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Title of paper: **Locational Behaviour of Young Firms**

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Abstract:

There has been a remarkable rise in both the number of new firms and in the economic significance of new firms in virtually all advanced economies during the past two decades. These new firms are said to be more locally embedded and thus less inclined to leave their home region. New firms are therefore seen as more secure providers of durable development of regional economies than branch plants. This paper examines the locational behaviour of young firms, that is the start-up location and subsequent relocation(s) of young firms. A life course perspective will be used to explain the locational behaviour of young firms. The focus will be on the role of personal (non-economic) and business economic factors that induce or constrain the locational behaviour of young firms.

1. Introduction

> In this Internet, wireless, telecommuting world, shouldn't you be able to start a company anywhere? Don't entrepreneurs found companies to take control of their lives – which means being free to live and work anywhere they choose? In the end, does location really matter to a growing business?
>
> Barker 1999

There has been a remarkable rise in both the number of new firms and in the economic significance of new firms in virtually all advanced economies during the past two decades. These new firms are – in contrast with the above statements – said to be more locally embedded and thus less inclined to leave their home region. New firms are therefore seen as more secure providers of durable development of regional economies than branch plants. This paper examines the locational behaviour of young firms, that is the start-up location and subsequent relocation(s) of young firms. Young firms that have survived the start-up phase and are entering a growth phase are assumed to have a high propensity to move (Pellenbarg 1995). Larger firms are less easy to move, especially due to the high amount of sunk costs.

Many firm migration studies base their explanations of (changing) geographic patterns on aggregated data in official registrations. This means that these studies lack information on the firm level and therefore confuse a mere correlation of factors with cause-and-effect relations. In this paper the focus on the locational behaviour of individual firms from a life course perspective. In this way cause-and-effect can be revealed. The focus will be on the role of personal and business economic factors that induce or constrain the locational behaviour of young firms.

2. Theoretical framework and former research

The geography of the (new) firm

> It only takes a moment's reflection to see that locational freedom does not mean locational indifference.
>
> Mitchell 1999, p.76

The study of the geography of (new) firms can broadly be divided in two questions:

1) where can new firms be found? and;
2) where do firms go to?

The first question is aimed at understanding where new firms emerge. The second question goes one step further and is more concerned with where do firms go (after they have started somewhere). These two questions mark the two traditions in the geography of the firm, respectively one dominated by socio-psychological and cultural variables and one dominated by economic variables. The former approach is based on the conception that new firm formation is a context-dependent, social and economic process (Reynolds 1991; Thornton 1999). The latter approach is based on the conception of firms that locate rationally according to a cost-minimising strategy, considering the distance transaction costs (transport costs, telecommunications costs, costs of inter-firm executive travel etc.) and the location specific factor efficiency costs (costs of local capital, land and labour inputs etc.) among alternative locations (cf. McCann 2000).

Start-up location

The pre-start (geographical) situation of the entrepreneur almost always plays a decisive role: new firms' founders are almost always local residents ((Reynolds and Freeman 1987; Allen and Levine 1986; Cooper 1985) in Allen and Hayward 1990; Keeble and Wever 1986; Lenz and Kulinat 1997) or have worked in the area/region in which they have located their new firm (Figueiredo and Guimaraes 1999). An entrepreneur is likely to have social and business contacts in a location in which he has been working and living before he started his firm (a familiar environment). This starting point in which the (nascent) entrepreneur has a package of personal knowledge, beliefs and business information makes it difficult to quantify the impact of the mix of somewhat intangible location factors (Cooper 1998, 254). This observation resembles economic sociologists argument that economic actors are shaped and constrained by the sociohistorical context in which they are located (Dowd and Dobbin 1997).

Illeris and Jakobsen (1991, p.42) in their study of new computer services firms in Denmark, found out that '(t)he choice of location turned out to be an un-premediated decision for the vast majority of the firms studied: they were simply located as near as possible to the founder's residence'. The firms that had moved several times since their start-up always stayed within the same urban area. An important conclusion of their study was:

> The fact that the firms did not make detailed locational studies when they started does not necessarily mean that the decision was unwise. Indeed, in the vulnerable early phases of a new firm, it may very well be wise to use the cheapest premises that can be found, and to use a minimum of resources at the search process. Very little can be concluded from the choice of location. Since the founders and mother firms already belonged to the sector, the creation of new firms simply tends to reproduce the existing locational pattern of the sector.
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> Illeris and Jakobsen 1991, p.42

