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Résumé de l'article

En utilisant l'approche par les ressources étendues et l'approche réseau, cet article étudie l'impact des réseaux sociaux et d'affaires sur la performance des filiales étrangères. L'étude empirique est fondée sur un échantillon de 120 filiales établies par des entreprises multinationales en Italie. Nos résultats montrent que les réseaux sociaux ont un effet positif sur la performance des filiales à travers le rôle médiateur des réseaux d'affaires. Notre recherche remet en cause la littérature existante sur la relation réseaux-performance et souligne la nécessité d'accorder plus d'importance à la manière dont les filiales locales gèrent leurs réseaux.

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Sigamos conectados: el impacto de las redes sociales y de negocios en el desempeño de las filiales extranjeras

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ABSTRACT

Using the extended resource-based view and the network approach, this paper investigates the impact of social and business networks on the performance of foreign subsidiaries. The empirical study is based on a sample of 120 subsidiaries established by multinational enterprises in Italy. Our findings show that social networks have a positive effect on the performance of subsidiaries through the mediating role of business networks. Our research challenges extant literature on the network-performance relationship and highlights the necessity to provide more importance to the way local subsidiaries manage their networks.

Keywords: Multinational companies, foreign subsidiaries, social networks, business networks, performance

Résumé

En utilisant l'approche par les ressources étendues et l'approche réseau, cet article étudie l'impact des réseaux sociaux et d'affaires sur la performance des filiales étrangères. L'étude empirique est fondée sur un échantillon de 120 filiales établies par des entreprises multinationales en Italie. Nos résultats montrent que les réseaux sociaux ont un effet positif sur la performance des filiales à travers le rôle médiateur des réseaux d'affaires. Notre recherche remet en cause la littérature existante sur la relation réseaux-performance et souligne la nécessité d'accorder plus d'importance à la manière dont les filiales locales gèrent leurs réseaux.

Mots-Clés : Entreprises multinationales, filiales étrangères, réseaux sociaux, réseaux d'affaires, performance

Resumen

Utilizando el enfoque de recursos extendidos y el enfoque de red, este artículo estudia el impacto de las redes sociales y de negocios en el desempeño de las filiales extranjeras. El estudio empírico se basa en una muestra de 120 filiales establecidas por empresas multinacionales en Italia. Nuestros resultados muestran que las redes sociales inciden positivamente en el desempeño de las filiales a través del papel mediador de las redes de negocios. Nuestra investigación enriquece la literatura existente sobre la relación redes-desempeño y destaca la necesidad de poner más énfasis en cómo los afiliados locales administran sus redes.

Palabras Clave: Empresas multinacionales, subsidiarias en el extranjero, redes sociales, redes de negocios, rendimiento

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Over the past few decades, multinational enterprises (MNEs) have considerably increased their international market presence to seize growth opportunities in both mature and emerging economies (Milliot, Nivoix and Lemaire, 2017; UNCTAD, 2020). They often choose to establish foreign subsidiaries when markets become important for their international development (Amann, Jaussaud and Schaaper, 2017; Mayrhofer, 2011). Recent literature shows that networks have become a key success factor for internationalization (Forsgren, 2016; Vahlne and Bhatti, 2019; Vahlne and Johanson, 2017). Through local subsidiaries, MNEs can create relationships with a variety of actors. They can thus access resources that are embedded in relationships established by their subsidiaries. As suggested by the extended resource-based view (Dyer and Singh, 1998; Lavie, 2006; Popli, Ladkani and Gaur, 2017), critical resources of firms may extend beyond organizational boundaries and be embedded in inter-firm routines and processes, which can be a source of competitive advantage. The networks developed by local subsidiaries can therefore be of strategic importance for MNEs.

The different types of relationships established by subsidiaries in their host country environment can be classified into "social" and "calculative" networks (Huggins, 2010). The embeddedness in social networks captures the social outcomes of actions developed by foreign subsidiaries, which are based on the logic of sociability and socialization, i.e. the relationships that satisfy social expectations and generate shared value. The embeddedness in calculative (or business) networks concerns relationships established by subsidiaries with local organizations, i.e. buyers and suppliers, which are based on the logic of economic expectations. Researchers agree that well-connected companies achieve better performance (Baum, Cowan and Jonard, 2014; Hallin, Holm and Sharma, 2010; Mu, Gnyawali and Hatfield, 2007; Zhu, Su and Shou, 2017), but little is known about how different types of networks established by foreign subsidiaries influence corporate (subsidiary) performance. Taking an extended resource-based view perspective, this paper attempts to fill this gap. The objective of our research is to determine the impact of social and business networks developed by foreign subsidiaries on their performance, which is measured by sales turnover growth. This question is of particular interest, since foreign subsidiaries need to choose the appropriate type of networks to perform in their host country. The empirical study is based on a sample of 120 wholly-owned subsidiaries established by multinational enterprises in Italy, which is an attractive territory for foreign direct investments (UNCTAD, 2020). Moreover, the country appears to be particularly relevant for studying networks due to the central role played by individual relationships in the Italian business context (Davel, Dupuis and Chanlat, 2008).

Our study is the first one to analyze the impact of both business and social networks on foreign subsidiary performance. Our findings provide evidence of a complete mediation between social networks, business networks and subsidiary performance. Specifically, social networks have a positive effect on the performance of subsidiaries through the mediating role of business networks. Our research challenges extant literature that emphasizes the positive effect of networks on company performance and highlights the necessity to provide more importance to the way local subsidiaries manage their networks.

