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## Home-Based Business: Exploring the Place Attachment of Entrepreneurs

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# **Home-based business: exploring the place attachment of entrepreneurs**

**Paper to be presented at the ERSA Conference ERSA 2006 Conference in Volos, Greece, August 30<sup>th</sup> – September 3<sup>rd</sup> 2006**

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## **Abstract**

Entrepreneurship is crucial to a vital and thriving economy, even on the neighbourhood level. This view fits with current urban planning policy in the Netherlands, which aims to combine housing and economic functions within neighbourhoods. Since an increasing number of entrepreneurs start from home, achieving this aim calls for an understanding of the combination of workplace and home. However, there is limited knowledge about the specific role of the dwelling in the decision to start a firm from home and to remain there. This explorative paper focuses on the use of the dwelling as the location of a firm, both in the start-up phase and beyond in the firm's life course, and explanations of the choice of location. Our research questions are: how and why do entrepreneurs use their home to run a business and what determines the duration of home-based business in time; and how does this home location of the business relate to the propensity and decision to move?

In our empirical analyses, a combination of quantitative and qualitative research methods is used. We analysed data from 140 questionnaires sent out in April 2005 to young entrepreneurs who owned a firm in two Dutch urban neighbourhoods. These questionnaires were followed by in-depth interviews with 10 entrepreneurs.

We have found that most home-based businesses were started from home and are strongly tied to the dwelling - and therefore to the neighbourhood. Firms with past growth in the number of personnel and also firms with growth aspirations want to move relatively often. With respect to firm relocation and the personal propensity to move, housing characteristics such as adapted dwellings, owner-occupied, single family, and large houses are important. With respect to the future of home-based business, breaking the work-home combination is not a realistic option for most firms. Household characteristics and in particular the care of small children keep entrepreneurs home-based. Furthermore,

entrepreneurs who work almost full-time are relatively strongly attached to their home, which may point to an explicit - and maybe long-lasting - choice for being home-based. Economic policy should therefore foster start-ups within urban neighbourhoods, since many of them seem to be firmly anchored locally through attachment to the home.

## **1. Introduction**

The contribution of entrepreneurship to regional economic development is a topic that has been thoroughly discussed and studied in the past 20 years. On the individual level, new entrepreneurship means a realization of personal ambitions. On a higher level, regional economic policymakers view new entrepreneurship as a potential job creator, and even as a stimulator of competition and innovation. New entrepreneurs and their young and growing firms may build viable business networks and in due course generate local and regional employment, economic growth, and wealth. Furthermore, entrepreneurs with new and growing young firms are relatively immobile (Stam, 2003). New firms, especially those that may trigger other locally based firms and activities, should therefore be identified and targeted by economic developers (Blakely & Bradshaw, 2002).

Policymakers on all spatial levels are moving away from attracting large retail or manufacturing anchors towards the stimulation of local initiatives and the support of local business development (Blakely & Bradshaw, 2002, p. 41). This bottom-up approach implies the stimulation of new enterprises, the support of the growth and expansion processes of existing firms, and intervention instruments to prevent firm closures or relocation. This shift can be discerned in national, regional, and local or urban economic spatial policies. The emphasis is on fostering the existing small and medium-sized firm base within regions and neighbourhoods and rebuilding and stabilizing social and economic communities. To this end "...it should be determined which jobs 'fit' the local populace..." (Blakely & Bradshaw, 2002, p. 97). In this respect, it is remarkable that the impact of entrepreneurship on economic development on a smaller geographical scale has only rarely been studied. It can be argued that the impact of new entrepreneurs and new firms is felt most strongly within their own local or neighbourhood environment. This is especially true for home-based business development; this category of business dynamics and spatial economic vitality has too long been forgotten (Rowe et al., 1999). This special local impact derives from the fact that home-based entrepreneurs are attached to their location, which involves an evaluation of their dwelling and the combination of work and living accommodation. In many regional and even specifically neighbourhood communities there is a strong and active network of social

relations, driven by creative and entrepreneurial inhabitants of the area (Johnstone & Lionais, 2004).

Many entrepreneurs start their new firms from home. It is difficult to give robust results, mainly because of the different definition criteria; but empirical studies indicate that the percentage of home-based new firm startups varies from 50 percent (Kampkuiper, 2000) to 87 percent (Schutjens & Stam, 2003) in the Netherlands. The share of home-based businesses (also including older firms) is smaller, but still quite substantive: Pratt (1999) found that half of all US firms are home based (also see Phillips, 2002).

Spatial and more specifically urban and housing planning policy in the Netherlands is increasingly aiming at combining housing and economic functions of neighbourhoods. This calls for insight in the problems, needs, goals and possibilities of potential and new or young entrepreneurs with respect to combining work and home. However, as housing experts concentrate on dwelling types and moving decisions, and entrepreneurship specialists only take entrepreneurs and the firm's location into account, there is limited knowledge about the role of the dwelling in the decision to start a firm and to stay put. The converse is also of interest: does this location of the firm (at home) affect individual moving decisions?

This explorative paper is of relevance to urban housing policy which aims at encouraging potential entrepreneurs to set up their firm from their home. The focus is on the use of the dwelling as the location of a firm, both in the start-up phase and beyond in the firm's life course, and explanations for that choice. Our research questions are: To what extent do (new) entrepreneurs use their dwelling for their firm, what are the reasons for starting a firm from home, and to what extent did the dwelling need to be adapted? And when these home-based firms mature: how do the characteristics of the firm, the dwelling, and the entrepreneur relate to the propensity to move?

Before turning to an empirical analysis of home-based start-ups and their relocation propensity over time, we address the societal relevance of home-based business and briefly review the literature on location theory and keep factors from a micro-economical and geographical point of view.

