

# Embedding Entrepreneurship in Social Structure: Israeli-Arab Entrepreneurship\*

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## Introduction

The last few decades have been characterized by a growing instability in the survival of firms and enterprises forced to operate in increasingly dynamic and ever changing milieus. The academic focus shifted accordingly from the role of the Schumpeterian entrepreneur as a heroic risk-taker, to the study of entrepreneurs' and firms' ability to operate in wider social and political networks. In these studies the intensity and dynamic of interfirm linkages and networks are treated as indicators of economic growth (Scott, 1991; Grabher, 1993; Taylor, 1995; Uzzi, 1996; 1997; Oinas, 1999), and external networks are thought to have a particularly decisive impact on small plants' growth chances (Kay, 1993; Hardill *et al.*, 1995). These ideas were amalgamated into analyses of the patterns of firms' and entrepreneurs' embeddedness in their milieu, where the markets in which entrepreneurs operate are treated as both fields of power and cultural constructions (Fligstein, 1990; Grabher, 1993; Talmud and Mesch, 1997; Taylor, 2000).

Much of the latter literature formulates schemes that specify how entrepreneurs' embeddedness in social structure affects their economic behaviour (Uzzi, 1996). Generally, two groups of theoretical debates have emerged from the literature. The first is based on an attempt to isolate social variables of networking that effect economic behaviour (Grabher, 1993). The second attempts to investigate embeddedness as a continuous structuration of business networks (Jessop, 2000).

This article aims to contribute to the growing effort to operationalize and assess the study of small firms' embeddedness, and to this end it considers the case of Arab industrial entrepreneurship in Israel. In the first section we set the conceptual context for the understanding of the structuration of ethnic entrepreneurship and its embeddedness in wider socio-political contexts. This is followed by a description of Arab entrepreneurship in Israel. The third section offers an analysis of the structure of direct economic networks in the Arab sector in Israel and the pattern of plants' expansion into markets. This leads to the next section in which we investigate the operation of relational networks within the Arab sector in Israel, based on the experience of entrepreneurs in the Nazareth region in Lower Galilee, and how these networks affect entrepreneurs' paths of development. The final discussion links networking, embeddedness and barriers for entrepreneurial development in the Arab community in Israel.

The article is based on a number of data sources. The first is an in-depth study we conducted in the first part of the 1990s, in which 514 industrial enterprises were surveyed and 70 entrepreneurs were further interviewed. The survey included 54% of the Israeli-Arab industrial enterprises. In the survey we followed the patterns of market formation, and entrepreneurs' attitudes toward major barriers for further development and market expansion. More recently, in 2001, new fieldwork was conducted in the

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Nazareth area at Lower Galilee; 50 entrepreneurs were interviewed and their enterprises surveyed in order to understand the forms and characteristics of entrepreneurs' supportive networks.

## Embeddedness

### A conceptual review

The fundamentals of the analysis of entrepreneurs' and firms' embeddedness are crystallized in the work of Polanyi and Granovetter. Polanyi's argument that economic action is embedded and enmeshed in social and political ties and institutions as much as in economic institutions became the cornerstone for the study of embeddedness. His work is concerned with a wide variety of institutions such as religion, prestige, kinship, community, government and the welfare state (Polanyi, 1957). Granovetter (1985) emphasized that social and communal networks are essential for the success of entrepreneurship. He highlighted the role of concrete personal networks in developing the necessary mutual trust for economic success, and the importance of supportive social mechanisms within the environment in which economic activities are embedded. Although Granovetter's study hints at the dual nature of embeddedness in which agency and structure simultaneously shape each other, these dialectical relations have hardly been taken up in empirical research.

Some recent studies on embeddedness attempt to transform these theoretical ideas into an operational model. Portes and Sensenbrenner (1993) argue that previous analyses of the concept have been too vague, thus they try to evaluate, based on immigrants' activities, some social determinants that can affect economic action. Kloosterman *et al.* (1999) call for more attention to the structural aspects in which entrepreneurship is embedded, emphasizing the role of formal organizations, state welfare policies and other structures that may influence market opportunities. They apply their model to the study of immigrant entrepreneurship, emphasizing immigrants' dual embeddedness in both intra-ethnic and host societies' milieus. Sofer and Schnell (2000) highlight the 'Janus' characteristics of ethnic entrepreneurs embedded in both intra-ethnic communities and interethnic national and international institutions and markets. The two 'Janus' faces are forced to overcome cultural gaps, ethnic discrimination and marginalization in order to successfully compete in different business cultures.

In a number of studies the role of networking is emphasized as a cornerstone for the understanding of embeddedness. Portes (1995) suggests balancing between the study of concrete networks and the abstract structures in which these networks are embedded. His idea is that analysis of networks may explain better the form of acquisition of scarce means, such as capital and information. A network may include economic tangibles like labour force, raw material, capital and price discounts, as well as intangibles like information, general goodwill or racist attitudes. On the other hand, he suggests studying these sets of linkages and networks in the context of hierarchical social relations and structures. It may be deduced from Portes that a major methodological advantage of the concept of embeddedness lies in its attempt to consider individual agents in the context of both their more tangible relations and the more abstract social structures in which they operate.

In this context it may be asked how we should study the networks linking individuals' agency and social structures. Marxist theoreticians tend to refer to the logic of capital or to class interests, and tend to ignore the practices in which entrepreneurs act and reframe their milieus (Jessop, 1990). In short, they privilege structure over agency. Common models of embeddedness (Uzzi, 1996) tend to isolate, though implicitly, four major aspects: at the micro-level, entrepreneurs' cognitive embeddedness in the economy; at the meso-level, networks that are necessary for the operation of

the firms; and at the macro-level, entrepreneurs' embeddedness both in political and cultural institutions. By isolating agents from social relations and structures, they ignore the problem of the duality of agency and structure set out so convincingly by Giddens (1984). Moreover, detaching agents from social context may carry a serious distorting effect on the understanding of social relations. Isolation of four independent aspects in the study of embeddedness may facilitate positivistic explanations, but this is achieved at the price of understanding the reciprocal structuration of entrepreneurs' agency and their milieus. Economic agents develop direct and indirect networks thought to improve their competitiveness in markets. They do it in a pre-structured context, being restructured by their milieu as well as restructuring their milieu simultaneously, thus enabling socially coordinated actions within markets. Such network systems are self-constituting, self-organizing and self-reproducing, in which agents attempt to gain trust, power and awareness of horizons of opportunities and risks in order to improve their position within the system (Jessop, 2000). Agents' strategic actions may help build business communities of trust, which structure and restructure certain strategies, and which may favour particular identities and groups of actors.

Different scholars have emphasized, explicitly or implicitly, the salience of different aspects of networking within the embeddedness approach. Zukin and DiMaggio (1990) and Cooke (1997) emphasize the salient role of the agent and their embeddedness in local knowledge and information fields, as well as the ability to evaluate their milieu. Others, like Callon (1998), emphasize the importance of a shared business culture in binding together supportive networks for entrepreneurship. Amin and Thrift (1994; 1997), Taylor (1995; 1999) and Talmud and Mesch (1997) emphasize the salience of political institutions in shaping networks that may be crucial for the development and success of entrepreneurship.

### **A structuralist model**

We adopt the idea that the essence of the embeddedness approach is the structure and quality of exchange ties (factors that shape expectations and opportunities), which identify the manner in which enterprises' relationships are incorporated into a network. Grabher (1993) has outlined four essential characteristics of the network which in our view should be understood as part of a wider set of complementary dimensions that characterize the agency-structure dialectic; these are: reciprocity, interdependence, loose coupling and power relations. Following Grabher, we offer an elaboration of these characteristics as shown by the model in Figure 1.

