

Business spaces between entrepreneurs and opportunities. The impact of the local built environment and zoning regulations on businesses in Dutch cities

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Business spaces between entrepreneurs and opportunities. The impact of the local built environment and zoning regulations on businesses in Dutch cities

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Abstract

Urban residential neighbourhoods, including migrant neighbourhoods, have become important incubation zones for small-scale businesses in recent years, and policy makers and academics alike are wondering which local factors affect this development.

In this paper we analyse to what extent migrant neighbourhood characteristics related to the built environment and the local regulations matter in determining the possibilities for small businesses. We contrast two types of neighbourhoods in the Netherlands, namely pre-WWII neighbourhoods with relatively little functional separation between residential and commercial purposes, and post-WWII predominantly mono-functional residential neighbourhoods. We combine quantitative and qualitative methodology using available firm data from trade registers of the Dutch regional chambers of commerce, reviewing neighbourhood zoning regulations, and conducting group and individual interviews with neighbourhood experts and entrepreneurs.

We find that the built environment of migrant neighbourhoods and its zoning do indeed appear to play a significant role in shaping the local business prospects of firms.

Keywords: Small-firm development, business success, local built environment, zoning regulations, neighbourhood effects, urban residential neighbourhoods

JEL codes: R23, R28, J15

1. Neighbourhoods and opportunities for migrant businesses

In the equilibrium model world of (neoclassical) economists, it seems so easy. If there are opportunities for businesses, they will be perceived and seized by fully informed, rational actors. Supply of entrepreneurs will match demand and equilibrium will be reached. In the real world, however, things tend to be a little bit more complicated. Real human beings who have only partial knowledge and who may also be driven by other motives than sheer costs and benefits do not always perceive opportunities and, even if they do, may not seize them. The opportunities themselves may be blocked because of rules and regulations pertaining to educational qualifications needed to start in a particular line of business, and because of difficulties in obtaining the necessary start-up capital, lack of social capital which would provide linkages to suppliers, customer or workers. Entrepreneurship turns out to be anything but a self-evident response to opportunities and a host of variables both on the supply and the demand side impact on this (Light and Rosenstein, 1995; Phizacklea and Ram, 1995; Lofstrom, 2002; Kloosterman, 2010).

Below, we want to look at the hitherto rather neglected issue of the role of neighbourhood characteristics in determining the presence and survival rates of small businesses. Even if, on the one hand, aspiring entrepreneurs with suitable skills are there, and, on the other, a sufficient demand is also present (for instance due to a critical mass of co-ethnics in the neighbourhood), business start-ups may still be thwarted by the lack of appropriate business spaces. Without a sufficient supply of cheap and accessible business spaces neighbourhoods cannot function as incubators for small businesses. In our view, then, the availability of suitable business spaces should be seen as an intervening variable between the supply side (the entrepreneurs and the resources that they bring with them) and the demand side or opportunity structure.

The importance of the availability of suitable business spaces holds, in principle, for all aspiring entrepreneurs. This bottleneck, however, may be more salient for aspiring migrant entrepreneurs from non-western backgrounds as they are typically lacking in financial means. Given the predominant consumer orientation of many migrant businesses-such as small-scale retail and

restaurants and cafés—they are dependent on cheap and accessible business spaces located in or near residential areas. Assessing the role of the availability of suitable business spaces in neighbourhoods where large numbers of migrants live, thus adds a new dimension to the debate on how entrepreneurship may contribute to upward social mobility of newcomers from less-developed countries.

Neither business spaces nor migrants are equally distributed across cities. Below, we will empirically test to what extent neighbourhood characteristics related to the built environment and the prevailing local regulations matter in determining the possibilities for small businesses. We hypothesise that these particular characteristics of neighbourhoods intervene in the matching processes between (aspiring) entrepreneurs and business opportunities (Ram and Jones 1998, Kloosterman and Van der Leun 1999, Burgess 1968, Fong et al. 2005). We expect that the physical spatial neighbourhood structures in combination with the local regulatory frameworks at least partly determine the availability of business spaces suitable for nascent (migrant) entrepreneurs who tend to lack financial resources.

To test this proposition, we compare two types of neighbourhoods in the Netherlands which may serve as contrast cases. On the one hand, we focus on older, pre-WWII neighbourhoods with relatively little functional separation between residential and commercial purposes (also called mixed neighbourhoods), and, on the other, on predominantly mono-functional, residential neighbourhoods built after WWII. We assume that mixed neighbourhoods offer more promising business prospects for businesses operating in the retail, small-scale wholesale, restaurants and catering industries combining good access locations with relatively cheap commercial prices (Jacobs 1961). As Ray Pahl (1984) stated, pre-WWII neighbourhoods have a greater ‘getting-by potential’ than post-WWII neighbourhoods, which are more suitable for independent professionals (Kloosterman and Van der Leun 1999).

