

The Mobility of Business Knowledge



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ABSTRACT

Different aspects of business knowledge's mobility are analysed in the paper. We define business knowledge as action-related skills, and codified messages that contribute to the effective combination of inputs. In other words business knowledge can be explicit at times, but also may appear as highly implicit. The mobility of the factor is extremely important: if it is found that certain elements of business knowledge are immobile, enterprises may only get access to it if they move to regions where it can be found in abundance.

The paper shows that the more implicit the business knowledge is, the less mobile it is likely to be. The relative immobility is explained with the special influence of innovation systems. Companies in the Visegrad-countries may also be affected by the phenomenon, as they will also find that the easiest way of getting access to certain elements of business knowledge is by investing in knowledge intensive regions of Central and Eastern Europe.

KEW WORDS: *innovation systems, knowledge mobility, tacit knowledge*

Importance of Factor Mobility

The investment strategy of transnational corporations (TNCs) is often driven by the continuous search for better quality, and/or cheaper inputs. The presence, or lack of certain inputs in certain regions can motivate TNCs to get access to them through foreign direct investment, a method we call indirect, because it does not bring the resources to the

company (a direct method), but rather it brings the company to the resources.

One of the inputs companies are looking for is business knowledge. We define business knowledge as action-related skills, and codified messages that contribute to the effective combination of inputs. Most authors break down knowledge into two main categories: into a tacit and an explicit one. This paper takes a dual approach in the analysis of foreign direct investment:

- we assume that foreign direct investment can be motivated by the scarcity, or abundance of business knowledge in certain regions;
- and it is also assumed that the mobility of business knowledge may at least partly explain the decisions made over choosing a direct or indirect way of acquiring it.

The core of the paper addresses the problem of mobility of business knowledge. First of all it argues that the duality of knowledge (tacit and explicit form) affects its mobility as well. Explicit knowledge is partly separated from the human dimensions, and many of its characteristics therefore make it similar to capital, a mobile factor. Tacit knowledge however cannot be separated from its owner – individuals. This fact makes it more similar to labour, a factor that has several mobility limitations.

Apart from the similarities drawn between the different forms of business knowledge, and traditional factors of production, mobility, or, better put, the lack of mobility is also explained by the presence of so called innovation systems. Innovation systems offer a special atmosphere for the creation and sharing of knowledge. The best qualified people are educated in such innovation systems, and they hesitate to leave them, because the system helps them to get access to knowledge they can use during their professional career. In other words the creation of tacit business knowledge is highly concentrated, and it does not spread out either (through mobility), because it can be used much more effectively within the system. The very fact of interaction between the creation and use of knowledge makes these innovation systems so powerful.

If companies want to get access to tacit business knowledge, they can be forced to choose the indirect way, and acquire it through foreign direct investment. By doing it, they not only will establish a new corporation, but they will also become a part of an informal network of the innovation system.

Foreign Direct Investments and the Mobility of Factors

Foreign direct investments (FDI) have been the driving force behind the economic development of many developing countries. Still, much of the invested capital has flown towards the three most developed regions (UNCTAD 2004). There are many theories addressing the reasons of capital flows, however they can be categorised into three main groups:

1. Into the first group fall those theories that explain FDI with the securing of certain advantages. They analyse the endowments of the country of destination, and try to identify elements that may explain the investment. Such element can be the presence of some scarce factors, favourable input prices, or market conditions. The argument of this paper can also be referred into this group.
2. The second group of theories is related to the use of existing competitive advantages. They do not address the issues concerning the creation of such advantages and only deal with the challenges arising when a company already has an edge over its competitors.
3. Finally, into the third group fall the theories that explain FDI with the TNCs attempt to avoid certain disadvantages. They are much the same as the ones in the first group, but this time the characteristics of the emissive country are analysed (Szentés 1999, 456-478).

The typology above suggests that FDI is often determined by the scarcity of resources in a region. If an input is not locally available, companies have three options: 1) substitute the input with another; 2) import it directly from other regions; or 3) choose the indirect way, and get access to it through FDI. If the first option is excluded, the decision will depend on the mobility of the given factor. It is generally accepted that capital is the factor that is most mobile, land is immobile, and labour is somewhere in between the two.