## **2. The relevance of home-based business**

By starting and managing a firm at home, neighbourhood residents can contribute to at least three important aspects of an vital local economy.

First, new and young businesses, although often still small, have economic impacts. In addition to a direct employment effect, albeit limited in the first phases, since the entrepreneur then often works alone, small firms may grow and employ neighbourhood residents. Work near the home means a short commute, which may reduce costs and stimulate the combination of work, household, and caring tasks. An active and thriving small and medium-sized local business base enhances the building, maintenance, and rejuvenation of formal and informal business networks. These networks or clusters of firms with human, natural, and technological linkages are increasingly receiving the attention of economic planners (Blakely & Bradshaw, 2002, p. 69, Klomp & Thurik, 1997, p. 33). But professional networks are also beneficial to entrepreneurs and their businesses. Despite ICT-developments, geographical proximity to clients, suppliers, and other firms is crucial to many firm owners and especially those owning young and small firms, to reduce transaction costs, build trust and cooperation and innovation processes. These business networks may in turn function as magnets to attract other new firms or firms relocating from outside the neighbourhood.

A more indirect economic effect, particularly in neighbourhoods characterized by high unemployment and low education levels, is the role model of entrepreneurship – especially successful entrepreneurship. Small-scale entrepreneurship and the successful growth of young firms may stimulate potential entrepreneurs to set up their own firms. This especially holds when entrepreneurship and economic activity is clearly visible in the local living environment. It can be argued that this psychological effect of local entrepreneurship and small business developments is largest on the local level, within neighbourhoods, on the streets.

Second, entrepreneurs setting up and managing their firms from their home or within their own neighbourhood are more committed to neighbourhood development and community building. It can be assumed that both the personal mobility to move house and the firm relocation propensity decrease as the anchors of both work and personal, social, or family life become firmly based within the neighbourhood. People will stay longer within the area, which may stimulate financial and social investments in both the home, the firm, and personal and business networks. In this perspective, home-based businesses and the subsequent anchoring processes within the local social and business community may last a lifetime. This effect is even larger for entrepreneurial residents who have been actively involved in designing and building their own home in which they have anticipated space or even physical ‘room’ for future economic activities.

Third, local entrepreneurship and small-scale economic activity stimulate the liveliness and diversity of (urban) neighbourhoods. Economic and housing functions in the locality and the

neighbourhood can be fruitfully combined and this combination has many advantages. Busy, lively streets will develop as a contrast to monotone housing blocks. A larger variety, more traffic and people, entrepreneurs and their business contacts walking on the streets can increase a sense of safety. The appearance of a neighbourhood becomes more dynamic and varied, which may be important for both inhabitants and businesses in the area alike. Blakely and Bradshaw (2002) refer to this enhancement of the total liveability of a neighbourhood as “community improvement” (p. 171). In sum: the neighbourhood is ‘alive and kicking’.

### **3. Location theory and former research on home-based business: a literature review**

There is a long tradition in economic geography of research into the location-choice behaviour of firms and entrepreneurs. Below, we briefly discuss the main themes in the literature (for a more extensive overview see Stam & Schutjens, 2000).

#### *3.1 The geography of the (new) firm*

There are two markedly different traditions in the geography of the firm (cf. Alonso 1990): one dominated by socio-psychological and cultural variables; the other 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 neoclassical economic conception of firms that locate rationally according to a cost-minimizing strategy, considering the distance transaction costs (transport costs, telecommunications costs, costs of inter-firm executive travel, and so forth) and the location specific factor efficiency costs (costs of local capital, land, labour inputs and so forth) among alternative locations (cf. McCann, 1995). These two traditions are firmly rooted in the post-war period, but both still appear from time to time in studies on start-up location, home-based business, and relocation decisions.

#### *3.2 Start-up location*

The pre-start (geographical) situation of the entrepreneur almost always plays a decisive part: new firms' founders are almost always local residents (Allen & Hayward, 1990; Keeble & Wever, 1986; Lenz & Kulinat, 1997) or have worked in the area/region in which they have located their new firm (Figueiredo & Guimaraes, 1999). Often the question is not where to locate, but what to do at a given location. Distant alternative sites are rarely considered for initial locations (OTA, 1984). The ‘given’ location conditions the choice of activities with which entrepreneurs can start their businesses. Entrepreneurs are likely to have social and business contacts in a location in which they have been working and living before starting their own firms (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, p.254). This observation resembles the economic sociologist's argument that economic actors are shaped and constrained by the socio-historical context in which they are located (Dowd & Dobbin, 1997).

In their study of new computer services firms in Denmark, Illeris & Jakobsen (1991, p.42) found that "the choice of location turned out to be an un-premeditated decision for the vast majority of the firms studied: they were simply located as near as possible to the founder's residence" (or perhaps even *in* the founder's residence). The firms that had moved several times since their start-up always stayed within the same urban area. The differences in locational behaviour can be reduced to the extent to which the entrepreneur has the relevant business economic information and to the extent to which business economic optimization is striven for.

Figueiredo and Guimaraes (1999) also found that the entrepreneur's geographical origin is a key factor in explaining the location decision of new firms. The authors argue that the effect of the entrepreneur's geographical origin can be associated with asymmetric information about the site's 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. The founder's hometown often plays a key part in influencing location choice, because this area is best known to the founder (local business knowledge such as suppliers, customers, and the financial and property environment) (Taylor, 1975). Another 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 "typically, 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). Figueiredo and colleagues (2002) even succeeded in testing this empirically, since they calculated that entrepreneurs accept labour costs that are three times higher to stay within their area of residence.