Alexandersson (1967, p.22) distinguishes three types of industrial location decision-making about new establishments: the location choice of *new firms*, in which personal considerations play a relatively large role; the location of *branch plants*, in which the choice of the location usually is the outcome of more or less business economic considerations; the *relocated firm* (independent plant) takes a position in between the two mentioned. The differences in locational behaviour can be reduced to the extent in which the entrepreneur has the relevant business economic information and to the extent he strives for business economic optimalization (cf. maximization issues in a former paragraph). Figueiredo and Guimaraes (1999) found out that the entrepreneur's geographical origin is a key factor in explaining the actual location decision of new firms. They argue that the effect of the entrepreneur's geographical origin can be associated with assymetric information about the sites' attributes as well as the entrepreneur's personal factors, which increase the costs of an alternative location outside the region of origin of the entrepreneur. Markusen et al. (1986 in Cooper 1998, 254) also argue that the 'home town' plays a key role in influencing location choice, because this area is best known by the founder (local business knowledge such as suppliers, customers, and on the financial and property environment). A more powerful explanation of (new) firm location is provided by the previous work location (and the spatially connected residential location) (Cooper 1998). The underlying reasoning is that '(t)ypically, numerous information sources are consulted when setting up a business, and if the business is established where the founder has been living and working, then frequently contacts are already available in the local community, and even if they are not, they may be easier to establish due to local knowledge. Put simply, in order to move the benefits of moving should outweigh significantly the advantages of remaining in the same area, such as good local contacts/knowledge or lower costs.' (Cooper 1998, p.255), but it might even be questioned if the entrepreneur has enough knowledge about alternative locations to make a comparison. However, a contrasting statement can also be made: as new firm founders (or spin-offs) have build a (spatially) large knowledge base in their previous working environment, this could cause the new firm to be located in a location far from the previous work location (cf. Vaessen 1993). In this respect, we might expect that spin-offs that have more information about possible locations make a more (economic-)'rational' location decision than start-ups from 'scratch', and is perhaps better comparable with the decision to relocate an existing business.

A substantial part of the new firms begins in their owners' homes (Inc. 15-05-1997): everybody knows some now successful firms that started at an attic or a garage (e.g. Hewlett-Packard). The subsequent question raised is: how long do start-ups stay home-based? Some, like Hewlett-Packard, outgrow their garages and back bedrooms pretty quickly. But in general, there is no concensus on when these start-ups actually move to a more professional location

Relocation decision

Before asking "Where do firms go to after they have started somewhere?", the question "Why should firms leave their current location?" seems more realistic. Much of the relocation activity is reactive in nature, and certainly not the outcome of strategic intent (Carter 1996). (Location) Decisions will only made after certain obvious failures (stress/trigger, or threshold effect), because these events force organisations to search for adaptations/adjustments (for example a relocation). But the choice of actions (adjustments) can only be made out of a set of known alternatives (which can be enlarged by learning). With these remarks we already reject three assumptions of neoclassical (location) theory: 1) The actors are rational and have consistent preferences in the sense that the firms maximize profit; 2) The actors are fully informed about their surroundings and they also have perfect knowledge about all possible alternatives,and; 3) The actors have no costs of calculation; they instantaneously pick the best alternative or the best combination of alternatives (based on Swedberg 1991, p.21). In short, neoclassical location theory assumes firms to be 'frictionless' seeking, locating at the lowest cost locations and to be maximizing profits.

Although the assumptions of this neoclassical theory are now mostly acknowledged to be quite unrealistic (Storey 1982, North 1974), their influence is still significant in reasoning about the location of business organizations. Firms are said to leave certain regions in order to safeguard their economic survival, and they are continuously adjusting their locational patterns in response to changing external factors as they need (locational) *flexibility* to adjust to the changing environment. If this is so: then why do most firms not leave their region of origin?

With respect to the maximizing profit assumption the behavioural theory of the firm offers some useful insights. Decision makers (in firms) may better be characterized as satisfizers than optimizers (Simon 1959; Mueller and Morgan 1962). Simon (1979, p.510) in this respect states that:

> There can no longer be any doubt that the micro assumptions of the (neoclassical) theory … are contrary to fact. It is not a question of approximation; they do not even remotely describe the processes that human beings use for making decisions in complex situations.
>
> (Simon 1979, p.510)

Mueller and Morgan (1962, p.204) go on with arguing that '…the assumption of profit maximisation is too restrictive for an analysis of location decisions.' So firms might stay at their location even if this does not provide them with maximum profits.