The contrast between the two Dutch neighbourhood types provides a promising starting point to find out how the local spatial environment and its regulations may impact on local business

prospects, especially those of migrant entrepreneurs. Addressing this question clearly transcends the Dutch case as in many other cities elsewhere neighbourhoods differ with respect to the built environment and zoning regulations. Below, we will use both quantitative and qualitative methods to investigate the following research questions:

- 1) What are the differences in terms of built environment and regulations between pre- and post-WWII migrant neighbourhoods?
- 2) Do pre-WWII neighbourhoods provide better conditions for local businesses than post-WWII neighbourhoods due to differences regarding spatial environment and regulations?

We start with a brief discussion of the relevant literature (section 2). We then (section 3) present the research methodology providing information on the neighbourhood selection procedure as well as on the collection and use of qualitative data. After that, we provide a succinct overview of the morphologies and the prevailing zoning regulations of the selected pre- and post-WWII migrant neighbourhoods (section 4). This gives us the foundation to explore differences in business success of local firms in pre- and post-WWII migrant neighbourhoods and assesses research question 2 (section 5). Finally, we highlight our main findings and dwell briefly on their implications (section 6).

2. Built environment and zoning: a neglected issue

Many studies in the field of migrant entrepreneurship have focused on the ‘supply side’ factors explaining entrepreneurship by means of individual and ethnic group characteristics as well as social embeddedness of entrepreneurs (Light and Bonacich 1988, Portes and Sensenbrenner 1993). More recent studies added the demand side perspective investigating how going market conditions create opportunity structures and how migrant entrepreneurs have been able to exploit these opportunities (Waldinger et al. 1986, 1990). Kloosterman et al. (1999) extended the analytical scope further by incorporating the socio-institutional embeddedness of the national and local opportunity

structures thus providing a framework for (inter)national comparative research (Kloosterman 2010). This study especially builds on the latter contribution by Kloosterman et al., the so-called mixed embeddedness framework, by investigating what role the local spatial environment and its regulations play in enabling or hampering small businesses in migrant neighbourhoods.

While researchers tend to become more interested in contextualizing their findings on migrant entrepreneurs thereby acknowledging how entrepreneurship is shaped by its environment, this quest has remained typically spaceless in the sense that migrant entrepreneurs are more or less 'superimposed' on (urban) space instead of embedded therein (Ram et al., 2002). This is rather surprising, as local processes of restructuring of the urban economy in the closing decades of the 20th century have impacted significantly on the opportunity structures creating new sets of openings for small businesses.

Rekers and van Kempen (2000) identified key dimensions along which urban neighbourhoods may differ regarding opportunities for migrant entrepreneurs: First, the demographic characteristics of neighbourhoods which partly shape both the potential supply of migrant entrepreneurs as well as the demand for their products. Second, in a more indirect way, neighbourhoods may influence businesses through their built environment. Third, differences in local policies, rules, business regulations, support regimes, and, very important, zoning regulations may affect migrant entrepreneurs on a neighbourhood level (Ram et al., 2002). Here, we will focus on the built environment and the zoning regulations as we see these two as crucial intervening variables in the matching process between entrepreneurs and opportunities (cf. Rekers and van Kempen, 2000).

Residential neighbourhoods, including migrant neighbourhoods, have become important incubation zones for small-scale businesses (Weterings et al., 2008; Schutjens et al., 2007). This is primarily the result of the steady increase of the local numbers of self-employed without employees, who have chosen to start and operate their firms from the entrepreneurs' homes (Schutjens and Stam, 2003; Stam, 2009). Increased outsourcing of business activities by large firms, the economic shift towards business services and ICT, the rise of internet commerce, and growing flexibility of

labour contracts have made home-based business a viable business model (Wennekers et al., 2008). As operations of these entrepreneurs often require little more than a desk and a computer, operations from home imply significant savings on accommodation costs (Schutjens et al., 2007; PBL, 2010). The importance of neighbourhoods as incubation zones also holds for migrant entrepreneurs who are usually dependent on cheap business spaces in, or nearby, their own neighbourhoods. As migrants are clustered in particular neighbourhoods, the characteristics of the built environment and the zoning regulations of 'migrant neighbourhoods' are thus worthwhile to investigate.

The migrant neighbourhood affects business prospects (commonly measured in terms of firm growth or firm survival) of small-scale firms as it forms the local production environment. The term production environment conceptualizes the large number of firm-external factors impacting on business functioning (Buit, 1965; Lambooy, 1997). While acknowledging that local business dynamics depend greatly on firm-specific characteristics (Garnsey, 1998; Bridge et al., 2003; Tamasy, 2006) as well as urban and regional characteristics (Porter, 1998; Stuart and Sorenson, 2003; Audretsch and Dohse, 2007), the neighbourhood as local production environment does affect local business dynamics, namely business behaviour and development prospects as well as firm mobility as was concluded in a recent study by the Netherlands Environmental Assessment Agency (PBL, 2010).

