The surprising lack of connection between social networks and the enterprise success of ultra-religious female micro-entrepreneurs

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Abstract

Purpose – The utilization of social networks is known to have an impact on micro-enterprise success. This study aims to examine the contribution of social networks in acquiring resources and their role in the enterprise’s success.

Design/methodology/approach – A business’s success is influenced by its network structure and the network’s resources. The authors examine whether unique religious-cultural characteristics affect the social networks contribution to a business’s success. This model examines the network utilization of women entrepreneurs who own micro-enterprises in ultra-religious groups. The sample consists of 123 surveys completed by Jewish ultra-Orthodox women entrepreneurs in Israel. Data collection was conducted between February and June 2013. The authors used a snowball sampling approach where interviewees were asked to refer us to other entrepreneurs. In the hour-long interview, a questionnaire was used with open and closed questions.

Findings – Findings indicate that strong personal ties provide a micro-enterprise with social legitimacy, emotional support and assistance in the management and operation of daily activities. However, contrary to the existing literature, network utilization did not contribute to enterprise success. That is, in religious communities in particular, social networks enable the existence of businesses, but do not contribute to their success.

Practical implications – The practical implications of this paper are the mapping of the social network resources used by the business owner, such as financial consultations or professional assistance, as well as distinguishing between strong and weak ties, which reflect the intensity of the contact for better use of the social network by the entrepreneurs.

Originality/value – This study examined social networks’ contribution to the acquisition of resources, as well as the part they play in the success of ultra-orthodox women micro-entrepreneurs and perhaps other religious and minorities groups.

Keywords Social networks, Entrepreneurship, Micro-enterprises, Ultra-Orthodox Jews, Ultra-Orthodox females, Ultra-religious/extremely religious

Paper type Research paper
Introduction

Micro-enterprises are important in the economic advancement of women. They serve as a means of escaping poverty and of raising income, particularly for religious and ultra-religious women, whether in developing countries or in enclaves within developed countries, where these women can become central providers for their families. The literature indicates that social networks have a positive influence on a micro-enterprise’s management and on its success (Brüderl and Preisendörfer, 1998; Perry-Smith and Mannucci, 2015). Networks can provide resources or accessibility to resources – both financial and non-financial, such as providing business support, information, funding, ongoing assistance or important contacts of people who might provide a competitive advantage. Different studies have examined the relationship between minorities, immigrants and ethnic groups, and their utilization of resources afforded by a network, as well as the impact of these resources on a business’s success (Brandman, 2010; Greve and Salaff, 2003; Yoo, 2014). Finally, a number of studies have examined the combined impact of the network’s structure – the different contacts and network resources that the social network has to offer – on a business’s success (Arregle et al., 2015; Kristiansen, 2004; Uddin and Bose, 2013). However, these studies did not include ultra-religious groups, specifically ultra-orthodox female entrepreneurs.

Ultra-religious groups tend to preserve a lifestyle and a set of values that sets them apart from the general population; in some cases, they even live in insulated communities (Alfasi et al., 2013). Within these communities, rich social and economic networks do exist, providing mutual assistance, closeness and trust between the members (Cnaan, 2010; Numrich and Wedam, 2015; Qadeer and Kumar, 2006).

This study examined the contribution of social networks to the acquisition of resources, as well as the part they play in the success of Jewish ultra-orthodox women micro-entrepreneurs (UOWME) in Israel. To that end, we mapped the social network resources used by the business owner, such as financial consultations or professional assistance. We also distinguished between strong and weak ties, reflecting the intensity of the contact between the business owner and her network. We did this to assess whether the level of a tie’s strength might explain the amount of use that is made of network resources, as well as the impact of these resources on the business’s success.

Literature review

The micro-enterprise

A micro-enterprise is a very small business comprising a business owner or owners and up to five employees (Banerjee, 1998; Edgecomb et al., 1996; Kelly and Kawakami, 2008). Programs that assist in the founding of micro-enterprises operate in many countries, promoting local economic development as well as enabling people to escape poverty, especially in ultra-religious groups, minority groups and disadvantaged groups (Gomez et al., 2015; Hendels, 2010; Kelly et al., 2013; Mukole, 2010; Sa’ar, 2007; Simmons, 2004; Yemini, 2009).

There are opposing views regarding the ability of female entrepreneurship, whether in businesses founded spontaneously or by women who were participating in programs to encourage starting a new business, to economically assist larger groups of female entrepreneurs (Makina and Maloloba, 2004; Norris, 2012; Sato et al., 2015; Strier, 2010). Based on cost-benefit analyses, some researchers doubt the feasibility of such programs, given the significant investments in training and mentoring that are required relative to alternative programs (Eversole, 2004; Karides, 2005; Sanders, 2002; Strier, 2010; Strier and Abdeen, 2009).
One explanation for the contradictory findings regarding the efficacy of such programs is regional differences. Different regions vary in local environmental, economic and cultural attributes that decisively affect the participants’ ability to benefit from these programs or from independently starting businesses (Schreiner, 1999; Strier, 2010). This explanation assumes that female entrepreneurs of different backgrounds have different chances of business success and different ways of running businesses that have yet to be discovered. Thus, the micro-enterprises’ rate of success and ability to raise entrepreneurs’ incomes should be examined individually, per community or region.

