

NETWORK NOT UTILIZED: THE CASE OF ULTRA-ORTHODOX FEMALE MICRO-ENTREPRENEURS IN ISRAEL

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The study examines the role of social networks in the Ultra-Orthodox community in Israel as a tool for promoting micro-entrepreneurial success. To date, research has shown that social network structure is a salient factor in the successful management of micro-businesses. We explored network size, number of strong, weak and betweenness ties of Ultra-Orthodox female micro-entrepreneurs, a distinct social-religious enclave that remains largely unexplored. Contrary to literature, our findings show that Ultra-Orthodox female micro-entrepreneurs have a narrow network in all parameters explored. Although they have a far-reaching social network, it is virtually unutilized in promoting their micro-businesses. Theoretical and policy implications are discussed.

Keywords: Micro-Entrepreneurship; social networks; Ultra-Orthodox women.

1. Introduction

In recent years we have witnessed a surge in the establishment of micro-businesses as a way of coping with poverty and expanding income resources in vulnerable and distinct populations. The Ultra-Orthodox (UO) community is no exception, and increasing numbers of women have opened businesses in a wide range of areas. An important factor found to affect business success in previous research is the social network of entrepreneurs in small and micro-businesses (Fadahunsi *et al.*, 2000; Klyver *et al.*, 2008; Manolova *et al.*, 2007; Piperopoulos, 2010; Kim and Sherraden, 2014). This study investigates how social

network structure affects the ability of the Ultra-Orthodox female micro-entrepreneurs (UOFME) to utilize the network to benefit their businesses.

Previous studies examined the social network structure of distinct communities such as immigrants and ethnic groups (Gotsis and Kortezi, 2009; Smith *et al.*, 1997; Roessingh and Schoonderwoerd, 2005; Roessingh and Smits, 2010). There is a lack of research on socio-cultural religious groups that live in enclaves, such as the Amish or the Mennonites, which are not viewed as immigrants or ethnic minorities. Furthermore, there is limited research on women from these groups. Women from these groups tend to hold informal businesses, which makes it hard for researchers to reach and collect data.

The UO community in Israel shares the same ethnicity as the general diverse population, but because of very strict religious practices, chooses to live in enclaves, prefers not to integrate into general society and opts to abstain from following general societal norms.

This way of life may have an impact on how entrepreneurs run their business. On one hand, they are part of general society and live in the cities. On the other hand, they live in closed communities that separate themselves from the outside world (Friedman, 1991; Hanani, 2008). This separation may strengthen inner solidarity and cohesion that can promote inner-community social ties growth. Understanding the way this group operates and manages its social network can provide insight and contribute to the discourse on entrepreneurship in vulnerable and distinct groups. It can also improve development of tools to promote the use of social networks for enhancing business success and income in vulnerable and distinct groups.

The UO community in Israel is a distinct group that lives in a religious and social enclave, which is characterized by mutual assistance and caring for the group members (Hanani, 2008). The community is an extreme religious and patriarchal group that keeps closed social boundaries. However, in recent years we have seen the influences of consumerism on UO communities, as can be seen through their increased consumption of goods and services, and their aspirations for a comfortable and non-ascetic life (Amiram, 2005; Zicherman and Cahaner, 2012).

Most of the men in the UO community do not work and prefer to immerse themselves in study of religious texts. Consequently, UO women are generally the main providers for their large families, while taking care of the children (Gerilak, 2002; Amiram, 2001). Opening a micro-businesses of selling goods, such as kerchiefs, scarves, cosmetics or designing wigs, can provide significant additional income beyond the low wages they earn, generally in the field of education. In many cases the micro-businesses are not registered and are managed casually, without setting goals, writing a business plan or taking a loan (interviews, YMG, 2008). In other cases, we see entrepreneurs addressing the business as a primary income worthy of investment and care, and as such, seek out business consultants (Schwartz, 2008).

The focus of this study was to examine whether the contribution of social networks to business success can also be found in distinct groups such as UOFMEs in Israel, yet unexplored. This study works to reveal the network structure of this unique group by looking at its structure: network size, strong and weak ties and betweenness ties. Because of the expected cultural effect (Piperopoulos, 2010) on network structure, we compared our results to the network structure of secular entrepreneurs who participated in the study.

This article proceeds as follows. First, we frame our study in the existing literature related to the UO community, social networks and entrepreneurs from distinct groups. Second, we present our hypothesis and explain the methodology used to conduct our study. Third, we outline the research findings, considering research questions and additional findings. Fourth, we set out the methodological approach to our study. Finally, we discuss and conclude with implications for policy makers and practitioners, while offering recommendations for future research.

2. Socio-Cultural Characteristics of the Ultra-Orthodox Community in Israel

2.1. Outline and definition

The UO community is a closed, segregated and isolated branch of Orthodox Judaism that makes up approximately 10 percent of the Israeli population. This group is characterized by a deep commitment to religious dictates and tradition and by opting for the strictest interpretations of religious law (Cahaner *et al.*, 2012). The UO community has independent education, economic, culture and media systems that work together in keeping with the spiritual leaders' authority in all areas of life (Sivan and Kaplan, 2003; Van Leer, 2013). The closed boundaries serve the community by preventing alien secular influences and by strengthening inner socio-cultural customs and ideological views (Kaplan, 2010; Sivan and Kaplan, 2003). Everything considered secular is forbidden or restricted, including television, internet or working outside the community (Hanani, 2008). Many religious rules emphasize the requirement of women to be modest, interpreted as wearing long sleeves and skirts, gender segregation in public places and working mainly with other women, predominantly inside the community (Grylak, 2002, Cohen, 2005).

Birth rates in this group are high — 6.9 on average — although the figures have been declining in recent years. The level of secular education is low, employment rates for men are low and poverty rates are high. Nevertheless, there has been a rise in employment rates of UO women and men in recent years (Cahaner *et al.*, 2012; Endbald *et al.*, 2014; Feldman *et al.*, 2014).

Most of the women have double responsibilities. They are in charge of raising the children, but are also expected to generate the income for their families. By doing so, they allow the men to study religious texts and become great scholars (Kaplan, 2007). Considering religious constraints and the need to run a large household, most of the women are only able to work part time at low-wage jobs (Levine, 2009). Opening a business at home enables UO women to fight poverty, while not neglecting their other responsibilities (Feldman *et al.*, 2014). These micro-businesses further have the potential to contribute to the economic growth of the entire community, which in turn projects on all of Israeli society.