The PBL (2010) study outlines a number of location factors that affect business functioning at the neighbourhood level in theory and empirically tests the effects of a number of related characteristics. It identifies the following relevant local dimensions based on existing literature: accessibility and parking (Hagens et al., 2009), local market prosperity – especially important for consumer services businesses catering largely to local needs (Bulterman et al., 2007; Ouwehand and Van Meijeren, 2006), local liveability (Wilson, 1987), the presence of certain local amenities and other economic activities (McCann and Folta, 2008; Florida, 2002; Weterings et al., 2009) and last

but not least the availability, quality, size and representativeness of local business spaces (Aalders et al., 2008).

Although business dynamics are by and large determined by internal firm factors, such as the skills and the resources of the entrepreneurs, neighbourhood characteristics do also play a minor role. They are found to affect survival chances, especially for businesses in consumer services and non-services, but seem to have no notable impact on firm growth. Neighbourhood liveability characteristics matter – as, for instance, a high incidence of crime -may reduce firm survival chances as customers stay away and costs rise. This is especially the case for businesses operating in consumer services, but negative liveability factors as decay of the built environment, vandalism, and dirty public spaces, may also negatively affect business services firms for whom a good neighbourhood image is important (See also Aalders et al., 2008).

Dantuma (2007) concludes that the lack of cheap commercial floor space is one of the main bottlenecks for growth of small and medium enterprises (SMEs) in the Netherlands. According to a survey among 1,700 SMEs, those entrepreneurs who are not satisfied with their business space also consistently score worse on sick-leave, personnel turnover and customer base growth. In this study, useful suggestions to tackle these problems are put forward, such as the promotion of functional mixing of residential and commercial building spaces in residential neighbourhoods as well as more business friendly local zoning regulations. The present regulatory local regimes are, according to this study, often too restrictive regarding the use of spaces for commercial purposes and, in addition, typically involve lengthy procedures. Moreover, municipalities can use local spatial regulations to ban less desired commercial activities and apply strict conditions for granting construction- and environmental permits (Dantuma, 2007).

An additional aspect of the local production environment that is well explored in the migrant entrepreneurship literature but little in the more general entrepreneurship literature is the local social embeddedness of entrepreneurs (Light and Bonacich, 1988; Portes and Sensenbrenner, 1993; Rusinovic, 2006). While prior studies discuss the relevance of migrant entrepreneurs' social

embeddedness in co-ethnic networks for business prospects, little is known as to whether the local social context in general (i.e. neighbourhood professional and private relations with residents, businesses, local government etc.) matters. The literature in the field of urban sociology provides useful guidance in this regard. It established that certain neighbourhood characteristics like population homogeneity and the presence of amenities may positively affect social cohesion, which in turn likely impacts on neighbourhood social and physical order (Sampson et al., 1997; Voelker et al., 2007; Musterd and Andersson, 2006). Thus, the local social context is also relevant to shape local business prospects of firms (See also Aalders et al., 2008).

3. Methodology

To investigate how the neighbourhood spatial environment and its regulations shape development prospects of local firms in pre- and post-war migrant neighbourhoods, the study follows an exploratory research approach combining quantitative and qualitative methods. The study compares two contrasting types of migrant neighbourhoods, namely pre-WWII and post-WWII neighbourhoods, with rather different spatial morphologies. Pre-WWII neighbourhoods were built as mixed residential and commercial purposes, while post-WWII neighbourhoods were primarily designed for residential purposes thereby adhering to the then dominant modernist view of spatially separating living and work environments. We expect that these differences are likely to manifest themselves also in the local zoning regimes, which in turn partly shape local business prospects of entrepreneurs. To explore potential differences between these neighbourhood types further, and to keep within the financial limit of our research, we have selected five pre-war and post-war migrant neighbourhoods.

3.1 Neighbourhood selection

The selection of neighbourhoods was based on a number of practical and methodological considerations.¹ First, as we aim to study business prospects in migrant neighbourhoods, which are residential neighbourhoods predominantly located in the largest Dutch cities (Amsterdam,

Rotterdam, The Hague, and Utrecht), so we chose to restrict our study to residential neighbourhoods in these four cities. We define residential neighbourhoods as areas with at least ten private households per hectare built up area and a number of private households that is at least five times larger than the number of firms. Non-residential areas or commercial districts are excluded from our study. Moreover, we sort all residential neighbourhoods in the four largest cities on their shares of non-western population and then select the top one-third of the distribution, which we coin ‘migrant neighbourhoods’.

Second, the neighbourhoods had to accommodate a sufficient number of firms, in order to be able to find enough interview candidates to reach our research targets. This minimum is set at 50 firms².