Social networks
As noted, one of the main factors affecting business success is the entrepreneur’s social network (Kim and Sherraden, 2014; Klyver et al., 2008; Manolova et al., 2007; Piperopoulos, 2010). Social networks are a collection of individuals or groups based on trust and are tied to one another with a common connector (Barker, 2003). With regard to micro-enterprises, we can consider the social network as the tie between the business owner and others that uses resources needed for the business (Greve and Salaff, 2003; Henttonen, 2010). These resources can be defined and categorized as follows:

Emotional resources. Emotional support in the context of running a business, usually provided by a spouse, parents or children, which includes legitimizing the founding of the business in the first place (Malach-Pines and Schwartz, 2008; Sa’ar, 2007; Shabbir and Gregorio, 1996). In ultra-religious groups such social legitimacy is crucial, as starting a business is may be seen as a deviation of the woman’s traditional role (Nwankwo and Gbadamosi, 2013), for example micro-enterprises in the context of the Amish community (Smith et al., 1997). Culture and religion can affect the legitimacy of entrepreneurship, and at times view it negatively, for instance in terms of being unnatural and unholy, or alternately as a means of giving charity or leading the community, thus affecting the chances of a woman becoming an entrepreneur (Dana, 2009; Kurtulmus and Warner, 2016).

Business-management resources. Information, advising, problem solving and ideas, as well as market resources such as introduction to business owners, accessibility and guarantees regarding suppliers and customers; provision of free or cheap professional services such as accounting, advocacy and cultural and/or social information (Aldrich and Zimmer, 1986; Anderson et al., 2005; Dana, 2009; Renzulli et al., 2000). Learning the trade itself is also a major resource, enabling not only the livelihood of the next generation but also a way to keep control of the trade within the closed network of a social minority (Dana, 2012; Dana and Dana, 2008).

Financial resources. Defined as access to financial institutions, funding and capital (Aldrich and Zimmer, 1986; Curran et al., 1993). In insulated groups, family members are often the chief providers of loans to micro-enterprise owners (Greve and Salaff, 2003), but for woman entrepreneurs, financial help often comes through the help of organizations or friends (Greene et al., 2015). Minorities can also be the providers of financial resources outside their communities, and not only inside them (Dana, 2009), based on the trust that is built on the basis of shared beliefs, history and culture (Dana, 2012).

Operating activities resources. Assistance is given in the actual operation of the business, such as help with distribution of goods, handing out flyers and product packaging. Spouses and children may work for the business – often without pay (Menzies et al., 2003). In a wider circle, co-religionists will also tend to rely on each other for labor (Dana, 2009).

Social networks act and develop in structures that differ according to the people and the society (Burt, 2009; Christakis and Fowler, 2009). In this study, network structure refers to the strength of ties – weak or strong. Granovetter’s (1973, 1993, 2005) strength of ties reflects
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 beneficial for emotional support, loans, routine assistance and help in times of crisis. Weak ties are generally held by a wider circle of friends and acquaintances and are useful for expanding social circles, obtaining informal information and providing business opportunities (De Carolis and Saparito, 2006; Granovetter, 1973). The strength of weak ties is in their ability to create a bridge over structural “holes” (Burt, 2009), for example when the only way to reach a person is through common acquaintances. Thus, those who have many weak links have exposure to a broader range of people, especially if they come from heterogeneous groups (Christakis and Fowler, 2009; Gomez et al., 2015). This exposure increases the odds of business success through utilization of resources that can lead to a competitive advantage (Aldrich and Kim, 2007; Aldrich and Waldinger, 1990; Davidsson and Honig, 2003).

Micro-enterprises generally rely on the local community to maintain business flow (Rouf, 2016). It was also found that the extent to which social support can be converted into personal welfare is influenced by individual, institutional and societal factors (Annink, 2016). Considering the socio-cultural effects on social networks as described above, it can be assumed that distinct ethnic, social and minority groups – such as religious groups – may have different ways of relying on social network structure and social network resources to maintain and enhance their business success. No research to date has examined these issues in relation to these groups.

**Business success**

This study examines the impact of network resources and network structure on the success of micro-enterprises owned by ultra-religious women. Measuring business success is an issue in and of itself, and has to do with questions such as who defines what success is, and what the quantitative parameters of success are and whether they can be measured (Banerjee, 2001; Brouder and Eriksson, 2013; FINCA, 2005; Raheim, 1996; Serdedakis et al., 2003; Simmons, 2004). Marom and Lussier (2014) defined small business success in Israel as surviving for over a year. Others referred to micro success in a more complex manner as including fiscal variables, such as sales growth, income and profit growth, employment and levels of women entrepreneurs’ satisfaction from the business. Other examples are sustaining customer associations, their personal relations and religious affiliations, as well as being capable of maintaining a work-life balance (Agholor et al., 2015; Omri and Bouraoui, 2015). In this study, we examine the success of the micro-enterprise aspect of business. We measured success by looking at the following variables: annual revenue, changes in the business’s sales rates, changes in the number of employees, subjective success as reported by the business owner, success in comparison with other businesses as reported by the owner, fluctuations in profit and overall household income. These variables are both quantitative and evaluative, thus providing an overall estimation of the business’s success.