### 3.3 *Relocation decision: the micro-economic view*

Before asking "Where do firms go to after they have started somewhere?", one should ask "Why should firms leave their current location?". This question seems more relevant, especially with respect to young or small firms. Much relocation activity is reactive in nature, and certainly not the outcome of strategic (economic) intent (Carter, 1996). Location decisions will only be made after certain obvious failures (stress/trigger or threshold effect), because

these events force organizations to search for adaptations, for example a relocation. But the choice of actions or adjustments can only be made from a set of known alternatives. With these remarks, we have already rejected 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; 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 seek locations 'without friction', locating at the lowest-cost and maximizing profits.

Although the assumptions of this neoclassical theory are now mostly acknowledged to be quite unrealistic (Pred, 1967; North, 1974; Storey, 1982; Townroe, 1991), 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 since they need (locational) *flexibility* to adjust to the changing environment. If this is so, then why do most firms decline to leave their region of origin (Pellenbarg, 2005)? With respect to the maximizing-profit assumption, the behavioural theory of the firm offers some useful insights. Decision makers (in firms) may be better characterized as satisficers than optimizers (Simon 1979; Mueller & Morgan, 1962).

The post-war period saw new insights in relocation decisions and the role of maximum profits. One of the most influential was Greenhut's (1956) concept of *psychic income* in the explanation of locational behaviour. This concept is clearly defined by Hoare (1983, in Cooper, 1998) 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), which was expressed by Sjaastad (1962) as *psychic costs*: the non-money costs caused by leaving familiar surroundings, family, and friends. The concept is closely related to the quality of life or standard of living that 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 et al. 1997).

Another micro-economic approach of migration, which takes into account psychic income or non-money costs in the migration decision, is described by DaVanzo (1981). A central concept in her approach is *location-specific capital*. This is a generic term denoting any or all the



factors that 'tie' a person to a particular place (DaVanzo 1981, p.116). Location-specific capital is usually the main reason for people not moving. 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). When we take into account this location-specific capital we can understand that as a result of the large monetary and psychic investments of an organization and its customers in existing locations, it is rational to explore on-site adjustments before undertaking relocation (Morrill, 1981).

*3.4 Push-pull-keep factors: firm (re)location from the geographical perspective*

A frequently-used approach in economic geography in the analysis of the (re)location of firms is the study of location factors: in other words, the push-pull-keep paradigm. Here, a pre-determined list of independent variables (location factors) is usually given and their influence on the relocation decision is examined. The location factors are divided into three categories: push, pull, and keep. Push factors are location factors that 'force' firms to leave their location (compulsory migrations, sometimes necessary to preserve an organization's existence). When firms are reaching the spatial margins of profitability owing to push factors, a firm may start thinking about relocation as an instrument to improve the current level of profits (Van Dijk & Pellenbarg, 2000). Pull factors are location factors that attract firms to other locations (to obtain economic or psychic gains). Most location factors can operate 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 are shown in the scheme below:

<b>Push</b>	<b>Pull</b>	<b>Keep</b>
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 differs per spatial level; site characteristics, for example, 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 seems to lead to the decision whether to relocate or not. Extreme push or pull factors can force a firm to move to another location/region. Examples of this situation are moves forced by government measures, a

planning law that prohibits the expansion of firms, or natural disasters that make a region unsuitable for business use. Examples of extreme pull factors are large incentives by regional development agencies that 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 preferences. For example, the owner-managers of firms who state that they want to relocate have often still not moved a few years later. There are three situations capable of explaining the differences between the stated and the revealed preference. First: the importance of the push or pull factors decreased. Second: in the event, the keep factors seemed stronger than the push factors. Third: the pull factors did not exceed the keep factors.

When the push factors 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 (or locality, or site). An important example of a keep factor that has gained relatively little attention in formal analyses of location factors is the 'attachment to one's own region' ('binding met de eigen regio': Meester & Pellenbarg 1986; comparable with 'place attachment' (Altman & Low 1992)). Meester and Pellenbarg (1986, p.75-76) attribute to this factor various historical and personal motives that make a firm stay put. These motives are partly emotional in nature and partly economic.

Since 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 also be of a more cognitive origin, since entrepreneurs often do not even consider moving out of a certain place or region. In other words: they are aware of fewer location alternatives (outside a certain spatially bounded area) when making location decisions than would be suggested by the spatial arrangement of their material and service linkages (action space) alone. Taylor (1975, p.320) calls this the *decision space*, which can be thought of as "a corporate mental map which embodies the whims, prejudices and standing of each member of the management team that plays any part in the formulation of investment, and hence location, decisions." Within this decision space, entrepreneurs make 'perfect' business-economic rational location decisions, but locations outside this space are not considered. *{tc \l 2 "Keep factors of new and growing firms"}*

### *3.5 Keep factors of new and growing firms*

A special type of business organization is recognized as having more personal reasons not to leave their region of origin: new and/or small firms (see for example Greenhut, 1952; Alexandersson, 1967; Allen & Hayward, 1990; Genosko, 1997; Cooper, 1998; Figueiredo & Guimaraes, 1999). These firms are said to be embedded in their local community. The literature in a firm-based perspective identifies a strong spatial inertia for new and young firms.

As these firms grow there is, however, a tendency for them to become increasingly dis-embedded, transcending the local level (Gorton, 1999). In the course of time, as products mature and transaction and information networks expand, firms become more footloose in their site decisions (although many new firms in footloose industries such as manufacturing and business services are still predominantly focused on regional markets (Stam & Schutjens, 2000)). Thus, it could be expected that, as new firms grow substantially (which is quite rare), they become increasingly dis-embedded and have more locational freedom and subsequently leave their region of origin *if* this is required from a functional-economic point of view.