The basic aspect of structuration is a set of direct business networks in which agents seek to enter into reciprocal exchange relationships that do not require symmetry in every act of exchange, but rather approximate balance over the life of an exchange tie. Such sets of reciprocal networks are necessarily regulated by socio-economic institutions, society and economy; and these regulatory factors also institutionalize cultural and political aspects of the structuration process. Direct networks are wrapped by relational networks, which in turn influence agents' horizons of awareness to opportunities and risks in the business milieu. Supportive organizations and elites regulate such information. Therefore, access to business organizations and political and economic elites is considered crucial for the ability of agents to self-develop evaluation capabilities and to avoid 'lock-ins' in closed one-sided information networks.

Direct and relational networks are practised both within cultural context, in which meanings and norms of operation are structured and restructured, and within power relations, in which degrees of freedom in manoeuvring actors' goals are structured and restructured. Cultural sets of norms and power relations are both aspects of entrepreneurs' processes of structuring and restructuring communities associated by intensive networks, as well as aspects of the wider political economy arena in which they operate. As aspects of entrepreneurs' networking, business culture relates to deeper aspects of social relations like reputation, trust, friendship, mutual orientation and mutual adaptation. At the level of the agent it is associated with the entrepreneur's

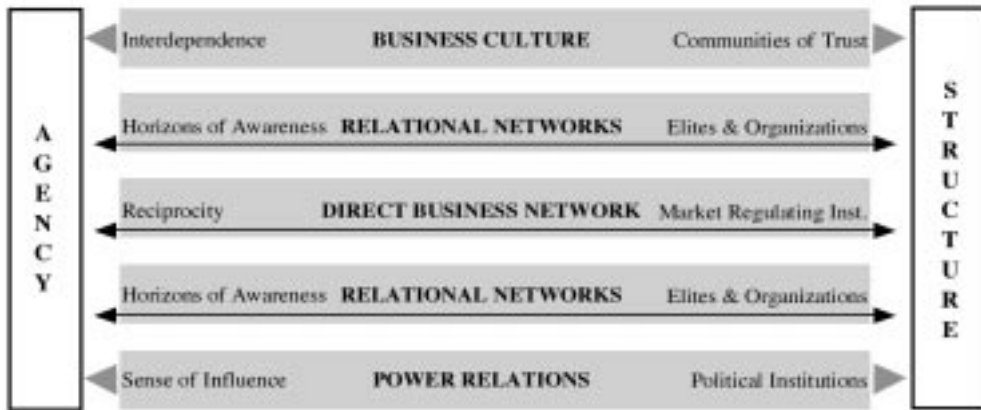


Figure 1 A general model of entrepreneurs' structuration of strategic action

ability to relate to cultural codes of the different milieus in which he or she wishes to operate. It also includes the deepening of information exchange, facilitating preconditions for network learning, and innovative capacities. In the social structural aspect, it relates to the establishment of communities of trust and mutual support that may provide entrepreneurs with some advantages at the markets. In this context ethnic entrepreneurs may be considered like 'Janus', the double-faced god, being forced to operate in more than one cultural and political milieu (Sofer and Schnell, 2000).

Power relations, as an aspect of any social interaction, affect agents' ability to influence decisions and exchange relationships in the network for their own benefit. Moreover, they are politically institutionalized in a form that may lead to practices of dominance and exploitation among unequal exchange partners. Power relations are frequently treated as the most essential aspect of the network in easing the burden of entrepreneurship (Dicken and Thrift, 1992; Taylor, 2000). Sofer and Schnell (2001) go even further by showing that imbalances between firms' location and relative power within networks may result in situations of 'under-embeddedness' or 'over-embeddedness' bearing on entrepreneurs' economic activities and thus resulting in low rewards.

Taking as a starting point the view that agency and structure are dialectically related may offer some hints at useful methodological devices. First, it may be assumed that each aspect of the structuration system may leave imprints on other aspects of the process. Second, following Sayer (1984), we argue that the main purpose of any investigation is to expose mechanisms that control the structuration processes and which mediate between agency and structure. These mechanisms are situated in practices of everyday life performed in everyday life spaces and times (Giddens, 1984; Jessop, 2000). Therefore, we argue that a retrospective investigation of patterns of tangible linkages and networks on the one hand, and basic structural aspects on the other hand, may expose the working of mechanisms that regulate the development of necessary networks for economic success as well as major barriers for further development. Translating these principles into a workable methodology, we suggest an analysis based on three stages. First, we analyse the structure of direct business linkages within a socially structured framework. Second, we investigate the relational networks that wrap the major sets of linkages, focusing our analysis on agents' horizons of awareness to opportunities on the one hand, and their accessibility to elites and organizations on the other. Third, we investigate the business culture and the power mechanisms that set barriers to development of particular business linkages and networks. We suggest a methodology that enables a return to previous stages to revise the analysis according to new structural aspects that may regulate networks. However, in this study no need for revision was identified. Some of these ideas are demonstrated and implemented in the case of Israeli-Arab industrial entrepreneurs. Prior to the

analysis, however, we offer a brief review of Arab entrepreneurship in Israel, focusing on industrialization.

## Arab industry in Israel

The integration of the Arab economy into the broader Israeli economy since the late 1950s was achieved by a number of mechanisms. First was state appropriation of Arab land, which decreased the amount of land available for cultivation and forced villagers to search for alternative sources of income. Second was the emerging taste for new consumable commodities, which generated a market within the Arab sector for imported goods. Third was the establishment of bureaucratic institutions in the form of local municipalities, which mediated between the state institutions and the local citizens. The result of the overall operation of these mechanisms for the Arab settlements was the preservation of a low level of development in general and industrial development in particular.

It took 50 years and three restructuring stages for Arab industry to achieve its current state of development. Three major mechanisms influenced these restructuring phases: majority-minority relations, core-periphery relations, and selective government policies (Sofer and Schnell, 2000). The integrated operation of these mechanisms has affected the form of Arab industrialization, including branch selection, plant formation and entrepreneurial style (Semyonov and Lewin-Epstein, 1993). Plants remained small, relied on safe local markets and concentrated mainly in branches that supported the intensive local housing construction projects and the local food industry.

The relative neglect of the Arab population combined with the enforcement of martial law during the 1950s had created the preconditions for integrating the Arab sector as a subordinated periphery during later periods. Under such conditions of exclusion, Arab industry was restructured into an ethnic enclave-type of economy with very limited external economic links. Only since 1955, with the expansion of the Israeli labour market, were Arab workers channelled as long distance commuters into the secondary labour market in the evolving Jewish urban cores.

By the late 1960s, conditions for economic development and entrepreneurial initiatives in the Arab sector changed significantly, thus signifying the beginning of a second stage. The combined effect of the establishment of basic infrastructure in the settlements, the rise in educational level, the entrance of women into the labour market and the growing professional experience in the Arab labour force paved the way to industrial entrepreneurship. During the 1970s, the rise of large Israeli industrial corporations brought about a shift of industrial enterprises into the periphery, and allowed the Arab entrepreneurs to emerge as subcontractors to textile corporations. A strategy of 'growth from below' was adopted (Khamaisi, 1984; Falah, 1993), expressed by a rapid rate of growth in the number of new plants (in the food and construction sectors) coupled with the adoption of new styles of entrepreneurship. Most plants doubled their size to an average of 15 workers per plant; managers began to use more formal management techniques and divided production into specialized lines. Thus, in the early 1990s, although continuing to operate in the same branches, Arab entrepreneurs proved their ability to compete in Jewish markets. Indeed, their new perception of the market and advanced marketing methods led to increased penetration into Jewish markets, including core metropolitan areas (Schnell *et al.*, 1999).