Third, out of the 93 migrant neighbourhoods that met the abovementioned criteria, we selected five ‘typical representatives’: areas that have characteristics that are about average of the characteristics of all 93 migrant neighbourhoods. The following criteria were taken into consideration: the share of residents per age group, the average household size, the share of non-Western immigrants, the share of the working population (15-64 years), mean income per resident, neighbourhood dynamics, and the mean value of housing. The five typical representatives include three pre-WWII neighbourhoods and two post-WWII neighbourhoods, namely: Indische Buurt-Oost (pre-WWII neighbourhood in Amsterdam) and Oosterparkbuurt (pre-WWII neighbourhoods in Amsterdam), Regentesse-/Valkenboskwartier-Zuid (pre-WWII neighbourhood in The Hague), Moerwijk-West (post-WWII neighbourhood in The Hague), and Overvecht-Neckardreef (post-WWII neighbourhood in Utrecht).

3.2 Data collection

We have opted for a combination of quantitative and qualitative methods. First, we quantitatively compare the local business structures (total firms and firm survival rates per sectors) across the pre- and post-WWII neighbourhood clusters for the period 2005-2007. This comparison is conducted on data compiled by the local chambers of commerce for their trade register. These data are available on a 5-digit postal code level³. These quantitative findings furnish a robust foundation for further qualitative analysis of the local business settings in the neighbourhoods.

Second, we review the zoning regulations of the neighbourhoods as stated in the neighbourhood development plans ('Bestemmingsplan'). These documents provide a rich source of information including the regulatory aspects determining spatial use in these neighbourhoods.

Third, we draw on qualitative primary data collected in eight focus group discussions with migrant neighbourhood experts as well as 40 interviews with local native and non-western migrant entrepreneurs. These data were collected in the period from April 2008 – March 2009 and provide us with in-depth descriptions of the local spatial environments and business settings, local institutional arrangements and levels of social cohesion, as well as the perceptions and experiences of the entrepreneurs. The eight focus group discussions were held with local experts from a variety of professional backgrounds, such as local administrations, community centres, cultural organisations, business consultancies, police stations, housing associations, financial institutions, and academia. To reach the targeted number of suitable experts, we posted questionnaires to 700 experts to screen their relevant experience for our research purposes and decide upon their potential participation in the focus group discussions.

Next to the focus group sessions, we conducted 40 face-to-face interviews with local entrepreneurs⁴, eight in each of the five neighbourhoods, and half of whom relocated their firm to another neighbourhood.⁵ The latter division is made to tackle the problem of positive selection bias in our neighbourhood evaluations, as firm stayers tend to overstate the positive aspects of their local production environment.

4. The built environment and zoning regulations in pre- and post-war migrant neighbourhoods

4.1 Building history and general characteristics of neighbourhoods

Pre-war neighbourhoods

The three selected pre-war neighbourhoods, Regentesse-/Valkenboskwartier-Zuid (The Hague), Indischebuurt-Oost and Oosterparkbuurt (both Amsterdam) were built in the period 1880-1920 and belong to the set of older urban neighbourhoods on the periphery of the city centres. They were

designed for mixed residential and commercial purposes whereby the former was prioritized over the latter. This is reflected in the built environment of the neighbourhoods, which are mostly suitable for housing but also allow for (small-scale) businesses in dedicated spaces. The dwellings are characterized by overall uniform height of around 10-15 metres (3-5 floors) in most parts of the neighbourhoods giving the areas a clearly residential appearance. Several buildings were constructed specifically for non-residential purposes (i.e. corner stores) offering higher ceilings, larger windows and/or separate entrances. The neighbourhoods have seen similar phases of population growth and decline. In the period between the two World Wars, they attracted mainly working-class families. After the post-war reconstruction period, the neighbourhoods witnessed a population decline with the rise of mass car-ownership in the 1960s and the shifts in housing preferences towards newly build (suburban) neighbourhoods with more open spaces.

This population decline was reversed from the late 1980s onward by the inflow of migrants from less-developed countries – “guest-workers” who were looking for larger housing to accommodate their families who had come to the Netherlands as part of the family reunion schemes, migrants from former Dutch colonies, political refugees and asylum seekers. These migrants filled many of the vacancies in the local housing markets and transformed the face of the neighbourhoods from predominantly white working-class neighbourhoods to their current multi-cultural character.

Today, these neighbourhoods are part of the so-called ‘problem neighbourhoods’, a group of urban neighbourhoods characterised by high levels of poverty and crime and low level of labour market participation and social cohesion, singled out by the Dutch government for integral neighbourhood improvement schemes. Urban renewal efforts, which were launched in the early 1970s, improved the quality and attractiveness of the built environment by constructing new housing and renovating existing dwellings as well as by the restyling of public spaces. Also, part of these urban renewal schemes was the refurbishing of spaces for commercial activities by means of enlargement of business spaces and the establishment of designated shopping streets and commercial zones without, however, significantly affecting the mix of functions.