**Social networks in religious groups**

Religious and ethnic belonging is one of the central factors that affect groups living in social enclaves (Marcuse, 2005; Qadeer and Kumar, 2006). When a person defines him/herself as religious, he or she is obligated to follow a set of rules that separates him or her from the general environment. Religious groups that are concerned with the influence of secularism and permissiveness close themselves off in social and spatial enclaves, to protect themselves from the environment and to enable them to maintain their lifestyle according to their
beliefs, for example strict gender separation (Donnermeyer and Anderson, 2014; Sivan and Kaplan, 2003). This general and gender separation, and the ensuing social closeness, could affect the way that women use their social network. Women who cannot directly approach men are most likely prevented from using the resources that men control. Additionally, women who live in social enclaves are less likely to reach the resources that are being held by people outside the enclave, and thus again are deprived of the resources that could help them run a business (Kozan and Akdeniz, 2014).

A number of studies have shown how religion can positively affect entrepreneurship and the creation of social ties (Abale et al., 2015; Dougherty et al., 2013; Kindler et al., 2015; Kozan and Akdeniz, 2014; Parboteeah et al., 2015; Salaff et al., 2003). Conversely, it was found that in social-religious enclaves, some weak ties can also significantly improve business prosperity and increase exposure to a vast variety of resources (Greene et al., 2015; Jenssen and Koenig, 2002; Lee, 2014; Salaff et al., 2003). Dana (2006) found that Jewish minorities who traditionally were livestock merchants in Alsace, used their advantage of knowing both French and German to be able to serve as middleman. Their weak ties helped them create business advantages and hold their positions. Nonetheless, the fact that they spoke Yiddish also helped them to communicate with each other, such as when they hosted each other on Saturday – their Sabbath, or when they were transferring livestock.

Cultural and social factors can influence the way religion affects entrepreneurship. In times when Jews were not allowed to be owners of land or when they lived in fear of being expelled, or as a result of immigration, they preferred having movable assets. It is due to circumstances such as these that they became entrepreneurs and self-employed merchants in various fields, such as working in the diamond industry or working with cattle, thus controlling specific arenas of trade (Dana, 2009, 2012; Dana and Dana, 2008, Pio, 2010).

Thus, it is not clear which specific resources are provided by strong ties or by weak ties, and what their respective effect is on business success in religious enclaves. In this research, we will focus on the Jewish ultra-orthodox community in Israel – an ultra-religious group that has unique characteristics that can influence the use of social networks for business utilization.

Socio-cultural characteristics of the Jewish ultra-orthodox community in Israel

The ultra-orthodox (UO) community is a religious group that is characterized by fervent observance of religious rules and by keeping a traditional way of life. Currently, the main centers of the Jewish UO community are in Israel, the USA and England. In Israel, its size is estimated to be about 10 per cent of the population (Feldman et al., 2014).

To maintain their religious framework and character, the UO intentionally live separate from the general community — in housing, education, communication (very little or no use of the internet and television), gender separation from age three and strict observance of rules pertaining to modesty (Buchbinder; et al., 2015; Cahaner et al., 2012; Cohen, 2005).

The UO community is often labeled a “Community of Learners”, meaning that men, instead of being gainfully employed, are expected to engage in religious studies, often to the extent of living in poverty. The outcome of this is that the women – who are solely in charge of the household and raising the children (6.9 children on average per family) – are also responsible for the family income (Feldman et al., 2014; Sivan and Kaplan, 2003). This exposes them to continuous tension regarding the house/work conflict, as well as tension between working in the sheltered environment of the enclave versus a job outside of the community (Layosh, 2014). Due to the deep poverty of the community, alongside voices that are calling for greater social openness, recently more men want to earn a decent living and are starting to work (Cahaner et al., 2012).
Coping with the tensions mentioned above, many women choose to work from home to provide a supplementary or main income. Self-employment enables these women to stay within their social-religious boundaries, and thus has become popular in recent years. Nevertheless, the value perception that still exists is that this work is only a means to enable the husband to refrain from employment so that he may study full time, rather than a means to become rich or fulfill a woman’s professional aspirations (Buchbinder et al., 2015).

Only a handful of studies have been conducted on the economic behavior of the UO in general, or on UO women in particular (Brandman, 2010; Martziano and Kaufman, 2012; Monnickendam-Givon et al., 2016; Neriya-Ben Shahar and Lev-On, 2011). Filling this gap will help in gaining a better understanding of this situation and in creating programs that will strengthen the odds of business success for women in ultra-religious communities.

Research model
According to the study’s model, a business’s success is influenced by its network structure and the network resources. Kim and Sherraden (2014) suggest that both the network structure and the network resources be examined to determine whether unique gender characteristics affect a social network’s conduct. We adopt a similar model, but examine whether unique religious-cultural characteristics affect the social networks’ contribution to a business’s success. This model examines the network utilization of women who own micro-enterprises in ultra-religious groups. These women also manage the business and are its initiator – the entrepreneur.

The network structure variable refers to types of ties – weak and strong and is based on research done by Aldrich and Kim (2007), Burt (2009), Granovetter (2005) and others. The network resources variable refers to four main types of network resources, based on the research done by various authors, such as Bagwell (2008) and Greve and Salaff (2003): emotional resources for running a business, management resources, financial resources and operating activities resources – all provided by the social network. In testing for item reliability, some of the resources were further divided into sub-resources, as discussed in the Methods section. A network’s success was assessed based on objective and evaluative measures, e.g. the business owner’s perceived success.