During the 1990s, the Israeli economy has hesitantly started to experience globalization. A shift of industrial interests towards Middle Eastern labour markets brought about the establishment of around 30 projects (especially sewing shops) in Jordan, Egypt and the Palestinian Authority (Sofer and Schnell, 2000). Most of these projects resulted from the relocation of standardized production processes formerly based in Arab settlements. The current (third) restructuring process has had a destructive impact on Arab entrepreneurs in Israel due to their lack of participation in

(or exclusion from) the new opportunities offered by the peace process and globalization. Cautious estimates suggest that between 50% to 60% of the medium- and large-sized textile plants and sweatshops in Arab localities have been closed since 1995, and a much larger share of the labour force employed in this industry has been laid off. Despite the visible signs of its growth potential as of the early 1960s, Israeli Arab industry had shown only marginal signs of shifting towards hi-tech or advanced industrial branches in the last decade of the twentieth century. One industrial park, which provides jobs to about 20 Arab scientists, has been developed with government subsidies.

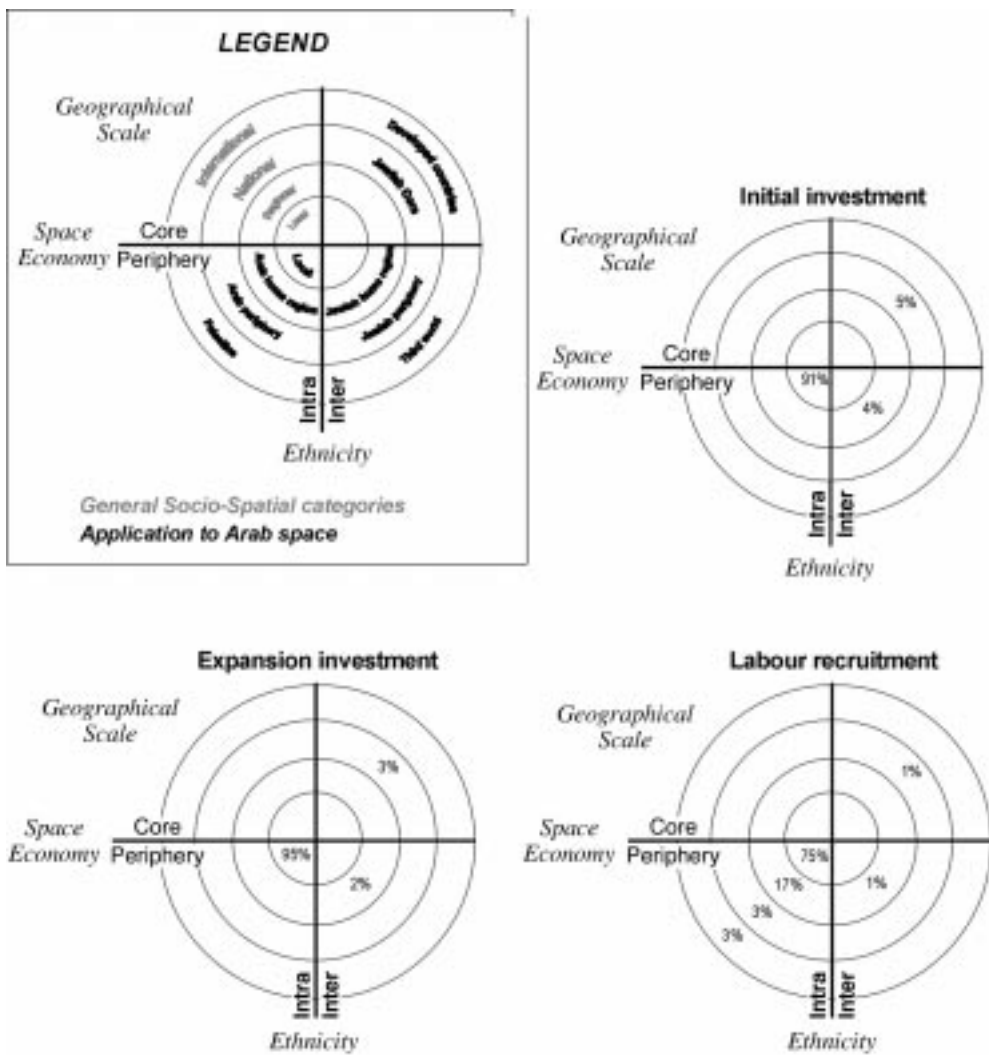
Data gathered in the early 1990s demonstrate that industry is spread among 60 settlements that represent the majority of the larger Arab settlements, each having a population of over 5,000. The number of plants employing three or more workers had doubled since the 1980s, reaching more than 900 (Schnell *et al.*, 1995), and the size of the industrial workforce employed in Arab settlements grew to about 12,000 (Atrash, 1992). National figures indicate that in the 1990s, Arab-owned enterprises represented nearly 6% of all Israeli plants employing five or more workers (Central Bureau of Statistics, 1992).

Typically, small household production and informal subcontracting activities, which constitute 43% of enterprises in this sector, exist side by side with an increasing number of workshops and factories. In the late 1980s, a very small number of large-scale enterprises (about 1%), which employ more than 50 workers each, have emerged. The pattern of branch specialization by labour force concentrates on construction related industries (34%), textiles and clothing (26%) and food industries (19%).

A significant proportion of plants (more than two-thirds in most branches) are located in residential areas, especially on the ground floor of the owner's home or in rented residential buildings. Where an industrial area is available, it is of inferior quality, lacking an appropriate physical infrastructure (Sofer *et al.*, 1996). In 1992, the average number of employees per plant was about 15; a high percentage of whom were women employed primarily in sewing shops. Despite the increase in their mobility, most women work in the settlement in which they reside (Atrash, 1992). The formal training of this labour force is limited, with less than 2% having any formal academic or technical education. Most of the training of professional workers is done on the shop floor. For most entrepreneurs, personal savings are the most common source of initial capital investment; other family members are also an important source. Only 14% sought bank loans as a major source of investment. The most common type of ownership is individual or family (83%), where several brothers typically own and manage a plant.

## Direct networks

The first step to operationalize embeddedness is to assess the structure and quality of direct linkages developed by entrepreneurs. The application of our suggested retrospective methodology, in which the structure of concrete direct linkages and networks are analysed in the context of more abstract socio-spatial structures, requires preliminary hypotheses concerning the relevant structural barriers for networks' development. Having in mind Arab entrepreneurs' Janus faces (the two faced Roman god that used to guard the walls of the city), which force them to operate in two separate business cultures and uneven power relations, calls for the recognition of the deep cultural, economic and political gaps between the Jewish and the Arab milieus. Khalidi (1988) summarizes the theoretical frameworks that have guided research on Jewish-Arab relations in Israel. He identifies four aspects of marginalization: discriminating state policies; a class structure that differentiates among ethnic groups; cultural and social-structural gaps; and socio-spatial segregation in the national periphery. Scholars disagree on the driving forces behind the marginalization process. Ben-Rafael (1982)



**Figure 2** The distribution of major direct and concrete economic linkages in the socially and politically structured milieus in which Arab entrepreneurs operate

emphasizes Jewish cultural dominance over Arabs, while Rosenfeld (1978) prefers to emphasize the class struggle between Arabs and Jews. Smooha (1984) and Semyonov and Lewin-Epstein (1993) analyse Arab-Jewish relations within the framework of pluralistic societies showing uneven competition over resources. Smooha stresses the institutionalization of the uneven power relations between Jews and Arabs in the Israeli ethnic democracy. By contrast, Lustik (1980) narrowed his critique to the discriminating characteristics of government policies.