### *3.5 The rise of home-based business and home-based start-ups*

The development of self-employment at home is significantly on the rise, partly caused by the broader trend toward the disaggregation of labour and the formation of virtual business networks (Castells, 1996, p.395). People increasingly work and manage services from their home (Moran 1993): “‘home centredness’ is an important trend of the new society” (Castells 1996, p.398). This trend is reflected in the increasing number of home-based businesses in the (post-) industrialized countries. A substantial share (an estimated 44 percent of all start-ups in the USA) of new firms begins in their owners’ homes (Friedman, 1997). The number of home-based businesses is said to be growing for several reasons: corporate downsizing, the electronic revolution, a desire for flexibility (in working conditions) coupled with the increasing demand for service businesses, and changes in tax legislation (Spiller & Huneycutt, 1998; Dannhauser, 1999; Fraser, 1999; Rowe et al., 1999). In addition, a home-based start has lower entry costs than renting or buying a separate business location would entail.

#### **What kinds of firm are relatively-often home-based?**

While manufacturing firms are often found on a specific business site owing to space requirements, service firms are relatively more often home-based. Services firms also move less often from a non-business site to a business site, and move from a business site to a non-business site more often than manufacturing firms do (Louw, 2000). In contrast with the overall numbers of start-ups, home-based start-ups are owned by women more often than by men (Bastow-Shoop et al., 1990; Stephenson & Otterson 1995, in: Spiller & Huneycutt 1998; Friedman, 1997; however, in research by Rowe and colleagues (1999), most owners were

men), and home-based entrepreneurs have children 18 years of age or younger more often than do entrepreneurs who have offices outside of the home (Shellenberger, 1994, in: Spiller & Huneycutt, 1998). Research by Loker and colleagues (1999, in: Rowe et al. 1999, p.74) in the USA showed that home-based businesses are very much regionally oriented, as 86.9 percent of them bought supplies for their businesses within their State and 88.1 percent of the home-based businesses sold most of their products or services within their State or within an hour's drive of their homes. However, the Internet can be used to find work beyond local markets and to subcontract in other countries (programming jobs, for example).

In their analysis of entrepreneurs in Amsterdam neighbourhoods, Louw and Hoppenbrouwer (2002) showed that almost 75 percent ran their business from home. When asked about their relocation strategies, home-based entrepreneurs mentioned housing factors more often than did firms within business centres or at professional business sites. The most important criterion for working at home is simply the size of the business floor space within the home, which on average is only about 31 square meters. Most entrepreneurs stated that the combination of work and home did not hamper their business activities.

**The subsequent question raised is: how long do home-based start-ups stay home-based?**

Entrepreneurs of fast-growing young firms in particular often mention that they could not have grown in the way they did if they had stayed at home (Fraser, 1999). Entrepreneurs may be 'pushed' out of the home location by an increasing number of personnel, shortage of storage space, or a poor image of the home location. But, in general, there is no consensus on when these start-ups actually move to a more professional business location.

Schutjens and Stam (2003) analysed the location strategies of new firms during their first five years. They concluded that, in the location decision of the new entrepreneur, personal motives are decisive. Many firms start at home, mainly because to do so is relatively cheap. However, price is not always the crucial factor. Many new entrepreneurs combine their new firm activities with another job or with household tasks, which is facilitated when the firm is located at home. With respect to a firm's life-course, their empirical analysis showed that after five years almost 63 percent of all home-based new firms were still run from home. Moreover, even if firms enter a growth phase, only a few relocate, and if they move, it is only by a small distance. Here personal motives are also decisive in the relocation decision. However, when entering the growth phase, the findings suggest that personal reasons become less important, since relatively few growing firms are home-based after five years.

#### **4. Home-based start-ups and relocation propensity: an empirical analysis**

The literature overview above indicates that, especially for small firms, social factors might be very important in holding firms to their region – or even neighbourhood and home. A question still unanswered by location theorists and economic geography researchers in this field is whether the characteristics of the dwelling function as keep, pull or push factors in relocation decisions. Based on the literature reviewed above, we focus on three types of determinants of the start-up location decision and relocation propensity: the characteristics of the firm, the entrepreneur, and the dwelling.

##### *4.1 Data*

In April 2005 we selected two urban neighbourhoods, one in Amsterdam and the other in Amersfoort. The selection criteria were: a) a relatively young neighbourhood (built between 1990 and 1999), so that entrepreneurs would be able to remember former location strategies at the time of start-up; b) a mixed and varied housing market, leaving room for new and probably growing business activities. From the registers of the Chambers of Commerce, we identified all the firms in these neighbourhoods that met the following criteria:

- at least one person working
- firm correspondence address within the neighbourhood
- activities started between January 1990 and January 2005
- main firm
- economically active.

All the addresses were checked by hand in order to ensure that only dwellings were selected (business parks and neighbourhood shopping centres were excluded).

A questionnaire was sent to all the firms identified with an accompanying letter to explain the research project. Overall, the response rate was 20 percent, which is rather low, but acceptable in the light of other responses of recent written firm questionnaires in the Netherlands.

##### *4.2 Method*

In our analysis, we considered three types of determinants of the use of the home as start-up location and subsequent relocation propensity: the characteristics of the firm, the entrepreneur, and the dwelling (figure 1). The small number of firms (140) in our empirical research only allowed an exploratory bivariate analysis.

Characteristics of	
Firm	Sector, size, age, network pattern, realized growth, percentage of work outside the home
Entrepreneur	Gender, age, education level, full/part-time working, household situation, combination of tasks, growth aspirations
Dwelling	Ownership, dwelling size in m <sup>2</sup> , number of rooms, dwelling type

Our research questions are:

- 1 How do entrepreneurs use their home to run a business, what are the reasons for starting a firm from home, and to what extent did the dwelling need to be adapted?
- 2 How do firm, personal, and dwelling characteristics relate to the propensity and decision to move?
  - a. How many home-based start-ups have relocation plans, either personally or professionally?
  - b. What are the variations in relation to firm, personal, and dwelling characteristics?

