Abstract

In this article, we offer insights into the critical role played by stakeholder relationships for female-owned high-technology firms in their pursuit of the legitimacy they need to acquire the resources that, in turn, will lead to sustainable innovation and firm growth. By reporting the findings drawn from interviews conducted with Russian female business owners, we showcase how, being faced with the liabilities of smallness and newness—which are further exacerbated by gender-associated liabilities—these entrepreneurs develop strategies suited to assist their entrepreneurial ventures. Within the nascent high-technology global sphere, these female entrepreneurs develop legitimacy for their ventures abroad by accessing external international stakeholders, which leads them to securing much-needed financial and knowledge resources. In addition, their ties with international stakeholders enable them to gain legitimacy among internal Russian stakeholders, thus further enhancing the innovation and performance of their ventures.

Keywords: high technology sector, women entrepreneurs, stakeholder relationships, innovation management, global networks, Russia.

Note: This is a pre-print post-peer review accepted version, please cite:
1. Introduction

A central tenet within the field of entrepreneurship is that innovation is a vehicle for economic growth (Letaifa & Goglio-Primard, 2016; Letaifa & Rabeau, 2013); this is particularly true in the context of high-technology firms (Strömsten & Waluszewski, 2012). Yet, entrepreneurial firms are often plagued by multiple liabilities, such as those of newness (Baum, et al., 2000) and smallness (Aldrich & Auster, 1986; Jayawarna, Jones and Marlow, 2015), which, moreover, can also be exacerbated by gender-associated ones (Ahl & Marlow, 2012). These liabilities hinder the growth of new ventures, especially in emerging economies—in which institutional voids may exist (e.g., Khanna et al., 2005; Mair et al., 2012)—and particularly in those sectors in which women are under-represented, such as the high-technology one (Marlow & McAdam, 2011).

Against the backdrop of these liabilities, entrepreneurs bootstrap the resources they need by activating some relevant social networks (Anderson et al., 2010) in order to enable innovation. Such accrual of resources through both formal and informal social network and stakeholder engagement (Coleman & Robb, 2015; Freeman & Phillips, 2002; Freeman et al., 2010; Winborg & Landström, 2001) is particularly pertinent to high-technology firms, which not only accrue the necessary capital, but also, critically, embed themselves within the intricate patterns of collaborative relationships (Goglio-Primard & Crespin-Mazet, 2011) within their specific business milieu, thus improving their reputations.

For decades, one of the dominant strands found within the studies of entrepreneurship has paid significant attention to individual traits and characteristics
(Acs et al., 2013), including entrepreneurial orientation (e.g., Lumpkin & Dess, 1996; Wiklund & Shepherd, 2005). However, in recent years, a nascent literature has been calling for recognition of how entrepreneurs may proactively engage with stakeholder networks in order to advance their entrepreneurial opportunities, particularly within the field of innovation management (Huggins & Thompson, 2015). Entrepreneurs cannot rely solely on internal sources of capital (knowledge, resources, etc.) and internal stakeholder management in order to sustain their innovation management processes (Bughin et al., 2008). Rather, within an increasingly globalized business environment, resource-constrained entrepreneurs based in emerging economies need to take advantage of engaging with external stakeholders (Faems et al., 2005) to leverage social capital for sustainable innovation management (e.g., Tsai, 2001; Cuevas-Rodríguez, 2014). External stakeholders have the potential to both significantly impact the exchange and acquisition of knowledge and enrich and diversify existing business networks. Thus, in turn, they enhance a firm’s innovation capabilities (Shu, Page, Gao, & Jaing, 2012; Freeman et al., 2010).

Despite the homogenizing features presented by some manifestations of globalizing pressure (for example, global brands, international capital markets, etc.) the institutional context (Welter et al., 2017) in which businesses exist and strive to develop their innovative products and services remains of critical relevance. Within the context of emerging markets—in which the institutional infrastructure is relatively less developed, stable, or even absent—certain weaknesses in institutional arrangements may lead to dysfunctional spaces for competitive business activity (Bruton et al., 2016; Verreyne et al., 2016; Rodgers et al., 2018). In such environments, firms often engage in a variety of activities aimed at offsetting any institutional voids (e.g., Khanna & Palepu, 2010; Mair et al., 2012; Puffer et al., 2010); this can facilitate the emergence of
unorthodox ‘exchange’ relationships between firms and state actors (Doh et al., 2012; Lawton et al., 2013). This is particularly the case in Russia, a country marred by a weak rule of law, endemic corruption, and major inefficiencies across its bureaucratic landscape, which potentially hinders the growth of new start-ups (Aidis et al., 2008; McCarthy & Puffer, 2018; Puffer et al., 2009).

Today, entrepreneurs in Russia are faced with significant constraints, including: the difficulties of developing small businesses within an institutional context plagued both by an anti-entrepreneurialism (Estrin, Meyer, Bytchkova, 2006) inherited from the socialist era and, critically, by a strongly patriarchal society (Remennick, 2016) in which female participation in entrepreneurship is relatively low (Cabrera & Mauricio, 2017). The nature and quality of resources and networks available for entrepreneurial ventures, including high-technology ones (Strömsten & Waluszewski, 2012), are affected by further contextual factors (Zahra et al., 2014). In addition, certain ascribed roles and characteristics mitigate and mediate how individuals acquire entrepreneurial resources, both formally and informally (Jayawarna et al., 2015), one of which is gender.

In this article, we focus on the hitherto under-researched area of how women entrepreneurs, with their ascribed societal characteristics (Pio & Essers, 2013), develop stakeholder relationships as a means to gain legitimacy for their high-tech entrepreneurial ventures. Legitimacy is understood as “a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995:574). The legitimacy gained by female high-technology entrepreneurs by leveraging ties to international stakeholders facilitates them in accumulating the resources necessary to drive sustainable innovation management; this, in turn, leads to
business growth and reputation. This article contributes to the emerging literature on entrepreneurial development and innovation management (Higgins & Thompson, 2015; Smith & Lohrke, 2008) by underscoring the crucial role played by networks in driving forward innovation through stakeholder engagement (Yu et al., 2014; Tsai, 2001). Based on the preceding discussion, this article aims to answer the following research question: How do women entrepreneurs gain legitimacy to facilitate innovation management and business growth within Russia’s institutional space through external and internal stakeholder relationships?