Reasons for the marginalization of the Arab economy aside, Benenson *et al.* (1998) developed a GIS based visualization methodology for investigating the structure of opportunities and constraints for Arab entrepreneurs in developing linkages and networks. Schnell *et al.* (1999) suggest that Arab networks should be divided along three dimensions. This has been further elaborated here and shown in Figure 2, where the three dimensions are: ethnic (intra- versus inter-ethnic), political-economic (core-periphery relations) and regional scale (geographical scale). The ethnic dimension concerns discrimination against minorities and cultural differences that may force ethnic minorities to operate within their own enclave or to operate, under required

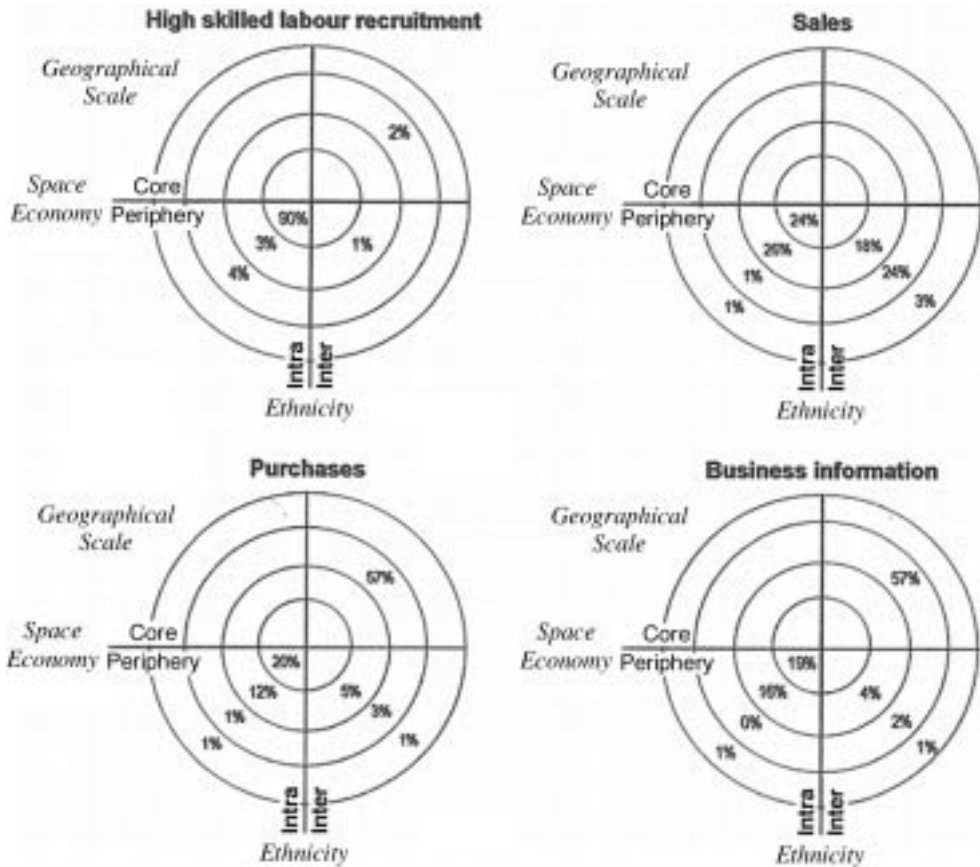


Figure 2 (continued)

adjustments, in the majority's alien business culture (Camagni, 1991; Ratti, 1992). The second dimension stems from theories of core-periphery relations, which emphasize peripheral regions' dependency on core areas. The third dimension, concerning the tendency to expand economic linkages and networks from the local scale to wider ones, through the process of development, stems from a variety of theoretical frameworks. First, the ethnic enclave hypothesis argues that deprived ethnic groups tend to rely on local, intra-ethnic resources and markets, expanding into wider markets only if successful enough in breaking barriers (Aldrich and Waldinger, 1990). Second, the application of the mimicking strategy in early stages of development as a response to scarcity of risk-reducing mechanisms may lead to the same conclusion (Czamanski and Taylor, 1986). In line with all these theoretical approaches, Arab entrepreneurs' socio-spatial milieu, where their networks are expressed, may be divided into 16 different milieus out of which only 9 are relevant (Figure 2).

We should bear in mind at the outset that, as mentioned above, direct linkages are couched in business culture and power relations. That said, we demonstrate the distribution of major direct and concrete economic linkages in the socially and politically structured milieus in which Arab entrepreneurs operate in Figure 2. We analyse the major linkages in which Israeli Arab industrial firms are involved as part of their production process. The analysis leads to the conclusion that most of their linkages are performed in either local, home regional or Jewish core regions, with significant differences among different aspects of their production related activities. Looking at the recruitment of initial investment, about 90% of that capital is recruited from personal savings and to some extent also from other members of the extended family. An



additional 4% is recruited from local branches of the national banks. Larger entrepreneurs cannot rely on kinship sources or even local branches of the banks that do not have the authority to transfer large amounts of capital and are thus forced to work with banks either in Jewish neighbouring towns or the Israeli core. Banks assume Arab businesses to have low profitability and consider investment in them as relatively risky, thus affecting the form of guaranties required from Arab investors and the rate of interest that they are asked to pay.

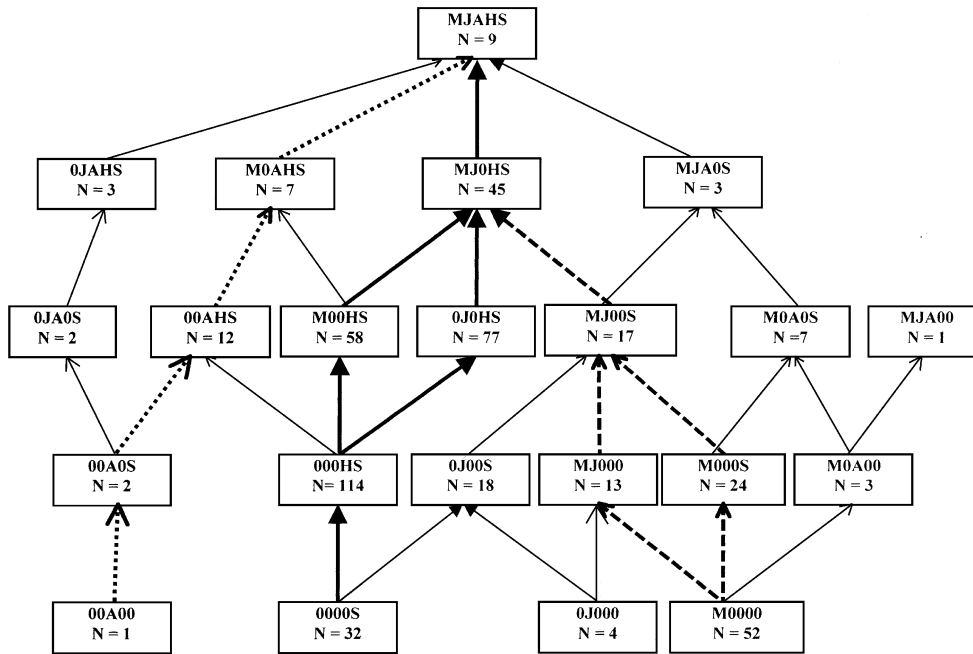
Labour force is also recruited solely from local sources. Three quarters of the manual workers and 90% of the more privileged workforce are from the local communities. But while almost all the more privileged workers are recruited from the Hamula (clan), only 15% of the manual workers are recruited from the Hamula (Schnell *et al.* 1995). The rest of the manual workers are recruited from the non-Hamula members from the same settlement and from neighbouring Arab settlements. Only a small number of workers are recruited from the rest of the socio-spatial regions.

