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Does Gender Matter for the Innovativeness of SMEs?

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This policy brief summarizes the results of an on-going research project on the gender aspect of companies' innovativeness in transition countries. The aim of this work is to examine whether there is a gender gap in innovative behavior within the sector of small and medium-sized enterprises (SMEs). The results suggest that the propensity to innovate is higher among companies with a presence of a female owner. This finding preserves for 5 measures of innovativeness. Thus, female involvement in business might be beneficial for the innovative sustainable development of economy.

The role of small and medium-sized enterprises (SMEs) has increased lately and they are considered one of the main engines of economic growth (Radas and Bosic, 2009). Research on transition economies and development has emphasized the need for strong a SME sector, since it often acts as the backbone of the economy (Lukasc, 2005) and is the largest contributor of employment (Omar et al., 2009). Another important channel through which the SME sector contributes to development is through their innovative activities. Sustainable economic development requires competitive and successful industries. Being innovative is one way to achieve this goal. However, the innovativeness of sectors and industries depends not only on the actions of the largest companies, but also on the SME sector and individual entrepreneurs. Indeed, the latter are often argued to be more dynamic and more ambitious (Chalmers, 1989; Li and Rama, 2015).

The decision to follow an innovative strategy often depends on the company's leader, their experience and other managerial characteristics. However, the experience of the leader is not the only factor affecting managerial actions – gender also appears to matter (Daunfeldt and Rudholm, 2012). In the absence of clear answers and knowledge about female managerial characteristics, including their innovativeness (Alsos et al., 2013), it is difficult to evaluate their role in modernizing the business society and to distinguish their competitive advantages or disadvantages over male managers and business owners.

The role becomes even more ambiguous for the transition, post-communist economies. The labor market under USSR officially provided equal rights to women. However, in practice women were treated differently than men. While women often had to do the same work as men, the patriarchal society remained with men being regarded as the main decision makers, and women being fully responsible for housework and childcare. This can explain the low presence of women in top-managerial positions and women's weaker business ties and networks (Welter et al., 2004).

The question of gender and innovation in entrepreneurship has recently starting to attract attention. Earlier, innovativeness was strongly

connected and associated with high-tech companies. Thus, innovation research mostly focused on technology-based and capital-intensive industries (Dauzenberg, 2012; Marlow and McAdam, 2012). As a result, innovation behavior in less capital-intensive SMEs was almost entirely overlooked. This can also explain the lack of focus on gender, as men usually dominated the capital-intensive industries (Ljunggren et al., 2010). In an ongoing research project, I am trying to expand the understanding of gender differences in innovation and SME entrepreneurship with a focus on transition economies and the CIS block in particular.

The idea is to estimate owners' and CEOs propensity to implement innovations in the organization. The specification of the model follows the literature and uses a probit technique that allows for an estimation of these propensities while taking into account other influencing factors and individual characteristics of firms, their owners and CEOs, which likely affect innovative decisions. The data I use come from the 5th wave of the Business Environment and Enterprise Performance Survey (BEEPS) conducted in 2012-2013. The final dataset covered 5254 SMEs from 30 European and East Asia countries.

The main variable of interest is the innovativeness of the enterprise, proxied by 5 different indicators. The measures of implemented innovative activities are: 1) whether the firms introduced a new product or service during the last 3 years; 2) whether there was any new production process implemented; 3) whether there were any spending on research and development; 4) whether were was an introduction of a new marketing strategy and method; and 5) whether an enterprise implemented new methods in operational management. The usage of 5 indicators instead of one allows me to see whether there is any specific feature of innovativeness that differs by gender.

The list of control variables covers information on the gender of the CEO and owners, number of years of experience of the CEO, age of the firm, type of ownership, focus on internal and external markets, as well as the usage of foreign technologies and certification. I also have information on the share of skilled labor force, the share of females in the organization, and whether the organization bears additional costs on external consulting services and training of employees. Information on industry, country, size of the organization and type of residence is also available.

Unfortunately, the data lacks information on the number of owners, which will prohibit me from estimating the clear gender effects and limits the analysis to the effect of gender diversity among owners.

The obtained results (see Table 1) show that having a female as the only, or one of the, owner(s) increases the propensity of going into uncertainty and implementation of a new good/service by 4.5% in the CIS region and 6.7% in the non-CIS block. However, the effect of having a female CEO is insignificant. This finding contradicts the literature on gender differences in the willingness to take on risk (Wagner, 2001; He et al., 2007; Eckel et al., 2008; Croson and Gneezy, 2009) that mostly demonstrates that women, on average, are more risk-averse than men.

A similar effect is observed for the implementation of a new business process or marketing strategy. The only insignificant difference is the spending on R&D in CIS countries and new managerial methods in non-CIS block. However, these measures of innovativeness raise doubts regarding its applicability for SME sector. A shift from high-intense productions towards services makes it less useful to spend enormous sums of money on technological research. Instead, other innovative actions like the development of human capital are of greater importance.

Table 1. Propensity to innovate

Introduction of a new good/service	CIS countries	Non-CIS countries
Female CEO	-0.00474	-0.0709
Female owner	**0.0451***	**0.0670*****
Female CEO and owner	-0.0509	0.0966
New business process		
Female CEO	-0.0328	-0.0561
Female owner	**0.0381***	**0.0444****
Female CEO and owner	-0.0123	0.0379
New marketing strategy		
Female CEO	0.074	0.0241
Female owner	**0.0374***	**0.0558*****
Female CEO and owner	**-0.0859****	-0.0293
New managerial method		
Female CEO	0.00923	0.00412
Female owner	**0.0530*****	0.0321
Female CEO and owner	-0.0427	-0.0262
Spending on R&D		
Female CEO	-0.0147	-0.0419
Female owner	0.00899	**0.0419****
Female CEO and owner	-0.00834	0.0181

Source: Author's own estimation.

Conclusion

The results show that having a female owner or gender diversity in the ownership structure positively affects the propensity of the organization to follow innovative behaviors and strategies. Therefore, promoting female entrepreneurship and gender equality in ownership seem positive for increasing the innovativeness of companies, and the economy in general, in both the CIS and non-CIS block.

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