In the next section, we will develop the theoretical framework and the research hypotheses. We will then explain the research methodology before presenting the analysis and discussion of the obtained results.

The extended resource-based view, network relationships and the performance of subsidiaries

We will first focus on the extended resource-based view (RBV) and the network approach before developing the relationship between the types of networks established by local subsidiaries and their effects on performance.

The extended RBV and network relationships of foreign subsidiaries

The resource-based view explains how firms can combine their resources to develop a competitive advantage and to achieve superior performance (Wernerfelt, 1984). Four characteristics of resources are considered to be essential for gaining sustainable competitive advantage: value, rarity, imperfect imitability, and imperfect substitutability (Barney, 1991). The extended resource-based view considers that critical resources of firms may extend beyond organizational boundaries. Companies can make relation-specific investments and combine resources in unique ways, thus leading to idiosyncratic interfirm linkages. Critical resources may be embedded in network routines and processes, which can be a source of competitive advantage (Dyer and Singh, 1998; Lavie, 2006; Popli, Ladkani and Gaur, 2017). Firms can benefit from relational rents, i.e. profits that

are jointly generated in exchange relationships, when network partners *"combine, exchange, or invest in idiosyncratic assets, knowledge, and resources/capabilities, and/or they employ effective governance mechanisms that lower transaction costs or permit the realization of rents through the synergistic combination of assets, knowledge, or capabilities"* (Dyer and Singh, 1998: 662). Physical proximity between network partners can facilitate the combination of resources, assets, and skills as well as the coordination of relationships, thereby enhancing relational rents and performance (Dyer, 1996). Therefore, MNEs need to establish foreign subsidiaries, which can more easily develop networks with local actors than the corporate headquarters (Le Gall, 2011; Melin, 2014).

Networks can be defined as relationships between individuals and/or organizations with similar purposes who wish to establish a formal or informal collaboration to satisfy mutual interests (Angué, 2018; Paché and Paraponaris, 2006). The relationships developed by companies take a variety of forms and can be classified into two main types: (1) "social" networks and (2) "calculative" (or business) networks (Huggins, 2010).

Social networks are built on relationships and social interactions, based on the logic of sociability and socialization. They can be analyzed in terms of nodes (individual actors) and ties (relationships between actors). Social relationships are based on trust, mutual support and understanding, and shared commitment to satisfy their members' social expectations and generate shared value. These relationships appear to be stable over time and often correspond to informal connections (Granovetter, 1973, 1985). Local subsidiaries can thus establish relationships with other organizations in their host country environment without developing their business activities. Such connections may provide access to useful information for the MNE, but they often generate more social than economic value. Through these relationships, foreign subsidiaries can reduce discrimination that may result from the lack of legitimacy in the host environment (Kostova and Zaheer, 1999), helping them to solve social issues.

Conversely, "calculative" (or business) networks are oriented towards their members' economic expectations. They correspond to exchange relationships between companies doing business with each other, i.e. buyers and suppliers (Ford and Håkansson, 2013). They can be unstable, but provide their members with business opportunities that make their activities more profitable. Foreign subsidiaries develop business relationships with local actors in their host country environment, which can differ from the networks established by the corporate headquarters and other subsidiaries. They often need to acquire knowledge about key members of local networks and how they are connected with each other (Forsgren, 2016). Such knowledge reduces the uncertainty linked to the unfamiliarity of the foreign subsidiary with the host market (Mezias, 2002).

Social and "calculative" (business) networks present significant differences, since their underlying motivations respond to diverging expectations (Huggins, 2010). When members of foreign subsidiaries establish social networks, they tend to connect with a large variety of local stakeholders such as trade associations, labour unions and public institutions. In contrast, when foreign subsidiaries develop business networks, their network participation is more "calculative" and they target stakeholders for business purposes, namely buyers and suppliers. There exist boundaries between the two types of networks, even if certain social relationships may help companies to establish business relationships and vice versa (Valentino, Caroli and Mayrhofer, 2018).

Gulati (1998) proposes the concept of "network resources" to highlight the benefits provided by networks in allowing companies to leverage valuable information and resources possessed by their network partners. The concept contributes to a better understanding of the resources (or capital) generated by external networks. According to Gulati (1998), organizations can be interconnected through a wide range of social (interpersonal) and business (inter-organizational) relationships. Both types of relationships can represent important network resources for the company.

Johanson and Vahlne (2009) highlight the importance of local networks for the successful internationalization of companies. The authors argue that relationships created with actors in the host country environment facilitate the implementation of business activities in local markets. Networks provide access to information, enable companies to develop new sources of competitive advantage and to establish stronger and trust-based collaboration with stakeholders in the host location. They help foreign companies to mitigate the liabilities of foreignness and outsidership (Johanson and Vahlne, 2009; Meier and Meschi, 2010). The liability of foreignness refers to additional costs that foreign companies have to face relative to their local competitors. These costs are due to the lack

of foreign market knowledge, the economic, institutional and cultural differences between home and host countries as well as the coordination of geographically dispersed activities (Wu and Salomon, 2016; Zaheer, 1995). The liability of outsidership concerns the difficulties that foreign companies have in accessing local networks to develop their activities in host countries (Chen, 2017; Johanson and Vahlne, 2009). Vahlne and Johanson (2017) consider that the success of MNEs in foreign markets is strongly related to their capacity to belong to the major networks, to select their most influential and well-connected players, and to interact actively with them. They emphasize that being part of a network means sharing information, knowledge, resources and competencies with the other members in the long term.