Post-war neighbourhoods

The two selected post-war neighbourhoods Moerwijk-West (The Hague) and Overvecht-Neckardreef (Utrecht) were built in the period 1950-1970 and are situated at some distance (3-4 kilometres) from the city centre. They were built to meet the strong demand for sub-urban housing with generous provisions of open spaces. Only a minimum of commercial spaces was realised, reserved for local firms meeting residents' everyday needs. Furthermore, a clear spatial separation between residential and commercial spaces was implemented to ensure that business activities did not negatively affect the living environment. These spaces are almost exclusively located along the major roads on the edges of the neighbourhoods. The area design of these neighbourhoods stands out for its right-angled major roads, and relatively complex structures of middle to high-rise buildings (latter especially found in Neckardreef) separated by wide green strips. Initially, the neighbourhoods accommodated a predominantly native population, which - given the post-war housing shortage - was happy to find a house in the first place.

In the past two decades, these neighbourhoods had lost much of their appeal among the first residents and many of them left. As in pre-war neighbourhoods, a strong increase in the population originating from non-western countries took place, a change that coincided with a decrease of the quality of housing and public space. Currently, these rather recent neighbourhoods have also been designated as so-called 'problem neighbourhoods' and thus have become targets for urban renewal. Urban renewal is now aimed at renovating and replacing a considerable share of the rather monotonous and sober housing blocks in these areas. Renewal initiatives have, however, placed little emphasis on the creation of commercial spaces, which, hence, remain rather thin on the ground.

4.2 Pre- and post-war neighbourhoods compared

Salient differences can be found between the built environments and regulations of pre- and those of post-war neighbourhoods. How can these differences impact on businesses in these neighbourhoods?

With regard to the spatial environment, several notable differences between the two neighbourhood types are visible. First, while pre-war neighbourhoods were designed for mixed residential and commercial purposes, post-war ones were designed purely for residential purposes. This basic functional divide explains why on the one hand pre-war neighbourhoods dispose over numerous buildings especially constructed for small-scale business activities (i.e. offering higher ceilings, larger windows and/or separate entrances) while on the other hand in post-war neighbourhoods quality business spaces are scarce. A second clear difference is visible with regard to the spatial allocation of residential and commercial functions within the neighbourhoods. Although in both pre- and post-war neighbourhoods commercial activities are concentrated along the major roads, in the latter neighbourhoods the spatial separation between residential and commercial functions is far more salient. 'Visible' firms are with few exceptions located on the edges of the neighbourhoods with wide plantation strips keeping firms and residences apart. A third distinguishing feature between the two neighbourhood types relates to the local urban renewal initiatives carried out in recent years. While in pre-war neighbourhoods their focus has in part been on the creation and refurbishment of business spaces (i.e. ground floor expansions and alterations) and on attracting new firms to designated commercial zones, in post-war neighbourhoods the emphasis was rather on the renovation and replacement of monotonous housing blocks.

Based on the above differences, it can be expected that firms in post-war neighbourhoods would be put at a disadvantage in terms of the quality and suitability of their local business spaces and would also encounter more difficulties to find adequate local business space to match their changing spatial needs. This might have negative implications for the firms' development prospects as their spatial use is likely suboptimal and could also result in higher firm mobility out of post-war neighbourhoods vis-à-vis pre-war ones.

Moreover, the spatial regulations in pre- and post-war neighbourhoods differ considerably. In general, while regulations in pre-war neighbourhoods are rather supportive of commercial activities, the ones in post-war neighbourhoods are more restrictive, especially regarding non-neighbourhood

oriented firms (not catering to the needs of local residents). First, in pre-war neighbourhoods local policy aims at combining residential and small-scale commercial purposes and permits home-based firm establishment throughout the neighbourhood. On the contrary, in post-war neighbourhoods local regulations are clearly directed at safeguarding the residential function of the areas leaving little space for firms and superimposing far-reaching restrictions on them. This also shows in the rigid distinction between residential and commercial purpose spaces, whereby the former may in principle be used exclusively for housing and not for home-based firms. The differences in zoning regimes reflect the history of the neighbourhoods: pre-war neighbourhoods developed as mixed-use areas with residents who are accustomed to business activities; the residents of post-war neighbourhoods do not have this experience and are much more prone to NIMBY responses supporting, hence, restrictive zoning.

A second significant divide relates to the scope of support for commercial activities. In pre-war neighbourhoods this scope is rather broad encompassing any small-scale business activities not harming the local living environment (by means of excessive noise, pollution, traffic). The policy aim is to safeguard local business spaces and stimulate business start-up activities. This is particularly visible in commercial concentration areas or shopping streets where planned multi-purpose spaces along major roads offer many business spaces on the ground floor level, spatial regulations are especially 'business-friendly' and firms are eligible for government subsidies. Spatial regulations in post-war neighbourhoods clearly have a more narrow scope of support for commercial activities as existing and new building spaces can in principle only be used by neighbourhood oriented firms. Moreover, business spaces in established shopping streets are reserved exclusively for neighbourhood oriented firms in the retail, hospitality and personal services sectors with minor exceptions in Moerwijk.