2.2. Mutual assistance and social networks

The UO community is based on values of mutual assistance, solidarity and benefaction (Grylak, 2002) that seem to be based on wide social networks. These values are reflected

in a variety of behaviors: (A) *Gemach* (Hebrew word for acts of kindness and compassion) — formal and informal organizations that provide assistance in a variety of areas. Such as providing medical supplies and accessories, medicines and interest-free loans (Hanani, 2008; Doron and Gal, 2006). (B) Donations — through money, goods or volunteering. The rate of volunteering in the UO community is way higher than the secular groups in Israel (CBS, 2009; Dahan, 2007). (C) Mutual assistance — neighbors help each other with daily tasks such as babysitting for free or providing meals for women who have recently given birth (Hanani, 2008). (D) Inner family help — girls and women are expected to take care of the house, children and elderly parents (Miller, 2007).

Very little research has been conducted on the social networks in the UO community. However, it can be assumed one of the reasons for the high level of social support within the UO community is a natural outcome of social connections among people who live in a closed community (Putnam, 1995). The community has its own education, communication and probably economic systems (Sivan and Kaplan, 2003; Van Leer, 2013) that can enhance inner social networks, especially in a society marked by a low income rate and dependent on those systems. Moreover, considering the overcrowding of the housing in the UO community, people tend to prefer to be outside (Cahaner *et al.*, 2012; Hanani, 2008); this fosters a rich social life, especially in an urban society. Participating in daily prayers, going to the park with the kids, taking part in religious rituals or studying religious texts together (Hanani, 2008) also provide opportunities to forge social connections. Given that most families have more than six members, which are now scattered in closed neighborhoods all over Israel, it can be assumed every family has a wide range of social ties or at least a strong potential for social connections that can assist when a need arises. One such example is receiving information about a person before matchmaking.

2.3. Businesses in the UO community

Building on the long-standing tradition of micro-businesses in the UO community, in recent years we have seen the emergence of an ever-greater number of such enterprises. A micro-business is a very small business with up to five employees, self-employment or freelance (Banerjee, 1998; Edgecomb *et al.*, 1996; Kelly and Kawakami, 2008). Micro-businesses can enable employment in a diverse range of fields and a wide range of social groups, including high and low income (Martziano and Kaufman, 2012).

Only a handful of studies have been conducted on the economic behavior of UO in general, and women in particular (Grylak, 2002; Shtedler, 2003). Additionally, most of the research about UO employment is about men (Malchi, 2009; Levin, 2011; Cohen, 2013; Martziano and Kaufman, 2012). Very few address women's employment, let alone entrepreneurship of UO women (Ben, Shachar and Perel, 2012; Brandman, 2010).

This study examines the UOFME through the resources approach and the paradigm of social networks. The resources approach deals with the resources available to the entrepreneur to start or run a business (Hughes, 2003; Reynolds *et al.*, 2003). One factor that enables accessibility to resources is the entrepreneur's social network. Belonging to a distinct group can have an impact on how entrepreneurs obtain resources through their

connections — block access from resources or provide unique resources such as trustworthy workforce (cheap and highly committed) as well as accessibility to informal training (Fadahunsi *et al.*, 2000; Greve and Salaff, 2003).

3. Social Networks

As noted, one of the main factors affecting business success is the social network of the entrepreneur (Klyver *et al.*, 2008; Manolova *et al.*, 2007; Piperopoulos, 2010; Kim and Sherraden, 2014). Social networks are a collection of individuals or groups tied to one another with a common connector such as geographical area, social and cultural status, common interest, business and commercial interests, family ties, etc. (Barker, 2003). Trust is at the core of these connections. Without basic trust, the network cannot exist (Liebeskind *et al.*, 1996; Oliver, 2009; Christakis and Fowler, 2009). Regarding micro-business, we can consider the social network as the ties that exist between the business owner and others that provide them with resources they need for the business such as support, knowledge, access to distribution channels, access to material resources, research, marketing, finance and more (Greve and Salaff, 2003; Henttonen, 2010).

Social networks act and develop in structures that differ by people and society (Burt, 2003; Christakis and Fowler, 2009). In this study, we refer to two key concepts included in the structure of the network: network size and network connections.

(A) Network size includes the number of members in the network (alters or nodes). The larger the network is, the greater the chances are of reaching a wider range of resources (Aldrich and Kim, 2007; Aldrich and Waldinger, 1990). Semrau and Werner (2013) found that the more links exist, the greater the exposure to resources. However, the entrepreneur should examine which connections are useful for the business and which are not. By doing so, they can avoid endless and useless growth of the network.

(B) Network connections in this study refer to: (1) The strength of ties — weak or strong and (2) Degree of intermediation of contacts (betweenness). The strength of ties includes the weak ties versus the strong ties in the network. Granovetter (1973) distinguishes between strong ties and weak ties that reflect the level of intimacy, emotional intensity and frequency of reciprocal meetings between members of the network. Strong ties are usually held by family and friends, and are good for emotional support, loans, assistance with everyday tasks and help in times of crisis. Weak ties are generally held by a wider circle of friends and acquaintances, and are useful in expanding social circles, obtaining informal information and business opportunities (De Carolis and Saporito, 2006; Granovetter, 1973; Pescosolido and Rubin, 2000; Smith *et al.*, 1997). Counting the number of weak and strong ties can give us the potential of accessibility to these different resources.

The strength of weak ties is in their ability to create a bridge over structural holes (Granovetter, 1973; Burt, 2003). In other words, contact between two people who are not connected directly when the only way to reach them is through common acquaintances. In this way, those who have many weak links have exposure to a broader range of people, especially if they come from heterogeneous groups (Renzulli *et al.*, 2000). Business

owners, who use their friends to reach other people, have more developed social networks than business owners who only utilize their direct ties (Christakis and Fowler, 2009; Oliver, 2009). This exposure leads to greater chances of business success because of access to a variety of resources that can lead to competitive advantage and promote the business (Manolova *et al.*, 2007; Davidsson and Honig, 2003; Aldrich and Waldinger, 1990; Blau, 1977).

The degree of intermediation of contacts — Betweenness ties — the degree to which each member of the network helps reduce the distance between various people on the network. In other words, the extent to which there is an intermediary between people and creation of bridges across structural holes (Freeman, 1979; Burt, 2003). If we ask people about the degree to which they use people to reach others in the network for the benefit of their business, we will establish the extent to which they use betweenness connections.

