



“Network” migration: An instrument to access “un-codified” innovation

Dr. Sukanta Saha

Associate Professor, Department of Management, Eminent College of Management & Technology, Barasat, Kolkata, West Bengal, India

Abstract

The present study is confined to incorporate two particular factors determining localized industry formation relates, namely innovation (new economic knowledge production) and labour (skill) mobility. It becomes difficult for several of the small informal firms with their extended organizational networks at the local level to get easy access to new economic knowledge production through executing their own R&D due to their insufficient fund. One important access for them comes from the process of spatial (skill) labour mobility to grab the on-going innovation in the market. Therefore, it is a significant insight to detect the strategies the small informal firms do adopt to become familiar with the ongoing changes in the market in order to get access in the new economic knowledge production in order to ensure their survival within the industry by accruing their network in the process of on-going spatial labour mobility. The “network” migration serves as an effective mechanism for the small informal sector entrepreneurs to grasp the new economic knowledge production in the process of socialization in a cost-effective way, thereby promoting growth of the industry. The logical argumentation of the study is based upon literature support, case studies conducted and primary survey results with appropriate analyses.

Keywords: informal sector, cluster economy, externality, location

Introduction

With the increasing pace of globalization and the rise of “alliance capitalism”^[1] considering the growing prominence of intellectual capital [Dunning 1998], a successful incorporation involves the analysis of extended organizational networks between firms at the local level with kinship kind of relationship not only between firms but also between firms and local level agents incorporating innovation at the local level. One of the important characteristics of several informal localized industries^[2] is that often they are agglomerated^[3] in specific spatial clusters^[4] with concentration^[5] of production units in specific in particular geographical horizon. Transport cost advantage, Supply of raw materials, Patronage of a court, Presence of a town, Economies of scale, Knowledge spillover and Factor mobility are a few of the factors incorporating informal localization, as referred by the Classical theories of Location Economics and to the New Economic Geography school^[6].

The present study is confined to incorporate the relationship of two particular factors, namely innovation (i.e. new economic knowledge production) and labour (skill) mobility. It is observed that the large firms of the industry can easily carry their R&D (innovation). However, it becomes difficult for the small informal firms with extended organizational networks at the local level to get easy access to new economic knowledge production through executing their own R&D due to their insufficient fund. One important access for the small informal firms comes from the process of spatial labour (skill) mobility to grab the on-going innovation in the market. Therefore, it is a significant insight to confine the relation between innovation (new economic knowledge production) and labour (skill) mobility. Therefore, it appears important to detect the

strategies the small informal firms do adopt to become familiar with the ongoing changes in the market to get access in the new economic knowledge production in order to ensure their survival within the industry by accruing network in the process of labour mobility between spaces.

Methodology of analysis

The logical argumentation of the study is based on literature support, case studies and primary survey results. The survey process is exhaustive. The survey is based on qualitative purposive sampling with semi-structured questionnaire and indirect interview method. The micro-level field studies, sampling design and data analysis procedure are based on the standard model approach. The implication is that the selection of any sampling region of the study does not depend on data availability (or data non-availability) hence avoids any kind of error arising due to spatial homogeneity. The production units of a cluster within an industry in concern are considered to be non-homogeneous by nature. However, spatial distribution of the production units of a single industry under consideration is cross-sectional, given and known. Sometimes an ethnographic study has been approached due to data non-availability and non-responses in the sample survey area.

Access to innovation: Social skill generation

In the informal sector activities, skill or the learned capacity (or abilities) that one possesses sometimes becomes domain-specific^[7]. For instance, in the Gems and Jewellery industry in West Bengal, skill refers to the incorporation of finer handmade craft works while preparing jewellerys with simple tools, e.g. cutting and fitting stones, carving of intricate designs, coloring and finishing, and many others. Such skill

incorporation sometimes becomes domain-specific. For instance, artisans of the “Growth pole”^[8] of Domjur in Howrah district in West Bengal are specific in diamond setting or the artisans of Bengal are renowned for the skill and innovativeness in hand-made jewellerys throughout India.