Types of networks and the performance of foreign subsidiaries

Foreign subsidiaries develop social relationships with different actors and are thus likely to contribute to solving local issues in their host country environment. Social connections are developed at the individual level, and they allow for informational benefits and the identification of new opportunities (Ellis, 2011). In fact, belonging to such a local network can facilitate the access to resources, knowledge and information. Mutual interactions in such a network can encourage members to develop new competencies and to innovate. For example, Huggins and Thompson (2015) show that network capital, i.e. investments in relations to gain access to knowledge, can contribute to corporate growth at the local level. In the same way, building local networks can enhance entrepreneurial activities (Soetanto, Huang and Jack, 2018). In social networks, it is mainly the experience and knowledge of top managers that contribute to build new capabilities. By creating strong social relationships, foreign subsidiaries are able to reduce formal as well as informal discrimination related to the lack of legitimacy in the host location (Kostova and Zaheer, 1999). When interacting with local institutions such as trade associations, labour unions and universities, foreign subsidiaries can access valuable, knowledge and information to mitigate differences in rules and regulations and to minimize the risk of regulatory unpredictability or unfavourable policies (formal discrimination) (Demirbag and Glaister, 2010; Kostova and Zaheer, 1999). At the same time, privileged positions in social networks can increase the acceptance of foreign subsidiaries in the eyes of consumers and employees who usually prefer to deal with domestic firms (informal discrimination) (Zaheer and Mosakowski, 1997). Thus, the embeddedness in local social networks helps foreign subsidiaries to get accepted and legitimized in the host location. They can thus mitigate their liabilities of foreignness (Wu and Salomon, 2016; Zaheer, 1995) and outsidership (Johanson and Vahlne, 2009) that are likely to influence both *ex ante* strategic decisions and *ex post* performance. Social networks can be seen as a necessary condition for the performance of foreign subsidiaries, hence the following hypothesis:

Hypothesis 1: The embeddedness in local social networks is positively related to the performance of foreign subsidiaries.

At the same time, foreign subsidiaries cannot develop their activities in the host environment without establishing business (or calculative) relationships (Chiao and Ying, 2013). Such networks with local suppliers, distributors and customers are essential for developing a local competitive advantage and for achieving performance (Nell and Andersson, 2012; Santangelo, Dellestrand and Andersson, 2019). From the subsidiary's perspective, business connections are often maintained with a limited number of partners in their local environment. They are the result of a process where companies make relationship-specific investments and link their activities to each other (Ford and Håkansson, 2013). They cover arm's length relationships, but also close, interdependent relationships characterized by mutual adaptation and trust (Dyer and Singh, 1998). Such inter-organizational relationships tend to have a positive impact on the performance of foreign subsidiaries because they can facilitate the development and implementation of competitive advantages, and increase the benefits of locational advantages. Through business relationships, foreign subsidiaries can also reduce the uncertainty linked to the unfamiliarity with the host market. They can more easily collect information and gain knowledge about the local competitive market, for example about customers, competitors and host country-specific business practices (Li, Poppo and Zhou, 2008). Then, they can use their knowledge of market-related factors to improve their performance and to minimize additional costs linked to misunderstandings of local customer preferences and cultural norms (Mezias, 2002). There exists empirical evidence that a higher number of inter-organizational relationships increases the performance of subsidiaries (Gammelgaard, McDonald, Stephan, Tüselmann and Dörrenbacher, 2012). In their study on foreign subsidiaries of Swedish MNCs, Andersson, Forsgren and

Holm (2002) demonstrate that the relationships with customers and suppliers improve the performance of subsidiaries through their impact on technical embeddedness, i.e. the interdependencies between companies concerning their technological activities. Previous research also provides evidence on the relevance of business networks for innovative performance (Hallin, Holm and Sharma, 2011), learning and innovation potential (Mu, Gnyawali and Hatfield, 2007), and the survival of the subsidiary (Delios and Beamish, 2001). Privileged positions in business networks can facilitate the creation of dynamic capabilities and thus the development of new products, services and business practices (Pinho and Prange, 2016). We can thus hypothesize that business networks have a positive impact on the performance of foreign subsidiaries.

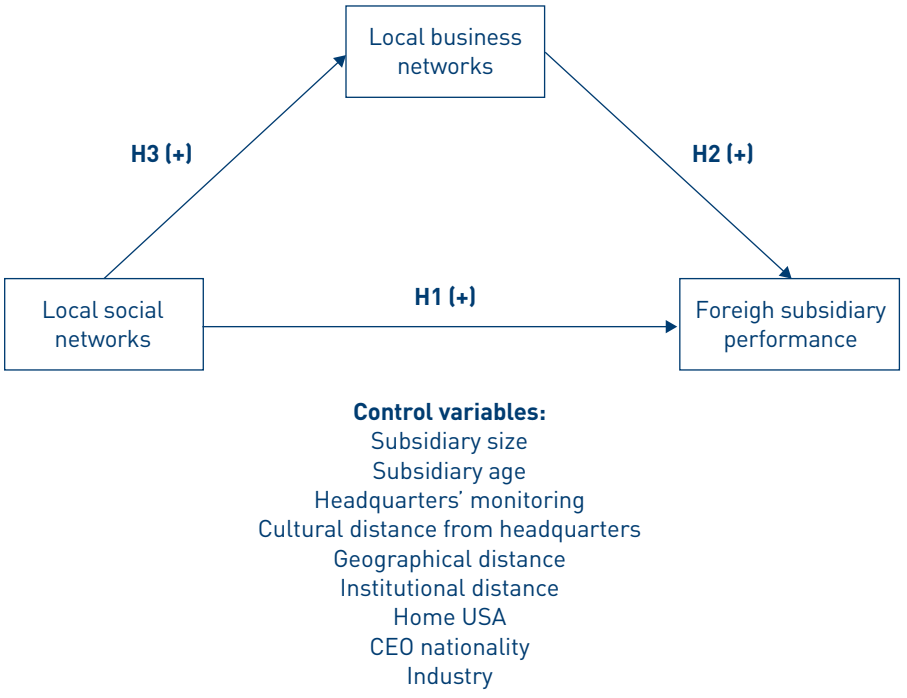
Hypothesis 2: The embeddedness in local business networks is positively related to the performance of foreign subsidiaries.