The main research question in our study pertains to the contribution of the network’s structure to the acquisition of resources, and the combined contribution of network structure and network resources to the success of small businesses owned by UO women in Israel.

Research hypotheses
As mentioned in the literature review, past studies have shown how, in unique social groups such as immigrant and religious groups, a network’s structure influences the network’s resources and business successes. Nevertheless, these studies are not clear about which resources are provided through strong ties and which through weak ties, and which of the resources and ties are important for business success. Answering these questions will help duplicate the successes of existing religious women entrepreneurs and improve the economic sustainability of religious women elsewhere, as well as promote a better understanding of the mechanisms of social network utilization for businesses growth in religious and other distinct groups.

Due to the fact that the UO community in Israel is mainly poor and poorly educated, it can be assumed that the strong ties of the network will be less likely to provide financial and management resources. Entrepreneurs who have weak ties would be more likely to use their ties for receiving these resources. Conversely, enclaved groups, which are known for their
cohesion and community support, are more likely to have strong ties that will provide emotional support and operating activities resources. Our three hypotheses are as follows (Figure 1):

H1. Business owners will less often use financial network resources and business management resources, in contrast with a higher utilization of operating activities’ resources and emotional support resources, in running their businesses.

H2. Business owners with strong ties will use their emotional support and operating activities’ resources more than business owners with weak ties, and business owners with weak ties will use business management and financial resources more than business owners with strong ties.

H3. As shown in the literature, the combined effect of network structures and network resources on the businesses’ success will be positive for UO women entrepreneurs.

Methodology
This research focuses on UOWME in Israel. The sample consists of 123 UO (Table I) entrepreneurs, based on their own self-identification as is customary in other research (Feldman et al., 2014).

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<table>
<thead>
<tr>
<th>Indicators</th>
<th>Range/frequency</th>
<th>(%)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>22-70</td>
<td>40</td>
<td>10.85</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>103</td>
<td>93.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>6</td>
<td>5.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced or separated</td>
<td>2</td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>0-14</td>
<td>4.85</td>
<td>10.85</td>
<td></td>
</tr>
<tr>
<td>College education</td>
<td>22.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal professional-training</td>
<td>36.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 years or less</td>
<td>40.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income after opening the business</td>
<td>488 NIS - 21,000 NIS</td>
<td>9,822.95 NIS ~ 2654.85 $</td>
<td>4,206.63</td>
<td></td>
</tr>
<tr>
<td>Turnover</td>
<td>1,000 NIS - 936,000 NIS</td>
<td>87,306.06 NIS ~ 23,596.23 $</td>
<td>107,264.95</td>
<td></td>
</tr>
<tr>
<td>Annual profit</td>
<td>0 NIS - 400,000 NIS</td>
<td>56,887.52 NIS ~ $15,375</td>
<td>49,991.51</td>
<td></td>
</tr>
</tbody>
</table>

Table I. Characteristics of interviewees
Data collection was conducted between February and June 2013. Given that the OU community refrains from participation in research in general, and more so in financial research, we used a snowball sampling approach where interviewees were asked to refer us to other entrepreneurs. This is the first sample of its kind composed of UOWME. We chose the snowball method because many businesses are not registered with any government authority, and thus “do not exist”. The first interviewees were found through organizations that help OUWME and were willing to vouch for the researchers’ credibility. We used more than 70 contact people to overcome the basic lack of trust and closeness. In the hour-long interview conducted only by women, to meet with the religious requirements of UO women, we used a questionnaire with open and closed questions. A pilot study of ten interviews was conducted to ensure proper wording and divergence. Using the same contact people as stated above, we asked the interviewers and interviewees to state when a question was not clear or to explain its meaning. Then we made initial descriptive and frequencies’ tests to ensure the variables’ divergence.

Variables

Network resources. The network resources variables mediate between the independent variable – network structure, and the dependent variable – business success. The four types of network resources (Greve and Salaff, 2003; Menzies et al., 2003) are emotional resources, business management resources, financial resources and operating activities resources. For each type of resource various forms of help were defined, such as assistance with funding or assistance with financial consultation. To design a variable that reflects not only the resource utilization of the network but also the level of closeness of the tie that provided the resource, the interviewee was asked to rate how much help she used from her network members (on a scale of 0 [no help at all] – 7 [the most help]). This was done for each of the 18 forms of help presented in regards to three levels of closeness: low (1), medium (2) and high (3).

To achieve more robust variables, we grouped the sub-variables of different closeness levels for each resource by using a factor analysis, which accounted for 82 per cent of the variance. The eight sub-variables are:

1. social legitimacy resource;
2. emotional support for running a business resource from closeness Level 1;
3. emotional support for running a business resource from closeness Levels 2 and 3;
4. business management resource (from all three closeness levels);
5. financial management resources (from all three closeness levels);
6. operating activities (from all three closeness levels);
7. professional assistance resources from closeness Level 1; and
8. professional assistance resources from closeness Levels 2 and 3.

Network structure. Network structure is characterized by the number of strong and weak ties of the social network in the entrepreneur’s business context. Strong ties are defined as close connections to the entrepreneur, and are determined by the entrepreneur’s strong connection to the others in her network, such as close family members. Weak ties are defined as weak links to the entrepreneur and are determined by a weak connection between the entrepreneur and others in her network, such as friends from work or extended family. In the questionnaire, the interviewee rated her closeness to her ties – the people that actually help her with the business – on a scale of 1 (furthest) – 7 (closest). A score for the connection strength was given for each, also on a scale of 1-7. A score of 1-4 was considered to be a weak
tie, and 5-7 was considered to be a strong tie. The sum of the strong and weak ties was named “network size” (Burt, 2009; Klyver et al., 2008).