This article makes the following contributions. It highlights how access to stakeholder relationships remains intrinsically gender-based within entrepreneurship in general and in the high-technology sector in particular. It elucidates the processes by which female Russian high-technology entrepreneurs—being faced with internal institutional constraints coupled with enduring gender stereotyping within a patriarchal institutional setting—overcome internal constraints by engaging in external stakeholder relationships. Such ties provide access to resources that are crucial for young and resource-constrained high-tech start-ups in emerging markets. Secondly, from a theoretical standpoint, we assert the relevance of the under-explored notion of symbolic capital—understood as the prestige, status, and positive reputation that individuals possess in the eyes of others (Pret et al., 2016)—in understanding the processes by which firms gain legitimacy in the eyes of both their internal and external stakeholders, especially in emerging economies.

The rest of the article is structured as follows: the first section reviews the literature on the role played by networks in enabling stakeholder engagement for innovation, the influence of the institutional context, and the role played by gender in entrepreneurship and, specifically, in accessing resources for innovation; the second
section presents the methodology used in this research study; and the third section outlines the findings of our empirical study and underscores the under-researched role and the gendered nature of ‘symbolic’ capital in driving stakeholder relationships for innovation management and enterprise development. The article concludes by reflecting on the contributions and implications for theory and practice, and by identifying directions for further research.

2. Literature Review

2.1 Stakeholder Relationships and Innovation networks

The focus of the field of entrepreneurship research has dominantly been placed on the explanatory power of individual traits and characteristics (Acs et al., 2013). However, within the emerging field of innovation management, Huggins and Thompson (2015) led calls to increasingly look beyond the entrepreneurs themselves and, by doing so, accommodate their relationships with stakeholder networks. Such an emerging school of thought argues that the processes that drive forth and sustain innovation management require not only the resources embodied in the entrepreneur (e.g., knowledge, among others) but, in a globalized world, also need to take into consideration the contributions made by various internal and external stakeholders to stimulate their sustainability (Bughina et al., 2008; Faems et al., 2005; Khan et al., 2016). Stakeholders have the abilities and capacities to facilitate and enrich knowledge exchange and acquisition within existing business networks, which, over time, leads to increased innovation capabilities within the firm (Shu et al. 2012). Stakeholder engagement and management has been noted to play a vital role in improving firm innovation performance, leading to the development of sustained competitive advantages (Freeman et al., 2010; Li et al., 2018).
The extant literature on high-technology ventures depicts new entrants as suffering from a lack of legitimacy within the market. Some researchers explain this in terms of the former’s liabilities of ‘newness’ (Aldrich & Fiol, 1994; Knockaert & Ucbasaran, 2013; Zott & Huy, 2007) and of ‘smallness’ (Aldrich & Auster, 1986; Honig et al., 2006; Jayawarna et al., 2015). These liabilities lead to existing stakeholders perceiving entrant firms as offering unclear and uncertain products and technologies and as being untested within existing markets (Santos & Eisenhardt, 2009; Vohora, Wright & Lockett, 2004), and therefore being high-risk investments. In order to mitigate such constraints, Foo (2010) suggested that an experienced team running an entrepreneurial high-technology venture may generate more confidence in the eyes of external stakeholders.

High-technology start-ups are dependent upon the environment in which they exist, specifically in relation to gaining access to their much-needed resources (e.g., finance, technology, knowledge, and networks, which are often not readily available in emerging markets). Early studies on the importance of stakeholder partnerships for high-technology firms (Gans & Stern, 2003) suggest the critical relevance of technology partnerships for the survival of nascent high-technology ventures. Such relationships provide access to information, knowledge, and resources, which enhances a firm’s performance (Lee, Lee & Pennings, 2001; Harrison et al., 2010). However, no less importantly, such engagement with other partners enables new ventures to gain access to and harvest the former’s existing networks (Baum & Oliver, 1991; Stuart, Hoang & Hybels, 1999). In this way, new ventures are then able to establish their legitimacy in the eyes of external stakeholders by means of their association with established firms in the sector (Hitt et al., 2000; Lee, Lee & Pennings, 2001; Stuart, Hoang & Hybels, 1999).
Traditionally, when examining new firms, research suggests the importance of social capital (Davidsson & Honig, 2003; Honig et al., 2006; Houghton et al., 2009) in enabling firms to develop networks that allow the mobilisation of resources (e.g., Tsai & Ghoshal, 1998, Tsai, 2001). These networks are heavily rooted in the specific social structures of the societies within which these firms exist. In particular, the quality of the social capital available within small firms’ social networks remains highly dependent upon the firms’ founders’ abilities to generate, accumulate and reciprocate it and other forms of capital (Bourdieu, 1986). Of particular importance within this paper, Elfring & Hulsink (2003) and Smith and Lohrke (2008) highlighted how, within the context of new ventures, networks are useful not only for securing resources (Johannisson, 2000; Hite & Hesterly, 2001; Rowley et al., 2000) but, no less importantly, also for providing new ventures with opportunities to gain legitimacy, which is particularly imperative for high-technology firms, the products and services of which need to be perceived as innovative. Crucially, legitimacy is bestowed upon individuals and firms by others and represents a form of symbolic support for those firms that are seeking to establish themselves in pre-existing markets (Singh et al., 1986; Smith & Lohrke, 2008). We now turn to reviewing the literature that has sought to explain the role played by the institutional context.

2.2 The Institutional Context

Context remains fundamental in understanding the activities of small firms and entrepreneurs (Bruton et al. 2008; Welter, 2011; Zahra & Wright, 2011); in this regard, the institutional environment has an important influence on firm behaviour and growth (Welter, 2011; Doern & Goss, 2013; Khan et al., 2016). Following from this—and as depicted by North (1990)—institutions and institutional arrangements define the ‘rules
of the game’ within which firms operate. Within developed economies, firms enjoy the existence of embedded formal legal institutions and well-protected property rights. Such an institutional context enables businesses—especially small and new ones—to start up and grow and also prevents the ad hoc expropriation of business assets (Baumol, 1990). In contrast, within the context of transforming economies such as Russia, small firms are often forced to negotiate and navigate the constraints imposed upon them by different institutional settings (Manolova & Yan, 2002; Webb et al, 2014).