Networks are social structures that facilitate interactions (Granovetter, 1985). Following Gulati (1998), both social and business relationships can represent important network resources for the company. Social networks are mainly based on mutual trust and require more time to develop. Once established, they tend to remain relatively stable over time (Huggins, 2010). The embeddedness in social networks may provide access to strategic information and knowledge that foreign subsidiaries can use to mitigate formal and informal discrimination, and gain legitimacy in the host environment (Johanson and Vahlne, 2009). However, such knowledge is not enough to elaborate appropriate strategies to penetrate the host market successfully, and legitimacy does not always increase performance. One can argue that the ability of foreign subsidiaries to be embedded in social networks and to interact with their key members may help the company to develop business relationships in a long-term perspective (Vahlne and Bhatti, 2019; Vahlne and Johanson, 2017). The embeddedness of foreign subsidiaries in their social network can facilitate the access to business networks as well as to local business knowledge. When gaining legitimacy, foreign subsidiaries can better process, recombine and synthesize such local knowledge, and then formulate effective strategies adapting their products, developing technologies and accessing promotion channels in local markets (Tsang, 2002). They can more easily get in contact with local suppliers, distributors and customers, and thus create new business opportunities. Interacting with the local business network constitutes *"a unique and productive resource for value creation"* (Madhok and Tallman, 1998: 327). We can thus hypothesize that the relationship between social networks and performance is positively mediated by business networks.

Hypothesis 3: The embeddedness in local social networks is positively related to the performance of foreign subsidiaries through the mediating role of the embeddedness in local business networks.

Our theoretical framework is summarized in figure 1.

FIGURE 1
Theoretical framework



Data and Method

Data and sample

The sample of our study is based on foreign-owned subsidiaries located in Italy, which is an attractive territory for multinationals: the country ranks among the Top 20 host economies, with FDI (foreign direct investment) inflows reaching 26.57 billion US dollars in 2019 (UNCTAD, 2020). Moreover, relationships play an important role in the Italian business context, since the Italian culture is shaped by strong relationships between individuals, like this is also the case for other Latin cultures (Davel, Dupuis and Chanlat, 2008).

From the Bureau van Dijk Orbis database, we initially identified a population of 980 firms owned by foreign MNEs and located in Italy. We collected data conducting structured face-to-face interviews with CEOs and senior managers at the subsidiary level (Andersson, Forsgren and Holm, 2002). The data collection process started in April 2016 by sending an invitation letter by e-mail with an in-depth description of the project, and its main goals and implications. Each interview was structured on a pre-tested questionnaire and lasted about one hour. The data collection process ended in March 2017. Following Andersson, Forsgren and Holm (2002), this data collection methodology enhances the validity and the robustness of data, reducing the potential risk of common method bias. However, we adopted some ex-ante remedies, like positioning our main variables in different parts of the questionnaire, and adopting different scale endpoints (Podsakoff, MacKenzie and Podsakoff, 2012).

As common in this data collection procedure, we guaranteed anonymity and the empirical implications of the research. We conducted 120 structured face-to-face interviews. 65% of our respondents are CEOs of the subsidiary and 81% are male, with an average tenure of 16 years in the MNE and 7 years in the same position. For time and resource constraints, we were able to interview only one respondent in each subsidiary, so our final sample counts 120 subsidiaries (with an acceptable response rate of 12.24%), which are completely owned by foreign MNEs. We ran an ANOVA, and there were no differences between interviews conducted early and those conducted after the follow-up, thus avoiding potential sample bias. Moreover, additional data were collected from archival files and secondary datasets like Orbis. In our sample, the average size of subsidiaries is around 321 employees and USD 130 million turnover per year. Tables 1 and 2 show the distribution of observations across industries and home countries of the corporate headquarters. As we can see, multinationals from our sample mainly operate in manufacturing (49.17%) and service (34.17%) industries. Most of them originate from mature economies, namely from the United States (25.83%), Germany (13.33%) and the United Kingdom (11.65%).

TABLE 1
A breakdown by industries

Industry	N.	%
Manufacturing	59	49.17
Service	41	34.17
Wholesale trade	7	5.83
Transportation	13	10.83
Total	**120**	**100.00**

Measures

Dependent variable. In order to account for the "foreign subsidiary performance", we employed the sales turnover growth over a 3-years period from 2016 to 2018. We collected this information from the Orbis database. In the literature, sales growth is considered as a common measure of performance (Chandler and Lyon, 2009; Hernandez and Nieto, 2016; Zahavi and Lavie, 2013). Due to sales growth, firms can achieve economies of scale and learning curve effects, additional market share and power—i.e. all factors that contribute to increase firm performance (Brush, Bromiley and Hendrickx, 2000).