A last point of distinction concerns the procedures for alterations in spatial regulations. In pre-war neighbourhoods, they appear to be relatively liberal, which entails that convertibility of spaces from residential to commercial purposes and between different commercial purposes can occur

without much difficulty and in a timely fashion. In post-war neighbourhoods exemption procedures from spatial regulations appear stricter as exemptions are made on individual basis to allow non-neighbourhood oriented firms as well as partial use of residential spaces for home-based firms. Based on the above differences in spatial regulations, we expect that firms in post-war neighbourhoods experience the regulatory environment as more restrictive. Local government support is limited and entrepreneurs are likely disadvantaged whenever conflicts occur between the local residential and commercial functions as local policy clearly prioritizes the former over the latter. This in turn may have negative implications for firm development prospects, which may show up in less business success and/or higher firm mobility out of post-war neighbourhoods as compared to pre-war ones.

5. Business prospects in pre- and post-war migrant neighbourhoods

Above we have uncovered differences in local spatial environments and regulations between pre- and post-war neighbourhoods; here we explore how the built environment and the zoning regime in pre- and post-war migrant neighbourhoods impact on local business prospects. We address this research question by combining the insights generated through the analysis of the data of the chamber of commerce trade register with the primary data collected in the focus groups and interviews. We then relate this evidence to the observations made above on the local built environments and zoning regimes. The findings of this section are presented in four parts. We start off with a short description of local commercial activities in pre- and post-war neighbourhoods followed by a discussion on firm survival rates. After that we examine the role of key firm location factors in determining business prospects. Finally, we dwell on other relevant aspects of the local production environment that may affect business prospects of firms in pre- and post-war neighbourhoods.

5.1 A snapshot of local business landscapes in pre- and post-war neighbourhoods

The data of the chamber of commerce trade register provide a useful overview of neighbourhood business structures on a 5-digit postal code level as it contains details on total firms per sector of commercial activity and postal code area. It conveys information on whether and how business structures differ across the pre- and post-war clusters of neighbourhoods and enables us to draw first connections between potential differences therein and the underlying dissimilarities between the neighbourhoods' spatial environment and regulations.

Table 1 displays the commercial activities in the pre- and post-war clusters of neighbourhoods, which reveals striking inter-group variation. After controlling for size inequalities in building areas, it is clearly visible that pre-war neighbourhoods are home to more businesses than post-war neighbourhoods (55.4 vs. 30.7 firms per 10 hectare built-up area respectively). This is a first clear indication of the spatial use differences of the built environment between the two sets of neighbourhoods. On the one hand, post-war neighbourhoods are designed by and large for residential purposes and that leaves limited space for businesses. Pre-war neighbourhoods, on the other hand, were designed to combine both residential and commercial purposes and thus boast a considerably higher number of entrepreneurs.

Commercial activities are not only unevenly spread between the two sets of neighbourhoods, they are also unevenly distributed across sectors. In general, the differences between pre-war and post-war neighbourhoods are relatively lower for neighbourhood oriented sectors (including catering and hospitality, personal services and retail and repair) than for non-neighbourhood oriented ones (respectively 20.3 vs. 14.6, and 35.1 vs. 16.1 firms per 10 hectare building area respectively). We actually expected to observe an even clearer divide between the neighbourhood oriented and non-neighbourhood oriented figures as we expected far less non-neighbourhood oriented businesses in post-war neighbourhoods, since their neighbourhood development plans state that in principle the latter business activities are disallowed there. Apparently, local regulations of these areas are thus less restrictive to non-neighbourhood oriented firms than was assumed from the local development plans. The general picture of pre- and post-war neighbourhoods, then, is fairly

clear: pre-war neighbourhoods are accommodating more businesses in general, and especially non-neighbourhood oriented ones. This is in part a consequence of the observed differences in the neighbourhoods' spatial environments and regulations.

Table 1 here

5.2 Firm survival rates in pre- and post-war neighbourhoods

In this section, we compare average firm survival rates between pre- and post-war neighbourhoods for the period 2006-2007. We distinguish between neighbourhood oriented and non-neighbourhood oriented commercial activities. Overall, firm survival seems to be somewhat lower in post-war neighbourhoods than in pre-war ones (90.1 vs. 92.5 per cent of total 2006 firms respectively), a finding that is shared between both neighbourhood oriented and non-neighbourhood oriented sectors, but is more pronounced in the latter sectors (90.8 vs. 91.5 per cent for neighbourhood oriented sectors and 89.8 vs. 92.9 per cent for non-neighbourhood oriented sectors respectively). Although our above findings based on the chamber of commerce data provide just a first impression, this impression is also shared with the interviewed pre- and post-war neighbourhood experts. These experts provide a number of possible explanations why pre-war neighbourhoods tend to offer better business prospects than post-war ones. A commonly stated explanation is the difference in the spatial design and regulations of the neighbourhoods putting firms in pre-war neighbourhoods at an advantage over those in post-war neighbourhoods on the grounds of higher vitality attracting customers and business-friendlier local regulations:

[pre-war neighbourhood expert] '[The neighbourhood] with its nice stores can be an incubation area for medium and small business... the firm growth of the Indischebuurt has not yet been proportional to the growth ... of the retail sector in general, and so the Indischebuurt is a sort pearl...'