Micro-businesses generally rely on their local community to maintain business flow. Distinct groups and moreover, religious groups that live in enclaves, may have a different way of relying on social networks to maintain and enhance their business success. No research to date has examined these questions in relation to these groups.

3.1. Environmental and cultural influences

Different cultures espouse different attitudes toward social networks (Aldrich and Waldinger, 1990; Greve and Salaff, 2003; Piperopoulos, 2010). It has been found there are differences in the size of networks between different cultural groups. For example, Americans have wider networks, but they are not maintained. Norwegians, in contrast, have smaller networks but they are long lasting. Moreover, it was found that in cultures that encourage entrepreneurship, there are more entrepreneurs connected in social networks than in cultures that consider entrepreneurship as professional instability, in which the entrepreneur is lonely (Greve and Salaff, 2003; Shapero and Sokol, 1982).

Religious effects on the social networks and business can be seen in different studies. Honig (1998) found that married entrepreneurs who attend church regularly were more likely to succeed in business because of social capital and developed social networks. It was also found that family and religious ties in Greece enable and entrepreneurship over years (Gotsis and Kortezi, 2009). This was found in closed communities such as the Amish (Smith *et al.*, 1997) and the Mennonites (Roessingh and Schoonderwoerd, 2005; Roessingh and Smits, 2010). These findings may be similar to the UO community in Israel. Findings reinforcing this argument can be found in the study of Goldstein (2008). Goldstein found that 40 percent of business ownership in Jerusalem consulted with a religious leader about the business. Meaning, the cultural-religious component has a prominent place in the entrepreneur's business and his social networks assisting.

4. Research Model

In this study we examine the structure of the social network in its business context (SNIBC) that helps UOFMEs. This network is part of the entrepreneur's wider network that is not necessarily connected to the group of ties that helps them with their business.

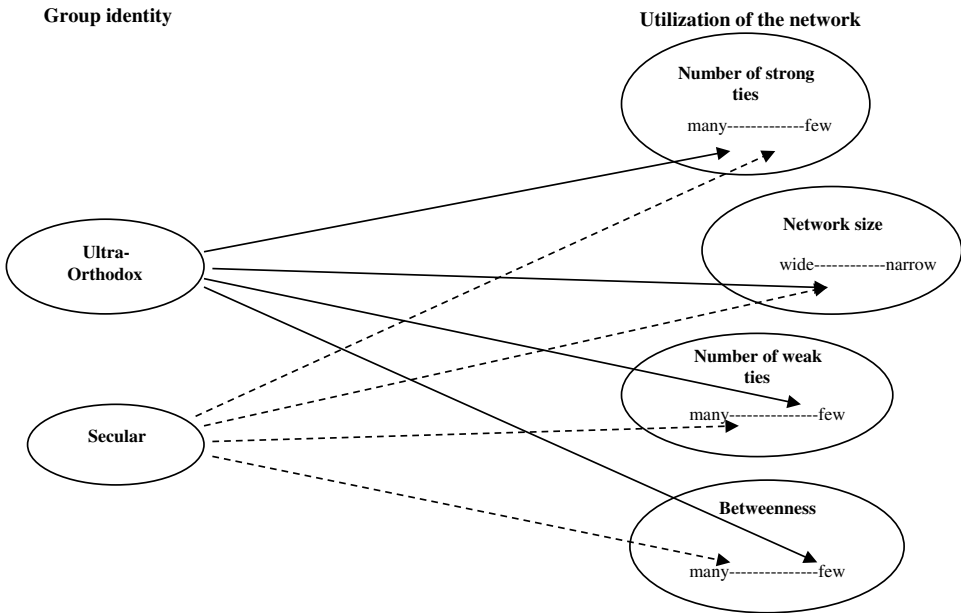


Fig. 1. Research model: connections between group identity to utilization of the network.

Figure 1 presents our hypothesized model. This study compares the utilization of social networks in managing micro-businesses of UO and secular female entrepreneurs. In this study we explore the utilization of the social network, by examining its structure. The social network structure refers to the size of the network, number of strong ties, number of weak ties and the extent of using betweenness ties. The relative position of the arrow-tip on the scale of each variable (many-few, narrow-wide) reflects their expected positions according to our hypotheses — specifically portraying complex differences between the groups when some variables show high rates, while other show low rates. Network size is expected to be the same in both groups, but the number of weak ties is expected to be lower in the UO group, while the number of strong ties is expected to be higher. Finally, betweenness ties are expected to be lower in the UO group than in the secular one.

4.1. Hypothesis

We hypothesized the following relationships as represented in Fig. 1: First, we found studies that show differences in the characteristics of the network in different social groups. That said, we did not find any study showing that in distinct groups, the SNIBC would be smaller or different than the general group’s network. Furthermore, even though it is an enclave group, the UO community is filled with connections that help women in various life situations such as childbirth and childcare. Therefore, we hypothesize that the size of the Ultra-Orthodox female micro-entrepreneurs’ social network will not be different from the size of secular micro-entrepreneurs. For that same reason, we also hypothesized that there would be no significant difference in betweenness ties in both groups.

Second, as noted, the UO community is rich in social relationships arising from an ideology of altruism and solidarity within the group. That said, this group lives in a closed enclave community, which greatly reduces contact with the general population, particularly among women. In other words, they most likely do not have many weak ties. For this reason, we suggest UOFMEs utilize many strong ties, but only few weak ties to promote the business.

5. Methodology

The research focuses on UOFMEs. We added a control group of secular women entrepreneurs to compare findings to a non-distinct group within the same general social context.

The sample consists of 221 entrepreneurs from areas with high density of UO. 119 entrepreneurs are UO based on their own self-identification and 102 are secular based on their own self-identification (Romanov *et al.*, 2012).

Data collection was conducted between February-June 2013 through extensive personal interviews collected with a snowball sample, when each interviewee was asked to refer to other entrepreneurs. In the interview, we used a questionnaire with open and closed questions. A pilot of ten interviews was conducted to ensure wording and distribution.

This is the first sample of its kind, composed of female entrepreneurs from a variety of businesses, geographical areas, not a part, or a part of a program, registered and non-registered businesses. We chose the snowball method, because there is no database of UOFME, and we also wanted to include UO or secular businesses that are not officially registered. This sample represents a group of micro-entrepreneurs who tend not to participate in interviews, particularly women, and moreover, UO women.