Business success. Business success was measured by the interviewees’ responses to questions of annual turnover and profit, and whether the business’s number of customers or the number of its employees grew. They were also asked to rate 1 (low) to 5 (high) how successful the business is in their opinion and in comparison with other businesses. Next, they reported household incomes before and after they started their businesses. Background and socioeconomic characteristics of the participants are presented in Table I.

Findings
First, we examined whether the social network assists in the acquisition of the operating activities resource and the emotional support resource more than in the acquisition of the financial management resource and the business management resource. We conducted a $t$-test which showed that the average utilization level of the operating activities resource ($M = 4.45$) and of the emotional support resource from closeness level 1 ($M = 5.22$) was significantly higher ($p < 0.00$) than the average utilization level of the financial management resource ($M = 4.03$) and the business management resource ($M = 4.38$) (Table II). $H1$ was thus supported. Operating activities and emotional support from closeness level 1 were found to be used more than financial management and business management resources.

The findings further show that the average utilization rate of the social network for acquisition of the social legitimacy resource, which as previously stated is part of the emotional support resource ($M = 5.33$), as well as of emotional support for running a business from closeness Level 1 ($M = 5.22$), were the highest of all resources. In contrast, the average utilization rate of the emotional support resource for running a business from closeness Levels 2 and 3 ($M = 3.25$) and the professional support resource from closeness Levels 2 and 3, which as previously stated is part of the business management resource ($M = 2.78$), were the lowest of all resources.

We examined how the independent variable network structure relates to the dependent variable network resource and how it predicts business success, i.e. how the strong and weak ties of the social network contribute to the acquisition of various resources which may assist the entrepreneur in the running of her business. We first examined correlations between the variables. Due to the inclusion of many variables and the relatively small sample, we choose a conservative approach. A two-tailed test was chosen, parallel to a decision criterion $\alpha = 0.025$ in a one-tailed test. Correlations were found between the variables’ weak ties ($M = 0.60$, $SD = 0.94$, Mid = 0) and strong ties ($M = 2.18$, $SD = 1.58$, Mid = 2.20), and the variables of network resources. Therefore, we performed linear regressions to test the network structure as a predictor for network resources.
The results showed a partial predictability of network resource utilization by use of the network structure. The network structure variables significantly explained 10 per cent of the variance of the network resource business management ($R^2 = 10\%$, $p = 0.02$), with the number of strong ties ($\beta = 0.277$, $p = 0.04$) found to be significant. That is, a number of strong ties contribute to utilization of the business management resource. Also partially predictable is the utilization of operating activities. Network structure variables significantly predicted 11 per cent of the variance of the network resource operating activities ($R^2 = 11\%$, $p = 0.02$), with no specific significance of any particular variable. It was also found that network structure variables significantly predicted 9 per cent of the variance of the network resource social legitimacy ($R^2 = 8.8\%$, $p = 0.01$), with the number of strong ties found to be significant ($p < 0.00$, $\beta = 0.427$). This is a low percentage of explained variance, but it indicates the trend of the effect that strong and weak ties have on the utilization rate of the network resource (Table III).

In sum, contrary to the research hypothesis ($H1$), the number of strong ties was not found to predict emotional support for running a business from closeness Level 1, or from closeness Levels 2 or 3. However, a trend of predictability was found for the relations between weak and strong ties and the resources business management, operating activities and social legitimacy.

This analysis does not take into account the scope of each business owner’s network as a variable affecting the network’s structure and its utilization of the network resources. For this reason, the sum of ties was calculated for each business owner, yielding the variable network size and comprising the number of weak ties and the number of strong ties (M = 2.86, SD = 1.90) (Mid = 3.01). The variable network size might account for some of the variance of the utilization rate for network resources. It is likely that a business owner with more ties would use her network resources more often than one who has fewer ties, who would use her resources less often. A division of the variable network resources by the number of ties in each network might reflect the role of network size in explaining the variance of these variables. A “network resources relative to network size” (termed “relative resources”) item was calculated for each interviewee by dividing the rates of utilization for each network resource by network sizes.

The results indicate that network structure is a predictor for the following relative resources, namely, social legitimacy, business management and operating activities, with a higher percentage of variance explained than previously noted, and the resource emotional support for running a business from closeness Level 1, which was not previously noted. It should be mentioned that as we are examining the predictability of network resources relative to the network’s size, the direction of B (negative or positive) is irrelevant, as we are reducing the rate of resource utilization, i.e. results of the regression, which indicate the existence of relations rather than direction.