Since the collapse of socialism in the late 1980s, there have been attempts at implementing various reform processes (with varying degrees of success) across Central and Eastern Europe and the former Soviet Union (Smallbone and Welter, 2001; Aidis et al, 2008). However, despite these attempts, reforms have often been ineffective, with problems such as the endemic corruption found within these societies hampering entrepreneurial ventures (Tonoyan et al, 2010). Within Russia, with its heritage of anti-entrepreneurialism (Estrin, Meyer, Bytchkova, 2006) from the socialist era, weaknesses in the formal institutional arrangements have led to the emergence of what Bruton et al. (2016) referred to as ‘dysfunctional spaces’ for competitive business activity. In such settings, businesses can often be faced with dysfunctional institutional conditions, including incoherent and constantly changing business regulations (Aidis et al, 2008), which exacerbate the potential growth of firms. For example, in relation to accessing finance, Smallbone and Welter (2001) contended that banks tend to favour larger businesses and are generally less willing to finance small ones. In such environments, firms often engage in a variety of activities aimed at offsetting any institutional voids (Mair et al., 2012; Puffer et al., 2010); this can facilitate the emergence of unconventional ‘exchange’ relationships between firms and state actors.
(Doh et al., 2012; Lawton et al., 2013). The proactive management of stakeholders by firms in emerging markets can offset the weak resource base and enable the development of sustainable innovation. As per the resource-based view, firms can gain a competitive advantage by drawing key resources, such as the knowledge controlled by key stakeholders (Barney, 1991, 2018; Coff, 1999).

In relation to innovation in the specific Russian context, McCarthy et al. (2014) argued that Russia’s historical lack of formal and informal institutional support has led to it failing to move beyond the stage of ‘idea creation’ to implementation and commercialisation. The Russian government continually supports pre-commercial research that, while being aligned to public policy requirements, nevertheless fails to consider the nature of the wider entrepreneurial processes necessary for meaningful innovation development to occur (Lerner, 2009, p. 13). Letaifa and Goglio-Primard (2016) underlined the institutional settings necessary for innovation and entrepreneurship to flourish; these include internal and external stakeholder engagement and collaboration, and proximity to various sources of support. In Russia, such necessary components of a ready-made entrepreneurial and innovation eco-system are severely lacking (McCarthy et al. 2014).

Further contextual factors impact upon the nature and quality of the resources and networks available for entrepreneurial ventures (Zahra et al., 2014). In the Russian context, patriarchy continues to dominate both the economy and society (Remennick, 2016) as a whole, necessarily leading to distinct gender-related liabilities, particularly in deeply masculinized sectors such as high technology. Specifically, the ascribed roles and characteristics bestowed through gender upon female entrepreneurs are influential in how the latter are able to gain resources (Jayawarna et al., 2015). We now consider the literature that has explored this contextual factor.
2.3 Gender-related liabilities

This article focuses upon the key literature that argues that gender, with its associated ascribed roles, influences the ability of entrepreneurs to extract resources from the networks in which they coalesce (Jayawarna et al., 2015; Coleman & Robb, 2015). Hill, Leitch, & Harrison (2006) highlighted that business networks dominated by women are deficient in respect of size, density, range, and strength of reciprocal ties (Martin, 2001). Marlow and McAdam (2013) argued that gendered stereotypes are reproduced and embedded within social networks and that women are particularly at a disadvantage owing to the pejorative connotations that exist around femininity and to the associated lack of legitimacy perceived in certain quarters (Fine, 2010). This hampers women’s access to networks and their development of the entrepreneurial resources necessary for the development and commercialization of innovation (Greve & Salaff 2003; Marlow & McAdam, 2013). The existing literature on networks fails to provide sufficient understanding of how an individual’s gender has the ability to influence opportunities for resource access and accumulation through network relationships and to establish legitimacy (e.g., Tsai & Ghoshal, 1998).

Within the literature on entrepreneurship, women have often been seen as ‘others’ (Ahl & Marlow, 2012; Marlow & McAdam, 2012). The roles played by women within entrepreneurial activities have been gendered, leading to them being unrecognized and/or invisible (Pio & Essers, 2013). Moreover, studies have depicted female-owned firms as limited, unfocussed, and inefficient in comparison with male-owned and managed ones (Ahl & Marlow, 2012). Furthermore, female entrepreneurs seem to start less growth-orientated businesses and situate their firms in sectors with
lower levels of profitability and in crowded, low value-added ones (Marlow, Carter, & Shaw, 2008).

Of particular relevance for this article is the recognition that female entrepreneurs are clearly under-represented in such high-technology sectors such as Science, Engineering, and Technology (SET) (Marlow & McAdam, 2011). Participation in such sectors provides the opportunity to gain social status and make rapid economic returns (Wilson & Tagg, 2010). These are benefits of which female entrepreneurs are regularly deprived. Some explanations for the under-representation of female entrepreneurs in high-technology sectors reside in the inherent masculinity associated with the SET sector in general (Landström, 2007; Linstead & Brewis, 2004), and with business incubators in particular (Marlow & McAdam, 2011). Lohan and Faulkner (2004:319) succinctly summed up the predicament: “Science and technology are widely acknowledged as power motifs of hegemonic masculinity”, underlining how the technology sector remains one in which women are marginalized.