Greenhut (1956) introduced the concept of 'psychic income' in the explanation of locational behaviour. This concept is clearly defined by Hoare (1983) as follows: 'Psychic income derived from a location is really a composite of a number of benefits that decision-makers and their families gain from proximity to friends, to a pleasant living environment and to familiar surroundings where they feel at "home".' With the concept of 'psychic income', Greenhut stressed the role of personal factors in locational choice (Greenhut 1956, p.277-9 and 282-3). The concept closely relates to the quality of life or standard of living which can be achieved in a certain location. In this respect, the acknowledgement of psychic income may imply a location choice that is not profit maximizing. Psychic income lowers the threshold level of performance for entrepreneurs, indicating that they may be willing to accept lower economic returns to gain personal satisfaction (utility) from the venture at a certain location (Gimeno and Folta 1997). Although Greenhut recognised the importance of psychic income in location decisions, the concept was hard to measure and quantify in economic location theory.

Sjaastad's (1962) concept of non-money costs closely resembles Greenhut's concept. Sjaastad (1962) recognises two forms of non-money costs: opportunity costs ("the earnings foregone while traveling, searching for, and learning a new job"), and 'psychic' costs (the costs caused by leaving familiar surroundings, family, and friends). Another micro-economic approach of migration which takes into account psychic income or non-money cost in the migration decision is stated by DaVanzo (1981). A central concept in her approach is 'location-specific capital'. This is a generic term denoting any or all of the factors that 'tie' a person to a particular place (DaVanzo 1981, p.116). Location-specific capital usually is the main reason for people not to move. Location specific capital 'refers both to concrete and intangible assets whose value would be lost or would steadily diminish if the person moved somewhere else: for example, job seniority, an existing clientele (as in the case of a well-regarded doctor or carpenter), a license to practice a particular profession in a certain geographic area, property ownership, personal knowledge of the area, and community ties and close friendships.' (DaVanzo 1981, 116).

The objective of a single optimum location has been relaxed by the spatial margins model of Smith (1966), which brings together the least cost-approach and the maximum revenue approach. In this model the optimal location for a firm is the location where the difference between costs and revenue is greatest in a positive sense. Next to this maximum-profit location there is a 'range of tolerance': second-best areas in which monetary revenues exceed costs. In these second-best areas, production is profitable, though profits are not maximal. This approach of Smith is referred to as 'spatial margins': locations in space where firms can survive, but with less than maximal profit. If the psychic income concept is connected with the spatial margins model, entrepreneurs which derive a relatively high *psychic* income from a certain location can choose to stay there in spite of sub-maximal *economic* income.

Push-pull-keep factors

A frequently used approach in economic geography to analyze the (re)location of firms is the location factor study or in other words the push-pull-keep paradigm. In these studies most often a pre-determined list of independent variables (location factors) is given and their influence upon the relocation decision is examined. The location factors are divided in three categories: push, pull, and keep factors. Push factors are location factors which 'force' firms to leave their location. When firms are reaching the spatial margins of profitability due to push factors, a firm may start thinking about relocation as an instrument to improve the current level of profits (Van Dijk and Pellenbarg 1999, p.5). Pull factors, are location factors which attract firms to other locations. Most location factors can work as push as well as pull factors, depending on the situation. Keep factors are the location factors that discourage or restrain firms from leaving their location. Examples of the different factors and are shown in the scheme below:

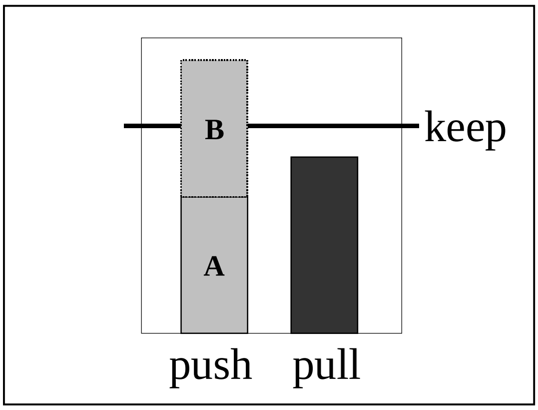
Push	pull	Keep
access to markets and sources of input		Investment in (human, physical, social) capital
site characteristics (lack of space for expansion)		Personal involvement

The importance of these factors differ per spatial level, for example site characteristics are an important location factor at local and regional levels, while the labour market is an important location factor at national and regional levels.

At first sight a combination of push and pull factors leads to the decision whether to relocate or not. Extreme push or pull factors can force the firm to move to another location/region. Examples of this situation are moves forced by government measures, for example a planning law which prohibit the expansion of firms, or natural disasters which make a region unsuitable for business use. Examples of extreme pull factors are very large incentives by regional development agencies which attract firms to another region.