To measure or estimate such social skill, knowledge endowment is a significant component. In an informal set up with informal bonding and belongingness among the group members or community workers (network formation), knowledge endowment often appears in the form of knowledge spillover (which is easier within a spatial localized industry) in the form of easy knowledge flow - even it appear in gossiping in streets and tea stalls in case of several informal sector activities. Such a knowledge spillover arising out of labour market pooling (network formation) and information (knowledge) spillover in the product and labour market processes makes it easier to access innovation (new economic knowledge production) in absence of Patents mostly in an informal set up.

Knowledge spillover through spatial labour mobility

However, such a knowledge spillover may find out its own endeavor in the form of spatial (skill) labour mobility in order to extract higher wages and better work conditions due to the phenomenon that it may act as the proper recognition of the skill and knowledge endowment of the informal sector labourer. One major cause behind such a spatial labour mobility in any particular informal industry lies in the fact that skill has always a tendency to flow in absence of much paper works and conditionality regarding recruitment of labourer. Skill usually attempts to find a market for its own - therefore, skill always shows the tendency to flow at destination(s) for earning higher incomes. The physical (spatial/horizontal) labour mobility of the informal sector provides the opportunity to sell their skill at higher prices.

To view the validity of the phenomenon at the micro-level, the migration literature observes migrants as rational individual agents who decide to move spatially on the basis of their own cost-benefit calculations. The workers usually accept the costs and risks of such a physical out-migration if their probable income at destination becomes higher than their earnings at the local labour market at the origin. Such a labour mobility depends upon skill-specificity of the labour and specific labour market structure(s) [Borjas 1989, 1990]. Here, social capital plays the role of a guarantor at the time of recruitment of labour – however, such informal bonding and belongingness becomes insufficient to tie up labour at a particular place. Moreover, we have to keep in mind Krugman’s famous argument in New Economic Geography that “knowledge flows are invisible, they leave no proper trail by which they may be measured and tracked”.

Stochastic skill-deterministic network migration

In the process of such spatial labour mobility, skill is considered to be a (human) capital - which is earned by investment of social capital^[9] and now is invested as a (physical) capital in order to earn higher wage earnings from the far distance areas of the informal labour market structures at destination. Here, accumulation of skill is actually considered as accumulation of (human) capital that results in

higher wage earnings through spatial labour migration.

The already “settled” migrants function as the “bridgeheads”, thereby reduces material-psychological costs and risks of later migrants by providing information, remittance, feedback and higher standard of living for the family members of the migrant worker (the functioning of the ‘feedback mechanism’) through the formation of a migrant community (network). Here, “networks”^[10] are considered to be a form of social capital that people at the origin draw upon to gain access to employment at destination. To describe the role of social capital in migration formation, at the receiving end, social capital (in the form of migrated kin) influences to legal, political and financial obstacles to immigration and at the sending end it reduces the costs and risks of migration.

In this way, the skilled and experienced workers at the origin try to utilize their social capital possession and move to the market at destination to earn higher incomes. Higher is the skill, higher is the probability for spatial network migration, thereby enhancing higher (expected) income earnings and other considerations such as better work condition, higher education for their children, better health care facilities for their family members etc. This ‘stochastic’ pattern of skill-deterministic labour mobility strictly depends upon individual characteristics to cope with the costs and risks of migration at destination.

Such a “chain”^[11] (network) migration brings migration flows (and counter-flows) of goods, remittances, ideas and information tend to be geographically structured with spatially clustered flows. Migration then becomes almost systematic out of these specific sites, following a particular pattern or “system” (Massey, 1990). Here, a migration system is referred as a set of places linked by flows and counter-flows of people, goods, services and information that facilitate further exchange (including labour migration) between sites. Such “system” migration sometimes becomes sufficient to alter socio-cultural-economic-institutional conditions at both the sending and receiving ends (Levitt, 1998).