One tactic in which women have engaged in order to overcome such constraints is the gaining of formal qualifications. However, while, in theory, such formal qualifications have the potential to improve access to the high-technology sectors, in practice, the evidence suggests that they are not enough to be able to successfully negotiate the tacit gendered barriers within this specific context (King, 2008; Wynarczyk & Renner, 2006). Moreover, the existence of these gender-related liabilities places further constraints on women in their pursuit of the accumulation of the necessary entrepreneurial resources required to drive forwards high-technology ventures (Crump, Logan, & McIlroy, 2007; Landström; Wynarczyk & Renner, 2006). Whilst Landström (2007:8) stated that “feminists have interrogated the relationship between gender and technology for at least three decades”; nevertheless, this ongoing
debate on the inter-relationships between gender and technology (Currier, 2003; Lohan & Faulkner, 2004) has failed to capture and, in consequence, to empirically explore the explanatory power of other factors, such as barriers to relevant business networks, for the under-representation of female high-technology entrepreneurs. We now turn to the methodological considerations pertaining to our empirical study.

3. Methodological Approach

Context remains central to the understanding of how entrepreneurs develop and sustain their businesses (Welter, 2011). While Russia, as a large emerging economy, represents a unique context, studies on entrepreneurship in Russia and similar emerging economies (Aidis et al., 2008; McCarthy & Puffer, 2018; Puffer et al., 2009) have underscored the embedded nature of the institutional constraints that hamper the growth of small businesses, and have rarely discussed the processes of innovation taking place in such societies. While Russia has been called a ‘network society’ (Puffer, 2011), there is still a dearth of studies investigating the impact that such an environment has on the ability of entrepreneurs—and of women entrepreneurs in particular—to derive resources through networking and stakeholder engagement for the development of innovation.

Russia represents a transitional country with a specific heritage of anti-entrepreneurialism (Estrin, Meyer, Bytchkova, 2006) brought forward from the socialist era. Within the post-Soviet era, rather than a smooth transition to a market-based set of economic relations, in Russia, formal institutions impose costly and bureaucratic burdens on firms; these increase both the uncertainty and the operational and transaction costs of doing business (Puffer et al, 2010). In such an economy, obtaining credit represents a major constraint on entrepreneurial activity (Aidis et al,
2008; Smallbone and Welter, 2001). Turning to the role played by gender within the context of small businesses in Russia, the extant research has demonstrated that female SME owners/managers face discrimination and a lack of formal institutional support (Remennick, 2016). The institutionalised gendered structures found in Russia’s patriarchal society, which are reflected in a gendered ideology and practice—including a gender-defined social positioning that leads to men being more effective in dealing with government officials (Bardasi et al. 2011; Estrin et al. 2009)—continue to constrain women’s formal integration into the country’s emerging economy by redefining and changing gender roles, excluding women from participation in the formal economy, and restricting their access to resources and networks.

In this article, we showcase the business journeys of 23 female Russian high-technology entrepreneurs aged between 26 and 42 (see details in Table 1). Between 2014 and 2017, two of the authors conducted a series of in-depth semi-structured qualitative interviews in three large urban centres in Russia (Moscow, St. Petersburg, and Novosibirsk). Semi-structured interviews (Bryman, 2012) were chosen as an appropriate method to obtain rich narratives around structured themes pertinent to the study’s core research question. Such an approach is highly valuable in uncertain contexts in which respondents may not be willing to share information. To ensure confidentiality, the names of the respondents were anonymised.

**INSERT TABLE 1 HERE**

To overcome the difficulties presented by sampling bias, we engaged in a referral-driven sampling method (Heckathorn, 2002). In each urban centre, we identified and then approached a variety of organizations and funding bodies, including some based on social media, which served as key informants and introduced the researchers to the relevant networks. Our sample was developed using a variety of
means, including contacts with universities, business associations, and local and international funding bodies in the sphere of high technology. Additionally, we sought out entrepreneurs through existing personal networks and premium services on social media outlets such as LinkedIn. As, in Russia, there is no national database of entrepreneurial firms in the high technology sector, we endeavoured to overcome this limitation by using referrals. Moreover, this is an inductive study (Gioia et.al, 2013) the aim of which was not to generalize (Eisenhardt & Graebner, 2007) to the population as a whole but, rather, to inductively develop theoretical insights into the processes that underpin our research context.

Our initial search for contacts secured six lead respondents, who then offered further access points into their respective business networks. Consequently, this led to the generation of an eight additional contacts. Using a chain referral technique, we obtained four further contacts. Five supplementary contacts were sourced via various avenues such as snowballing and personal contacts in Russia. In following this rigorous process, we sought to overcome the potential risks associated with reliance on a narrow set of social contacts and thus avoid any issues linked to sampling bias.

The interviews lasted between 60 and 90 minutes and were conducted in the Russian language with the consent of each respondent. Two of the article’s authors are fluent in the Russian language, which enabled them to establish a rapport with the respondents and ensured consistency in the translation of the interviews into the English language. Following the translation and checking of the interview transcripts, an independent translator verified them to ensure consistency. During this data collection phase, we were conscious of the dangers of ‘gendering’ the interviews (Golombisky, 2006); therefore, a male and a female researcher jointly conducted the interviews. The interviewees talked about how they had sought to develop their high-technology
ventures in Russia, including how they had attempted to develop stakeholder relationships both internally and externally. Our conversations focussed on the nature of the interviewees’ social networks and on how they had leveraged various resources in order to aid their innovation processes.

Following Braun and Clarke’s (2006) qualitative thematic analysis process, we executed a thematic analysis of the interview data. Firstly, we read all the transcripts individually to ensure that we fully understood the issues. As we started to code the data, various manifestations of the process of generating relevant stakeholder relationships, both internally and externally, emerged. It became evident that stakeholder relationships had played a critical role in enabling our sample entrepreneurs to overcome the existing constraints. Moreover, a concept of ‘symbolic capital’ emerged as a mechanism that enabled female high-technology entrepreneurs in Russia to gain legitimacy not only in the eyes of foreign investors but, crucially, to gain legitimacy within Russian business circles. These key issues underpinned the first and second order thematic analyses, as illustrated in Table 2.

We then mention the second and third order themes at the beginning of the next paragraph. Where do the second order ones belong? Here or there?