Independent variable. In order to measure the "local social networks", following Husted and Allen (2006), we captured the embeddedness of the foreign subsidiary in the host country considering its ability to create social connections and to solve local social issues. More specifically, we asked managers about the commitment of the foreign subsidiary in (1) offering new job opportunities, (2) creating mutual relationships with the local community, (3) mitigating local problems, and (4) implementing practices for the local environment. The answers to these four items whose values range from 1 (not at all) to 5 (very much) on a

TABLE 2
Home countries of the corporate headquarters

Home countries	N.	%
Australia	1	0.83
Austria	5	4.16
Belgium	3	2.5
Canada	3	2.5
China	1	0.83
Denmark	3	2.5
Finland	2	1.7
France	8	6.66
Germany	16	13.33
India	2	1.7
Ireland	3	2.5
Israel	1	0.83
Japan	4	3.33
Netherlands	3	2.5
Poland	1	0.83
Spain	9	7.5
Sweden	5	4.16
Switzerland	5	4.16
United Kingdom	14	11.65
United States	31	25.83
Total	**120**	**100.00**

Likert scale were summed up and averaged to build a single construct with a Cronbach α=0.76, indicating a good overall reliability. Then, a factor analysis with a varimax rotation and Kaiser normalization was conducted. The analysis showed appropriate results. The eigenvalue for extracting only one factor was 1.58, while for the second factor it was equal to 0.0002 indicating that only one construct can be extracted by the selected four items. The average variance extracted (AVE) was 0.85, exceeding the threshold value of 0.50, and the composite reliability (CR) was 0.96, higher than the critical value of 0.70 (see table 3).

Mediator variable. In order to capture the "local business networks", we asked for changes in products, resources and internal processes due to mutual interactions with local business partners. More specifically, following Andersson, Forsgren and Holm (2002), we measure the embeddedness of the foreign subsidiary in the local business network. We asked managers to estimate to what extent, due to relationships with local suppliers, distributors and customers, the subsidiary is changing and adapting (1) the product technology, (2) the production technology, (3) standard operating procedures and (4) business practices. The answers to these four items whose values range from 1 (not at all) to 7 (very much) on a Likert scale were totaled and averaged to form a single construct with a Cronbach α=0.74, which indicates a good overall reliability. A factor analysis with varimax rotation and Kaiser normalization was realized. The results are appropriate as reported in table 3. The eigenvalue for extracting only one factor was 1.74, while for the second factor it was equal to 0.08 indicating that only one construct can be extracted by the selected four items. The average variance extracted (AVE) was 0.85, exceeding the threshold value of 0.50, and the composite reliability (CR) was 0.96, higher than the critical value of 0.70.

To control for alternative explanations, we employ several control variables.

A first set of control variables refers to the subsidiary. Specifically, we use *Subsidiary Size*, whose proxy is the natural logarithm of the subsidiary's number of employees at the year of observation (data provided by the Orbis database), and *Subsidiary Age* measured by subtracting the year of establishment from the year of observation (Gates and Egelhoff, 1986). At the same time, we control for the *Industry* where the subsidiary concentrates its main operations. We collected this information from the questionnaire and then we double-checked it in the Orbis database.

A second set of control variables refers to the internal relationships between the corporate headquarters and the subsidiary. We control for *Headquarters' control*, taking into account the control of corporate headquarters on the subsidiary activities. Following Andersson, Forsgren and Holm (2002), we use a one-dimension construct, asking the number of expatriates at the subsidiary level.

TABLE 3
Factor analysis of Local social networks and Local business networks

First order construct	Items	Source	Scale	Eigenvalue	Alpha	AVE[a]	CR[b]
Local social networks	Creating new jobs	Questionnaire	1/5	**1.58**	**0.76**	**0.85**	**0.96**
	Collaborating with the local community	Questionnaire	1/5				
	Supporting local issues	Questionnaire	1/5				
	Respecting the local environment	Questionnaire	1/5				
Local business networks	Product technology	Questionnaire	1/7	**1.74**	**0.74**	**0.85**	**0.96**
	Production technology	Questionnaire	1/7				
	Standard operating procedures	Questionnaire	1/7				
	Business practices	Questionnaire	1/7				

[a] The average variance extracted. [b] The composite reliability.

A third set of control variables refers to the home and host locations. We control for the cultural differences between the home and host countries through the variable *Cultural distance*. We measured cultural distance following Berry, Guillén and Zhou (2010). We also control for the institutional context considering the institutional differences between the home and host countries. We operationalize this variable through the *Institutional distance* between the corporate headquarters and the subsidiary. We use the International Country Risk Guide (ICRG) measures, and following Bekaert, Harvey, Lundbland and Siegel (2014), we draw on three components "Law and Order" (scale from 0 to 6), "Bureaucracy Quality" (scale from 0 to 4), and "Corruption" (scale from 0 to 6). Higher values correspond to better country performance. We measure the distance by subtracting the three components one-year lagged individually at the corporate headquarters and the subsidiary locations. Then, we average them to produce a single construct with a Cronbach $\alpha = 0.80$. We also introduce the dummy variable *Home USA* to control for the high number of subsidiaries from US MNEs, and we control for the geographical distance between the home and host countries using the distance calculator by Google Maps.