To extract un-codified knowledge externality

With easy “network” migration, the informal worker not only switches over to a new firm for higher wages but also presents himself in the new workplace along with his acquired skill and knowledge endowment acquired in the old firm in a non-market transaction process. The producer of the new firm hereby reduces his costs of discovery of new knowledge and its exchanges by getting access to easy knowledge spillover from the newly migrated informal worker due to the presence of socialization of social skill^[12] from which the new firm extracts positive un-codified (tacit)^[13] knowledge externality. Tacit knowledge is the knowledge which can spill over easily and incorporate some economic value. The Marshall-Arrow-Romer^[14] externality suggests that an increased concentration of a particular informal industrial activity within a specific geographical region facilitates successfully an inter-firm knowledge spillover thereby promotes incentives to cost-effective innovative activity and positive knowledge externality across firms.

The significance of knowledge externality especially crucial since estimation of knowledge production function is difficult in an informal industrial set up. The small firms use such

informal operations and spillovers as necessary tools to get access in new (tacit or un-codified) knowledge production function. When this tacit knowledge is uncertain in nature, it is referred as sticky knowledge ^[15]. Since the tacit knowledge spillover appears to be uncertain, hence sticky, in an informal set up – the small informal firms minimizes the inherent stochastic behavior of sticky knowledge production function through accruing stochastic procedure of spatial labour mobility which makes it possible to transmit direct and face-to-face interactions among the informal workers of the migrant community with frequent and repeated non-market contacts of both the migrant and non-migrant informal workers within a spatial cluster. For this, the informal entrepreneurs often maintain emotional tie-up and effective communication with their labourers and henceforth execute positive externalities inherent in the production process through considering extraction of positive knowledge externalities as an effective tool.

Conclusion

The workers of the informal sector occupation become keen to acquire social skill (both qualitative and quantitative) even by investing their social capital through appropriate community network with already existing social rules and relations created, communicated, and changed (in verbal and nonverbal ways) in the process of socialization ^[16]. The “network” migration serves as an effective mechanism for the small informal sector entrepreneurs to grasp the new economic knowledge production in the process of socialization in a cost-effective way, thereby promoting growth of the industry.

End Notes

Alliance capitalism includes both strategic alliances and acquisition exchange deals between firms [Cantwell, 1999]. The issue of ‘localized industry’ owes its origin to the writings of Alfred Marshall. A localized industry is an industry concentrated in certain geographical spaces. To Marshall, an “industrial district” means an area (a district) where a concentration of firms has settled down in a particular industry or in a group of industries. Usually a “localized industry” is an industry concentrated in certain geographical spaces. But an “industrial district” refers concentration of firms in an industry (or a group of industries) has settled down. The term ‘agglomeration’ of firms refers to decline in average costs in production as more production occurs within a specified geographic area [Anas, Arnott and Small 1998]. In other words, it relies strongly on increasing returns to scale, considering internal and external economies of scale. However, the concept of agglomeration in the literature of Handerson (1974, 1977, 1988, 2000) and Tabuchi (1998) is due to positive external economies of scale which are industry-specific.

Cluster of enterprises is a geographical concentration of micro, small, medium and large enterprises producing same or similar type of goods and services.

As referred by Brulhart (1998), while concentration analyzes location across space of a few well-defined sectors, agglomeration analyzes location across space for a larger part of economic activity, and specialization deals with share of a particular location in specific industry in comparison to share

of other locations in that industry.

Ref: Saha, Sukanta (2015), Informal Localization of Bag Producing Industry in Belgharia: The “Industrial District” Syntax Inferring A Formal-Informal Rivalry?, International Journal of Current Research, vol. 07 issue 11, pp. 22928-22934.

Skills can often be divided into domain-general and domain-specific skills. For example, in the domain of work, some general skills are observed, e.g. better time management, teamwork and leadership, self-motivation and others, whereas domain-specific skills would be useful only for a certain job, e.g. carving raw gold to assigning intricate design, cutting stones, polishing, finishing etc. to produce gold jewelleryes.

Domjur Gems and Jewellery and Panchla Zari and Embroidery industry in Howrah has been considered as ‘growth pole’. The concept of economic growth pole was introduced by French economist Francois Perroux (1949). The idea is based on external economies of scale, agglomeration of small scale industries, and linkage effect. The concept states that a combination of these three at a particular geographical space is sufficient to make an area a growth pole to the region (or district).

Social capital is social organizations (such as trust, norms, reciprocity, co-ordination, interactions belongingness and networks) between producers and workers that facilitate better co-ordinated actions.