Trying to contact UO interviewees through the internet or advertisements was not successful. This is a closed group that rarely uses the internet and does not trust people from outside world easily. The entrepreneurs feared that the interviewers were representatives of the income tax authority and that their husbands would forbid them from participating. They also mentioned a lack of time. For this reason, we were assisted by more than 70 contacts, mainly from organizations that intermediated and vouched for the integrity of the research. This unique research procedure succeeded and enabled us to obtain consent and gain exposure to interviewees who belong to a closed community that does not easily participate, especially with respect to money-related topics.

Trying to contact secular interviewees through Facebook was not successful, unless they were directly approached. When approached directly through advertising, internet or organizations, the success rate was 75 percent.

In both groups, the interview took at least an hour and required concentration, trust, honesty and exposure from the interviewees. It was further explained to them that participation was voluntary, anonymous and not affiliated to any government office.

The age of participants (119 UO, 102 secular) in both groups ranged from 22 to 70, and the average was 40 (SD = 10.85). 5.6 percent were above 60. The median age among UO interviewees was 36, and 39 among secular interviewees. No significant differences were found.

UO were characterized with more children. The number of UO children ranged from 0-14, and the average was $M = 4.85$ ($SD = 10.85$), whereas the number of secular children ranged from 0-5, and the average was $M = 1.71$ ($SD = 10.85$). Differences were significant ($T(216) = 8.63, p < 0.000$).

Among the UO, 108 were married (93.1%), six (5.2%) were single and two were divorced or separated (1.4%). Among the secular group, 60 were married or had a permanent relationship (60.2%), eighteen were single (18.4%), twelve were divorced, separated or widows (11.7%) and eight were "other" (8.2%). The differences are significant $\chi^2 = 34.79, df = 5, p < 0.000$.

Significant differences were found in education level ($p < 0.000$). 22.6 percent of the UO had at least college education compared to 72.2 percent of secular interviewees. Despite that, 36.5 percent of the UO had formal professional-training in education, although not academic.

Income levels among the UO after opening the business were 1.3 times lower than the secular group. Differences were significant ($T(180) = -3.92, p < 0.000$). The income level was minimum of NIS 488 and maximum of NIS 21,000 $M = 9,822.95$ $SD = 4,206.63$ $N = 94$, and was minimum of NIS 2,631 and maximum of NIS 21,000 ($M = 12,817.50$ $SD = 6,001.91$) among the secular group $N = 88$.

No differences were found between groups on business turnover and annual profit. The average business turnover was NIS 87,306.06, ranging from NIS 1,000-NIS 936,000 ($SD = 107,264.95$). The annual average profit ($N = 152$) was NIS 56,887.52. The range was NIS 0-400,000 ($SD = 49,991.51$). Response rate was 64 percent for UO and 74 percent for secular.

The variables were built as follows:

Network structure — Network structure is characterized by the size and number of strong, weak and betweenness ties of the social network in its business context, of the entrepreneur.

(1) **Network size** is the number of alters in the network. It is measured by counting the number of people who contribute to the business (Burt, 2003; Cross, 2003; Oliver, 2009). Interviewees were asked to name the ten people who help them run their business. The number of people they stated was the score for this variable.

(2) **Number of weak and strong ties** — strong ties are defined as closed connections to the entrepreneur, and are determined by the entrepreneur's strong connection to the alters in her network, such as close family. Weak ties are defined as weak links to the entrepreneur, and are determined by a weak connection between the entrepreneur and the alters in her network, like friends from work or extended family. In the questionnaire, the interviewee noted the strength of her connection to each alter. In other words, she rated her closeness to them on a scale of 1-7, when 1 is the furthest and 7 is the closest. A score for the connection strength was given for each alter. A score of 1-4 was considered a weak tie and 5-7 was considered a strong tie. Finally the number of strong ties and weak ties were counted. The sum of each group was the entrepreneur's score of number of strong and weak ties. (Berkman and Syme, 1979; Burt, 2003; Dulworth, 2008).

(3) **Betweenness** — The degree of using betweenness ties was measured by asking the extent to which you use network ties to reach other people (Burt, 2003; Dulworth, 2008; Kaufmann and Schwartz, 2009). The interviewee stated on a Likert scale (1-not at all, 5-greatly), the extent to which she asks for the help of family, friends, acquaintances and neighbors to reach other people to promote her business.

Group identity — The interviewees were asked to state their group identity by their own self-determination (Romanov *et al.*, 2012). The interviewees were also asked to give socio-economic information, as was shown in the sample description.

6. Findings

To examine the hypothesis that there is no difference in size of UO and secular networks, we examined how many people help entrepreneurs in their business and the extent to which they use the help of others to contact people (betweenness). In an independent sample t test, it was found that the size of an UO network is smaller than that of a secular network, but there is no difference in the extent to which they use others to reach other people. It was significantly ($p < 0.000$) established that secular women ($M = 5.20$, $SD = 3.25$, $Mid = 4.52$) have a larger network, 1.81 times larger than UO ($M = 2.86$, $SD = 1.90$, $Mid = 3.01$). Additionally, the mean (1-very high, 5- not at all) of betweenness ties was 3.41 in both groups (UO: $SD = 1.276$ Secular: $SD = 1.444$). The research hypothesis was partially rejected.

We hypothesized that the UO would have a larger number of strong ties than the secular women, and a low number of weak ties compared to secular women. To establish if differences exist between the UO and secular in the number of strong and weak ties, an ANOVA test was calculated. Two group identities (UO and secular) X1 for weak ties and X1 for strong ties. It was found that UO have fewer ties than secular. The variance analysis for weak ties showed a significant affect for the UO group $F(1, 219) = 21.89$ $p < 0.000$, $\eta^2 = 0.12$, such that UO stated fewer weak ties ($M = 0.60$, $SD = 0.94$, $Mid = 0$) than secular ($M = 1.44$, $SD = 1.68$, $Mid = 1$). The variance analysis for strong ties showed a significant affect for the UO group $F(1, 219) = 28.48$ $p < 0.000$, $\eta^2 = 0.19$, such that UO stated fewer weak ties ($M = 2.18$, $SD = 1.58$, $Mid = 2.20$) than secular ($M = 3.75$, $SD = 2.64$, $Mid = 3.41$). In other words, the secular group has 2.4 times more weak ties and 1.72 times more strong ties than the UO group.

Because of the major gap between the UO and secular groups, we examined how many of the entrepreneurs in each group had any weak ties in their network. This allows us to see the weight of weak ties in the UOFME group compared to themselves and compared to secular women micro-entrepreneurs.