INSERT TABLE 2 HERE

Our second and third order themes were derived through an iterative and comparative method (Silverman, 2005). The final set of core categories ultimately emerged from our analysis of the interview data. Several themes were distilled, which we theorise in our discussion: the set of institutional constraints faced by our respondents and the strategies they adopted in seeking to overcome them. In particular,
the latter involved: the nurturing of international, external stakeholder relationships; the
development of legitimacy in the eyes of foreign investors; and, finally, the leveraging
of symbolic capital in order to more deeply embed their stakeholder relationships in
Russia. We discuss each of these in turn in the following section. We now move on to
present our findings.

4. Findings

The findings section is structured as follows: first, we present the internal
constraints faced by our respondents, including the multiple liabilities of newness,
smallness, and gender, as well as sectorial constraints. We found that, in combination,
such liabilities represented serious barriers to female entrepreneurs seeking to develop
high-technology firms in Russia. In response to these endemic internal obstacles to
entrepreneurial and innovation development, our respondents had instigated a set of
specific strategies in order to access financial resources and develop legitimacy abroad.
We found these strategies to include: obtaining foreign qualifications; participating in
international competitions; applying for venture seed investment; and further
developing stakeholder relationships internationally. Moreover, we found that, having
gained legitimacy for their high-technology ventures abroad, our respondents had also
gained access to funding and accumulated accolades for excellence. Through these
processes, our female entrepreneurs had been exposed to more international funding
opportunities through which to further develop their innovative products and showcase
their success to other entrepreneurs. Finally and as a result, our respondents had become
recognised in Russia as serious entrepreneurs worthy of local interest and investment.
We found that foreign financial investment into these high-technology firms had
enabled the accumulation and subsequent leveraging of forms of symbolic capital,
which had driven forward the development of internal stakeholder relationships and their associated support in Russia. In Table 2, we present a set of key illustrative quotes that highlight our findings.

4.1 Internal constraints

Over the past two decades, following the demise of socialism across Eastern Europe and the former Soviet Union, within the field of entrepreneurship, a literature has emerged (Batjargal, 2006; Smallbone and Welter, 2001; Welter et al., 2017) that has underscored the importance of contextual factors, including the relevance of the institutional transformations (or of the lack thereof) taking place in these societies in both enabling and constraining economic activities. This said, our respondents spoke in unison about the various liabilities constraining their business activities. Lidiya (INT: 23), a business owner from Novosibirsk, explained how being located in the new business sector of cryostorage had meant that her business and its needs were often misunderstood and overlooked. Such ‘liabilities of newness’ are highlighted in the comment: “We are a state of the art business but it’s difficult to get our point across. Ideas don’t pay the bills” (INT: 23). In a similar vein, Nadezhda (INT: 13), a venture fund owner from St. Petersburg, recognised how, in Russia’s emerging form of capitalism, people were used to turning to large financial organisations to secure financial support. As a consequence, Nadezhda had experienced clear ‘liabilities of smallness’: “Venture funding has great potential, but it’s so new here in St. Petersburg. People are used to going to the big banks for money” (INT: 13).

While the liabilities of newness and smallness are not specific to the Russian business milieu, nor to the high-technology sector, our respondents outlined the existence of clear gendering within the entrepreneurial environment of Russia. Within
the extant literature, there is recognition for the role played by personal networks as a means for individuals and businesses alike to get on with their everyday activities within often diverse and turbulent institutional environments such as that of Russia (Bruton et al., 2016; Verreyne et al., 2016). During the transformational post-socialist period, personal networks had remained important in Russia (Puffer et al., 2010) and the cultivation and maintenance of stakeholder relationships were being refashioned to be much more based on material reciprocity and calculations about contact resources (Batjargal, 2006).

This said, our respondents unequivocally underlined how Russia’s ‘network society’ (Puffer et al., 2010) was not working for them as women. Such ‘liabilities of gender’ were expressed in the voice of Alyona (INT: 10), who had established a navigation systems business in St. Petersburg, when she stated that “…Old habits die-hard. People still think that technology is a man’s world, especially here in Russia” (INT: 10). Moreover, our respondents also reflected on how the high-technology sector per se was discriminated against within Russian society. During Russia’s economic transformations, certain sectors, often seen as of ‘national strategic importance’, were commonly held to be a preserve of the Russian state to maintain a monopoly of service provision, with private sector alternatives disapproved of and often actively discouraged through a variety of different means. Elena (INT: 17), an IT security firm owner from Novosibirsk, provided a pertinent example of this: ‘We're in the IT security sector and there is huge demand in Russia. Yet, we have constant issues. The security services don’t believe in private provision of these services. They feel it is their space’ (INT: 17).

Overall, during the interviews, a clear narrative emerged in which our respondents highlighted the ‘lack of legitimacy’ given to them and to their business
activities. As a consequence, several respondents reported difficulties in gaining access to relevant internal stakeholder networks in Russia. As Svetlana (INT: 12), the owner of a biotechnology firm in St. Petersburg, stated: ‘Even if you get invited to a business event, you just get smiled at. It feels like doors are closed’.

Such obstacles faced by women in developing their businesses through networks highlight the fact that, even though they were at the cutting edge of their industries, embedded institutional constraints, including gendered understandings of the ascribed role of women (Bianco, Lombe & Bolis, 2017), meant that they were unable to engage fully and productively in cultivating the stakeholder relationships necessary to drive innovation in Russia’s ‘network society’ (Puffer et al., 2010). Having outlined the internal constraints faced by our respondents in developing internal stakeholder relationships in Russia, in the next section, we outline how these women had developed a set of strategies in order to overcome the existing constraints.

4.2 Strategies to overcome the constraints

Despite the difficulties experienced internally in Russia, an overarching strategy found to have been adopted across the respondents was the desire to seek financial resources and support from external stakeholders. One of the strategies pursued in order to achieve this aim involved the gaining of foreign qualifications and work experience abroad, which, for several respondents, had acted as a conduit to facilitate the financing and development of the firm, which in turn had led to innovation developments. Yana (INT: 1), a Moscow-based owner of an accelerator firm for technology start-ups, highlighted the critical importance of the degree she had obtained abroad: “I gained a Master’s from a German university in innovation management. It’s already helping my firm” (INT: 1).
Similarly, for Sveta (INT: 12), an owner of a biotechnology firm from St. Petersburg, her access to a university-based biotechnology hub in Birmingham, UK, had clearly been instrumental in providing a space in which her innovative business ideas had been nurtured with the help of mentors, intellectual property consultants, and financiers. As Sveta stated: “Going to Birmingham to study has enabled my ideas to become commercialized. The hub has linked me to all the right people. I even won a competition recently, which has led to more funding” (INT: 12). Leading on from this, ‘Participation in international competitions’ emerged during the interviews as another key strategy amongst our respondents.