Here, “networks” are defined as sets of interpersonal ties that connect migrants, former migrants, and non-migrants at the origin and at destination through bonds of kinship, friendship and shared community.

Ref: Djajic, 1986; Taylor, 1999. However, migrants here are referred as restrictive “gatekeepers”, unwilling to assist prospective migrants beyond the community [Appleyard, 1992; Massey *et al.*, 1993 ^[11]; Bocker, 1994; Waldorf, 1998; Levitt, 1998; Massey, 1999; De Haas, 2003].

Social skill is nothing but the skill that facilitates interaction and communication with others in the society.

The idea of tacit knowledge may be found in the literature of Jacobs (1969). The distinction between information and tacit knowledge lies in the fact that the marginal cost of transmitting tacit knowledge is the least with frequent social interactions and communications, despite the fact that the marginal cost of transmitting information across space has declined much over time [Glaeser *et al.*, 1992].

Ref: Saha, Sukanta (2015), Small Firms’ Access To Innovation In The Bengal Zari & Embroidery Industry, The International Journal of Humanities and Social Sciences, vol. 3 issue 09, pp. 75-79.

The idea of sticky knowledge is applied by Von Hippel (1994) and Manski (2000).

To Scitovsky (1954), incorporation of imperfect competition initiates internal economies of scale that implies market power. Scitovsky distinguishes between “pure” (technological) and “pecuniary” external economies. The former affects firm’s production function (e.g. Marshallian “information spillover”). Arrow (1962) identifies externalities associated with knowledge which is non-exclusive and non-rival in use. However, Romer (1986) and Krugman (1991) ^[7], Lucas (2001) and Lucas and Rossi-Hansberg (2002) have relied upon increasing returns in production which generates externalities.

