in approach, in his perception, enabled a complete restructuring of the company (Small Business Units/SBUs downsizing, diversification, etc.) with full cooperation and minimal disturbance.

Catalysts

Crisis was blatantly more effective than any other catalyst in enabling the implementation of change. In many cases, it was explained that although *"we saw the writing on the wall, as long as the company was profitable we just couldn't initiate change."*

We found that in the older, traditional, mature industries continuing the tradition and repeating the recipe for success was paramount. Stability and time-honored methods were regarded as infallible. Often, contracts signed in previous years kept the balance sheets looking good and it was easy to ignore other signals. Not being aware of these signals or ignoring their meaning, in many cases, brought situations to a head. But crises, when not causing a collapse, were actually seen as beneficial because they forced confrontation with the facts. They counteracted the avoidance-behavior, injected adrenaline into management's bloodstream and also made the workers more prone to accept change since there was now "no choice."

In the case of the monopoly supplying electricity to the entire population, a complete reorientation was triggered by an extended blackout in Jerusalem during the winter of 1991/1992. It rarely snows in Jerusalem and during this particular winter there was a snowstorm which caused trees to fell electrical lines throwing entire neighborhoods into darkness in freezing weather. This situation continued for four long days and resulted in the setting up a national inquiry commission headed by a retired general. The main conclusion of the commission (beyond the technical findings) was that the company did not perform with customer orientation in mind. The spokesman was subsequently dismissed because he had failed to inform and update the thousands of people in the cold and in the dark. No guidance was provided to lower their stress. The company orientation had always been technologically oriented towards production. This incident triggered a reorientation towards the customer and changed the entire approach to marketing in the company. The change included placing the marketing division at the forefront, stressing the importance of quality and cognitively acting as if they are in a competitive environment rather than a monopoly. This is, no doubt, also due to the fact that their license needs to be renewed in 1996 and the government's policy of liberalization and deregulation may mean that this is no longer automatic.

In most cases the learning experience resulting from crises was extremely painful. It often meant the change of leadership, as experienced by a high-tech company specializing in medical imaging. The near collapse of the company

brought about the need for an immediate recovery program and serious reassessment of its recent diversification strategy. The main conclusions of the reassessment were that although diversification can be very beneficial, timing in undertaking such a change is critical. In addition, the review highlighted that the qualities needed to be a successful entrepreneur are different from those needed to be a good manager. The result was that management was changed and the company successfully went back to its core competence.

More often it meant the laying-off of hundreds, in a few cases even thousands of workers who not only relied upon the management for their livelihood but also identified strongly with their company, trusted the leadership's judgment and now found themselves unemployed. The severity of this situation in Israel cannot be overemphasized since the employment options are not very numerous in a small country and simultaneous crises in a number of large industries (such as defense) have had reverberations through the entire society. The actions that were needed to overcome the crisis are revolutionary in nature and described as recovery programs, total restructuring and sale of the enterprise.

In several cases the trigger for change related to the role of the competitor or the customers' demands. A major consumer product company underwent a reorientation of its recognition mechanism as a result of being caught completely by surprise by its main competitor. Up until that point they had a major share of their market and although their recognition mechanisms were informal they felt very well informed. The ability of the competition to not only come out with a new refrigerator, but to successfully lobby the tax authorities to lower taxes on this size of refrigerator, without their knowledge, came to them as a shock. In addition to producing a new product to minimize the damage, they placed greater emphasis on their 'organs of perception' and reoriented the company to recognition of change.

The sample included a company whose incorrect assessment of their potential competition caused them to be priced-out of the market. The outcome of their learning experience was a total reorientation of product and price-range. A large textile concern had successfully penetrated and maintained a niche in the American market in flannel bedding. Subsequently, Portuguese and Turkish companies entered the market, albeit at lower prices and quality and forced them out. As a result, the company completely changed its image and line and directed itself to a high-priced market with high quality satin bedding. This has since become the strongest brand in luxury bedding in the USA, sold at close to 600 points of sale.

A major fashion house underwent a serious reorientation in the last few years triggered by their single largest customer's demand. Their main customer, Marks & Spencer, in England, traditionally placed orders biannually, summer and winter, for tens of thousands of items in each style and color, based on their forecasts. They would receive the merchandise and then try to sell it. At

some point they decided to stop forecasting and to order small quantities, very frequently. This caused a major upheaval in the manufacturing company which was used to a few months lead-time and was now faced with a completely different situation. This major event required change in management procedures, a shift to 'Just in Time' and 'Lean Production'. The process was revolutionary considering the vital need to keep this major customer. The ability to shorten time-cycles was equivalent to survival. As part of the adjustment, the company was sold and all of top management was changed. The pyramid was flattened, the company was downsized and production was successful in supplying Marks & Spencer on schedule, within weeks rather than months. The company marketing strategy is now aimed to diversify markets and be less dependent on a single customer.