#### 4.3 Results

At the time of completion of the questionnaire, 82 percent of all firms were home-based; 81.4 percent had started from home (table 1). In total, over three-quarters of all firms carried out business activities from their home base both at the start of the firm and at the time of interview.

**Table 1 - The home as business location, number of firms**

	Home-based business in April 2005	Not home-based in April 2005	Total
Start-up from home	107	7	114
Start-up outside the home	8	18	26
Total	115	25	140

This persistence of home-based business location between start-up and April 2005 does not mean, however, that the firms and the entrepreneurs did not move. In fact, of all the 115 firms that were home-based at the time of the questionnaire, 43 firms had moved at least once: a rate of 38 percent. Unfortunately, owing to the limited space in the questionnaire, we only know the start-up situation of the firms that did not leave their start-up location (72 firms) or of the firms that were not home-based in April 2005, but had started at home (7). We were left with 79 firms for which we could draw a picture of the start-up situation.

#### 4.4 *The use of the home as business location*

In order to accommodate business activities, in some cases the dwelling had to be adapted. Table 2 summarizes the extent to which the entrepreneurial home was used.

**Table 2 - The use of the home by home-based entrepreneurs, at start-up and in April 2005**

	Home-based businesses at time of interview (April 2005)(115 firms)	Home-based start-ups (79 firms)
Separate room in use for business (% of firms)	75	71
Floor space occupied by firm (m <sup>2</sup> ), average m <sup>2</sup>	20	19
Share of dwelling's floor space occupied by firm, average share	15	14
Firm-related investments in or adaptations to dwelling (% of firms)	27	23
Share of business time active outside the dwelling, average share	46	46

Over 70 percent of the entrepreneurs questioned reported that they started their business activities in a specific room in their dwelling. This special location ranged from bedroom, attic, study, to extra bedroom. Twenty-three firms carried out their business from the 'kitchen table'. This large number of firms that only required limited space corresponds with the large percentage of business time spent outside the house, for instance at the location of the main client or 'on the road' (on average 46 percent of total business hours was spent outside the house). On average, almost 19 square meters of the dwelling were used for business activities at the time of start-up; this share is on average 14 percent of the total house floor space. At the time of start-up, almost a quarter of all entrepreneurs used over 20 percent of the dwelling's total floor space for firm activities.

To what extent did the new entrepreneurs adapt their dwelling in order to accommodate their business activities? Almost a quarter of the new firm owners in our research initially needed to do so: these actions ranged from generating new floor space (extensions such as a converted attic or extra room), building or removing a wall, investing in fire or noise/sound insulation, or creating a new or better business entrance.

#### 4.5 *Stated reasons to start a firm from home and to run a business from home*

According to the entrepreneurs, the choice to locate at home has many advantages. In the questionnaire we provided the opportunity to report the three main reasons for starting from home; most entrepreneurs mentioned three different reasons, the first of which was the most important. Table 3 summarizes the findings. Interestingly, although the low costs associated with starting from home are mentioned most frequently, most entrepreneurs prioritize other, more positive and personal reasons for starting from home. The combination of tasks and efficiency, including saving travel time, is clearly a second (or third) best reason and gains

importance. Also of interest is the number of entrepreneurs who spontaneously mentioned that the availability of enough business space within the dwelling was of significant importance at the time of start-up.

**Table 3 - Reasons to start a business from home, number of firms**

Reasons in order of importance	1 <sup>st</sup> most important (114 firms)	2 <sup>nd</sup> most important (95 firms)	3 <sup>rd</sup> most important (69 firms)	Total number of reasons mentioned abs.	%
Low location costs	44	30	8	82	29
No need to / only small firm	29	11	6	46	17
Combination with other tasks / easy / efficient	19	38	40	97	35
Firm activities easy to perform from home	12	8	7	27	10
Dwelling large enough / room space available	7	6	6	19	7
Other / unknown	3	2	2	7	3

However, the reasons stated for starting from home closely resemble the reasons given for running a business from home at the time of interview (table 4). This means that the arguments to choose a home-based business location did not change over the firm's life course. Even after several years, location costs are most often mentioned; however, the importance of combining tasks efficiently and easily increases slightly with time.

**Table 4 - Reasons for running a business from home, number of firms**

Reasons in order of importance	1 <sup>st</sup> most important (115 firms)	2 <sup>nd</sup> most important (100 firms)	3 <sup>rd</sup> most important (70 firms)	Total number of reasons mentioned abs.	%
Low location costs	44	23	9	76	27
No need to / only small firm	26	10	5	41	14
Combination with other tasks / easy / efficient	22	43	40	105	37
Firm activities easy to perform from home	11	16	7	34	12
Dwelling large enough / room space available	9	6	7	22	8
Other / unknown	3	2	2	7	2

#### 4.6 *Staying home-based over time: stated preferences and their explanations*

How strongly are home-based entrepreneurs tied to their home location? We were able to look at stated preferences with respect to both firm relocation and personal (household) migration.

##### *Firm relocation plans*

Overall, actual relocation plans are rare. Only 22.6 percent of all home-based entrepreneurs (115 entrepreneurs) wanted to relocate the firm within 2 years time. Keep factors were also dominant for the entrepreneurs who anticipated firm relocation. When asked about continuing to run the business from home after a hypothetical migration (of firm and/or household), only



15 percent of all home-based entrepreneurs expressed a wish to break the work-home combination. So 84 percent - a huge majority - of all the home-based businesses would run the business from home even after moving to a new residential location. Almost one third mentioned the efficient and practical combination of running a firm from home as the most important reason for continuing this situation. Only 15 percent of all the entrepreneurs reported cost as a reason for continuing to carry on business activities from home. The main reason they gave was to separate private and business life (9 entrepreneurs), followed by 6 firms expecting growth and expansion needs.