Predicting the network resources relative to the network’s size (Table III) indicates that for the relative resource social legitimacy ($\beta = -0.304$), the network structure variables significantly accounted for 16 per cent of the variance, with the number of strong ties ($\beta = -0.304$) found to be significant. For the relative resource emotional support for running a business from closeness level 1, the network structure variables significantly accounted for 22 per cent of the variance ($\beta = -0.459$) found to be significant. It should be noted that the first regression showed no significant relations. For the relative resource business management, the network structure resources significantly accounted for 24 per cent of the variance ($\beta = -0.471$) found to be significant. For the relative resource operating activities, the network structure...
<table>
<thead>
<tr>
<th>Network structure</th>
<th>Emotional support closeness 2,3</th>
<th>Emotional support closeness 1</th>
<th>Social legitimacy</th>
<th>Operating activities</th>
<th>Professional assistance closeness 2,3</th>
<th>Professional assistance closeness 1</th>
<th>Financial management</th>
<th>Business management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.527</td>
<td>3.262</td>
<td>0.336</td>
<td>-0.769</td>
<td>0.574</td>
<td>0.862</td>
<td>2.1</td>
<td>4.606</td>
</tr>
<tr>
<td>Weak ties</td>
<td>0.01</td>
<td>-0.376</td>
<td>-0.075</td>
<td>0.04</td>
<td>0.009</td>
<td>-0.011</td>
<td>-0.148</td>
<td>-0.471*</td>
</tr>
<tr>
<td>Strong ties</td>
<td>-0.037</td>
<td>-0.459**</td>
<td>-0.304**</td>
<td>-0.341</td>
<td>-0.008</td>
<td>-0.025</td>
<td>-0.179</td>
<td>-0.392**</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.012</td>
<td>0.22**</td>
<td>0.159**</td>
<td>0.23**</td>
<td>0.033</td>
<td>0.015</td>
<td>0.056</td>
<td>0.24**</td>
</tr>
<tr>
<td>Adj $R^2$</td>
<td>-0.027</td>
<td>0.190**</td>
<td>0.126**</td>
<td>0.20**</td>
<td>-0.004</td>
<td>-0.023</td>
<td>0.02</td>
<td>0.210**</td>
</tr>
</tbody>
</table>

Notes: *p < 0.05; **p < 0.01
resources significantly accounted for 23 per cent of the variance ($p < 0.0, R^2 = 23$ per cent), with the number of strong ties ($p < 0.00, \beta = -0.341$) and average tie intensity ($p = 0.01, \beta = 0.520$) found to be significant.

In sum, $H2$ surmising that ultra-orthodox business owners with “strong” ties will use the resources emotional support for running a business and operating activities, and that ultra-orthodox business owners with “weak” ties will use the resource business management, was almost entirely supported. It was found that the relative independent variables explained the relative dependent variables.

$H3$ pertained to the combined effect of network structure and network resources on a business’s success. We first examined the different indicators for a business’s success (Table IV), and then their relation to other variables. The participants estimated the average annual profit of their business as 50,000 NIS (New Israeli Shekel) (SD = 33,029), which breaks down to 4,235.75 NIS per month. They further reported a substantial average change in income levels, success relative to other businesses and a 26.87 per cent change in the household’s income since the establishment of their business, which translates to 2,105 NIS per month.

Second, to test the predictability of a business’s success by the network structure and the network resources, we performed a series of regressions. All regressions showed no predictive relations between the variables. First, we performed a separate regression for each indicator of success, starting with the network structure and then with the network resources. Second, we performed a series of regressions for each indicator of success, in which we examined the interaction between the number of strong ties and each network resource separately, and between the number of weak ties and each network resource separately, as predictors for indicators of success. Third, since the use of the normalized variable of network resources (network resources relative to network size) exposed relations that were not previously identified, we surmised that calculating the variable normalized network resource relative to the network size could expose how these variables affect indicators of success. We started by examining the combined effect (in steps) of network structure and resources on indicators of success, and then went on to examine the interaction between network structure and network resources as described previously. In sum, $H3$ was not supported. The independent variables network resources and network structure were not found to significantly predict business success.

Discussion
Studies show that social networks enable the utilization of resources promoting the growth and development of an enterprise (Brüderl and Preisendörfer, 1998; Perry-Smith and Mannucci, 2015). It is not yet clear how generalizable these studies are. The present research

<table>
<thead>
<tr>
<th>Business success</th>
<th>No. of interviewees</th>
<th>SD</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual turnover (NIS)</td>
<td>76</td>
<td>131,115</td>
<td>89,815</td>
</tr>
<tr>
<td>Annual profit (NIS)</td>
<td>78</td>
<td>33,029</td>
<td>50,829</td>
</tr>
<tr>
<td>Business growth (0-1)</td>
<td>118</td>
<td>0.50</td>
<td>0.47</td>
</tr>
<tr>
<td>Employee growth (0-1)</td>
<td>113</td>
<td>0.46</td>
<td>0.04</td>
</tr>
<tr>
<td>Own opinion success (1-5)</td>
<td>118</td>
<td>0.89</td>
<td>2.23</td>
</tr>
<tr>
<td>Compared to others (1-5)</td>
<td>117</td>
<td>0.98</td>
<td>3.17</td>
</tr>
<tr>
<td>Income change (1-7)</td>
<td>107</td>
<td>2.06</td>
<td>6.61</td>
</tr>
<tr>
<td>Household income</td>
<td>94</td>
<td>4,206</td>
<td>9,825</td>
</tr>
<tr>
<td>% change in household income</td>
<td>76</td>
<td></td>
<td>26.87%</td>
</tr>
</tbody>
</table>

Table IV. Business success average among ultra-orthodox Jewish women

JEC 12,3
examines how the network structure and network resources affect the success of a micro-enterprise in ultra-religious groups, and in this case, ultra-orthodox Jewish women in Israel.