Heightened customer awareness regarding product liability triggered a serious reorientation of another company in the sample. It was understood that the trend was towards passing product liability on to suppliers and this required raising quality standards. As the managing director told us,

> "*reorientation in the company was done by way of introducing TQM which we initiated 5-6 years ago, early for Israel. The fact that the man in charge of TQM reports directly to me is in itself a change in our organizational structure and indicates the importance we give to the issue. (...) We looked for something to help us in reorganizing and after going through all the gurus we decided on TQM. It was actually a necessity for survival. (...) TQM is a tool to reorganize.*"

TQM was adopted full force, despite initial resistance on various levels and this has resulted in an improved product and a considerable rise in profits.

Other factors cited by the Israeli interviewees as playing significant roles in triggering change were quite diverse. Some responded by stating the importance of outside factors such as the fast pace of technological developments, world trends, changes in government policies and geopolitical events. But these external catalysts affected all the analogous companies. Why were some able to take advantage of the catalysts and others not?

What emerged then seems to be related more to the company culture as exemplified by the particular values shared by the individuals in these companies. It was explained that they could not afford a crisis which might be the end of their company. The words used to describe how they avoid crisis were: alertness, dynamic, flexible thinking, innovativeness, openness to change, customer responsiveness, creativity, empowerment of employees, room for error, leadership, risk-taking. These executives felt that in the proper corporate culture there should be no need for crisis to enable change. They felt that in an environment where the leader was attuned not only to the external signals, but also to the internal vibrations, where the individual worker was empowered and therefore also accountable there was greater ability to

recognize as well as more motivation to implement the change. The changes were recognized more quickly and culture and structure were such that they aided rather than hindered adjustment to whatever the new reality might be. These changes were therefore gradual, small and evolutionary in nature in most cases and were implemented without major upheavals. Although these words were used by executives of all types of organizations, it appeared that the more decentralized had actually internalized them as values in their corporate cultures whereas others used them as the "right" words possibly in the process towards a cognitive desire to change their corporate culture.

Regardless of whether the organization's learning was centralized, hybrid or decentralized in nature, a visionary leader at the top was seen as the decisive factor in the ability of the organization to weather turbulent times. In the few cases, where we came across such a figure, it was clear that his organization was a trend-setter in the industry and that his vision enabled him to inspire a following, against the prevailing trends of the day, paving new roads into the future. There was a feeling of *"being born before my time and having overcome failure before achieving success."* These individuals were entrepreneurial and able to see opportunities before the actual developments crystallized. But it was clearly difficult to surmise from their comments, what if any of their attributes could be instilled in others and thereby perpetuated.

Blocking Mechanisms

It is both natural and universal to fear the unknown that change will bring and to prefer the comfort of the familiar. Change requires daring, openness, energy, risk-taking, and at times even brinkmanship. These are not traits to be easily found and whether they exist in the organization or not depend once again on the individual leader, the corporate culture and the structure. Not surprisingly, companies with a record of success, which had at some point in their history excelled in these attributes, were amongst those that found it most difficult to change. Often leaders were more advanced in age, being well over 50 and sometimes 60, and were convinced that their time-tested approaches were correct. Despite being presented with hard facts, these facts were often related to as inconsequential or something that would pass. As one vice president in charge of strategy claimed, the previous management

> *"had great difficulty in accepting the perceptions of people who recognized problems. There was a syndrome of repression and a refusal to be confused by the facts insisting that it was a passing phase. Since the voices of the people who dared to bring the bad news were often shut-off, there was very little incentive for those people to continue to do so. They were considered 'bearers of bad tidings' and discouraged from continuing on this path. They were expected to 'stop rocking the boat'."*

The top management of these companies saw their success as a given which perpetuates itself, *"it's worked for us for so long, why should I risk our success."*

They tended to block information that caused them cognitive dissonance. It appeared that in the centralized organizations particular efforts needed to be made to overcome this blockage. A government-owned defense industry undergoing a painful recovery program prepared the following poster as an aid to changing the kind of thinking that has been typical to the organization for the last few decades. It is posted throughout the various plants and although amusing, we were told that it has generated not only quite a few corridor discussions but also serious meetings on how to change the mind-set and the corporate culture:

"Killer Phrases or... How to Stop Creative Thinking"

* We've never done it that way before...
* It won't work...
* We haven't the time...
* We haven't the manpower...
* It's not in the budget...
* We've tried that before...