Does the share of entrepreneurs with relocation plans for their firm and entrepreneurs who want to continue the work-home combination differ with respect to firm, entrepreneur, or dwelling characteristics? Table 5 summarizes the findings. The realized and future firm growth paths are positively related to relocation plans, but the type of dwelling also plays a part. Significantly more home-based entrepreneurs living in an owner-occupied dwelling wanted to stay put; renters, however, were more mobile. The small share of home-based entrepreneurs living in apartment buildings who wanted to relocate their firm is striking. It transpired that relatively many entrepreneurs in a single-family house had firm growth aspirations. Sunk costs do not seem to be a cause of concern, since even entrepreneurs who had adapted their dwelling to accommodate their firm were no more inclined to stay put or to maintain the home-work combination than their counterparts.

Who wants to continue the work-home combination, even after a hypothetical firm relocation? Young firms are inclined to hold on to the home basis, as are the firms with a high share of personnel within the neighbourhood. Firm-growth strategies however tend to threaten the home-based business. The high share of entrepreneurs working for more than 15 hours per week who want to remain home-based suggests that they are serious entrepreneurs: a positive choice to work from home. As expected, the household situation, more specifically having (small) children and therefore family care tasks, is positively related to the home-work combination. The dwelling type is not significantly related to a future continuation performing business activities from the home base.

The characteristics that do not seem to have any effect on firm relocation or to a continuation of the home-based activities are probably of more interest than the statistically-significant relationships. Even home-based firms that at some time started their business outside the home are not inclined to relocate more often than home-based start-ups. Those who have actively relocated their entrepreneurial activities to the home-base do not seem to regret that step, since they are less inclined to break the home-work combination than are other firms.

**Table 5 – Relation between firm location plans and work-home combination and firm, entrepreneur and dwelling characteristics**

Characteristics	Firm relocation plans within 2 years	Continue the work-home combination after potential firm relocation
<b>FIRM CHARACTERISTICS</b>		
Sector		
Size: 2 employees or more (incl. owner)	+ **	
Age: 0-3 and 8-10		+ *
Past firm growth		
Firm strategy: future growth plans	+ **	- (p=0,11)
Change in hours working in (former) job		
High share personnel in neighbourhood		+ (p=0,11)
Neighbourhood		
% work outside home		
Started from home		
<b>ENTREPRENEUR CHARACTERISTICS</b>		
Gender		
Age		
Education level		
% Full -time working		+ **
Household situation: (little) children		+ *
Sales growth aspirations	+ **	
<b>DWELLING CHARACTERISTICS</b>		
Rent	+ **	
Dwelling size in m2		
Dwelling size in number of rooms		
Dwelling type: single family house	+ *	
Past dwelling adaptations		

*Personal move propensity*

How do firm, personal, and dwelling characteristics relate to the propensity to move house personally? Overall, over 10 percent of all (115) the home-based entrepreneurs definitely wanted to move within two years time; 45 percent was still in doubt. Dwelling characteristics seem to be significantly related to the propensity to move, although several firm characteristics and personal (entrepreneurial) factors matter as well. Entrepreneurs living in relatively small dwellings, rented housing or apartments want to move more often than others do. But entrepreneurs who have invested in their dwelling do not want to move for personal reasons. This finding seems to contradict the result that, in the case of a firm relocation, home-based entrepreneurs who invested in dwelling adaptations are no more inclined to

remain home-based than are other entrepreneurs. However, with respect to personal or household move propensity, there do seem to be sunk costs.

**Table 6 – Relationship between the propensity to move and firm, entrepreneur, and dwelling characteristics**

Characteristics	Propensity to move household (yes) within 2 years
<b>FIRM CHARACTERISTICS</b>	
Sector	
Size: 2 employees or more (incl. owner)	
Age: under 8 years	+ *
Past firm growth	
Firm strategy: future growth plans	+ *
Increasing # hours working in (former) job	+ *
High share personnel in neighbourhood	
Neighbourhood	
% work outside home	
Started from home	
<b>ENTREPRENEUR CHARACTERISTICS</b>	
Gender	
Young entrepreneurs (<37)	+ **
Education level	
% Full -time working	
Household situation: (little) children	
Sales growth aspirations	+ *
<b>DWELLING CHARACTERISTICS</b>	
Rent	+ **
Dwelling size in m2 (small)	+ *
Dwelling size in number of rooms (4 or less)	+ **
Dwelling type: single family house	- *
Past dwelling adaptations	- *

## 5. Conclusions

Most of the home-based businesses started from home and remained strongly tied to the dwelling — and therefore the neighbourhood. We have shown that firms with past growth in the number of personnel and firms with growth aspirations want to move relatively often. However, many of these firms often simply do not see the need to change address and to break the combination of personal and business life. The relationship between firm growth (past and future) and home-based business is weak. With respect to firm relocation and the personal propensity to move, we have found that housing characteristics are important. This

result is no different from housing market research, which also points to the dominance of housing characteristics in explaining household migration. Adapted dwellings, owner-occupied, single-family and large houses often house firms that are relatively immobile and entrepreneurs who also want to stay put for personal reasons. There is one exception, however: entrepreneurs in single-family houses striving for future firm growth are more inclined to undertake firm relocation than others are. The firm growth perspective should not therefore be neglected, although it seems to be of minor importance. Our general conclusion is that only a few entrepreneurs want to leave their house, either personally or professionally, and most of them are quite happy with the work-home combination.

With regard to home-based business in the future, breaking the work-home combination is not a realistic option for most firms. Here, household characteristics and in particular the care of small children keeps entrepreneurs home-based. Entrepreneurs who work almost full-time are also firmly based and anchored in their home; even more than part-time entrepreneurs. This may point to a clear and possibly also long-lasting choice for remaining home-based.