Several respondents commented how, in Russia, they had initially tried to take part in competitions for high-technology firms but, over time, had come to realise that they had no chance of success. This was due to a variety of reasons, including the lack of any ‘real’ competition within these processes. Irina, the owner of an ecological cleaning firm from Novosibirsk, reflected:

“There are lots of competitions abroad. In Russia, nobody ever applies as they think all competitions are rigged. We’ve been successful with German and Austrian investors understanding our ecological product” (INT: 20).

In contrast, Vialetta (INT: 14), the owner of a composite materials firm from St. Petersburg, explained how she had been overjoyed with winning funding from a joint American and European competition: “The judges really understood the potential of my business. In Russia, I felt being a woman meant I was overlooked” (INT: 14).

In a similar vein, a clear narrative, which emerged from within our group of respondents, demonstrated how these female entrepreneurs, rather than aiming for extremely large funding opportunities, had focussed down and applied for small niche tranches of international funding. Such ‘application for venture seed investment
funding’ strategy has clearly proved a wise option for several respondents. Ekaterina (INT: 3), the owner of a medical technology firm from Moscow, stated: “Our business requires lots of R&D funding. We received no support locally and so sought American funding. We were overjoyed with the response” (INT: 3).

Finally, an overarching strategy utilised by all of the respondents was the relentless pursuit of: ‘access to international stakeholder networks’. Respondents made explicit their understanding of the increasingly globalized nature of the world economy and of how their high-technology firms, which involved innovative practices and product solutions, were valued very highly within international contexts. Several respondents bemoaned the fact that, in Russia, their business ideas were often overlooked, with core industries involving the extraction of hydrocarbons taking prominence. Oksana (INT: 18), the owner of a robotics firm in Novosibirsk, stated:

“It is not just me who firmly believes in robotics for the next industrial revolution. People around the world are embracing this. However, in Russia, people either can’t see or don’t want to see this. They just want to make quick money in oil and gas’ (INT: 18).

As a result of these perceptions and realities that they faced in Russia, our sample female entrepreneurs had wholeheartedly engaged in driving forwards access to international stakeholder networks.

Svetlana (INT: 16), a gaming app developer from St. Petersburg. illustrated:

“Gaming is a new business segment, but there is little support in Russia for us. We’ve gone to gaming trade shows in the States and in Germany. They opened lots of doors for us and now we’re in a ready-made network” (INT: 16).

Having outlined the clear strategies adopted to gain financial support from external stakeholder networks, the next section situates the wider implications and
consequences of harnessing such external stakeholder relationships for our female high-technology entrepreneurs.

4.3 The development of legitimacy through proactive stakeholder management

The respondents expressed how, over time, they had felt that their firms were starting to be viewed differently both in Russia and abroad. A clear finding that emerged from the interviews was that the initial funding and support received from international stakeholders represented a critical juncture for our respondents, enabling their firms to be recognised as serious players in the global high-technology sector. Tanya (INT: 2), the owner of a telecommunications firm from Moscow, stated: “Getting the first tranche of foreign funding was like a watershed moment. It meant recognition and implicitly being invited to the high table” (INT: 2). Several respondents recalled similar episodes, which they recognised as being pivotal in opening doors for further financial funding and support. As such, the outcome of: ‘accumulating financial support through foreign stakeholders’ developed as a mechanism for the respondents to claim legitimacy for their businesses and for them as business-owners. Sveta (INT: 12), the owner of a bio-technology firm from St. Petersburg, states: “We’ve now been financed by international angels for over two years. We got in touch with them through a biotechnology hub in the UK” (INT: 12).

Such: ‘continued engagement with external stakeholders’ meant that our respondents had increasingly felt that, over time, they were being viewed as interesting and trustworthy new players in the marketplace, offering often innovative products different from those of existing firms from North America and Europe. Vialetta (INT: 14), the owner of a composite materials firm from St. Petersburg, outlined:
“Since our initial product development, we have obtained further funding from several foreign stakeholders. We’ve been able to develop new products safe in the knowledge that we have some relevant backing. I feel we are now trusted in the high-technology market” (INT: 14).

The perceived (whether real or not) legitimacy in the eyes of international stakeholders had given the respondents not only confidence in their firms, but had also provided them with further opportunities to showcase both their firms and themselves as successful female entrepreneurs in the high-technology sector. Eleonora (INT: 6), the owner of a cloud data storage business from Moscow, highlighted this succinctly:

“In Russia, stakeholders either ignored me or simply didn't take my firm seriously. However, going to international conferences has been a revelation. I feel like I have grown wings. Most intriguingly, investors now want to invite me to panels to drive forwards the high-technology agenda and women’s participation in it” (INT: 6).

Similarly, Lyuba (INT: 5), the owner of a robotics firm from Moscow, stated:

“Since obtaining foreign investment, I have become a kind of ambassador for women in this sector. My Israeli backers were really keen on this idea” (INT: 5). To sum up, during the initial phase of their firm development in Russia, the respondents had perceived that, ‘in the eyes of others’, their business ideas were either being ignored or overlooked by internal Russian stakeholders.

However, we have highlighted how, by reaching out to international stakeholders, our sample female high technology entrepreneurs were able to transcend their feelings of inferiority and, instead, fully embrace external stakeholder relationships that had initially brought them much needed financial support; this, in time, had been supplemented with legitimacy within the high-technology sector, driving forwards their firms and their innovative practices within them. The next
section turns to how these processes spilled over, enabling our respondents to gain legitimacy in the eyes of internal stakeholders within the context of Russia.