An analysis of the study’s findings demonstrates three main points. The first pertains to how network resources are used in relation to the network’s structure. The second pertains to the relation of network structure and network resources to the success of an enterprise, and the third pertains to theoretical assumptions and models.

First, we will discuss the findings that relate to how network resources are used. In this study, we hypothesized that network resources characterized as being provided by close social circles, such as day-to-day operating activities, would be more commonly used by ultra-orthodox women entrepreneurs than resources characterized as being provided by more distant social circles, such as financial management. We also hypothesized that the utilization of these resources would be accounted for by the presence of strong or weak ties. In accordance with the research hypothesis and other theories (Anderson et al., 2005; Greve and Salaff, 2003; Menzies et al., 2003; Nelson et al., 2014), we found that ultra-orthodox women entrepreneurs use the resource social legitimacy and the resource emotional support for running a enterprise from closeness Level 1, as well as resource management and the resource operating activities to a high extent, and that most of the entrepreneurs also used these resources. In addition, we found a tight connection between these resources and the presence of strong ties in the entrepreneur’s social network.

These findings seem to reflect the closed-off socio-cultural nature of ultra-orthodox women. These business owners turned to their close ties for assistance with matters concerning the immediate management of their businesses. This support and social legitimacy also gives them the emotional foundation for starting a business (Renzulli et al., 2000). Emotional support for running a business, as well as having social legitimacy, allow the business owners to handle uncertainty, to feel less isolated, to process experiences pertaining to the management of their business and to be reassured that they are doing the right thing, despite the sacrifice and hardship (Nwankwo and Gbadamosi, 2013; Sa’ar, 2007). It also allows them to be reassured that their religion enables them to make a living through entrepreneurship (Dana, 2009). Operating activities and business management enable the actual management of the business. These resources are provided by the close social circle within the socio-religious enclave, and depend on how well the business owner manages to develop the social network within her community. It is feasible that the spouse’s greater accessibility, due to his studying rather than working, as well as the large number of children and siblings in each family (Hanani, 2008; The Van Leer Jerusalem Institute, 2013), allow for significant day-to-day support and assistance from the family. It is also possible that as the assistance needed for the day-to-day operation of the business is relatively uncomplicated, the enterprise owner feels comfortable in requesting it. However, as this assistance is instrumental, and she would have a very hard time running the business without it, she has no choice but to ask for it. This finding is important for understanding how the day-to-day operations of these businesses are managed. The family’s involvement in the business is neccessary for its existence and functioning and seems to contribute to its economic profitability. This finding is not unique to this group but certainly characterizes it and should be taken into account when designing programs to encourage entrepreneurship in women of ultra-religious groups in general and ultra-orthodox women in particular. The projected success of a business should be examined in light of whether it is likely that the business owner will be assisted by her family. It is also important to state that contrary to other closed communities, the UO – and especially women – do not have a legacy of professional trade or business knowledge that was transferred from mother to daughter.
This might also have strengthened the dependence on strong ties that are not based on the immediate family.

Similar to previous studies (Aldrich and Zimmer, 1986; Curran et al., 1993), we found that the network resources financial management, professional assistance from high and low closeness levels, and emotional support for running a business from low closeness levels, which are characterized by weak ties – such as the tie with a business consultant or professional, were indeed less frequent and less intense in the context of ultra-orthodox women entrepreneurs. However, contrary to previous theory (Arregle et al., 2015; Dana, 2006, 2009; Nelson et al., 2014), we found that the presence of these resources could not be explained by weak ties in the social network. This finding is surprising, as it indicates that ultra-orthodox women entrepreneurs use financial management and professional assistance resources, regardless of the structure of their social networks. It is possible that the insulated nature of the ultra-religious group is also reflected in the business context, as the business owner can only turn to her close circles, having limited access to resources outside her community. To explain this lack of help from weak ties and limited assistance from strong ties, it can be assumed that the existing social network is not efficient enough to facilitate the development of the micro-business into a full-fledged enterprise.

In Israel, ultra-orthodox Jewish women are characterized by a low level of education and by higher rates of employment as teachers than of any other profession (Levin, 2009). This might explain why the professional assistance resource is less used. It can also be surmised that an alternative unknown mechanism affects how business owners use these resources. This mechanism may pertain to the fact that many insulated communities established their own internal economic system, which works regardless of the business owner’s social ties.

Business management was found to be both commonly and highly used by ultra-Orthodox women entrepreneurs, but also to be accounted for mostly by the presence of strong ties. This is contrary to our hypothesis which was based on Granovetter’s theory on the “strength of weak ties” (1973, 2005). We hypothesized that business management would be provided by people who are not directly tied to the business owner and who have professional knowledge regarding the management of a business as well as information that would provide a competitive advantage in a variety of business contexts, like the Jewish middlemen who connected the trade between German and French speakers in Alsace before the Second World War (Aldrich and Kim, 2007; Aldrich and Waldinger, 1990; Dana, 2006; Dana and Dana, 2008). However, we found that this resource was extensively used, and that in fact it was accounted for mostly by the presence of strong ties. This might stem from the intra-community network’s ability to find ways around the limited access to resources that are usually provided by weak ties and might reflect the change ultra-religious groups have been going through in recent years where, despite their socio-cultural impermeability, these communities are becoming more open to education and to the professions (Cahaner et al., 2012; Sa’ar, 2007). Intra-communal elements may provide some form of solution for managerial challenges, both due to the long tradition of micro-enterprise management in this community and due to the recent exposure to new fields.