It was found that only 34.5 percent of the UO had weak ties in their network, compared to 62 percent of the secular group. This means the vast majority of UO do not have any weak connections. The hypothesis was partially confirmed. UOFME have a smaller network comprised of mainly strong ties. In contrast, the networks of the secular entrepreneurs are wide and made up of strong and weak ties. Let us emphasize that although we

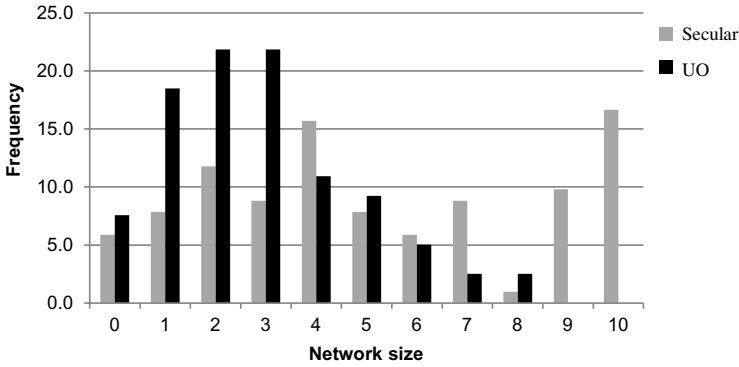


Fig. 2. Frequency of number of UO and secular for network size (percentage).

found that most of the ties that make up the UO network are strong ties, their frequency is lower than in the secular group.

Findings show that counter to the research hypothesis, the network structure of UO is small in all parameters examined except betweenness ties. In an attempt to explain the limited social network phenomena in the indicators examined, we carried out additional statistics exams. First, we examined the frequencies of the network size and strong and weak ties in each group (Figs. 2–4). We then calculated the frequency of the strong and weak ties relative to the network size of each interviewee in each group (Fig. 5).

Analysis of the network size frequency (Fig. 2) reveals there are two groups of entrepreneurs that have different network sizes. Within the UO group, the main distribution is around a network size of one to three alters. However, there is another small group of four to eight alters. There are no groups with more than eight alters. Whereas, within the secular group, the distribution is relatively continuous, and there are women with small networks alongside women with large, and even very large, networks.

Analyzing the frequency (Fig. 3) of number of UO and secular groups for strong ties reveals that most of the UO have few strong ties. The networks that contain one to three

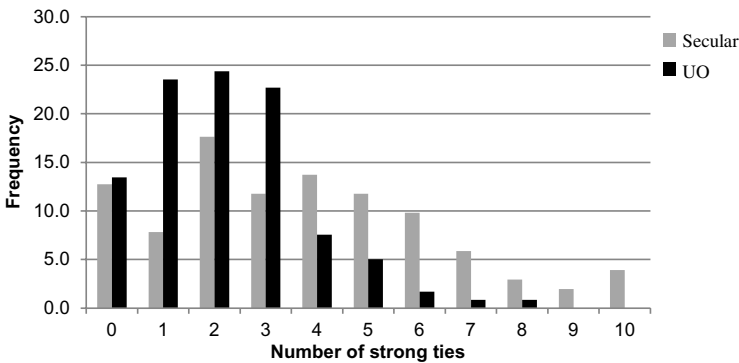


Fig. 3. Frequency of number of UO and secular for strong ties (percentage).

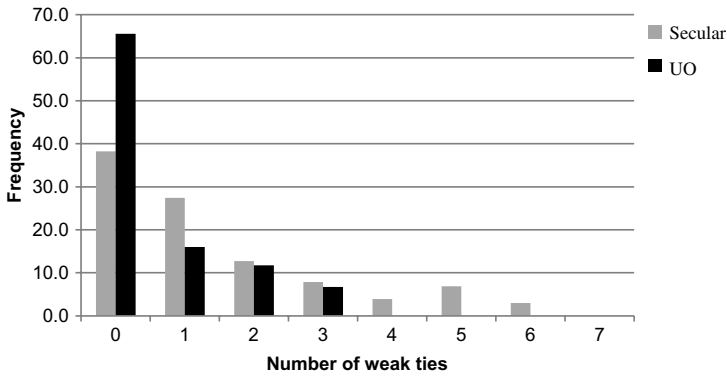


Fig. 4. Frequency of number of UO and secular for weak ties (percentage).

strong ties are the most common among UO. The smallest group is the one that has six or more ties (3.3%). The highest frequency of networks with strong ties among the secular group, are two and four strong ties. A quarter of the secular women have between six and ten ties (25%).

Frequency analysis of the number of weak ties among UO and secular (Fig. 4), shows the majority of entrepreneurs do not have any weak ties. Among UO, the maximum number of weak ties is three, whereas among the secular it is six. Additionally, in both groups, as the number of weak ties increases, the frequency of entrepreneurs decreases. In the secular group, the distribution of ties drops moderately compared to UO.

The differences between the groups in the number of strong and weak ties derive in part from the network size.

It is understandable that a woman with a small network will have fewer weak and strong ties. To understand the network structure, we approached the number of ties using a relative methodology. In each of the groups, we divided the number of ties by the entrepreneur's own network size. The figure received represents the percentage of weak or small ties in relation to the network size. This enables us to determine whether there are relative differences in the ties

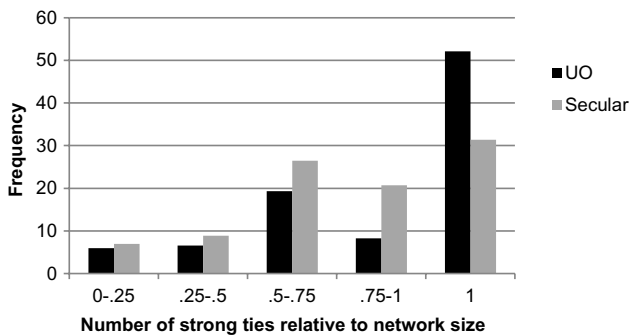


Fig. 5. Frequency of UO and secular for strong ties relative to network size (percentage).

that make up the networks of each group. It was found, compared to their own network, UO do have a higher rate of strong ties, as was hypothesized.

Figure 5 shows the analysis of the number of weak ties relative to the network size of each entrepreneur. The X axis was reduced to five digits to ease the reading. For example: the 4th range — 0.5-0.75 — represents the 0.5-0.75 relations between the number of strong ties to the network size, meaning the entrepreneur who is a part of this frequency group has between one strong tie out of a network size of two ties to three strong ties out of a network size of four ties. The smaller the fracture is, the lower the number of strong ties relative to the network size, and vice versa.