4.4 Leveraging internal stakeholder relationships

In the previous sections, we have outlined how, in response to the internal constraints found within Russia, our respondents had been forced to seek support and funding from international stakeholders in order to drive forwards innovation within their firms. Within the international arena, they had then been able to not only gain financial support, but had also gained legitimacy in the eyes of external stakeholders within the high-technology sector.

We now turn to outlining our further findings, which demonstrate how our respondents and their firms had sought to re-engage and nurture internal stakeholder relationships in Russia. We found that the status they had gained abroad, backed by international investors, as successful ‘trailblazers’ in the high-technology sector had led, over time, to them ‘gaining of legitimacy at home’. Tanya (INT: 2), the owner of a telecommunications firm from Moscow, reflected:

“I’ve been very fortunate in getting finance from foreign backers. Since then, my firm has gone from strength to strength here in Russia. People in the telecommunications sector here now see us as serious players and are now happy to collaborate, which is leading to further innovations” (INT: 2).

Similarly, Galina (INT: 21), the owner of an ‘intelligent cosmetics’ firm from Novosibirsk, stated: “Previously, suppliers here didn’t want to know me. Now, they see that I have foreign backing and I’ve won awards abroad. They now want to know me” (INT: 21). Alongside suppliers and businesses showing interest in our respondents’
firms, more broadly, our respondents signalled the warmer welcoming attitude they had received from important internal institutional stakeholders.

Our respondents spoke about: ‘acceptance into local business associations’, outlining how, over the past couple of years, they had been contacted by local chambers of commerce, business associations, and business clubs. Raisa (INT: 8), a software developer from Moscow, explained:

“In the past, I tried to network locally but I don’t think I was treated seriously. Now that the business has international investors, people seemingly have changed their tune. I’m now invited to do guest speaking and the regional authorities want to showcase me as a successful local woman business-owner” (INT: 8).

Similarly, Alyona (INT: 10), the owner of a navigations system firm in St. Petersburg, summed up the feelings of several respondents by stating: “I feel like I’m now part of the club. I’ve been invited to meetings I never knew existed by local business groupings and also regional state authorities” (INT: 10). Consistent with this statement, the respondents highlighted how, while previously they had withdrawn from participating in local competitions for entrepreneurs and small firms as a result of a perceived lack of chances of winning, they had recently taken up the offers of local internal stakeholders to re-engage in these processes, which involved ‘participation in internal competitions’. Similar views were shared by other entrepreneurs. Varvara (INT: 7), the owner of a crowd-funding investment firm in Moscow, pointed out that she had even gone one step further: “Three years ago, I didn’t even apply for competitions. Now, I’ve been invited to be the main judge” (INT: 7).

These processes, which explicitly uncover the transformation of how our respondents were being viewed by internal stakeholders in Russia, had led to the
‘generation of further internal stakeholder support’, and enabled further innovation development within the firms. Masha (INT: 9), the owner of a CAD solutions firm in St. Petersburg, explicitly stated:

“It’s gone full circle. Previously, my firm was overlooked. However, since gaining international backing, I’ve gained trust and respect as a leading firm in CAD technology solutions not only at international events but also in Russia, where people, see me as a trustworthy and highly investable firm” (INT: 9).

Therefore, our findings depict the stages of the interaction with both internal and external stakeholders of female high-technology entrepreneurs in Russia, which facilitated them in gaining legitimacy and expressing sustainable innovation.

5. Discussion

Moving away from the dominant focus on entrepreneurial characteristics (Acs et al., 2003), an emerging stream of literature has argued for the accommodation and better understanding of the importance of stakeholder relations in driving innovation and growth for entrepreneurial firms (Huggins and Thompson, 2015). Indeed, recent literature (Khan et al., 2016; Lee, Lee & Pennings, 2001) has called for an appreciation of the critical interplay with and importance of those internal and external stakeholders who may stimulate resource acquisition and, consequently, the gaining of legitimacy by entrepreneurial firms.

The global success of some high technology firms can be attributed to the access to relevant and timely entrepreneurial resources and to the associated attainment of legitimacy (Navis & Glynn, 2011) by their innovative products and services (Rao, Chandy & Prabhu, 2008). However, stakeholders can be reluctant to put their reputation, financial capital, and developed and embedded networks at risk as the
prospects of success for new ventures in the high technology sector are uncertain. Within the extant literature on entrepreneurship and innovation management, it is well established that firms often suffer from their liabilities of newness (Baum, et al., 2000) and smallness (Aldrich & Auster, 1986; Jayawarna et al., 2015). However, to date, the examination of these processes not in isolation but in conjunction with the associated liabilities of gender has been clearly neglected (Ahl & Marlow, 2012). Gender-associated liabilities are not solely linked to the gender of the entrepreneur; rather, they encompass the overarching lack of appreciation of the reproduction of societal structures and gendered stereotypes (Marlow & McAdam, 2013), especially within patriarchal societies (Remmenick, 2016) like Russia. Such gender-associated liabilities have led to a lack of legitimacy for women entrepreneurs in general, and especially in the highly masculinized organizational setting of high-technology firms (Ahl & Marlow, 2012).

In this study, we present evidence of the inherent institutional and societal constraints faced by female high-technology entrepreneurs while developing their innovative firms in Russia. It is not surprising that the institutional context of Russia, which is described as ‘anti-entrepreneurial’ (Estrin et al., 2006), continues to permeate and impede the sphere of small business development within the post-Soviet era as Russia continues its unique path as an emerging market economy. Responding to Khan et al.’s (2016) call for more research on how internal and external stakeholder relationships facilitate resource capture, we found that our sample female Russian high-technology entrepreneurs had struggled to develop meaningful stakeholder relationships internally in their home country. Clearly demonstrating their agency, these individuals had responded by seeking financial support externally within international arenas. Within the niche international high technology environment,
explicitly located at conferences, trade shows, and workshops, our respondents had been able to enact and harness a relevant set of stakeholder relationships, which had provided them not only with much-needed financial capitalization for their innovative firms, but also with access to established networks within the global high technology sector; this had led to the establishment of their legitimacy in the home market. Our findings reveal the critical importance of external stakeholder relationships (Freeman et al., 2010; Navis & Glynn, 2011; Shu, Page, Gao, & Jaing, 2012), particularly in the legitimacy building process (Hitt et al., 2000; Lee, Lee & Pennings, 2001; Stuart, Hoang & Hybels, 1999), for female entrepreneurs who, owing to the embedded associated liabilities of gender in Russia, are not seen as legitimate (Marlow & McAdam, 2013).