We assert that entrepreneurship and the start, growth, and network creation of firms are crucial to a vital and thriving neighbourhood economy. However, effective policy instruments to stimulate entrepreneurship on such small spatial scales hardly exist, since a tailor-made approach is called for on at least two levels. First, there is a need for tailor-made incentives for firms to be applied to firms in different phases in the life course, each with its own opportunities and challenges, but also problems and difficulties, as firm development and growth asks for continuously achieving, combining and generating new types of resources (Garnsey, 2001). The importance of firm age and past and future firm growth to firm relocation and remaining home-based seems to underline this argument. Second, tailor-made policy is necessary to create spatial and physical business space for the creation and growth of firms. It has been shown that past adaptations to the dwelling in order to accommodate business activities limits personal or household migration. This should be borne in mind in urban restructuring approaches. More specifically, urban zoning restrictions on the block and housing level should be lifted or redesigned in order to facilitate new, successful, and strong entrepreneurship with direct and indirect spillover effects to viable and innovative local business networks.

Our findings support economic policy that focuses on supporting start-ups within urban neighbourhoods, since many start-ups seem to be firmly anchored locally through attachment to the home. We have also found that a high share of personnel living in the neighbourhood deters entrepreneurs from breaking the work-home combination, while other business networks are relatively small or unimportant. However, in the absence of substantial business networks within the community, the heavy anchors of home-based entrepreneurs may turn

out to hang on thin cables. Here lies a task for neighbourhood economic planning; to strengthen the network relations between entrepreneurs within the neighbourhood. Secure and widespread network links in the local economy may in the end form a stable business network web that could even survive individual entrepreneurs moving house.

## 6. References

- Alexandersson, G. (1967) *Geography of Manufacturing*, Englewood Cliffs, N.J.: Prentice-Hall.
- Allen, D.N. & Hayward, D.J. (1990) The role of new venture formation/entrepreneurship in regional economic development: a review. *Economic Development Quarterly* 4, 55-64.
- Alonso, W. (1990) *From Alfred Weber to Max: The Shifting Style of Regional Policy*. In: Chatterji, M. and Kuenne, R.E., (Eds.) *Dynamics and Conflict in Regional Structural Change: Essays in Honour of Walter Isard*, Vol.2, pp. 25-41. London: MacMillan.
- Altman, I. & Low, S.M. (1992) *Place attachment*, New York: Plenum Press.
- Bastow-Shoop, H.E., Leistritz, F.L., Ekstrom, B.L. and D.F. Zetocha (1990) Home-Based Business... A Means to Economic Growth in Rural Areas. *Journal of Extension* 28.2.
- Blakely, E.J. & T.K. Bradshaw (2002), *Planning local economic development. Theory and practice*. Thousand Oakes, Sage publications. Third edition.
- Carter, S. (1996) Why strategic intent should drive relocation. *Long Range Planning* 29, 246-248.
- Castells, M. (1996) *The Rise of the Network Society*, Oxford: Blackwell.
- Cooper, S.Y. (1998) *Entrepreneurship and the Location of High Technology Small Firms: Implications for Regional Development*. In: Oakey, R. and Dunning, W., (Eds.) *New Technology-Based Firms in the 1990s*, pp. 247-267. London: Paul Chapman.
- Dannhauser, C.L. (1999) Who's in the Home Office? *American Demographics*, 21.6, p.50-56.
- DaVanzo, J. (1981) *Microeconomic Approaches to Studying Migration Decisions*. In: De Jong, G.F. & Gardner, R.W., (Eds.) *Migration Decision Making. Multidisciplinary Approaches to Microlevel Studies in Developed and Developing Countries*, pp. 90-129. New York: Pergamon.
- Dowd, T.J. and Dobbin, F. (1997) The Embedded Actor and the Invention of Natural Economic Law. Policy Change and Railroader Response in Early America. *American Behavioral Scientist* 40, 478-489.
- Fraser, J.A. (1999) Home grown. p. 92- 107 in *Inc.* 01-12-1999.
- Friedman, E.M. (1997) The New-Economy Almanac. in *Inc.* 15-05-1997.
- Figueirado, O. and Guimaraes, P. (1999) *Start-ups Domestic Location and the Entrepreneur's Geographical Origin*. Dublin: 39th European Regional Science Association Congress.
- Figueirado, O., Guimaraes, P. & Woodward, D. (2002) Home-field advantage: location decisions of Portuguese entrepreneurs. *Journal of Urban Economics* 52, 341-361.
- Garnsey, E. (2001), *Knowledge-based enterprise in a new economy*. In: *Entrepreneurship in the Netherlands: new economy, new entrepreneurs!* Zoetermeer/Den Haag; EIM/EZ, pp. 51-71
- Genosko, J. (1997) Networks, Innovative Milieux and Globalization: Some Comments on a Regional Economic Discussion. *European Planning Studies* 5, 283-297.
- Gimeno, J., Folta, T.B., Cooper, A.C. & Woo, C.Y. (1997) Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly* 42, 750-783.
- Gorton, M. (1999) Spatial variations in markets served by UK-based small and medium-sized enterprises (SMEs). *Entrepreneurship & Regional Development* 11, 39-56.
- Greenhut, M.L. (1952) Observation of motives to industry location. *Southern Economic Journal* 18, 225-228.
- Greenhut, M.L. (1956) *Plant location in Theory and Practice*, Chapel Hill: University of North Carolina Press.
- Illeris, S. & Jakobsen, L. (1991) Computer services and the urban system. A case study in Denmark. In: Pumain, D., Saint-Julien, T. and Van der Haegen, H. (Eds.) *Cities in movement; urban systems on the eve of the 21st century*, pp. 39-45. Leuven: Katholieke Universiteit Leuven.