However, firms only actually relocate when the keep factors are lower than the push or pull factors. The interplay of these push, pull and keep factors causes a gap between stated and revealed preference. For example, in a Dutch study only 50% of all owner-managers of firms who stated that they want to relocate, had actually moved 8 years later (Meester 19XX). The difference between this stated and revealed preference might be explained by three situations. First: the importance of the push or pull factors decreased. Second: in the end the keep factors seemed stronger than the push factors. Third: the pull factors did not exceed the keep factors. These situations can be schematically shown as follows:

Figure 1. Ensemble of push, pull and keep factors in the decision to move



When the push factors are increasing from A to A+B and thus exceed the keep factors, a firm will decide to relocate. In most cases the choice for relocation is driven by push-factors: generally a decision maker starts to think about a new location only when staying at the original location becomes nearly impossible. As a consequence the keep factors can be seen as the main reason for firms not to leave the region. An important example of a keep factor which has gained relatively little attention in formal analyses of location factors is the 'attachment to the own region' ('binding met de eigen regio': Meester and Pellenbarg 1986). Meester and Pellenbarg (1986, p.75-76) attribute to this factor diverse historical and personal motives that make that a firm stays put. These motives are partly emotional in nature and partly economic.

As location (factor) studies are almost always aimed at the analysis of firm migration or the decision to move, keep factors are often ignored. Of course, the analysis of the role of keep factors, in the decision to stay in a region (or locality, or site), is much more difficult than the analysis of the push and pull factors in the decision to move. In fact, the role of keep factors can only be examined if the decision makers are confronted with a hypothetical situation, which they might not have considered at all: Are you planning to relocate your firm, and if not, why not?

The keep factors can be analysed on two levels: the entrepreneur and the firm[1]. For these two levels of analysis we used the concepts 'place attachment' of the entrepreneur and 'local dependence' of the firm. Place attachment refers to the lack of willingness of the entrepreneur to move outside the place of residence. Local dependence refers to a dependence upon firm-internal and -external resources within a locality (cf. Oinas 1998), and refers more to the lack of ability to move. These two concepts 'embody' the keep factors which make a firm 'stick' to a place[2].

Keep factors of new and growing firms

A special 'type' of business organisations is recognised as having more personal reasons not to leave their region of origin: new and/or small firms (e.g. Greenhut 1952; Alexandersson 1967; Allen and Hayward 1990; Genosko 1997; Cooper 1998; Atzema and Lambooy 1998; Figueiredo and Guimaraes 1999). These firms are said to be embedded in their local community. However there is a tendency for these firms as they grow to become increasingly disembedded, transcending the local level (Gorton 1999). Over time as products mature and transaction and information networks expand firms become more “footloose” in their site decisions (however many new firms in ‘footloose’ industries like manufacturing and business services are still prodominantly focused on regional markets (Schutjens and Stam 2000)). ‘Small business prophet’ David Birch states in this respect:

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[1] The two levels of analysis have a different type of origin: firms are attached to a certain place largely because it is a necessary condition for its operation, while persons/entrepreneurs are attached to a certain place largely because it provides them certain 'social (psycho-social?) needs'/identity (Gerson et al. 1977; Giddens 1991) or because they have normative/moral commitments (cf. Etzioni 1988). Firms differ from persons/households in their attachment to place as they each have different necessary conditions to survive or operate. Oinas (1998, p.117) states in this respect that '… one has to keep a separation between personal attachment ("ideological") and a local dependence of a firm ("economic"). Of course, the ideological does affect the economic: e.g., personal attachment of owners or chief executives may lead to a local orientation (and dependence) of the firm; ideology may also facilitate a firm's becoming locally dependent in a case when other local actors are ideologically supportive of the actions taken by a firm.' Both levels of analysis are taken into account, as it is believed and empirically proved that especially in young firms the founder-entrepreneur plays an important, or even decisive role in the decion-making process.

[2] The definition of place is not yet determined. Place can be a nation but it could also be an urban region, or any functionally defined sub-national entity. The precise delimitation of place or local(ity) in geographical terms need not necessarily be a crucial point. In this stage it may be sufficient to state that it refers to a segment of territory characterized by a certain coherence based on common behavioural practices linked to its local institutions and culture, industrial structure and corporate organization (cf. Malmberg and Maskell 1997, p.38).

> I think you can pick a place just because you want to live there when your company is very small. But if you want to grow, you have to start figuring out what the business logic behind your choice of location is. (…) At some point growth companies hit a wall. And in many cases that wall is a geographical-preferences wall. And then the question is, What do they do? Do they go outside of the world in which they live, or do they stay at that size, fall off the list, and lead a comfortable, income-producing life? That it seems to me, is the choice to be made. I think any growing company has to make that choice sooner or later.
>
> (Inc. 01-12-1999)

Thus, it could be expected that as new firms grow substantially (which is however quite rare), they become increasingly disembedded and have more locational freedom and subsequently (have to, as we may believe Birch) leave their region of origin if this is required from a functional-economic point of view. However, in recent literature there is a debate on whether growth matters to the spatial behavior of business organizations. The counterargument is that business organisations are locally embedded and that this is one main reason for the spatial inertia of business organisations (Oinas 1998; Yueng 1998).