Purchasing of raw materials and information concerning innovations shows relatively similar patterns of dependency and disconnection with other localities. More than half of purchasing and information originates in the national Jewish core. Suppliers are the single source of information for 60% of Arab entrepreneurs, supplying about three-quarters of the information about innovations (Abu Sharkia, 1998). Arab entrepreneurs are thus highly dependent on suppliers' interest to promote their sales. Mass media and professional journals supply an additional 36% of Arab entrepreneurs with independent sources of information. The settlement and the Arab home region supply mainly agricultural raw materials for the food industry. Two-thirds of these products originate in the settlement itself and one-third from neighbouring settlements. The major local and Arab home regional sources of information about innovations are competitors — workers who gained experience in former workplaces and to some extent even customers. While such sources of information could give entrepreneurs some power in dealing with suppliers, only a minority of the entrepreneurs accesses them.

In contrast to labour force recruitment, purchasing and access to information, the socio-spatial pattern of sales is highly split among different markets, with the more frequent category reaching only 26% of the total sales (Arab home region). Most of the sales are directed toward four main regions: Arab home region (26%), local (24%), Jewish core regions (24%) and Jewish neighbouring regions (18%). The fact that Arab entrepreneurs do not choose Arab markets located beyond the home region suggests that there is no tendency to develop an autonomous ethnic economy in Israel. This is a result of, on the one hand, similar patterns of economic development in different Arab settlements, in which similar firms emerged, each based on local and home regional markets, and on the other hand, the stronger consuming power of Jewish neighbouring towns as compared to more distant Arab settlements. For similar reasons, Palestinian markets are also negligible, with the additional factor of administrative burdens the Palestinian Authority puts on commercial relations with Israeli firms.

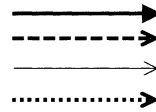
Generally, regarding the structure of networks, Arab entrepreneurs seem to show high dependency on Jewish suppliers of raw materials and information. They are highly limited to local labour and capital sources but they seem to succeed in breaking ethnic, and to some extent core markets when necessary, despite the fact that most of their sales remain within intra-ethnic home regional markets.

An additional insight into Arab entrepreneurs' embeddedness in direct linkages is concerned with the dynamics of breaking market barriers. This may be achieved by analysing individual plants' patterns of expanding into and withdrawing from markets. The 514 plants investigated in our field research were classified in a planar order according to the number and patterns of markets that they sell to (Figure 3; see also Sofer *et al.*, 2001). The scalogram in Figure 3 represents the order in which plants expand into or withdraw from markets while struggling for their survival and development. In total, the nine possible markets could have yielded  $2^9 - 1 = 501$  different profiles, representing the different possible forms of participation in markets. Even the five markets that are practised by Arab entrepreneurs might have yielded



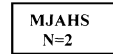
**Legend**

Expansion from close to remote markets (65% of plants)  
 Metropolitan markets (Adds 21% of plants)  
 Arab autonomous markets (Adds 5% of plants)  
 Other linkages



**Market Structure**

M = Metropolitan  
 J = Jewish neighbouring  
 A = Arab distanced  
 H = Arab home regional  
 S = Arab home settlement



N =2 Number of plants who share that market structure

**Figure 3** Scalogram describing the market expansion of Israeli Arab plants

$2^5 - 1 = 31$  possible profiles. Despite this result, only one-third of the profiles describe 87% of the Arab entrepreneurs’ forms of participation in markets, and five profiles represent the forms of participation in markets of almost 70% of the plants (Table 1). Most plants sell to two or three markets with sales both to intra-settlement and to Arab home regional markets being the most frequent profiles. The other more frequent profiles represent Arab and Jewish mixed markets, emphasizing Arab entrepreneurs’ ability to break ethnic barriers. An analysis of the scalogram itself unravels three main routes of expansion and subtraction of markets.

According to the most dominant route, new Israeli Arab businesses open their plants relying on local, intra-ethnic markets. Eighty-six percent of the non-textile plants that sell to one market sell only to markets in their own settlements. From there, they gradually expand to more distant markets, from the home region to Jewish neighbouring regions and to other national markets. About two-thirds of the plants seem to follow this model. According to the second model, plants rely mainly on metropolitan markets, developing further to either local or Jewish neighbouring markets. These plants, most of

**Table 1** Major forms of participation in the market

The market	Profile	Frequency*	%	Cumulative %
Arab home regional	O00HS	114	23	23
Mixed home regional	OJ0HS	77	15	38
Metro. & Arab home regional	M00HS	58	12	50
Metropolitan	M0000	52	10	60
Inter-ethnic	MJ0HS	45	9	69
Intra-settlement	O000S	32	6	75
Metropolitan & intra-settlement	M000S	24	5	80
Jewish & settlement	OJ00S	18	4	84
Jewish & intra-settlement	MJ00S	17	3	87
Rest		67	13	100

\* N = 504 cases

them in textiles, include 21% of the Arab plants. Only about 5% of the plants prefer Arab intra-ethnic markets and expand into Jewish markets only once Arab markets are exploited. The low frequency of this route highlights the efforts that Arab entrepreneurs in Israel make to integrate in the national economy, but the failure of almost all of them to grow beyond small-scale businesses requires a deeper analysis of the key barriers.

## Relational networks

Our argument above was that direct linkages are wrapped by relational networks. In order to achieve a deeper understanding of the relational networks that may be relevant to barriers to entrepreneurial development, and hence assess the structure of embeddedness, we employ three complementary modes of analysis. First, we analyse barriers to market expansion by the direct networks described in the previous section. Second, we treat entrepreneurs' horizons of market awareness as well as their accessibility to supportive organizations as representing the capacity of participation in relational networks. Third, we analyse in-depth interviews with entrepreneurs in order to achieve a deeper understanding of the mechanisms that hinder further development.

## Overcoming networking barriers

An analysis of the percentage of plants that have practically broken barriers of ethnicity and peripherality in Figure 3 is presented in Table 2. Two main conclusions arise out of the data. First, barriers that stem from the peripheral status of the Arab entrepreneurs are significantly stronger than ethnic barriers. Overall, more than 70% of the plants break ethnic barriers but just under one-third have expanded into markets in the national core.

**Table 2** Enterprises by number of markets and percent overcoming barriers

No. of Markets	% Plants	% Overcoming Barrier of	
		Ethnicity*	Peripherality*
1	17	33 (98)	0 (93)
2	35	34 (100)	24 (100)
3	35	92	48
4+	13	100	48

\* The first number is for non-textile enterprises and the number in brackets for textile enterprises (N = 504 cases).

**Table 3** Percentage of plants overcoming ethnic and peripheral barriers\*

(a) By year of foundation

No. of markets	< 1976		1976-85		> 1985	
	Ethnic	Peripheral	Ethnic	Peripheral	Ethnic	Peripheral
≥2	32	33	40	35	50	39
≤3	98	61	92	57	91	56

(b) By ethnic affiliation

No. of markets	Moslems		Druze		Christians	
	Ethnic	Peripheral	Ethnic	Peripheral	Ethnic	Peripheral
≥2	39	35	43	33	54	34
≤3	90	56	96	56	100	48

\* N = 504 cases

Other than textile plants that sell to one market, none of the plants have succeeded in expanding into markets in the core, and only one-third of them have expanded into inter-ethnic markets within the national periphery. Almost all plants which have expanded into three markets break ethnic barriers, but less than half of these succeed in breaking barriers that stem from their location in the national periphery.