As Knockaert et al. (2006) suggested, many start-ups can get trapped in a vicious circle in which stakeholders are unwilling to take the risk and collaborate with high technology start-ups; as such, the latter fail to develop the legitimacy necessary to sustain their ventures in the marketplace. We understand that legitimacy plays an important role in conferring status on a given firm, explicitly showcasing how it is viewed in the ‘eyes of others’ in a given context (Elsbach & Kramer, 2003). Our findings demonstrate how, having initially failed to gain legitimacy in the eyes of internal stakeholders in Russia, female Russian high-technology entrepreneurs seek and ultimately achieve legitimacy abroad in the eyes of international stakeholders. Such achievement means that, by gaining legitimacy internationally, female Russian high-technology entrepreneurs are able to overcome their internal institutional constraints, particularly the ascribed gendered understandings of what it means to be a successful entrepreneur in Russia and, more broadly, within the highly masculinized high-technology sector.
Theoretically, female Russian high-technology entrepreneurs transcend the existing risk-averse nature of external stakeholders (Navis & Glynn, 2011) by the enactment of the symbolic capital (Bourdieu, 1986; Rodgers et al, 2018), viewed as prestige and reputation, necessary to legitimise their businesses. In this paper, we see how symbolic capital has a transnational relevance as it operates across the dual fields of home and abroad (Rodgers et al., 2018). Gaining legitimacy with external stakeholders leads to the accrual of the financial capital provided by them and to improved access to established networks abroad. Furthermore, as an unanticipated consequence, our respondents found that they were viewed as ‘legitimate’ not only in the international arena but, over time, also in Russia. While, within Russia, they had previously been overlooked and ignored as a result of institutional and gender-associated constraints, they had then found themselves invested with international status and prestige (the so-called ‘Transnational Symbolic Capital’) (Rodgers et al, 2018), and, with this renewed confidence, they had then been able to foster further collaborative relationships with internal Russian stakeholders in order to sustain innovation management within their businesses. Such collaborations with internal Russian stakeholders, including women’s business associations, had led to further support for innovation in their firms. We now turn to developing our concluding remarks.

6. Managerial Implications

This study and its findings have clear implications for managers. First, the findings demonstrating the gendered nature of the high-technology sector can remind those female entrepreneurs who are considering entering into this market about the challenges they may face; as such, they practically signpost ways to navigate this business terrain.
More broadly, the findings highlight the need for firms to not overlook the potential internal and external capabilities and capacities available to them through the leveraging of stakeholder relationships (e.g., Barney, 2018). Secondly, the process of gaining legitimacy remains fundamental for small firms within the high-technology sector. As such, firms should allocate time and resources to gain and subsequently maintain legitimacy in this sector through proactive stakeholder management. Finally, our study reveals how solutions to business investment and the gaining of legitimacy can be sought abroad in wider international networks of stakeholders that may provide quicker access to much-needed economic resources, thus enhancing a firm’s legitimacy not only abroad but, critically, within the home market.

7. Conclusions

In conclusion, this article makes the following contributions. First, our empirical findings contribute to the emerging stream within the stakeholder theory literature that recognizes that firms need to look beyond managing co-creation with one type of stakeholder within the innovation process (Kazadi et al., 2016). Rather, our findings underscore the importance for firms of developing relationships with multiple stakeholders that, in our study, transcend national boundaries. Second, while the importance of legitimacy for the development of business networks is acknowledged (Desai, 2018; Rao, Chandy & Prabhu, 2008), we assert a transnational conceptualization of legitimacy. We extend the existing understandings of how entrepreneurs—particularly those affected by the liabilities of smallness and newness and also exacerbated by gender-associated ones—can nevertheless gain legitimacy within the context of small business in general and within the high-technology sector in particular. Our paper demonstrates how the legitimacy gained across transnational
spaces can diffuse and enable other forms of it (e.g., commercial and institutional) to be gained in other institutional contexts. As such, our second contribution is the recognition of the relevance of Bourdieu’s (1986) concept of ‘symbolic capital’ as a theoretical construct useful to understand stakeholder relationships both within and beyond national boundaries.

Our third contribution is a gendered perspective on understanding how stakeholder relationships support entrepreneurship in general and high-technology sector venturing in particular. The legitimacy gained in the international area acts a conduit to transcend any institutional, sectorial, and societal constraints placed upon female high-technology entrepreneurs. Our study demonstrates that gender-associated liabilities, particularly in patriarchal societies, do not exist in isolation. Rather, they exist and are reproduced in combination with other liabilities of smallness and newness. As such, in our article, we have highlighted the staggered nature of the gaining of the legitimacy required by female high technology entrepreneurs to operate in the current institutional environment in Russia.

In terms of future work, as Russia is a unique institutional environment, it would be useful to examine whether the same transnational symbolic capital emerges in different geographical and institutional contexts. Managing diverse stakeholders can be a costly process for relatively young and resource constrained start-ups; thus, it would be interesting to examine how new start-ups balance costs and drive optimal resources through stakeholder management for business growth and survival. Moreover, methodologically, it would be useful to take a longitudinal perspective and return to these entrepreneurs to see how much further embedded they are in their internal and external stakeholder networks. Further exploration may also be appropriate to understand the transnational nature of stakeholder relationships across other contexts.
and business sectors and how ties to different sets of stakeholders facilitate sustainable innovation and legitimacy. Studies would also be needed to dig deeper into how female entrepreneurs develop both bonding and bridging ties with both internal and external networks and drive resources to sustain their business ventures. Lastly, the integration of the stakeholder-based view with the entrepreneurial orientations of female entrepreneurs may shed further light on how the latter develop their innovation and capabilities within constraining institutional settings such as those observed in many transforming economies.
References