[post-war neighbourhood expert] 'And you say cold redevelopment, but I say a municipality

without policy... at the moment you see that a neighbourhood falls behind. But the neighbourhood can never fall behind by itself, ... because there are policy makers with a vision of what has to happen. But if you have no vision of what has to happen in the coming ten years then you have a problem. And the municipal department of economics is a deserted department.'

The finding that pre- and post-war differences in survival rates are relatively smaller for commercial activities in the neighbourhood oriented sectors is somewhat puzzling at first sight. It is, however, a likely consequence of special market advantages of established firms in post-war neighbourhoods, namely low competition, which is the outcome of highly restrictive local regulations that can effectively cap the number of neighbourhood oriented firms to be accommodated in the area. This may boost local survival rates vis-à-vis those in pre-war neighbourhoods, where competition in the neighbourhood oriented sectors is fiercer according to a pre-war neighbourhood expert as markets are saturated by the large numbers of firms in the same lines of business:

'There are many comparable stores, many greengrocery businesses, many butchers, many hair stylists... and I think that a great number simply has difficulties to survive.'

5.3 Firm location factors and business prospects in pre- and post-war neighbourhoods

In section 2, we have identified a number of key location factors that likely affect business operations of firms in migrant neighbourhoods. We have grouped these factors in five blocks, namely local social embeddedness, cost saving potential, convenience, market potential, and firm spatial needs. Moreover, we have asked forty local entrepreneurs in pre- and post-war neighbourhoods to state how these firm location factors affect their businesses. Entrepreneurs were asked to rate the items' relative importance for business prospects and indicate how their business location in pre- and post-war neighbourhoods scores on each of these items. The responses of the entrepreneurs for the two questions are shown in Figures 1a and 1b below. The combined presentation enables us not only to identify the relative importance of the various firm location factors, but also to see which factors are considered as business location advantages and which ones

as disadvantages. This in turn can provide vital information on how these factors affect firm prospects.

Figures 1a and 1b here

Before contrasting pre- and post-war neighbourhoods, we would like to emphasise a number of general features of the selected migrant neighbourhoods as production milieu. First, all of the firm location factors, except the neighbourhood ethnic population mix and the spatial expansion possibilities for the firm, are seen as important for entrepreneurs' business prospects, which underlines the relevancy of the chosen items. Factors relating to the neighbourhoods' market potential (neighbourhood cleanliness and safety, firm accessibility/available parking space) appear to be most important for firm development prospects, but also the cost-saving potential (cheap business spaces) and convenience (firm proximity to the entrepreneur's home) are essential factors affecting development prospects. Contacts with local residents are generally appreciated but seem to have little bearing upon business performance.

It is not surprising that entrepreneurs consider factors relating to the neighbourhoods' market potential as most important for firm prospects as the neighbourhood image, cleanliness, and security situation affect the decisions of (potential) customers to visit these areas. The neighbourhood ethnic population mix is considered less important as entrepreneurs are more concerned about the income mix rather than the ethnic origin mix. Moreover, while it seems somewhat surprising that firm spatial expansion possibilities are not considered as important to firm development prospects, this is a likely consequence of the fact that migrant neighbourhoods function predominantly as start-up areas, where a great share of entrepreneurs has not yet reached the point in their growth phase that firm space becomes an issue (Weterings et al., 2009; Schutjens et al., 2007). Also, many entrepreneurs are operating from the entrepreneurs' home (Schutjens and Stam, 2003; Stam, 2009) requiring little more than a computer and a desk.

All selected migrant neighbourhoods share a number of business location advantages and disadvantages. Interestingly, their advantages seem to relate especially to the 'soft aspects' among the location factors, namely to local social embeddedness aspects (contacts with local residents, ethnic population mix) and convenience (firm proximity to the entrepreneur's home). Combining this finding with our prior observation that migrant neighbourhoods accommodate high shares of local entrepreneurs (who also live in the neighbourhood), this indicates that local entrepreneurs are generally satisfied with their choices to operate their firms from home or close to it, which may be convenient for combining their working and private lives. They also seem to value their social embeddedness within the local community. Notably the market potential of the neighbourhoods (cleanliness, safety, firm accessibility/availability of parking space), except for closeness to customers, is seen as a location disadvantage. This supports our contention that migrant neighbourhoods function by and large as start-up locations for its residents, but are apart from their relatively central location little attractive as markets for local entrepreneurs.