References

1. Handerson JV, Thisse JF. Handbook of Regional and Urban Economics, Cities and Geography. Amsterdam: Elsevier. 2004, 4.
2. Harris-White B, Gooptu N. Mapping India's World of Unorganised Labour. Socialist Register. 2001; 37:89-118.
3. Hotelling H. Stability in Competition. Economic Journal 1929; 39:41-57.
4. Kim S. Labour Heterogeneity, Wage Bargaining, and Agglomeration Economies. Journal of Urban Economics. 1990; 28(2):160-177.
5. Krugman P. The Hub Effect: or, Threeness in International Trade. In W. J. Ethier, E. Helpman, & J. P. Neary, Theory, Policy and Dynamics in International Trade. Cambridge: Cambridge University Press. 1993.
6. Krugman P. The New Economic Geography: Now Middle-Aged. The Association of American Geographers. 2010.
7. Krugman P, Obstfeld M. International Economics: Theory and Policy. New York: Harper Collins. 1991.
8. Marshall A. Principles of Economics. London: Mac Millan. 1890.
9. Marshall A. Elements of Economics. London: Mac Millan. 1892.
10. Marshall A. Industry and Trade. London: MacMillan. 1919.
11. Massey DS, Arango G, Hugo G, Kouaouci A, Pellegrino A, Taylor JE. Theories of International Migration: A Review and Appraisal. Population and Development Review. 1993; 19(3):431-466.
12. Ottaviano G, Thisse JF. Agglomeration and Economic Geography. In J. V. Handerson, & J.-F. (These, Handbook of Regional and Urban Economics. Amsterdam: Elsevier. 2004, 2563-1608.
13. Quigley JM. Urbanization, Agglomeration and Economic Development. Washington D. C.: Working Paper No.19, Commission on Growth and Development, IBRD, The World Bank. 2008.
14. Rosenthal SS, Strange WC. Geography, Industrial Organization and Agglomeration. Review of Economics and Statistics. 2003; 85(2):377-393.
15. Rosenthal SS, Strange WC. Evidence on the Nature and Sources of Agglomeration Economies. In J. V. Handerson, & J.-F. Thisse, Handbook of Regional and Urban Economics, Amsterdam: Elsevier. 2004; 4:2119-2171.
16. Saha S. Argument for Informal Cluster Industry Formation: The Case of Sinthi Gold and Jewellery Industry. Journal Desh Vikas. 2015, 103-110.
17. Saha S. Bowbazar Gems and Jewellery Industry: A Classical and NEG Syntax. Journal of Commerce and Economics. 2015, 5-12.
18. Saha S. Bowbazar-Sinthi Gems and Jewellery Core-Ancillary Linkage Model. International Journal of Current Research. 2015, 18688-18693.
19. Saha S. Expanding Growth Pole and Thriving SEZ in the Bengal Gems and Jewellery Industry. *Ushus* Journal of Business Management, 2015, 15-32.
20. Saha S. In Search of Effective Argumentation For Informal Sector Growth: The Case of Emerging Bag Producing Industry and Gems & Jewellery Industry in West Bengal. International Journal of Applied Research. 2015, 795-801.
21. Saha S. Informal Localization of Bag Producing Industry in Belgharia: The "Industrial District" Syntax Inferring A Formal-Informal Rivalry? International Journal of Current Research. 2015, 22928-22934.
22. Saha S. Informal Localization: Incorporating Diversified Entrepreneurship Development Models. In A. G. Mathani (ed.), Industrial Engineering & Management. New Delhi: International Research Publication House. 2015, 67-79.
23. Saha S. Localization of Small Informal Industrial Clusters: A Comparative Analysis of Hosiery & Bag Producing Industry. International Journal of Development Research, 2015, 6099-6105.
24. Saha S. Panchla Zari and Embroidery Industry: An Informal Industrial District? Journal Desh Vikas. 2015, 49-58.
25. Saha S. Spatial Concentration and Localization: A Core-Periphery Linkage Model of Domjur-Ghatal Gems and Jewellery Industry. International Journal of Information Research & Review. 2015, 893-899.
26. Saha S. The Case of Belgharia Hosiery Industry In West Bengal: Exhibiting Marshallian "Industrial District" Syndrome? The International Journal of Business & Management. 2015, 544-550.
27. Saha S. The Growth Pole Syntax: The Case of Bengal Gems & Jewellery and Zari & Embroidery Industry. International Journal of Information Research & Review, 1170-1175.
28. Saha, S. (2015). The New Economic Geography Synthesis: An Insight Into The Informal Spatial Clusters. In Dubey, Ajit D. (ed.), Business Innovation (pp. 127-134). Gorakhpur: Research India Publication.
29. Saha S. The Trend of Spatial Labour Mobility in Domjur - Does It Inherit A "J-Curve" Effect. *Acme Intellects International Journal of Research in Management, Social Sciences & Technology - Reforms Thru Research*. 2015, 78-88.
30. Saha S. Value Network Model and Informality: The Case of Bengal Gems & Jewellery Industry. In Dubey, Ajit D. & Yadav, V. K. (ed.) Advanced Management Practices In Business. Braunschweig: Book Hill Publishing House. 2015, pp. 114-121.
31. Saha S. Whether Firms Are Leap-Frogging: In The Bengal Zari & Embroidery Industry. International Journal of Current Research. 2015, 20920-20925.
32. Saha S. Industrial Growth or Regional Development: An Informal Localized Industry Argument. Indian Journal of Regional Development and Planning India. 2016, 69-81.
33. Saha S. Theoretical Argumentation For Informal Localization: A Logical Standard Model Based Approach. In Abraham, M. (ed.) A Wholistic Approach To Social Science Research Methodology: A Handbook For Social Science Researchers & Scholars. Visakhapatnam: Desh Vikas Publication. 2016, 77-84.
34. Sigel E. The Indian Informal Sector: The Impact of Globalization and Reform. International Labour Review. 2010; 149(1): 93-105.
35. Tabuchi T. Agglomeration and Dispersion: A Synthesis

- of Alonso and Krugman. *Journal of Urban Economics*. 1998; 44:333-351.
36. Vickrey WS. The City as a Firm. In M. S. Feldstein, & R. P. Inman, *the Economics of Public Services*. London: MacMillan. 1977, 334-343.
 37. Williamson JG. Migration Urbanization. In H. Chenery, & TN. Srinivasan, *Handbook of Development Economics*. Amsterdam: North Holland. 1988; 1:425-465.