Finally, a fourth set of controls refers to the individual level of the CEO of the subsidiary. We control for the nationality of the CEO at the subsidiary that can influence his or her ability to create local connections. More specifically, the variable *CEO nationality* is a dichotomous variable that takes value 1 in case the CEO is Italian, and 0 in case he/she is foreign. These data were collected during the interviews and double-checked in Orbis.

Analysis and Results

In our theoretical framework, we hypothesize a direct as well as a mediating (indirect) effect of social and business networks on the subsidiary performance. To test them, we use a mediation regression model with bootstrapping approach (resampling the data 5000 times). A mediation regression model permits to investigate the effect of an intermediate variable (mediator variable) on the main relation. Specifically, it analyzes the direct effect (in our case the relation between social networks and subsidiary performance) as well as the indirect effect of the mediator variable (business networks) that is supposed to transmit the causal effect of the independent variable (social networks) to the dependent variable (subsidiary performance) (Hayes, 2013). According to Hayes (2013), bootstrapping is considered as the most appropriate approach for testing the mediation effect. It permits to estimate direct and indirect effects but also the standard errors and confidence intervals unbiased (Hayes, 2013; Preacher, Rucker and Hayes, 2007).

Table 4 provides the descriptive statistics and the correlation matrix. We observe a low correlation among variables, and we can say that our data do not suffer from severe multicollinearity issues. This conclusion is further supported by the variance inflation factor test (VIF), which is in all variables below the critical threshold of 10 (the mean VIF is 1.06) (Myers, 1990). The tolerance does not fall below 0.1 (Hair, Black, Babin, Anderson and Tatham, 2006).

Although we adopted some *ex-ante* remedies in designing our questionnaire to reduce potential common method bias (Podsakoff, Mackenzie and Podsakoff, 2012), we also performed two *ex-post* analyses. First, we conducted a Harman's single factor test (Podsakoff, Mackenzie, Lee and Podsakoff, 2003) and developed a principal component analysis taking into account all items considered in our study. The results indicate that the unrotated single factor only accounts for 24.6% of the total variance, which is far below the 50% threshold (Podsakoff, Mackenzie, Lee and Podsakoff, 2003). Second, we ran a confirmatory factor analysis considering all items of our variables, to test if they loaded onto a common method latent factor. Following Podsakoff, Mackenzie, Lee and Podsakoff (2003), the presence of a common denominator across all items reflects the presence of common method bias. The results show that our model does not suffer from common method bias.

Considering both *ex-ante* remedies and *ex-post* analyses, we can conclude that there is no threat of common method bias.

Table 5 and table 6 report the results of the mediation analysis and the tests for direct and indirect effects. The first column in each model shows the results for control variables, and the second and third columns indicate the results of the full model with controls.

TABLE 4
Means, standard deviations, and correlation matrix

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Foreign subsidiary performance	0.76	1.58	1											
2. Local social networks	3.38	0.90	-0.017	1										
3. Local business networks	3.25	1.21	0.44***	0.20**	1									
4. Subsidiary age	15.88	11.13	-0.08	-0.05	-0.05	1								
5. Subsidiary size	4.09	1.79	-0.13	0.19**	0.03	0.05	1							
6. Industry	1.75	0.88	-0.00	0.12	0.04	-0.06	0.27***	1						
7. Headquarters' control	1.52	0.83	0.18**	-0.11	0.12	0.00	0.06	-0.04	1					
8. Cultural distance	7.75	3.87	0.19**	-0.05	-0.00	0.08	-0.21**	-0.05	0.14	1				
9. Geographical distance	3453	3028	0.04	-0.00	0.09	0.12	0.13	0.06	0.09	0.25***	1			
10. Institutional distance	1.51	0.455	-0.03	0.01	-0.07	0.08	-0.13	-0.11	0.02	0.07	-0.25***	1		
11. Home USA	0.25	0.44	-0.01	-0.08	-0.03	0.16*	0.01	-0.09	0.09	0.37***	0.72***	-0.01	1	
12. CEO nationality	0.47	0.50	-0.01	-0.01	-0.01	-0.07	-0.00	0.13	-0.24***	-0.04	-0.02	-0.05	-0.02	1

*,** and *** indicate significance levels of 10%, 5% and 1%, respectively.

TABLE 5

Results of mediation regression analysis for hypothesis test[a,b,c] — standard errors in parenthesis

	Local business networks		Foreign subsidiary performance		
	1	2	1	2	3
Local social networks		0.274** (0.122)		0.035 (0.160)	-0.125 (0.147)
Local business networks					0.585*** (0.111)
Subsidiary age	-0.004 (0.010)	-0.003 (0.010)	-0.010 (0.013)	-0.010 (0.013)	-0.008 (0.011)
Subsidiary size	-0.017 (0.033)	-0.015 (0.030)	-0.042 (0.042)	-0.050 (0.039)	-0.041 (0.035)
Headquarters' control	0.162 (0.141)	0.218 (0.140)	0.351* (0.182)	0.351* (0.182)	0.223 (0.165)
Cultural distance	0.002 (0.032)	-0.001 (0.032)	0.071* (0.042)	0.073* (0.041)	0.074** (0.037)
Geographic distance	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Institutional distance	-0.088 (0.269)	-0.094 (0.260)	-0.119 (0.347)	-0.121 (0.340)	-0.066 (0.305)
Home USA	-0.529 (0.404)	-0.496 (0.389)	-0.549 (0.521)	-0.542 (0.508)	-0.252 (0.459)
CEO nationality	0.053 (0.235)	0.067 (0.227)	0.073 (0.302)	0.098 (0.296)	0.058 (0.266)
Cons	3.180*** (0.638)	2.070*** (0.710)	0.109 (0.822)	0.075 (0.926)	-1.328 (0.863)
N	120	120	120	120	120
R2	0.07	0.12	0.10	0.10	0.30