* We're not ready for it yet...
* All right in theory but can you put in practice...?
* Somebody would have suggested it before
if it was any good...
* Too modern...
* Too old-fashioned
regulations...
* Let's discuss it some other time...
* You don't understand our problem...

* We're too small for that...
* We're too big for that...
* We have too many projects now...

* Let's do a market research test first...
* It has been the same for twenty years
so it must be good...
* I just know it won't work...
* Let's form a committee...
* It's too early... It's too late...
* Let's think it over for a while
and watch the developments...
* You can't change the system...

* That's not our problem...
* They'll think we're long-haired...
* Won't work in my territory...
* Customers won't stand for it...
* Don't move too fast...
* Why something new now?
 Our sales are still going up...
* Let's wait and see...
* Here we go again...
* Let's put it in writing...

* I don't see the connection...
* We can't do it under the

* Political dynamite...
* Sounds good but don't think it will
 work...
* It's not in the plan...
* No regulations covering it...
* We've never used that approach
 before...
* It's not in the manual...
* It'll mean more work...

* It's not our responsibility...
* It will increase overhead....
* It won't pan out...

* Our people won't accept it...
* I have more experience than you,
 and...

In some of the hybrid and most of the decentralized organizations, continuing success was firstly not taken for granted and secondly not considered easily repeatable. There was a constant striving for new achievements, new breakthroughs and no "resting on their laurels." The feeling of dynamism reflected during conversation was almost palpable. Some of these successful companies had hired outside consultants to help with their strategy. When asked why, one explained that,

> *"if you don't worry and aren't constantly looking for both opportunities and threats – you're not going to stay successful for long, in these dynamic times and especially in a dynamic industry."*

These companies maintained fierce competitiveness, not sure at all that the success of yesteryear would repeat itself tomorrow. They were constantly on the vigil for information and encouraged dissenting opinions. One CEO had a policy of inviting anyone in the organization he felt had something to contribute to his periodic meetings. He, of course, did not accept everything said, but was open to listen and had an attitude that by hearing these maverick opinions, he was protecting his organization from unpleasant surprises and maybe even seeing a window of opportunity sooner than he might on his own. The fear of redundant, time-wasting chaotic activity was expressed by some but on the whole it was felt that the price of "free-flow" was low, considering its contribution to the generation of ideas and the dynamism of the organization. Here it appeared that the interplay between the individual, the culture and the structure were conducive to unblocking blocked paths. In other words, the strength of the individuals, the supportive culture and the decentralized structure enabled them to repeatedly attempt the initiation of something new by going around the blockage. Detours were available to bypass the "road block."

Structural Blocks

In the multi-layered companies, mostly centralized, the structure itself appeared to be a blocking mechanism. In these companies, the steep pyramid and long, vertical channels of communication were impediments. The hierarchy was clear but often it was felt that the slow convoluted path to the top resulted in outdated and distorted information reaching the top, as in the children's "telephone" game. In addition, formal written procedures requiring many signatures added to the time it took to get something moving. But, once a decision was made to make a change or undertake a new program (if there was no labor union resistance), it appeared that the top-down communication, a few meetings with top and middle managers and written directives were rapidly effective.

In the more decentralized organizations, the communication paths allowed for short-cuts going in almost every direction – top-down, bottom-up, middle-up, middle-down, horizontally and diagonally. The interviewees' perception is that this varied method of communication seems to generate more ideas and enable both ideas and information to travel very rapidly, very important in recognition but probably more cumbersome in implementation where many more people are opinionated and less prone to accept directives without discussion.

Size of the company, if not decentralized, was often found to be a serious hindrance. The advantage of being big appeared to be a thing of the past. Small and specialized units were regarded as being more effective. As an executive of a large decentralized company pointed out, "*because of the spin-offs and the independent companies we are more likely to respond to change*

than the very large companies." Recognizing that the company's size made it difficult to arrive at decisions on time triggered total reorganization in a quickly growing, very profitable telecommunication company. In order to better meet their changing environment they completely reorganized the company into strategic business units, thereby flattening the pyramid and lowering the level of decision-making.