Secondly, regarding market formation strategies, a clear distinction stands out between textile and non-textile plants. While the textile plants rely solely on metropolitan markets in the national core, other plants rely more on markets within the national periphery. Most of the non-textile plants regard home regional intra-ethnic markets as their safer markets, and thus make efforts to expand, if possible, into neighbouring inter-ethnic markets still within the periphery.

A comparison among plants according to market longevity and ethnic affiliation may highlight some of the factors that influence constraints on Arab entrepreneurs' attempts to break socio-spatial barriers and embed themselves in wider milieus. Table 3a shows that younger enterprises manage to break ethnic barriers more frequently than older enterprises when they sell to two or less markets. The share of plants that reach inter-ethnic markets grows from 32% for plants that were founded prior to 1975, to 50% for plants that were founded after 1985. For plants that sell to three and more markets, however, only insignificant differences are measured, with the more veteran plants selling slightly more to inter-ethnic markets. It may cautiously be said that younger entrepreneurs are better equipped with education and skills to establish ties and to operate in modern economic systems, while the more veteran entrepreneurs use their long experience, established ties and their safe intra-ethnic markets as a lever to further expand into inter-ethnic markets.

In contrast, the barrier of peripherality seems to be much harder to break. First, the percentage of plants that overcome peripheral barriers does not increase significantly by year of establishment. Second, the overall percentage of plants that succeed to sell to the core remains relatively low. The percentage of sales to the core increases only from 33% to 39% among plants that sell to two and less markets, and declines from 61% to 56% among plants that sell to three and more markets.

Comparing the different ethnic communities, it seems that Christians better succeed in breaking ethnic barriers than Moslems or Druze entrepreneurs. This difference may be associated with Christians' higher levels of education, which seems to be more relevant to entrepreneurs' success than, for example, additional communication routes opened for Druze entrepreneurs while serving in the Israeli Army (Sofer *et al.*, 2001). More broadly, this intra-Arab differentiation is linked to both business culture and power relations.

Our major conclusion so far is that Arab entrepreneurs in Israel have developed wide and complex sale linkages and relatively limited networks in other aspects of the entrepreneurial process. When these linkages are analysed in the structural context of ethnic and core-periphery space economy, peripherality again stands out as the major barrier for economic growth. But ethnicity and peripherality are broad concepts that can at best hint at the mechanisms that regulate Arab formation of networks. Investigating entrepreneurs' horizons of search for new markets and innovations on the one hand, and their search for support from economic and political elites and organizations on the other hand, may achieve a more nuanced understanding of the relational aspects of, as well as barriers to, development.

### Expressions of embeddedness

What are the markets that Arab entrepreneurs struggle to reach in the context of forces of ethnicity and peripherality, and to what extent do these entrepreneurs use innovations as a source of strength in markets? These questions are addressed in Tables 4 and 5, based on data gathered among 50 entrepreneurs in the Nazareth area. Table 4 shows that about half of the Arab entrepreneurs in the Nazareth region aspire to expand their markets into the national core, thus breaking both barriers of peripherality and ethnicity. But many of them do not expect to realize these aspirations, believing that they could not be materialized in the foreseen future. Eighty five percent of the interviewees in the region of Nazareth expect to remain locked up in Arab and Jewish markets within the periphery. Even these modest expectations represent a radical change from the current situation where 81% of the sales are made within intra-ethnic home regional markets. These results may represent the outcomes of the October 2000 riots in the Galilee when delicate lines of trust between the Arab and the Jewish sectors broke down. Despite these events, the formation of an Arab separatist market on a national scale remains unpopular among Arab entrepreneurs with almost all of them still searching for economic integration within the Israeli economy.

When we consider the search for innovations, most entrepreneurs in the Nazareth area choose those sources that are less likely to give them relative advantages in the market (Table 5). About 40% of the entrepreneurs adopted innovations offered to them by suppliers and customers. Both groups share interests of their own that do not necessarily coincide with the interests of the entrepreneurs. Therefore, it is important for entrepreneurs to develop independent evaluation capabilities, such as have been developed by only 25% of the interviewees (the first three sources). About a quarter of the interviewees adopted innovations as a response to the introduction of innovations by competitors, thus avoiding deterioration of their competitiveness.

**Table 4** Entrepreneurs' horizons of awareness concerning market expansion (%)\*

The Market	Aspired Market (A)	Expected Market (B)	Practised Market (C)	Gap (A-B)	Gap (B-C)
Home settlement	0	16	69	-16	-53
Arab home area	7	31	20	-24	+11
Arab-Jewish home area	29	38	7	-9	+31
Arab national	7	2	1	+5	+1
Jewish-Arab national level	48	11	3	+37	+8
World	9	2	0	+5	+2
Total	100	100	100		

\* N = 50 cases

Source: Fieldwork 2001

**Table 5** Entrepreneurs' horizons of awareness concerning search for innovations\*

Source of innovation	Distribution (%)
The team	10
Supportive organizations	5
Mass media	10
Competitors	25
Suppliers and customers	40
No innovations	10
Total	100

\* N = 50 cases

Source: Fieldwork 2001

In respect to the embeddedness of entrepreneurs in organizations that may support entrepreneurship by improving their evaluation capabilities as well as their relative power in exchange relations, the results demonstrate entrepreneurs lack of connection to information sources and other relational networks. Table 6 shows that kinship and communal networks are the only supportive systems on which entrepreneurs may continuously rely. Arab local and national political elites are not perceived as efficient supportive systems, and neither are Jewish political elites. The same evaluation applies to government and professional organizations like the industrialist and commercial associations.

Further investigation of entrepreneurs' accessibility to supportive organizations confirms entrepreneurs' own evaluations. Most municipalities devote only marginal importance to the task of developing better infrastructures for entrepreneurship. During the 1990s many municipalities pursued the quest to delineate industrial areas within their master plans, but only rarely was it supplemented by a serious attempt to develop proper infrastructures. The Arab national political elite largely ignored these issues, concentrating on ethnic-national issues or macro economic demands. Nevertheless, municipal leaders support entrepreneurs by allowing them to open businesses in residential areas, and by allowing them to pay lower taxes — a support given mainly on the basis of kinship relations.

Israeli business organizations like the Industrialist Association and the Commercial Association do not attract Arab entrepreneurs. Less than a dozen Arab entrepreneurs are members of the powerful Industrial Association, though more are members of the much weaker Commercial Association. The Cesarea Annual Conference, in which the heads

**Table 6** Association with relational organizations

Organization	Level of support*
Municipality	1.3
Arab political leadership	1.0
Jewish political leadership	1.0
Business organizations	1.3
Governmental agencies	1.1
Kinship and communal support groups	3.9

\* Note: 1 = very low support, 5 = very high support (N = 50 cases)

Source: Fieldwork 2001

of the Israeli economy discuss major national economic issues without recognizing even one Arab participant, may highlight the exclusion of Arab entrepreneurs from the domain of influence of the political and economic elite.

Government agencies have so far refused to initiate particular programs for the Arab sector, leaving Arab entrepreneurs in inferior conditions relative to their neighbouring Jewish new towns. These new Jewish towns enjoy subsidized infrastructure and the government matches private sector investments there. As a result, plants and other businesses have evolved in the new towns, and while these pay taxes to the Jewish local municipalities, they may recruit Arab manual workers from neighbouring sources for their production lines (Bar-El, 1993). A program in the Ministry of Industry and Commerce initiated during the 1980s meant to support small businesses failed to attract Arab entrepreneurs; nothing was done to adjust the plans for the specific requirements of Arab entrepreneurs. Under these circumstances the extended family and the community remain the major support group, an issue extensively discussed in previous work (Schnell *et al.* 1995).