The Y axis represents the frequency of women in each of the ranges. Analyzing the frequencies demonstrates that in more than half of the UOFME, the network is made up of strong ties, whereas among the secular group, this accounts for only 31 percent. Another pattern that can be seen is that 19 percent of the UOFME is at the 0.5–0.75 range, which reflects a larger network that is also made up of weak ties, but to a smaller extent. A similar pattern was also found among the secular group, although at a higher frequency and with a lower gap compared to the prior range. In both groups the frequency of women in the 0–0.5 range was low.

The frequency of number of weak ties relative to network size of each of the entrepreneurs is a mirror image of the frequency of strong ties relative to network size. It was found that both the UO and secular groups have only several entrepreneurs whose networks are comprised of only weak ties. In the 0.5–0.75 range, are six percent of UO and eight percent of secular, in the range 0-0.25 are seven percent of UO and 22 percent of secular. This means that over 50 percent of the UO and 32 percent of the secular group do not have any weak ties in their networks. Additionally, the secular group has more networks that are composed of both strong and weak ties.

To conclude the findings, we can see the UO have two models of networks: (1) a small network made up of few strong ties; (2) a larger network made up of more strong ties and few weak ties. Most of the UO are in the first group. Compared to them, the secular entrepreneurs have a continuum of networks that start with small networks composed of strong ties, through medium networks made up of strong and weak ties, and ending with big and wide networks comprised of many strong and many weak ties. A similar picture emerges from examining the ties relative to the network size. UO have fewer strong ties and even fewer weak ties compared to the secular group. However, they have more strong ties compared to themselves, and they also use betweenness ties to the same extent as the secular group. These findings support the research hypothesis that the UO will have more strong ties than weak ties. These findings also shed light on a complex picture, where UO have a narrow network structure in most of the parameters examined.

7. Discussion

As was shown, previous research emphasizes the contribution of social networks to business and micro-business success. Social networks enable the flow of resources that promote and develop the business. These connections allow women to engage in economic

activities that traditionally were closed to them, especially in religious groups. This study examines whether social networks have the potential to contribute to business success among distinct groups with unique social and religious characteristics. The UO group, as described above, is characterized by wide strong social networks that help the community with its social and daily routine. The focus of this research was to examine whether the social networks of the UO group help the micro-entrepreneurs in the business area.

One of the major conclusions arising from the study is that, as opposed to the secular group, UO micro-businesses have a unique SNIBC. We found the network structure is narrow in the parameters examined: network size and number of weak and strong ties, and number of weak and small ties relative to network size.

These new findings contradict former research that found a strong use of the network for running the business in minorities and ethnic groups (Manolova *et al.*, 2007; Wang and Altinay, 2012). Furthermore, we found that even though both groups use the networks to reach other people to the same extent, the UO stay in their own closed networks. Most of the UOFME are helped by only one person in the network. This demonstrates their network is limited and not connected to other networks inside their own community. This can hurt the potential for access to resources and business growth (Aldrich and Kim, 2007). Additionally, their networks have virtually no weak ties that can connect the entrepreneurs to other networks, which are crucial to facilitate access to a wider set of resources that can help run and promote the business, especially among women (Hughes, 2003; Reynolds *et al.*, 2003; Henttonen, 2010). On the other end of the spectrum are the secular entrepreneurs, who have wide heterogeneous networks with weak ties that facilitate access to other networks. The wide network of the secular women reflects prior research, as shown above. In other words, the network characterizing the UO is unique to this group and does not reflect social-cultural influences of Israel as a state.

The fact the UO network generally contains only one person is surprising. Because the UO community is a closed group (Friedman, 1991) with strong ties, we hypothesized that most of the support for running the business would come from within the community. In earlier research, Licht (2010) and Shapero (2009) found that immigrants and ethnic groups form strong networks from their wider network, which support the business. It is assumed there is a similarity between the general network of the entrepreneur and the SNIBC utilized for the good of the business. When in certain cases, the SNIBC is enriched with weak ties that come outside of the community (Greve and Salaff, 2003; Renzulli *et al.*, 2000). In this study, we found the situation to be very different. There is no similarity between the general network and the SNIBC, although the UO have a wide general social network. UO women help and receive help after childbirth, raising the children, illness, gathering information for matchmaking, etc. (Grylak, 2002; Hanani, 2008). Nevertheless, they do not use their general network and refrain from building an SNIBC that would help them promote their business. We found a new pattern of a distinct group that does not utilize its social networks for building an SNIBC. This is a group that acts differently than what was known to us until now.

These unique findings have theoretical implications in changing the way we understand other distinct groups. The Amish and Mennonites are both distinct religious groups that

maintain traditional cultures and live in enclave groups like the UO community. There is no research on their use of social networks to benefit business, particularly among women. This study has implications for how we understand the behavior of these and other distinct groups. Perhaps the Amish and Mennonites, partially closed and isolated groups like the UO, may appear to outsiders to be helped by their own community members, but it is possible that when looking closely, this is not the case regarding operating a business. This has major implications on how policy makers and business advisors promote businesses in distinct groups and especially among women in distinct groups, as will be discussed shortly. It can also be that the theoretical understanding that social networks do not always help women in distinct groups may have implications for other issues as well.

We limit this argument by the fact that we found a second model of network structure made up of more strong ties and some weak ties. It could be that this model reflects a group of UOFME that is aware of the importance of social networks and the need to open it to connections from outside the community.

There can be several reasons for the limited use of the wide general social network. First, it might be that the network is not useful for business needs. Perhaps the homogeneity of the UO occupations, namely the teaching professions (Levin, 2011), does not allow diverse enough exposure to business and network resources. This is compounded by the fact the UO live in a closed community, where women have minimum connections with the outside world (Hanani, 2008; Kaplan, 2009), particularly regarding business issues. This means the entrepreneurs do not have an accessible source that can actually help them run their businesses.

Second, it may be that the UOFME do not know how and are not aware of the importance of using the network for things that are not part of their daily routine and therefore, do not ask for help, even from other entrepreneurs or community members who can help. It is also possible the community itself is not aware of the importance of helping the entrepreneurs, because they do not know how or they perceive it as illegitimate.

Third, perhaps UOFME refrain from using the networks because of cultural values that consider money and making profit to be negative behavior. This negative approach can discourage the entrepreneur from asking for assistance and/or discourage the community from helping and encouraging businesses growth and profit.