[a] Coefficients obtained from the regressions are the basis for calculating the direct and indirect effects of "local social networks" on "performance of foreign subsidiaries" as in Hayes (2013).
[b] *,** and *** indicate significance levels of 10%, 5% and 1%, respectively.
[c] All models have industry dummies, not reported in the table due to space constraints.

Focusing on the full model, we present the results of our mediation regression analysis.

Hypothesis 1 posits that the embeddedness in local social networks is positively related to the performance of foreign subsidiaries. As we can see from table 5 (the second and third columns of model 2), the corresponding coefficient is not significant. Thus, hypothesis 1 is not supported by our data.

In hypothesis 2, we predict that the embeddedness in local business networks has a positive impact on the performance of foreign subsidiaries. As we can see from table 5, the coefficient has a positive sign with a *p*-value lower than 1%. Thus, our hypothesis is supported.

Hypothesis 3 suggests that the embeddedness in local social networks has a positive effect on the performance of foreign subsidiaries through the mediating role of the embeddedness in local business networks. Looking at tables 5 and 6, we find a positive and significant indirect effect. These results provide compelling evidence for the full mediating effect of local business networks on the relationship between local social networks and the performance of foreign subsidiaries. Accordingly, social networks have a positive effect on subsidiary performance only through the mediating role of business networks. To make our results more robust, we ran the Sobel test, that is significant with a *p*-value lower than 5%. Table 6 shows that the indirect effect of business networks on the main relation between social networks and subsidiary performance is significant (indirect effect = 0.160, 95% CI = [0.0068, 0.3892]), providing evidence for hypothesis 3. Thus, we can conclude that hypothesis 3 is also confirmed.

TABLE 6

Hypothesis test for direct and indirect effects of local social networks on foreign subsidiary performance[a]

Direct effect			Indirect effect		
Effect (ψ)[b]	SE		Effect (θ)[b]	95% LLCI[d]	95% ULCI[d]
-0.1256	0.147		0.160**	0.0068	0.3892

[a] For the direct and indirect effects, we use the coefficient results in table 5 as in Hayes (2013).
[b] *,** and *** indicate significance levels of 10%, 5% and 1%, respectively.
[c] LLCI stands for lower level confidence interval, and ULCI stands for upper level confidence interval.

Looking at controls (table 5, second and third columns of model 2), we find a significant effect for *Cultural distance* and *Headquarters' control* with a *p*-value respectively lower than 5% and 10%. Surprisingly and counterintuitive, cultural distance has a positive impact on foreign subsidiary performance whereas geographic and institutional distances do not have significant effects on performance. This means that a high cultural distance between the home and host countries increases the performance of local subsidiaries. This finding highlights the relevance of considering multiple dimensions of distance, as suggested by Berry, Guillén and Zhou (2010). The influence of headquarters' control on foreign subsidiary performance is also positive and significant with a *p*-value lower than 10%. In line with previous studies (e.g. Andersson, Björkman and Forsgren, 2005; Cardinal, Kreutzer and Miller, 2017; Kreutzer, Walter and Cardinal, 2015), our findings show that the presence of a control strategy from headquarters on subsidiaries impacts their performance. In particular, subsidiaries with a higher number of expatriates achieve better performance than subsidiaries with few expatriates. There is no statistical support for the other control variables.

We ran several robustness checks. First, we changed the methodological approach using structural equation modeling (SEM) to check the robustness of our results. The results are identical and remain robust. The model also shows a good fit with the data. Second, we checked the reverse relation between local social networks, local business networks and foreign subsidiary performance. We do not find any support for the reverse causality. Third, we used different time horizons to measure our dependent variable, the foreign subsidiary performance. In our main model (table 5, model 3), we employ the sales turnover growth over a 3-year period; we ran robustness tests by using the sales turnover growth over 2-year and 5-year periods. The results remain qualitatively identical. Finally, we used an alternative measure of our dependent variable. We measured the foreign subsidiary performance as the return on sales growth over a 3-year period. Again, the results offer consistent support to our main model even for different time horizons.

Discussion

This research makes several theoretical and managerial contributions to the debate on the network-performance relationship. We provide novel insights concerning the impact of social and business networks on foreign subsidiary performance.

First, we build on existing literature which emphasizes the positive impact of networks on company performance (Baum, Cowan and Jonard, 2014; Zhu, Su and Shou, 2017). Our findings challenge this point of view and show that the network-performance relationship depends on the type of network that is established by foreign subsidiaries. More specifically, in our study, business relationships have a positive influence on the performance of local subsidiaries, whereas social relationships appear to have no significant impact on sales growth. Networks may have positive, negative or no effects, and it seems necessary to clearly define the type of networks that are analyzed. Some authors highlight the negative effects of certain types of networks on subsidiary performance. For example, Li, Zhou and Shao (2009) show that political connections, i.e. managers' connections with government officials, negatively impact the performance of foreign subsidiaries in China. The authors argue that the utilization of political ties generates additional costs for MNEs, since the foreign company has to pay different forms of compensation to establish political connections and needs to accommodate to requests from local authorities (e.g. hiring of employees that have strong relationships with the government). In a similar way, the embeddedness in social networks may be associated with additional costs (e.g. the time dedicated by managers to building such networks), which can explain their negative impact on performance, even if the relationship is not significant in our study.