Scarcity of relational networks outside the intra-ethnic home region leaves Arab entrepreneurs with several sets of problems. Four of these problems were emphasized by more than half of the 70 industrial entrepreneurs interviewed in the national sample in 1994: lack of industrial areas in Arab localities, including basic infrastructures and buildings; uneven competition with neighbouring Jewish development towns; lack of accessibility to investment capital; and inability to compete with monopolistic powers. The problems of lack of managerial skills and lack of accessibility to elites' networks have been also raised in the interviews, but these were considered less urgent than the former problems. Interviews with non-industrial entrepreneurs in the lower Galilee in 2001 raise somewhat different concerns.

The list of self-reported obstacles to business development and growth in Table 7 emphasizes the vicious circle that Arab entrepreneurs face. Their tendency to operate outside the networks of the national economy creates a niche for them in local and intra-ethnic home regional markets. With the establishment of a corporate capitalist system since the 1970s, Arab entrepreneurs succeeded in expanding their markets into inter-ethnic peripheral markets, but they still are not embedded in the sort of economic milieus that may enable them to compete with large corporations on the national markets. As one Arab entrepreneur demonstrates, any attempt to compete with large corporations is forcefully broken by threatened corporations:

**Table 7** Self-reported obstacles for businesses economic growth\*

A barrier for growth	% affected	Examples
Competition in markets	66	Too many competitors; facing large corporations; preference to Jewish businesses.
Socio-political distance	64	Deprivation; lack of government support; low self-esteem.
Scarcity of capital	45	High interest on capital; difficulties in providing guaranties for banks.
Low profitability	40	High expenses (capital, taxes and rent); inability to finance advertising.
Lack of infrastructure	23	Location in over-crowded residential area.
Products quality	20	Lack of Kosher or quality control registration.
Physical distance	18	Separation from information and evaluation capabilities in the national core.

\* N = 50 cases

Source: Fieldwork 2001

I started to sell my 'pittas' to Jewish food stores in the whole region. I was so successful because I sold for cheap prices and I distributed fresh pittas twice a day. When I started to threaten the monopoly of the large Jewish bread bakery they forced the stores to buy the pittas only through them if the store wanted to get their regular bread. In the end I was forced to distribute the pittas through the large bakery, a compromise that reduced my profit extensively and left me with the low profitability that does not allow me to invest in constructing a large bakery of my own.

In selling within the periphery, and mainly within the Arab sector, entrepreneurs are forced to compete with a large number of similar plants on the limited market and thus must greatly reduce their prices. A major contributing factor to this situation is the fact that Arab entrepreneurs, particularly the highly educated ones, feel more comfortable opening businesses than working as manual labourers. They are willing to adopt this strategy even if their profits remain limited to levels equivalent to manual workers' salaries. Textiles and clothing manufacturers are hampered by another weakness in entering markets. As subcontractors of Jewish mother corporations they gain only minimal added value from the least professional sewing works. In order to buy machines they frequently take loans from their mother corporations, thus binding them to these mother corporations. Several subcontractors attempted to change to independent status but failed. Some of these subcontractors argue that, beyond lack of capital, they were not able to foresee the market demands on time since they remained cut off from the fashion industry centred in Tel Aviv.

Under these circumstances it is clear why basic expenses like taxes, rent and labour power are perceived by Arab entrepreneurs to be too high and gaining access to capital too expensive. Entrepreneurs cannot provide guaranties for bank loans, nor can they pay the interests required by these bank loans. Moreover, banks consider investments in Arab business to be highly risky, and consequently demand higher interest from them. As a result, most investments in Arab enterprises are financed by personal and family savings, and thus have a limited level of development capital (Schnell *et al.*, 1995).

## Conclusions

We have suggested a structuralist analysis of Arab entrepreneurs' embeddedness in the political economy of Israel. This approach is based on a combination of systematic analysis of questionnaires and in-depth interviews with entrepreneurs in two stages. In the first stage, we consider entrepreneurs' agency in the context of socio-spatial structural factors concerning tangible networks directly associated to the performance of the business. In the second stage, we confront agents' horizons of awareness in the context of their accessibility to support institutions and elites in respect to relational networks. The analysis focuses on exposing barriers for economic growth and the search for their roots. Although in principle we suggest a retrospective methodology in which the exposure of barriers in later stages may lead to the rearrangement of the data in the first stage of the research along a new set of hypothesized structural dimensions, we did not apply it in the current investigation. This is due to the fact that the second stage of the analysis did not raise new directions for research. Instead, it elaborated and clarified the mechanisms that enabled and blocked economic growth under the umbrella of peripherality and ethnicity — relevant dimensions discovered in the first stage of analysis.

From the three structural dimensions revealed in the first stage — namely regional scale, ethnicity and peripherality — we have discovered that while plants expand gradually into new markets from the local to the national scale regardless of their ethnic belonging, ethnicity and peripherality create barriers for economic growth and further expansion of networks. Ethnicity seems to remain a secondary barrier; many entrepreneurs argue that they are required to spend comparatively more energy in removing ethnic suspicions and gaining trust, but once this is achieved, the door for



networking opens up. However, many entrepreneurs in professional services, like law and accounting, abandoned the prospect of expanding into Jewish markets. Peripherality seems to contain the more significant mechanisms that force upon Arab entrepreneurs low development capacity, at the local as well as at the national level. Inability to break the monopoly power of larger corporations, to gain independence from mother corporations in the sewing industry, and to overcome the physical and social distance from the national core, left Arab entrepreneurs powerless in their highly determined efforts to search for even the slightest open opportunities.

Considering the role of agency, while many Arab entrepreneurs were able to overcome ethnic barriers, only few of them were able to overcome barriers of peripherality, demonstrating the ability to restructure some aspect of their milieu. Agents' ability to transform some aspects of structural barriers did not enable them to break out from their marginal position within the structure.

The major mechanisms that maintain Arab entrepreneurs' peripheral status are state selective policies that privilege new Jewish towns relative to neighbouring Arab towns, monopolies that enslave any entrepreneur who threatens their monopolistic power, and a vicious circle of low profitability created by the large number of small competitors. This defines Arab entrepreneurs as a high risk group for credit banks, which in turn makes credit difficult to obtain, and blocks further growth and increased profitability. The research demonstrates that despite the considerable effort made by Arab entrepreneurs to embed themselves in business networks on a national scale, barriers stemming from their peripheral status continue to hinder their development. Arab entrepreneurs lack the power to transform these business networks into economic success (we have described this phenomenon of 'under-embeddedness' in a previous study (Sofer and Schnell, 2001)). The fact that Arab entrepreneurs perceive kinship relations to be the only supportive system highlights their isolation from power centres in the national political economy as well as their over-embeddedness in local, intra-ethnic, even intra-familial, networks; it is these kinship systems which on the one hand make the entrepreneurship possible but on the other hand lock them into actions directed primarily by familial interests.