On the supply side, it seems the network available to the entrepreneurs is very limited to their immediate circle and not relevant to business needs. On the demand side, the entrepreneurs are most likely not fully aware of the importance and legitimacy of utilizing the network to benefit the business. This is particularly true when talking about micro-businesses that serve the community and that are limited in the profit they can make. They probably do not know how to recruit the network to help them with their business needs.

It is suggested that UOFME need counseling and guidance on to how widen and diversify their networks with connections from both within and outside community. This way they can expand their social networks to additional circles that could provide considerable value. They will be able to find people who will serve as conduits to others who will provide them with access to different resources available for the benefit of the business.

Additional research should explore which strategies help entrepreneurs from distinct groups expand their social networks. It should also examine whether this network model appears in other distinct groups and which community members provide assistance, along with establishing which resources they provide.

8. Conclusion

This research reveals for the first time the unique model of social network structure in the UO community, which is a distinct religious and socio-cultural enclave group. In contrast with the findings of previous research and within the group of secular women in Israel, we found a distinct social group that has a wide general social network that is very active in daily life and even in economic matters, such as providing their own services, but is not utilized for the good of women's micro-businesses. We found the social network built specifically for promoting the business was limited. This phenomenon undermines the presumption that the existence of a social network promises its utilization in the business context. The utilization of the networks is most likely dependent on the cultural context and the extent to which it allows diverse and outside connections. Women with networks that have very limited connections and points of intersection with other networks will find it very difficult to reach financial, physical, informational and support resources that can promote the business.

In addition, we found the reference to group identity has a crucial effect on understanding how social network in its business context operates. A result of examining group identity, we reveal different models of utilizing the social network in its business context that have not been previously probed. These models may be of use to other scholars when examining other distinct groups such as the Amish and Mennonites. This distinction between help in daily life and in business may be relevant for other issues as well. As such, we may see groups that distinguish between economic behavior and other behaviors such as educational or religious behaviors. This calls for further research on the subject.

The uniqueness of this research is also in its ability to abstract primary data on women's micro-businesses from a closed group that does not tend to participate in research, especially income related. Nevertheless, we gathered data from entrepreneurs who usually do not disclose details about their lives and informal and formal businesses. This will improve theory and practical recommendations for improving business growth and income for other enclave groups that tend not to participate in studies.

It is important to emphasize that the social group revealed here as characterized with a unique, yet limited, social network model, is also a group of women that deals not only with a religious approach to gender issues, but also, the general public attitude toward gender. This makes it more difficult to cope with business challenges, access to resources and breaking out. Changing policy to promote women in general and UO women specifically may help them attain equal opportunities for business, family and personal growth.

The practical contribution of this study comes from the ability to identify a missing component for the support and development of micro-businesses in the UO group. The

ability to assist this group and other distinct groups can help lift the women's families from poverty and help spur economic growth for the community as a whole. The cultural implication of running a business and the context in which it exists is fundamental and cannot be ignored when developing policies and programs to promote self-employment of women. Therefore, promotion of business development can be done in the following ways: on the one hand, developing alternative systems that can provide entrepreneurs with the missing resources they need and, on the other, encouraging the development of the social networks and connections to outside networks, for example through networking groups, trade fairs or UO business consultants and advisors who should serve as bridges to other social networks.

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References

- Aldrich, HE and R Waldinger (1990). Ethnicity and entrepreneurship. *Annual Review of Sociology*, 16, 111–35.
- Aldrich, HE and PH Kim (2007). Small worlds, infinite possibilities? How social networks affect entrepreneurial team formation and search. *Strategic Entrepreneurship Journal*, 1(1–2), 147–65.
- Banerjee, MM (1998). Micro-enterprise development: A response to poverty. *Journal of Community Practice*, 5(1 and 2), 63–83.
- Ben-Ami (ed.) (2013). Haredi livelihood challenges: Concerned about the future. A working group at the Van Leer Institute in Jerusalem. In: *Papers on economics and society in Israel*, Jerusalem: Van Leer Institute. (Hebrew).
- Barker, RL (2003). *The Social Work Dictionary*. Washington, DC: NASW Press.
- Blau, PM (1977). *Inequality and Heterogeneity: A Primitive Theory of Social Structure*. New York: Free Press.
- Brandman, N (2010). The life journey of Haredi Women: A phenomenological study. Unpublished Master's thesis, Bar-Ilan University, Ramat-Gan. (Hebrew).
- Burt, RS (2003). The social structure of competition. In *Networks in the Knowledge Economy*, C Rob, P Andrew and S Lisa (eds.) 13–57. USA: Oxford University Press.
- Cahaner, L, N Yozgof-Orbach and A Sofer (2012). *The Haredin in Israel, Space, Society and Community*. Haifa: The Haikin Kathedra for GeoStrategy Studies. (Hebrew).
- Central Bureau of Statistics. *Population Characteristics of Ultra Orthodox-Selected Years 2003–2008*. [www.cbs.gov.il].
- Christakis, NA and JH Fowler (2009). *Connected: The Surprising Power of our Social Networks and How They Shape Our Lives*. New York: Little, Brown and Company, 368.
- Cross, DJ (2003). A social network perspective on human resources management. In *Networks in the Knowledge Economy*, C Rob, P Andrew and S Lisa (eds.), 283–324. USA: Oxford University Press.
- Dahan, N (2007). Volunteering among Haredim, *National Council for Volunteering in Israel*, 11. (Hebrew).