If we can regard ownership as part of the structure, we were given countless examples by executives in government companies who saw the government's role as a serious impediment. It often took months if not longer between the perception of change, the decision to act upon the signals and the ability to get the appropriate government committee to "sit" on it and give approval. An absurd situation resulted from the fact that government companies are prohibited from purchasing stocks without prior permission. The head of a major chemical concern said,

> *"we had arranged for our distribution to be done in South Africa through a cooperative organization that required the purchasing of stocks valued at 10 RAND. It took close to eight months to get the government committee's approval, by which time our agreement had fallen through with great losses to the company."*

These executives were eager for privatization despite the hurdles to be overcome.

A different but equally problematic aspect of the government's involvement is the feeling of "immunity" of many of these companies because they are either a monopoly and/or government-owned and have been protected for a long time by government policy, resulting in a stable business environment. This feeling after time becomes pervasive and a definite blocking mechanism to both recognition of change and implementation.
In the case of a collectively owned kibbutz the reorientation process *"caused a revolution."* The management differentiated between the kibbutz as owners and the actual operation of the company. Our interviewee related that as a result

> *"people were chosen for their abilities and business experience rather than for their kibbutz affiliation. Once we looked outside of the kibbutz the supply of capable people increased dramatically. Many kibbutz people left because they were offended by this approach and refused to take other jobs. Change is very difficult in all areas. Here it was specifically emotional."*

An additional blocking mechanism of significant weight mentioned in many companies in the study is the labor union. Their main purpose, in protecting the worker, has historical roots and there is no denying their contribution to fair wages, social benefits and proper working conditions. But, according to the interviewees, in recent years problems are partially attributed to rising militancy

and obstinance of labor unions. Many cases were cited of inability to compete, loss of tenders and falling profits resulting from impossible wage-agreements, threats of dispute and strikes when attempting to move a plant to a new location, to downsize or to lower wages. Very few cited the ability to make any serious changes with the cooperation of the labor unions unless the company was in clear danger of closing down.

The privately-owned companies in the same industries explained that most of their employees worked on a private-contract basis reevaluated periodically according to merit and enabling easier lay-offs.

Obviously, the security afforded to the employee in these organizations is quite different, but in terms of the organizations' ability to be flexible, the respondents' perception is that there is no doubt that the labor unions today act as blocking mechanisms to change which often leads to the need for more drastic measures.

Diversity in Management – Composition of top management

In the majority of companies, top management was fifty or over and was composed of males only, with the exception of a single female here and there, usually the legal advisor of the company. All interviewees claimed that they were making efforts to introduce young professionals in their thirties and forties and groom them for top management. The older ones explained that "new blood" was important in preventing stagnation in a company but that age itself is not a detrimental factor if the managers are dynamic and forward-looking: *"(...) age is not the determining factor by definition. Composition is very important."*

The more centralized companies seemed also to have more homogeneously composed top management often of the same ideology, political party, military background or academic discipline (mostly engineers except for specific functions such as accounting, legal, etc.). They stressed though, that they wouldn't tolerate "yes men" except for one who admitted, *"I have no patience with other opinions."* Following the role expectations of modern management, nearly all the interviewees stated that they tried to hear everyone out. It is difficult to ascertain how much they really listen in practice.

In the more decentralized companies, top management was also fifty or over, some in their forties, and also all male but the top managers were more heterogeneous in background and discipline. No doubt some were army buddies, but the ideologies and political parties did not seem to be a factor and the academic backgrounds were diverse. In these companies it was more common to find people with backgrounds in business management and in marketing and a higher propensity for Anglo-Saxons in top management as well as veteran Israelis who had spent considerable time abroad, studying or working. There was a general respect for ideas from outside. Divergent views were seen as a positive influence, since different perspectives were introduced

and there was *"cross-fertilization"* in the words of one CEO. It should be noted though that in all cases whether homogeneous or heterogeneous neither expressed a desire for the other form, but were rather comfortable with the status quo.

Role of mavericks or 'crazies'

Since previous research has suggested that learning impulses can be generated internally through the tolerance or even nurturing of different and possibly unusual views in an organization, the interviews probed for indicators of such features in Israeli business. 'Crazies' were perceived differently in different organizations. The majority replied quite adamantly that, "*we have none of those here.*" Others said, *"you can't run a dynamic 'now' business without a few."* Obviously, their interpretation and/or mind-set were different. Some saw the 'crazies' as troublemakers, others as strange brilliant scientists and others as "counter-current" people willing to express unorthodox opinions and take risks to make a contribution.