Second, our findings allow identifying the direct and indirect effects of social networks. They suggest that managers should engage in social networks, but that they need to use these connections for developing business networks to increase the performance of their subsidiary. It is necessary that social relationships facilitate the creation of business relationships so that they can contribute to increase performance and thus long-term competitiveness. As also shown by other studies (e.g. Zhou, Wu and Luo, 2007), social networks can have positive effects on company performance, but the relationship between the two factors appears to be more complex than previously assumed (Ellis, 2011).

Third, our study contributes to the debate about the role of local networks for foreign subsidiaries. In line with the revised Uppsala model (Johanson and Vahlne, 2009; Vahlne and Bhatti, 2019; Vahlne and Johanson, 2017), we emphasize the need for foreign subsidiaries to be embedded in local networks in the host

country for successful internationalization (Beddi and Mayrhofer, 2013; Valentino, Caroli and Mayrhofer, 2018). Our empirical study shows that different types of networks may not have the same benefits and that it is important to establish links between them. It thus seems essential that social relationships are used to strengthen business relationships and to improve the performance of the company. Through social relationships, subsidiaries can increase their legitimacy and reduce liabilities of foreignness and outsidership.

Fourth, our research highlights that the extended resource-based view (Dyer and Singh, 1998; Lavie, 2006; Popli, Ladkani and Gaur, 2017) can be considered as a suitable theoretical framework for analyzing the network-performance relationship. Our findings confirm that networks enable local subsidiaries to access or combine critical resources that are likely to increase their sales growth. Our research allows developing the framework by differentiating between social and business networks. Our empirical investigation clearly indicates that companies can achieve superior performance when investing in business relationships, whereas social relationships need to be transformed into business relationships before they can contribute to performance. It seems necessary to consider the differences between the two types of networks when analyzing the impact of critical resources possessed by firms on relational rents.

Fifth, our empirical investigation, based on the networks established by Italian subsidiaries, is in line with Dyer (1996) who argues that the physical proximity between network partners facilitates the coordination of network relationships, thus increasing relational rents and performance. This means that MNEs should dedicate more attention to the network development of their local subsidiaries and help them transform social relationships into business relationships to improve performance and thus long-term competitiveness. This process may require additional resources, but it can allow increasing relational rents of local subsidiaries and thus the overall performance of MNEs.

Finally, our study highlights the important role played by networks in the Italian context. Italy is an attractive territory for FDI, and most subsidiaries of our sample belong to multinationals located in mature economies, namely in the United States, Germany and the United Kingdom. In this perspective, it is interesting to note the significant impact of cultural distance on foreign subsidiary performance. Like other Latin cultures, the Italian culture is shaped by strong relationships between individuals (Davel, Dupuis and Chanlat, 2008), and our findings suggest that companies should dedicate more attention to the type of networks they develop in this specific context.

Conclusion

Multinational enterprises have established a significant number of foreign subsidiaries to seize global market opportunities and to develop networks with local actors (UNCTAD, 2020). As shown by recent literature, networks have become a key success factor for internationalization (Vahlne and Bhatti, 2019; Vahlne and Johanson, 2017). Foreign subsidiaries facilitate the creation of relationships with a variety of actors and the access to critical resources (Amann, Jaussaud and Schaaper, 2017; Le Gall, 2011; Melin, 2014). We used the extended resource-based view (Dyer and Singh, 1998; Lavie, 2006; Popli, Ladkani and Gaur, 2017) and the network approach (Gulati, 1998; Gulati, Nohria and Zaheer, 2000; Granovetter, 1973, 1985; Huggins, 2010) to show how social and business networks developed by local subsidiaries can improve their performance. Our findings indicate that social networks have a positive effect on the performance of subsidiaries through the mediating role of business networks. They provide evidence of a complete mediation between social networks, business networks and subsidiary performance. They challenge extant literature on the role of local networks on subsidiary performance. Previous studies have focused on the impact of either social networks or business networks on subsidiary performance (e.g. Andersson, Forsgren and Holm, 2002; Huggins and Thompson, 2015), but our research is the first one to consider both types of networks.

Our study presents some limitations that might be addressed in future research. Our empirical investigation concerns wholly-owned subsidiaries in Italy, and it seems necessary to extend the study to other geographic contexts to test the possible impact of the host country environment on the effects of social and business networks. We could thus compare the networks established by foreign subsidiaries in mature and emerging economies, whose cultural and institutional characteristics are likely to influence the network-performance relationship. Future studies could explore other measures to seize social and business networks such as the dimensions of "networking" (Stoian, Rialp and Dimitratos, 2017) and the intensity of relationships established with local actors

(Zhu, Su and Shou, 2017). They should also use other indicators to measure foreign subsidiary performance, for example local market share, profitability and the services provided in the host market. Finally, it would be interesting to adopt a longitudinal approach to identify the positive and negative effects of networks on subsidiary performance over a longer time period.

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