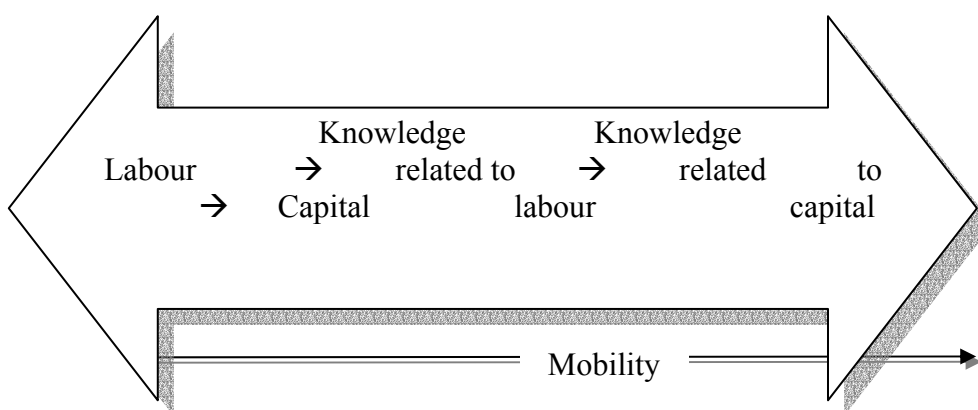
Among these classical factors business knowledge is not listed. The restricted size of the paper does not make it possible to argue for, or against the inclusion of business knowledge, so here we will assume that business knowledge is an important input of the company, and strategies concerning its acquisition do not differ from those of the other factors. If

this assumption is taken into consideration, then the decision again will depend on the mobility of business knowledge.

This paper adopts a comparative approach in the analyses of mobility of business knowledge. Comparing its characteristics to those of capital and labour, we can find the elements determining its mobility. Figure 1. shows us a theoretical rank of factors in terms of their mobility. Knowledge related to labour is tacit knowledge, while that related to capital is explicit knowledge. The distinction between the two forms of knowledge was introduced by Michael Polányi (1966), and later on adopted by most authors researching knowledge management issues. The knowledge of every person is made up of two spheres: one that is related to facts and arguments (explicit); and another much deeper and complex one that comprises beliefs, feelings, experience etc (tacit). Although the latter is more important, often only the first can be shared with others. The reason for that is that only explicit knowledge is separated from individuals, in other words only explicit knowledge is available in a form that anyone can have access to.

The similarities with labour and capital are apparent. Just as the labour force cannot be separated from individuals, tacit knowledge cannot be either, and, on the other hand, capital and explicit knowledge can flow easily from one individual to another. This is the reason why first the characteristics of the labour, and capital flow is examined.

Figure 1: Mobility of factors



Capital

The dynamic growth of capital flows among regions is both explained by instrumental and institutional conditions. I call instrumental the conditions that are directly related to the given factor. Such an instrumental condition is the fact that the owner and the user of capital can be separated. Capital can easily find its way to those who are willing to invest it – domestically or internationally. Another instrumental condition is that capital is more or less independent from the variants of the environment. When investment options are examined the only relevant factors considered are the risk and the expected profit. No regional characteristics can really get among the important factors considered.

However, risk is something that might vary from region to region. So there might be regions that are excluded from the options of good investment destinations because of intolerably high risks. Institutional conditions of capital movement are the one that guarantee that the risk of investment is within a tolerable range in most parts of the world. Such institutional conditions are – amongst others – the international agreements guaranteeing the rights of investors, the convertibility of currencies or other legislative guarantees taken in most developing countries of the world.

Labour

The international flow of labour has its instrumental, and institutional conditions, too. First of all, the owner and user of labour is the same individual – they cannot be separated. Therefore labour not only has to be available in abundance in a region, the owner of the labour has to be willing to use it, or if the demand is stronger in other regions, has to be willing to move it across borders. That is a significant limitation to the flow of labour, because many people do not like to move at all. Besides, the use of labour is largely dependent on the variants of the environments. The language can be different, also the tempo, the intensity, the timing of work. Finally, another instrumental condition of labour flow is the difficulty related to the mobilisation of individual assets and properties.

Despite these difficulties, many choose to try and find a job in a different country. They are not limited by the instrumental conditions, however they most often are by institutional ones. Countries defend their

domestic labour market with many administrative regulations. Usually only a limited number of foreign employees are allowed to legally apply for a job, no wonder labour is much less mobile than capital.

Business Knowledge

As suggested above, the instrumental and institutional characteristics of capital and labour flows can be used to explain the mobility of business knowledge as well. As Figure 1. shows explicit business knowledge is closest to capital as regards to its mobility characteristics, yet it is less mobile. Although explicit knowledge can be separated from individuals, it is not independent from environmental variables. Knowledge is only valuable if it is understood, so it can only be used in an environment where adequately qualified people are available who are able to interpret it. But institutional conditions are even more restricting. Capital markets are well developed and solutions are available to all parties at calculable prices. Such markets of explicit business knowledge do not exist. Owners of knowledge often fear that their property can be copied illegally, so they hesitate to offer it on the market. On certain fields the markets of knowledge work well (licensing in pharmaceutical or chemical industry, franchising in certain areas of services), but these areas are very limited. In most cases prices are difficult to foresee, and this leads to a general mistrust towards the commercial exchange of knowledge. Thus explicit business knowledge can be mobile (due to its instrumental characteristics), but it is by far not as frequently transferred over borders as capital is.