Surprisingly, in three cases, the interviewee himself said *"that's me."* These people were a vice-president of strategy brought in to formulate and implement a recovery program, the head of strategic planning and a chief scientist. The first and third felt that they were very respected and instrumental in formulating policy along with the CEO. The second felt that he had made many contributions over the years, but was considered maverick, often excluded from meetings and required reinforcement from outside consultants to get his proposals accepted. His explanation for why the boss keeps him is that he is an *"insurance policy"* ensuring that the strange, minority views will be heard, somewhat related to and then usually dismissed, affording a feeling of *"we've considered everything."*

Upon reviewing the data, it was quite pronounced that generally the more decentralized companies and specifically the high-tech firms had a tolerance for and an appreciation of the 'crazies'. They were considered usually the innovative scientist who has some crazy ideas that they are willing to fund, sometimes leading to a real breakthrough as related by one vice-president,

> *"we definitely have eccentric brilliant people – a company like ours cannot do without them; they prevent stagnation. One of the 'crazies' developed the technology for computerized vision but he's paranoid, completely nuts, a prima ballerina. He's got a doctorate and a long list of other diplomas but I often feel like I want to throw him down a flight of stairs, but then things get back to normal and he contributes to the organization."*

Although this is a rather dramatic example both in the enormity of the contribution, which subsequently brought in millions of dollars of sales, and in the amount of irritation caused by the personality, in more moderate ways it is typical of the descriptions received. The majority of interviewees who had

'crazies' in their organizations (less than half) felt that although they made occasional contributions, they were generally disliked by other employees, disruptive and unpleasant. Another executive said

> "*no one can stand him. He's so brilliant and starts explaining something so complex that no one can follow him. Then he gets really impatient that they don't understand and starts to insult them, being really abusive in his language."* Very few people have a tolerance for this and only an exceptional manager who

is either a 'natural-born psychologist' or trained to handle large egos can reap the benefits, by smoothing out the rough edges. Often these people are moved around from department to department to avoid firing them and at the same time ease the tensions they have created. Valuable contributions by these individuals are predominantly seen to be of technical nature and not such that would initiate change in the learning process. The exception to this is the three interviewees previously mentioned who are at top management levels and whose contributions are more policy-oriented.

CONCLUSIONS

Israel is a country in transition. The pace of life and the rapid fluctuations occurring on a daily basis serve to underscore the volatility. In addition to the multitude of changes that affect most industrialized societies such as technological developments, fierce global competition, ecological issues, international standards and diminished defense expenditures, Israel faces changes that are rather unique.

The multinational composition of the population and the waves of immigration have an ongoing effect, in terms of the expenditures required for the proper absorption of vast numbers of newcomers, their contribution to the work force and their demands as a consumer body.

An additional change having a pervasive effect is that of the government's role. This has taken the form of reforms, liberalization and deregulation policies and the beginning of privatization. The effects have not yet been fully felt but it is widely acknowledged that they will be far-reaching.

The Middle East peace process is expected to bring a new order to the entire region. Israel has been isolated physically as well as commercially having no border trade since its inception, as well as being affected by both the primary and secondary Arab boycotts. With the signing of a peace treaty with Jordan and the expectation of further progress with the Palestinian Autonomy as well as with Syria, there is hope that normalization will finally reach the region. Although the GDP of the neighboring countries is far lower than that of Israels and therefore export is expected to be limited, there are many joint projects

(mainly infrastructure) that appear to be good starting points for joint activity and confidence building, which could lead to joint industrial ventures. In the meantime, the diminished effects of the Arab boycott have already allowed for trade with countries such as India, Malaysia, Indonesia and many others.

The study we carried out by interviewing executives of Israel's largest companies was instrumental in pointing out the changes mentioned above as well as helping us understand the forms of organizational learning in Israeli companies. From the many experiences related by these interviewees we learned that although most top managements of large companies are alert to the changes in their business environment, only some are able to prepare their company for them proactively. The majority are either confronted with events which could not have been anticipated, or their organs of perception are ineffective. Some of those react on time and many react late (according to their own interpretation), meaning that the companies suffered losses and often faced crises.

The three elements we found to be most critical in affecting the learning process are the individual, the corporate culture and the organizational structure. The interplay of these three elements was found to be different in centralized organizations than in decentralized organizations. Additionally, it emerged from our data that although these categories were definitive, a not insignificant number of companies are better described as hybrid containing features from both the centralized and decentralized forms.