Another surprising point revealed by the data, also pertaining to unknown business mechanisms, relates to the second point of discussion – the business’s success. In this study, we hypothesized that as in any other society, including societies with ultra-religious groups (Roessingh and Schoonderwoerd, 2005; Roessingh and Smits, 2010; Uddin and Bose, 2013), utilization of the social network (through the network’s structure and the network’s resources) will lead to business success. However, we found no relation between these variables. This is contrary to theory (Norris, 2012; Wang and Altinay, 2012), and indicates
that we are dealing with a group that operates differently from any other with which we are familiar. Moreover, we found that ultra-orthodox women entrepreneurs significantly improved their incomes (by more than 25 per cent). It seems that this group has socio-religious characteristics affecting not only how its members use weak and strong ties, and which of these resources they choose to use, but it also exhibits the factors leading to business success. It seems that other mechanisms exist, of which we may be unaware, that affect a business’s success and do not include the social network. This shows that despite their success in raising their household income, Jewish ultra-orthodox women – who are similar to other ultra-religious groups – do not turn to their surroundings for assistance.

Our findings may have implications pertaining to the third point of discussion – theoretical assumptions and models. The lack of a relation of some of the network resources and the social network as a whole to business success indicate that the existing theoretical models are not compatible with ultra-orthodox women entrepreneurs, and probably not with other ultra-religious groups as well. The assumption that the social network contributes to a business’s success seems to be irrelevant in this community. This lack of a relationship may indicate that an attempt to generalize existing research theories and models to include unique communities is inappropriate, and even limits our research viewpoint. The effect of each variable should rather be examined in open models that do not pre-assume relationships. A similar case of irrelevance in research models can be found in the study of female medicine. Models that applied to men were found to be irrelevant for women (for additional reading, see Bray et al., 2013; Velders et al., 2013). The realization that existing models for men and women cannot be compared led to the development of gender-based medicine. In the research of social networks, it is already understood that women’s social networks should not be seen as weaker than those of men, but rather that they are different in form and function (Jayawarna et al., 2015; Kim and Sherraden, 2014). We would like to make a claim for this case as well – that social networks and businesses of ultra-religious groups in general, and Jewish ultra-orthodox women in particular, function differently from anything with which we are familiar. Studies should be based on the understanding that existing models do not seem to be compatible with these groups; therefore, alternative models should be developed to better explain how these businesses function and what contributes to their success.

**Conclusion**

This study revealed that social networks do not contribute to the success of ultra-orthodox Jewish female micro-entrepreneurs in Israel. An examination of the combined effects of network structure and network resources on a business’s success also revealed that the social network does not affect the business’s success. This new finding is surprising and contradicts previous studies. As it has been accepted that utilization of the social network will affect business success, even in groups with unique characteristics such as various ethnic and immigrant groups, this finding is even more striking. The businesses owned by ultra-orthodox women are succeeding, and they have managed to raise their income level by 25 per cent, making it more surprising that their social networks played no part in their success.

The conclusion reached by this study is that the business conduct of ultra-orthodox women is fundamentally different from that of general society. Theoretical models may need to be adapted to explain how the social network functions in such groups.

It also seems that in insulated ultra-religious groups, additional factors of which we are not aware may have an impact on business success. Due to this, it is important to continue studying how ultra-orthodox women manage their businesses, and what affects their
chances of success. Identifying contributing factors of business success would assist not only in empowering these groups but also in empowering other social groups. This study’s methodological contribution is that we singled out the resource professional assistance to stand on its own as a resource, and by doing so exposed the unique patterns of its utilization, or lack thereof, in the social network. The practical contribution of this study is the understanding that the social network, as it exists now, is not effective for ultra-orthodox women. Extending and improving the structure of the social networks of ultra-orthodox women entrepreneurs, so that they will include more weak ties to form a bridge with additional networks, might assist these women in gaining competitive advantages, and even contribute to business success. This might be facilitated through business development centers, which would facilitate access to business management funding and to development resources. Due to the insulated nature of the ultra-orthodox community, these resources should be provided from within. Advisors should be trained — preferably ultra-Orthodox women who are familiar with their community and who have previous experience with business. However, it is possible that identifying and empowering other factors contributing to business success, such as community solidarity, would actually be more beneficial.

In addition, it is important to teach the entrepreneur how to diagnose her own social network. One tool available for diversifying the social network and for using it more effectively could be to map the structure and components of the network along the lines that were used in this study. Many of the interviewees noted that they felt that the interview itself had contributed to their knowledge, in understanding not only the situation of their business but also the extent of their social network utilization. As women enterprise owners from ultra-religious groups who are working in restricted environments, such mapping is crucial for them, but it can be considered beneficial for any woman enterprise owner.

References


Hendels, S. (2010), Business Incubator for Women, National Insurance Institute of Israel, Jerusalem, Research and Planning Administration and the Department of Service Development.


Layosh, L. (2014), Women of the threshold: orthodox Women in Front of a Modern Change, Resling, Tel Aviv.


Yemini, M. (2009), “Women as a working periphery’ in Israel, analyzing the problem and suggestions to changing the status-quo, prompting entrepreneurship as a systematic solution”, *Position paper, SDEROT Conference, Sderot*.


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