Tacit business knowledge on the other hand is more like labour. It cannot be separated from its owner, and so if its owner is not willing, or not allowed to move to another country, it will not become mobile. But tacit business knowledge is also different from labour. One of the main problems with the flow of labour is the differences in language and lifestyles. Tacit knowledge however is typically carried by individuals who are well educated, speak foreign languages and can flexibly adjust themselves to changing conditions. They are also much less restricted by legislative and administrative restraints. Most countries will happily be willing to admit highly qualified employees, because they know that it makes a country more powerful.

If neither the instrumental, nor the institutional conditions restrict the free flow of tacit business knowledge, then what is the reason behind its

limited mobility? The limited mobility is explained by the special atmosphere of innovation systems.

Mobility of Tacit Knowledge and Innovation Systems

The idea of innovation systems was introduced by Freeman (1987), and developed further by Lundvall (1993), and Nelson (1993). They imagined systems that integrated the whole economy of a country. Innovation systems are characterised by intensive formal and informal links among companies, government agencies, universities, R&D institutions, financial banks, organisations of different sectors etc. Later, the idea of regional innovation systems was developed (Cooke 1997). A significant characteristic of the latter is that it is highly specified. Companies and other organisations involved in cooperation within the framework of a regional innovation system belong to the same sector of the industry. Therefore the knowledge needed by the companies of the regional innovation system is also specified, specific to the given sector of the economy. Companies that are connected to an innovation systems have a competitive edge over others, because they have access to the best qualified people that there is.

Specialised innovation systems have great affects on the mobility of tacit business knowledge. Just as companies, employees also benefit from regional innovation systems. Their benefits can be sorted into two groups: benefits during education, and benefits while sharing knowledge.

As Arrow (1962) pointed out in his paper on learning by doing, the efficiency of education can be much higher if students are not only given a strong theoretical background, but they also have the chance to try out the newly learnt material in practice. In an innovation system, where schools and universities engage in intensive relationships with companies, students have an excellent chance to learn by doing things. When graduated, these students possess much valuable knowledge than those, who did not have the chance to learn by doing. This is why the highly qualified workforce is often concentrated in small regions.

One might think that once these students have graduated, they will move to other regions in search of better jobs. Surprisingly however, they often want to get a job within the innovation system. This is because they have actually realised that the sharing of knowledge is much easier in such a system, than outside it. Most employees nowadays cannot stop learning

once they left the academia. Most industries are changing very rapidly, and employees are often faced with new situations. When an employee is faced with a new problem, he can either try to find a solution on his own, or alternatively he can ask others to help. The second option is much less time consuming, so it is a much more efficient way of getting things done. But it cannot be applied all the time, mainly for two reasons.

First, the people who possess the knowledge that can help have to be found, and secondly, somehow they have to be persuaded to help. In an innovation system it is not so difficult to find knowledgeable people. Companies have strong formal relationships with many other organisations, and the employees also have many informal relationships they formed during their life. The help of these people however is nothing like a market transaction. They are not paid, are not offered anything specific in exchange. If they will help, that is based on mutual trust. People help each other not because they want something specific in exchange, but because they know that if they need help, others will help as well. Mutual trust is a phenomenon that cannot be explained, however we know that it can only be sustained within a group if the members of the group are in a direct contact with each other. So if someone leaves the innovation system, he loses the direct contact with those who might help. This is why tacit business knowledge is not a mobile factor. It can work more efficiently in concentrated systems of innovation.

Conclusion

We have found that tacit business knowledge is immobile for two main reasons:

- it cannot be separated from humans carrying it, therefore some issues preventing the mobility of labour also affect the flow of it;
- it is most valuable when is integrated in a network of specialised knowledge called innovation system, and because innovation systems are localised, tacit business knowledge tends to be localised as well.

If companies want to get access to tacit business knowledge, they can be forced to choose the indirect way, and acquire it through foreign direct investment. By doing it, they not only will establish a new corporation, but they will also become a part of an informal network of the innovation system. Concentrating on the development of such innovation systems

therefore can be one of the most beneficial methods of economic development.

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Article history: Received: 12 January 2010

Accepted: 22 March 2010