Recognition

It was found that most of the centralized companies particularly had few formal recognition mechanisms and the ability to perceive on time was almost exclusively dependent upon the CEO and the top management. The success here was dependent mainly on the personality of the CEO and secondly on the particular industry's volatility. In other words, a CEO who was not very well-attuned to the outside world often had a "grace period" if his industry was in a rather stable environment. But a similar CEO in a rather turbulent environment often found himself in a crisis resulting from his inability or reluctance to interpret "the writing on the wall." In any case, it seemed that these companies were extremely dependent on a few people's ability to lead in the right direction.

The decentralized companies appeared to have many more "organs of perception." Being more decentralized, many more people are in contact with the outside world as "boundary spanners" and "gatekeepers." The ability to recognize trends and changes in the business environment is taken more seriously as are the business intelligence units, attendance and participation at international conferences and international standards groups by people of different levels. The opinions of the marketing people and the field service people are related to and more often acted upon. There is less risk that signals will be overlooked since there are many more antennas tuned in. In addition,

the decentralized set-up where people are empowered and responsible for their unit's activity per force makes them more active in looking for information to respond to it. Moreover, the decentralized companies were usually found in the more quickly changing environments and there was no "grace period" and, therefore, a higher penalty for late recognition.

Information and Communication

In terms of information and communication, it seemed at first that there was very little difference between the centralized, hybrid and decentralized organizations since they all felt that they were 1) important in the ability to change, 2) rather problematic and 3) that they were making serious efforts in training, meetings, seminars, social gatherings, etc. But with closer probing, it emerged that the approaches and the mechanisms were quite different. The more centralized companies usually engaged in formal meetings of the top echelons and limited written information for the lower levels. Very little information traveled up and when it did a long time elapsed and less regard was given to this information. But, a great advantage to the formality of these organizations are the written procedures, documentation and clear emphasis on maintaining the information within the company.

Some of the hybrid and most of the decentralized organizations stressed that the dissemination of knowledge "to the last of the workers" was crucial. They described the presentation of company balance sheets, world trends affecting the industry and constant updates being delivered to large forums of employees by the CEO as instrumental in raising motivation and cooperation. This atmosphere and the company culture encouraged a great deal of information to be transmitted in many directions, but the sheer abundance of information and ideas was often found to be difficult to deal with. Top leadership found itself needing to sift through and analyze divergent opinions. Moreover, it appeared that there was a far greater problem of guaranteeing that the information remains in the organization. As a result of less formal practices, less emphasis on documentation, fear was often expressed that if certain key people left it could cause serious difficulties. Free-flow of information was definitely not equivalent to knowledge-sharing.

Decision-making and Implementation

In the centralized companies, we found that decisions were actually made late because of the usually slower recognition and heavier blocking mechanisms, as discussed earlier. But as these were usually major decisions affecting the whole company, once the decision was taken the implementation was rather efficient owing to the formal structure.

In some of the hybrid and most of the decentralized organizations, the recognition comes earlier, there are fewer blocking mechanisms and decisions are usually more frequent and less comprehensive because of the modularity of the decentralized structure.

Future Implications

What emerges quite clearly from our data seems to be that although the mechanisms at work in almost all the companies interviewed seemed to have been sufficient for their success up until the present time, they will not necessarily serve them faithfully in the future.

♦ Size and centralized control will no longer be an advantage mainly because of the trends towards diversification, greater specialization resulting in smaller series and lean production.

♦ The ever-increasing pace of developments will require better recognition mechanisms to enable evolutionary changes to take place and minimize crises.

♦ Information gathering, dissemination and analysis will play a greater role not only in the knowledge-based industries but also in the labor-intensive industries which have hitherto enjoyed relatively stable environments. Better methods will, therefore, have to be developed.

♦ The transition towards more knowledge-based industries will require the development of better mechanisms to share the knowledge and maintain it in the organization.

♦ The changing role of the government will require less dependence on protectionist policies and greater efficiency.

♦ The trend toward more liberal management practices will require leaders to develop better decision-making mechanisms for the integration of divergent views.

♦ A more conscious and active approach to learning will be required in order to expedite these processes and facilitate implementation.

In all cases where we interviewed an executive who had recognized the need for these types of changes in his organization, the implementation of change was begun at the structural level of the organization. It was clear from what was said that these changes would only be successful if the culture of the corporation changed accordingly. Without that, the dissonance created might be even more detrimental than maintaining the old ways.

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