- Davidsson, P and B Honig (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301–31.
- De Carolis, DM and P Saporito (2006). Social capital, cognition and entrepreneurial opportunities: A theoretical framework. *Entrepreneurship Theory and Practice*, 30(1), 41–56.
- Dulworth, M and M Dulworth (2008). *The Connect Effect: Building Strong Personal, Professional, and Virtual Networks*. San Francisco, CA: Location: Berrett-Koehler Publishers, Inc.
- Edgecomb, E, J Klein and P Clark (1996). *The Practice of Microenterprise in the U. S.: Strategies, Costs, and Effectiveness*. Arlington: The Aspen Institute.
- Endbald, M, N Bekly, D Gutlib and A Heller (2014). *Poverty Dimensions and Social Gaps. Poverty Report 2013*. National Insurance of Israel: Administration of Research and Planning. (Hebrew).
- Fadahnsi, A, D Smallbone and S Supri (2000). Networking and ethnic minority enterprise development: Insights from a North London study. *Journal of Small Business and Enterprise Development*, 7(3), 228–40.
- Feldman, M, M Shmeltzer, R Shayek, M Pasternac, Y Kalushka Asinin, D Yona Amedi and O Gallo (2014). *Economic Characteristics of the Ultra-Orthodox Jewish Population in Israel 1998–2010*. Working paper series, 84. Central Bureau of Statistics.
- Freeman, L (1979). Centrality in social networks. Conceptual clarifications. *Social Networks*, 1, 215–39.
- Friedman, M (1991). *The Haredi Society: Sources, Trends and Processes*. Jerusalem: The Jerusalem Institute for Israel Studies. (Hebrew).
- Goldstein, T (2008). *New Patterns of Ultra-Orthodox Entrepreneurship in Jerusalem*. PhD dissertation. Jerusalem: The Hebrew University of Jerusalem. (Hebrew).
- Gotsis, G and Z Kortezi (2009). The impact of Greek Orthodoxy on entrepreneurship: A theoretical framework. *Journal of Enterprising Communities: People and Places in the Global Economy*, 3(2), 152–75.
- Granovetter, MS. (1973). The strength of weak ties. *The American Journal of Sociology*, 78(6), 1360–80.
- Greve, A and JW Salaff (2003). Social networks and entrepreneurship. *Entrepreneurship Theory and Practice*, 28(1), 1–22.
- Grylak, M (2002) *The Haredim*. Jerusalem: Keter Publishing House. (Hebrew).
- Hanani, H (2008). *Housing and Residential Culture Among Ashkenazi Haredi Society in Israel*. PhD. Dissertation. Israel, Haifa: Location: Haifa University.
- Henttonen, K (2010). Exploring social networks on the team level — A review of the empirical literature. *Journal of Engineering and Technology Management*, 27(1), 74–109.
- Honig, B (1998). What determines success? Examining the human, financial and social capital of Jamaican micro-entrepreneurs. *Journal of Business Venturing*, 13(5), 371–94.
- Hughes, KD (2003). Pushed or pulled? Women’s entry into self-employment and small business ownership. *Gender, Work and Organization*, 10(4), 433–54.
- Kaufmann, D and D Schwartz (2009). Networking strategies of young biotechnology firms in Israel. *The Annals of Regional Science*, 43(3), 599–613.
- Kelly, K and R Kawakami (2008). *Microenterprise Study*. Arlington, VA: Association for Enterprise Opportunity.
- Kim, SM and M Sherraden (2014). The impact of gender and social networks on microenterprise business performance. *Journal of Sociology and Social Welfare*, 41(3), 49–69.
- Klyver, K, K Hindle and D Meyer (2008). Influence of social network structure on entrepreneurship participation — A study of 20 national cultures. *International Entrepreneurship and Management Journal*, 4(3), 331–47.
- Levine, H (2009). *The Haredi Sector in Israel: Empowerment through Employment*. Jerusalem: The National Council of Economics at the Prime Minister Office, Israel. (Hebrew).

- Licht, AN (2010). Entrepreneurial motivations, culture, and the law. *Entrepreneurship and Culture*, 28(4), 11.
- Liebeskind, JP, AL Oliver, L Zucker and M Brewer (1996). Social networks, learning and flexibility: Sourcing scientific knowledge in new biotechnology firms. *Organization Science*, 7(4), 428–43.
- Manolova, TS, NM Carter, IM Manev and BS Gyoshev (2007). The differential effect of men and women entrepreneurs' human capital and networking on growth expectancies in Bulgaria. *Entrepreneurship Theory and Practice*, 31(3), 407–26.
- Neriya-Ben Shahar, R and A Lev-On (2011). Gender, religion and new media: Attitudes and behaviors related to the internet among Ultra-Orthodox women employed in computerized environment. *International Journal of Communication* 5, 875–95. (Hebrew).
- Oliver, AL (2009). *Networks for Learning and Knowledge Creation in Biotechnology*. Cambridge, MA: Cambridge University Press.
- Pescosolido, BA and BA Rubin (2000). The web of group affiliations revisited: Social life, post-modernism and sociology. *American Sociological Review*, 65(1), 52–76.
- Piperopoulos, P (2010). Ethnic minority businesses and immigrant entrepreneurship in Greece. *Journal of Small Business and Enterprise Development*, 17(1), 139–58.
- Renzulli, LA, H Aldrich and J Moody (2000). Family matters: Gender, networks and entrepreneurial outcomes. *Social Forces*, 79(2), 523–46.
- Reynolds, P, W Bygrave and E Autio (2003). *GEM Executive Global Report*. Babson College and London Business School.
- Roessingh, C and A Schoonderwoerd (2005). Traditional farmers or modern businessmen? Religious differentiation and entrepreneurship in a Kleine Gemeinde Mennonite community in Belize. *Journal of Developmental Entrepreneurship*, 10(1), 65.
- Roessingh, C and K Smits (2010). Mennonite entrepreneurship in Belize. *Entrepreneurship and Religion*, 10.
- Schwartz, E (2008). *Promoting Ultra Orthodox Women's Employment*. Israel, Jerusalem: Location: Knesset Research and Information Center. (Hebrew).
- Semrau, T and A Werner (2014). How exactly do network relationships pay off? The effects of network size and relationship quality on access to start-up resources. *Entrepreneurship Theory and Practice*, 38(3), 501–25.
- Shapiro, A and L Sokol (1982). The social dimensions of entrepreneurship. *Encyclopedia of Entrepreneurship*, 72–90.
- Sivan, E and K Kaplan (2003). Introduction. In: *Israeli Haredim: Integration Without Assimilation?* Sivan I and K Kaplan (eds.), Tel-Aviv: The Van Leer Jerusalem Institute and Hakibbutz Hameuchad. (Hebrew).
- Smith, SM, JL Findeis, DB Kraybill and SM Nolt (1997). Nonagricultural micro-enterprise development among the Pennsylvania Amish: A new phenomenon. *Journal of Rural Studies*, 13(3), 237–51.
- Stadler, N (2003). The Haredi Concept of Work. In *Israeli Haredim: Integration Without Assimilation?* I Sivan and K Kaplan (eds.) Tel-Aviv: The Van Leer Jerusalem Institute and Hakibbutz Hameuchad. (Hebrew).
- Wang, CL and L Altinay (2012). Social embeddedness, entrepreneurial orientation and firm growth in ethnic minority small businesses in the UK. *International Small Business Journal*, 30(1), 3–23.
- Zicherman, H and L Cahaner (2012). *Modern Ultra-Orthodoxy: The Emergence of a Haredi Middle Class in Israel*. Jerusalem: The Israel Democracy Institute. (Hebrew).