Research questions

As stated before, in this paper we focus on the spatial behaviour of firms in their early stages of economic life. Based on the literature we have formulated 6 research questions about the locational behaviour of new and young firms.

With respect to the start-up location:

- How many new firms start at home?
- Which firms do not start at home, and why?

With respect to relocation patterns during the first three years:

- How long do home-based start-ups stay home-based?
- Which firms stay put, and why?
- Which firms relocate, and why?
- Which firms relocate over a longer distance, and why?

Data and operationalization

Our empirical analyses rest on two sources: for the quantitative part we will use the Young Firm Panel. Next to these analyses we have more detailed information about the locational dependence via in depth interviews with young growing firms (case studies).

Quantative data: the Young Firm Panel

Many empirical research studies on new firms and their locational behaviour have a retrospective character. Entrepreneurs are asked about their locational strategies some years after the start of their firm. This leads to two problems. First, the causes for closure or migration of the new firms that did not survive can no longer be ascertained, since by definition the research population will only consist of entrepreneurs that did survive. The second problem is that memory problems can be quite substantial, especially when the firms are some years old. It may then be hard to remember the exact reasons for specific firm strategies. In order to avoid these problems and to analyse the major changes in the early life-stages of new firms, in July 1995 the Young Firms Panel was founded. This Panel contained 313 firms in manufacturing and business services that started activities in June-September 1995 in three Netherlands regions: the Greater Amsterdam region, the Province of Groningen, and the Twente-Salland region (see figure 3). After completing a broad questionnaire concerning the start-up characteristics of the firm, its location and the characteristics of its founder, the new firm and its owner were followed closely every year, during five years. During this monitoring, each year the founder was asked to report major changes with respect to locational aspects of management, production processes, employment, networks, marketing, suppliers, cooperation, networks and so on. We also asked about their objectives with respect to relocating the firm.

At this moment, the Panel has yielded its first results, since the first 3 years of the new firms can be analysed (1996, 1997, 1998). Only half of the 313 firms at the start in 1995 were still active in our Panel in January 1999: 155 firms had either stopped activities, or could not be traced, or refused to cooperate, or had migrated abroad. The other half, 158 firms, are still active and participating in the Panel. An overview of the Panel response through the years is depicted in Table 1.

Table 1. Young Firm Panel response 1996-1999

	Interview Spring 1997	*Interview Spring 1998*	*Interview Spring 1999*
Number of entrepreneurs	**313**	**255***	**198***
Economically active and remaining in the Panel	248	194	158
Not yet economically active, but remaining in the Panel	7	4	1
Stopped activities	35	31	21
Could not be traced back	15	20	12
Refusals	6	6	6
Moved abroad	2		

* each year we started interviewing the active and not yet active firms of the year before.

In using only the firms that were still in the Panel after the first three years for our analysis of start-up location and relocation, we encountered the serious problem of Panel selection bias. It may be possible that the firms that remained in the Panel were selective in their local dependence, their location and relocation behaviour. After all, the Panel lost 47 firms because we could not trace them back, even after extensive search by the regional Chambers of Commerce. Although we expect that a large number of these firms will have stopped active business, it is still possible that some of them actually moved and are still in business somewhere. If they really moved, it can be assumed that the local dependence of their start-up location was limited. To a lesser extent the same argument goes for the refusals (18 firms): it is possible that these firms differ from other firms with respect to their locational behaviour. In other words, by analysing only the firms still in the Panel we may have had biased outcomes, since these firms could have significantly different local dependence, location patterns and strategies compared with the firms that left the Panel (the 155 firms that stopped or could not be reached since their start: 313 minus 158). We therefore have to control for this Panel selection bias.

Qualitative data: interviews

More detailed insight in the extent and change of local dependence and location decisions during the life-course is gathered by means of in-depth interviews with young firms. These data will be presented in short case studies.

Operationalization

In this paper we analyze the local dependence of new firms in manufacturing and professional business services sectors. These sectors are chosen because these are assumed to be relatively independent of regional markets, so their local dependence cannot be explained simply by dependence on local markets (as in retail and hotel industries for example).

Analysis of start-up location

Analysis of relocation of young firms

Case studies (interviews)

Conclusion

References