Journal of Comparative Economics 44 (2016) 1115–1131

Contents lists available at ScienceDirect

Journal of Comparative Economics

journal homepage: www.elsevier.com/locate/jce

Social networks and migration decisions: The influence of peer effects in rural households in Central Asia☆

Masato Hiwatari*

Graduate School of Economics and Business Administration, Hokkaido University, Kita9, Nishi7, Kita-ku, Sapporo, Hokkaido 060-0809, Japan

ARTICLE INFO

Article history:
Available online 19 October 2016

JEL classification:
O12
O15
P20
R23

Keywords:
Social networks
Migration
Spatial autoregressive models
Transition economies

ABSTRACT

Hiwatari, Masato—Social networks and migration decisions: The influence of peer effects in rural households in Central Asia

This study examines the influence of social networks on household decisions to emigrate from rural Central Asia. It identifies the peer effects of social networks by using a unique and detailed dataset derived from the author's field survey in a rural village in a post-Soviet Central Asian country. Extended versions of spatial autoregressive models are then estimated by using the generalized spatial two-stage least squares method. The empirical results suggest that peer effects positively influence household decisions to emigrate, whereas network position does not. It is suggested the existence of intense social networks, which can be sources of spillover effects, might increase migration from the village society. *Journal of Comparative Economics* **44**(4) (2016) 1115–1131. Graduate School of Economics and Business Administration, Hokkaido University, Kita9, Nishi7, Kita-ku, Sapporo, Hokkaido 060-0809, Japan.

1. Introduction

Social networks can influence important household decisions such as emigration. While close-knit social networks embedded in local communities are considered to be fundamental sources for the preservation of strong local ties, social networks can also encourage emigration by lowering migration costs. Thus, it is unclear whether social networks serve to strengthen or weaken local communities in a region facing rapidly increasing emigration, such as post-Soviet Central Asia.

This study examines the influence of social networks on the emigration decisions of households by introducing the peer effects perspective of networks (peer effects hereafter). Given that the role of individuals in social networks can be extremely varied (Jackson, 2008), peer effects have recently attracted growing attention in the empirical literature (Manski, 1993; Bramoulle et al., 2009). Peer effects arise when individual behavior is affected by that of other network members.

☆ The author would like to thank the participants at the Pacific Rim 2014 conference, 2013 autumn conference of Japan association for comparative economic studies and seminars at Hokkaido University for their invaluable comments on an earlier version of this paper. He would also thank two anonymous referees for providing thoughtful suggestions and insights. The research was financially supported by Japan Society for the Promotion of Science Grant-in-Aid for Young Scientist (startup & B) no. 21,830,006 & no. 23,730,267. The author owe an enormous gratitude to all of the informants in the researched village (*mahalla*) and native assistants for their supports, hospitality and trust.

* Fax: +81 117063173.
E-mail address: mhiwatari@econ.hokudai.ac.jp

http://dx.doi.org/10.1016/j.jce.2016.10.004
0147-5967/

The identification of endogenous peer effects is important since they can create spillover effects, thus providing a useful perspective for predicting how social networks influence emigration behavior.

Specifically, this study empirically examines the effects of social networks on household decisions on migration in Uzbekistan, a post-Soviet country in Central Asia. It identifies peer effects by using an original dataset on social networks derived from the author's field survey in a rural Uzbek village. Extended versions of spatial autoregressive models are then estimated by using the generalized spatial two-stage least squares (GS2SLS) method.

The contribution of this study is twofold. First, it clarifies the interactive relationship between migration and the strength of communal society in post-Soviet Central Asia. Since the 2000 s, international labor migration from central Asian states to Russia and other CIS countries has become a major socioeconomic phenomenon in the region. Moreover, the role played by social networks in lowering migration costs has recently attracted attention from economics scholars (Munshi, 2003; McKenzie and Rapoport, 2007). By contrast, tightly knitted social networks embedded in traditional societies in the region have often been considered to be essential components for sustaining strong and close solidarity in the local community.

Second, this study attempts to identify how peer effects influence household decisions on migration through empirical analyses that exploit the benefits of network data. A major challenge for the empirical literature on peer effects has been to distinguish endogenous effects from, for example, contextual and unobserved correlated effects (Manski, 1993; Bramoulle et al., 2009). This study attempts to overcome this identification issue by using detailed information on mutual interactions among all households in a local village. Specifically, spatial autoregressive models based on network data are used to identify the endogenous effects of peer behavior in social networks.

The results of the presented analyses suggest that while network position has little effect on household decisions to emigrate, peer effects can have an influence in this regard. The decisions made by the rural households analyzed in this study seem to be strongly affected by those of their neighbors. This finding implies that the existence of intense social networks, which can be sources of spillover effects, might increase migration from rural villages. This study also attempts to sort the varying impacts by different social networks in terms of peer effects. However, since the dataset used herein lacks longitudinal information, confirming the robustness of the presented results should be the subject of a future investigation.

The remainder of the paper is structured as follows. Section 2 reviews previous studies that have examined how network effects influence migration and introduces the perspective of the peer effects of networks. Section 3 describes the data and setting. Section 4 presents the preliminary results of the analysis of network effects. Section 5 provides the model specification and estimates the peer effects of social networks in the defined setting. Section 6 summarizes the results and provides concluding remarks.

2. Background and literature review

2.1. Network effects of migration

Recent migration studies have increasingly reported the effects of migration networks (Massey et al., 1993; Munshi, 2003; McKenzie and Rapoport, 2007). Migration networks refer to the interpersonal ties of kinship, friendship, and shared community origin that bridge migrants and non-migrants in origin and destination. Theories on migration networks predict that factors such as connection to someone living abroad and living in areas with a large number of migrants or previous migration experience are expected to increase the likelihood of migrating. Migration networks can lower the costs and risks of movement and increase the expected net returns to migration. In addition, migrants and return migrants can support non-migrants in origin countries by providing information that reduces uncertainty about the economic opportunities abroad and the cost of leaving home, thus simplifying the immigration process or job search in the destination country. The importance of family- and community-based networks in the decision to migrate has also been suggested in the literature (Winters et al., 2001; Angelucci et al., 2009).

Recent studies have attempted to examine the determinants or selection patterns of emigration in Central Asian countries. For example, Atamanov and Van den Berg (2012) found that household characteristics such as a lack of access to land and greater land size increase the likelihood of both permanent and temporary emigration from Kyrgyzstan, while higher education only leads to permanent migration. By contrast, with regard to migration from Tajikistan, Kumo (2012) found no correlation between household income and amount of remittances sent from abroad, but showed that high-income households are more likely to supply migrants. These empirical findings have also implied the presence of positive network effects. For example, they have used proxy variables such as the ratio of households with past migration to the total number of households in a locality and confirmed their positive effects (Atamanov and Van den Berg, 2011, 2012). However, identification issues have thus far prevented authors from distinguishing different types of network effects or overcoming network endogeneity.

2.2. Influence of peer effects

While the network effects of migration have been studied extensively, few studies have so far focused on peer effects in this context. The peer effects of networks are different from simple network effects in that they consider the actual behavior of other network members. Even though the individual is involved in a large network, if the majority of network members do not migrate, the network may have little effect on the individual's migration decision.