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## References

- Abu Sharkia, N. (1998) Small businesses and their networks among the Arab minority in Israel. MA Thesis, Department of Architecture and Town Planning, Technion, Haifa.
- Aldrich, H.E. and R. Waldinger (1990) Ethnicity and entrepreneurship. *Annual Review of Sociology* 16, 111–35.
- Amin, A. and N. Thrift (1994) Living in the global. In A. Amin and N. Thrift (eds.), *Globalization, institutions, and regional development in Europe*, Oxford University Press, Oxford.
- and N. Thrift (1997) Globalization, socio-economics, territoriality. In R. Lee and J. Wills (eds.), *Geographies of economies*, Arnold, London.
- Atrash, A. (1992) The Arab industry in Israel: branch structure, employment and plant formation. *Economics Quarterly* 152, 112–20 (in Hebrew).
- Bar-El, R. (1993) *Economic development in the Arab sector*. The Jewish-Arab Centre for Economic Development, Tel Aviv (in Hebrew).
- Benenson, I., M. Sofer and I. Schnell (1998) A methodology for GIS-based analysis of economic networks: an example from Arab industry in Israel. *Applied Geography* 18, 117–35.
- Ben-Rafael, E. (1982) *The emergence of ethnicity: cultural groups and social conflict in Israel*. Greenwood, Westport, CN.
- Callon, M. (1998) Introduction: the embeddedness of economic markets in

- economics. In M. Callon (ed.), *The laws of the markets*, Blackwell, Oxford.
- Camagni, R. (1991) Local 'milieu', uncertainty and innovation network: toward a new dynamic theory of economic space. In R. Camagni (ed.), *Innovation networks: spatial perspectives*, Belhaven Press, London.
- Central Bureau of Statistics (1992) *Statistical abstracts of Israel*. Central Bureau of Statistics, Jerusalem.
- Cooke, P. (1997) Institutional reflexivity and the rise of the regional state. In G. Benko and U. Strohmeier (eds.), *Space and social theory: interpreting modernity and postmodernity*, Blackwell, Oxford.
- Czamanski, D.T. and T.K. Taylor (1986) Dynamic aspects of entrepreneurship in Arab settlements in Israel. *Horizons* 17/18, 125–44 (in Hebrew).
- Dicken, P. and N. Thrift (1992) The organization of production and the production of organization: why business enterprises matter in the study of geographical industrialization. *Transactions, Institute of British Geographers* 17, 279–91.
- Falah, G. (1993) Trends in the urbanization of Arab settlements in Galilee. *Urban Geography* 14.2, 145–64.
- Fligstein, N. (1990) *The transformation of corporate control*. University of Chicago Press, Chicago.
- Giddens, A. (1984) *The constitution of society: outline of the theory of structuration*. Polity, Cambridge.
- Grabher, G. (1993) Rediscovering the social in the economics of interfirm relations. In G. Grabher (ed.), *The embedded firm*, Routledge, London.
- Granovetter, M. (1985) Economic and social structure: the problem of embeddedness. *American Journal of Sociology* 91.3, 481–510.
- Hardill, I., D. Fletcher and S. Montagne-Villette (1995) Small firms' distinctive capabilities and the socio-economic milieu: findings from case studies in Le Choletais (France) and the East Midland (UK). *Entrepreneurship and Regional Development* 7, 167–86.
- Jessop, B. (1990) *State theory: putting capitalist states in their place*. Polity, Cambridge.
- (2000) The social embeddedness of the economy and its implications for economic governance. Unpublished paper.
- Kay, J. (1993) *Foundations of corporate success*. Oxford University Press, Oxford.
- Khalidi, R. (1988) *The Arab economy in Israel: the dynamics of a region's development*. Croom Helm, London.
- Khamaisi, R. (1984) *Arab industry in Israel*. Unpublished MA Thesis, Technion, Haifa (in Hebrew).
- Kloosterman, R., J. Van Der Leun and I. Rath (1999) Mixed embeddedness: in formal economic activities and immigrant businesses in the Netherlands. *International Journal of Urban and Regional Research* 23.2, 252–66.
- Lustik, I. (1980) *Arabs in the Jewish state: Israel's control over a national minority*. University of Texas Press, Austin.
- Oinas, P. (1999) Voices and silences: the problem of access to embeddedness. *Geoforum* 30, 351–61.
- Polanyi, K. (1957) The economy as instituted process. In K. Polanyi, C.M. Arensberg and H.W. Pearson (eds.), *Trade and markets in the early empires: economies in history and theory*, Free Press, New York.
- Portes, A. (1995) Economic sociology and the sociology of immigration: a conceptual overview. In A. Portes (ed.), *The economic sociology of immigration: essays on networks, ethnicity, and entrepreneurship*, Russell Sage Foundation, New York.
- and J. Sensenbrenner (1993) Embeddedness and immigration: notes on the social determinants of economic action. *American Journal of Sociology* 98.6, 1320–50.
- Ratti, R. (1992) *Innovation technologique et développement régional*. Instituto di Recherche Economica, Bellinzona.
- Rosenfeld, H. (1978) The class situation of the Arab national minority in Israel. *Comparative Studies in Society and History* 20, 374–407.
- Sayer, A. (1984) *Method in social science: a realist approach*. Hutchinson, London.
- Schnell I, M. Sofer and I. Drori (1995) *Arab industrialization in Israel: ethnic entrepreneurship in the periphery*. Praeger, Westport, CT.
- , I. Benenson and M. Sofer (1999) The spatial pattern of Arab industrial markets in Israel. *Annals of the Association of American Geographers* 89.2, 311–36.
- Scott, A.J. (1991) The aerospace-electronics industrial complex of Southern California: the formative years. 1940–1960. *Research Policy* 20, 439–56.

- Semyonov, M. and N. Lewin-Epstein (1993) *The Arab minority in Israel's economy*. Westview Press, Boulder.
- Smootha, S. (1984) *The orientation and politicisation of the Arab minority in Israel*. Monograph Series on the Middle East, No. 2, The Jewish Arab Center and The Institute of Middle Eastern Studies, University of Haifa (in Hebrew).
- Sofer, M. and I. Schnell (2000) The restructuring stages of Israeli Arab industrial entrepreneurship. *Environment and Planning A* 32, 2231–50.
- and I. Schnell (2001) Over- and under-embeddedness: failures in developing mixed embeddedness among Israeli Arab entrepreneurs. In M. Taylor and S. Leonard (eds.), *Social capital and the embedded enterprise: international perspectives*, Ashgate, Aldershot.
- , I. Schnell and I. Drori (1996) Industrial zones and Arab industrialization in Israel. *Human Organization* 55.4, 465–74.
- , I. Benenson and I. Schnell (2001) Ethnic minorities' strategies for market formation: the Israeli Arab case. In D. Felsenstein and M. Taylor (eds.), *Promoting local growth: process, practice and policy*, Ashgate, Aldershot.
- Talmud, I. and G.S. Mesch (1997) Market organization and corporate instability: the ecology of inter-industrial networks. *Social Science Research* 26, 419–41.
- Taylor, M. (1995) The business enterprise, power and patterns of geographical industrialization. In S. Conti, E.J. Malecki and P. Oinas (eds.), *The industrial organisation and its environment: spatial perspectives*, Avebury, Aldershot.
- (1999) Enterprise embeddedness as a mechanism of exclusion: the experience in Fiji. Paper presented at the 'IGU Commission on the Organization of Industrial Space', Haifa and Beer Sheba, Israel.
- (2000) Enterprise, power and embeddedness: an empirical explanation. In M. Taylor and E. Vatne (eds.), *The networked firm in a global world*, Ashgate, Aldershot.
- Uzzi, B. (1996) The sources and consequences of embeddedness for the economic performance of organizations: the network effect. *American Sociological Review* 61, 674–98.
- (1997) Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly* 42, 35–67.
- Zukin, S. and P. DiMaggio (1990) Introduction. In S. Zukin and P. DiMaggio (eds.), *Structures of capital: the social organization of the economy*, Cambridge University Press, New York.