- Johnstone, H. & D. Lionais (2004), Depleted communities and community business entrepreneurship: revaluating space through place. *Entrepreneurship & Regional Development*, 16, May, 217-233.
- Kampkuiper, A., J. Koog, S. Koster, I. Kroodsmas, R. Oud & B. Schouten (2000), *Starten: op stand of op zolder. Huisvestingswensen van startende ondernemers*. Groningen: Rijksuniversiteit Groningen.
- Keeble, D. & Wever, E. (1986) *New firms and regional development in Europe*, London: Croom Helm.
- Klomp, L. & A.R. Thurik (1997), *Kleine bedrijven als banenmotor?* Erasmus Centre for Labour Market Analysis. Assen, Van Gorcum.
- Lenz, B. & Kulinat, K. (1997) Contact networks and regional milieus in rural areas. Contribution to the concept of the regional milieu and empirical experiences from Baden-Württemberg/Germany. *Erdkunde* 51, 33-42.
- Louw, E. (2000) The production of business sites in the Netherlands. *Tijdschrift voor Economische en Sociale Geografie* 91, 85-91.
- Louw, E. & E. Hoppenbrouwer (2002) *Kleinschalige bedrijvigheid in het Oostelijk Havengebied*. Delft: Onderzoeksinstituut OTB.
- McCann, P. (1995) Rethinking the Economics of Location and Agglomeration. *Urban Studies* 32, 563-577.
- Meester, W.J. & Pellenburg, P.H. (1986) *Subjectieve waardering van bedrijfsvestigingsmilieus in Nederland*, Groningen: Geografisch Instituut Rijksuniversiteit Groningen.
- Moran, R. (1993) *The electronic home: Social and spatial aspects. A scoping report*, Dublin: European Foundation for the Improvement of Living and Working Conditions.
- Morrill, R.L. (1981) *How migration and regional development affect organizations*. In: Nystrom, P.C. and Starbuck, W.H., (Eds.) *Handbook of organizational design*. Vol. 1: Adapting organizations to their environments., pp. 238-252. New York: Oxford University Press.
- Mueller, E. & Morgan, J.N. (1962) Location Decisions of Manufacturing. *American Economic Review* 52, 204-217.
- North, D.J. (1974) *The process of locational change in different manufacturing organizations*. In: Hamilton, F.E.I. (Ed.), *Spatial perspectives on industrial organization and decision-making*, pp. 213-244. London: Wiley.
- OTA (1984) *Technology, Innovation, and Regional Economic Development*, Washington, D.C.: US Congress, Office of Technology Assessment (OTA).
- Pellenburg, P. (2005). *Bedrijfsverplaatsingen*. In: P. Pellenburg, P. Van Steen & L. Van Wissen (Eds.) *Ruimtelijke aspecten van de bedrijvendynamiek in Nederland*. Assen: Van Gorcum.
- Phillips, B.D. (2002), Home-based firms, e-commerce, and high-technology small firms: are they related? *Economic Development Quarterly*, 16 (1), pp. 39-48.
- Pratt, J.H. (1999), *Homebased business: the hidden economy*. Washington: United States Small Business Administration.
- Pred, A.R. (1967) *Behaviour and location: foundations for a geographic and dynamic location theory, part I*, Lund: The Royal University of Lund.
- Reynolds, P.D. (1991) Sociology and entrepreneurship: concepts and contributions. *Entrepreneurship: Theory and Practice* 16, 47-70.
- Rowe, B.R., Haynes, G.W., and K. Stafford (1999) The Contribution of Home-Based Business Income to Rural and Urban Economies. *Economic Development Quarterly*, 13.1, p.66-77.
- Schutjens, V. & E. Stam (2003). *Entrepreneurship, regional differences and locational trajectories in The Netherlands*. In: E. Wever (ed.), *Recent urban and regional developments in Poland and the Netherlands*. Utrecht: KNAW/FRW Universiteit Utrecht, pp. 51-66.
- Schutjens, V.A.J.M. & E. Stam (2003) The evolution and nature of young firm networks: a longitudinal perspective. *Small Business Economics* 21, 2, pp.115-134.
- Simon, H.A. (1979) Rational Decision Making in Business Organizations (Nobel Prize lecture). *American Economic Review* 69.4, 493-513.
- Sjaastad, L.A. (1962) The Costs and Returns of Human Migration. *Journal of Political Economy* 70, 80-93.

- Spiller, L.D. & S. Huneycutt (1998) *Some Issues to Consider Prior to Starting A Home-Based Business*. Paper at 22nd National Small Business Consulting Conference, Santa Fe, New Mexico, 1998.
- Stam, E. & V.A.J.M. Schutjens (2000) *Locational behaviour of young firms*. Paper presented at the European Regional Science Association Congress ERSA on "European Monetary Union and Regional Policy" Barcelona, 30th August-2<sup>nd</sup> September 2000
- Stam, F.C. (2003), *Why butterflies don't leave. Locational evolution of evolving enterprises*. Thesis, Utrecht.
- Swedberg, R. (1991) *The Battle of Methods*. In: Etzioni, A. and Lawrence, P., (Eds.) *Socio-Economics*, pp. 13-33. New York: Sharpe.
- Taylor, M.J. (1975) *Organisational Growth, Spatial Interaction and Location Decision-Making. Regional Studies* 9, 313-323.
- Thorns, D. C., L. Leonard, M. Girvan & H. C. Perkins (2004), *Home and Work: Negotiating the boundaries*. Paper presented at the ENHR Conference, Toronto.
- Thornton, P.H. (1999) *The Sociology of Entrepreneurship. Annual Review of Sociology* 25, 19-46.
- Townroe, P.M. (1991) *Rationality in Industrial Location Decisions. Urban Studies* 28, 383-392.
- Van Dijk, J. & Pellenbarg, P.H. (2000) *Firm relocation decisions in the Netherlands: An ordered logit approach. Papers in Regional Science* 79, 191-219.