When comparing business location advantages and disadvantages between pre- and post-war neighbourhoods, a number of notable differences are visible relating to the aspects cost saving potential (cheap business space), local embeddedness (ethnic population mix), market potential (firm accessibility/availability of parking space) and firm spatial needs (firm spatial expansion possibilities). First, low costs of business spaces are seen as a location advantage in post-war neighbourhoods but not in pre-war ones. This seems to indicate that - considering local market prospects - firm spaces in the post-war neighbourhoods are priced more attractively than the ones in the pre-war neighbourhoods.⁶ The competitive advantage on the grounds of low cost business spaces was also confirmed in our discussions with experts:

'... the attractive locations as ... are too expensive for starting entrepreneurs, who have a very restricted budget... Next to that they think that people do not come here, not the people you are looking for [customers]. So for that you go and search in another neighbourhood.'

'I actually notice among my clients originating from this area that when they need firm space, they do not look in there own neighbourhood...They rather go in the direction of ... of course, but that is too expensive...'

A second divide in business location advantages and disadvantages between pre- and post-war neighbourhoods is that the ethnic population mix is considered as a business location advantage in pre-war neighbourhoods but not in post-war ones. This may be contributed to the fact that the pre-war neighbourhoods have a much longer experience with a multicultural population than the post-war ones where migrants have been a relatively recent phenomenon and perceptions tend to be more negative. It may also be explained by the neighbourhoods' difference in social dynamics as a result of the distinct spatial design of the areas as was pointed out in section 5.1 above. The spatial design of post-war neighbourhoods with clearly separated residential and commercial spaces was intended to generate attractive settings for living but not to stimulate local social interactions in the streets as demonstrated by the following quote of a post-war neighbourhood expert:

'And that [vitality] you miss here, simply, customers do not come here. It is a residential neighbourhood with no reason to be here. You live here, you sleep here but apart from that...'

By contrast, pre-war neighbourhoods aim at the integration of housing and commercial functions. They have a far greater number of storefront commercial activities, which creates a vibrant neighbourhood atmosphere of 'buzzing' shops, cafes and restaurants. This vibrancy invites more social interactions between individuals and groups of people, which in turn is likely to increase interpersonal understanding and valuation of cultural diversity as reflected in the following quotes of pre-war neighbourhood experts:

'In comparison with other shopping streets, I find the Weimarstraat ... nice, because you see a nice mix of us [migrants] and natives. And actually I find that an entrepreneur is an entrepreneur...'

'... when I still lived here I always found it very pleasant to walk through the Javastraat, to shop there, because it simply has a nice atmosphere...'

An interesting difference between pre- and post-war neighbourhoods relates to firm spatial expansion possibilities, which entrepreneurs in the former neighbourhoods identify as a location disadvantage but not the ones in the latter neighbourhoods. This is due to higher valuations of firm spatial expansion possibilities by entrepreneurs in post-war neighbourhoods. Given that local spatial regulations in post-war neighbourhoods are generally more restrictive to firm spatial expansions, this finding is somewhat surprising. It is expected that the finding actually has less to do with local regulations, but rather with the characteristics of local businesses in pre- and post-war neighbourhoods. As local markets in pre-war neighbourhoods appear more attractive than in post-war ones, the former neighbourhoods are likely to accommodate relatively higher shares of firms in the growth phase of their business life cycle that are looking for more space. Also, given the more attractive local markets in pre-war neighbourhoods, it seems that the local markets for commercial spaces are somewhat more competitive and spatial regulations are perceived as more restrictive to business development. This is voiced by the following quotes by pre-war neighbourhood experts:

'Many entrepreneurs want to start in hospitality, but no more hospitality firms are allowed [in the commercial zone], so this is only possible on a business space where an existing hospitality firm leaves.'

'If the urban district council had been faster with for example the granting of the required permit and the changes of the local spatial regulations, then the Albert Heijn supermarket had long been there.'

While entrepreneurs in both pre- and post-war neighbourhoods consider the lack of accessibility/availability of parking space a location disadvantage, it is interesting to see that this business location factor appears to be more important to firm success in post-war neighbourhoods. This seems to suggest that, in light of low local market attractiveness, entrepreneurs in post-war

neighbourhoods need to lure customers from elsewhere on convenience grounds such as availability of free parking. Thus, the competitive edge of post-war neighbourhoods to sustain business has to reside in the cost-saving potential (low cost business space), firm accessibility and availability of parking space. The importance of good accessibility and availability of parking space for firm development and the competitive edge of post-war neighbourhoods in this regard is illustrated by the following quotes of pre- and post-war neighbourhood experts respectively:

'Saturday is one of the better [business] days, ...local residents want to park their cars, but Saturday is the day that I really have to get my sales. You have a car issue there... there are entrepreneurs, so that is three signatures against [the introduction of paid parking]... and then they go along all residents. And then in one sweep there are 40 residents in favour because they want to park their cars. They also want parking spaces. Even paid ones ... ok, but not on Saturday, ...but that you cannot bring across to them.'

'And there is free parking, which is of course also a [business] advantage.'

Finally, entrepreneurs operating in neighbourhood oriented sectors (retail, personal services and hospitality) tend to find business spaces and location aspects (i.e. costs of firm space, closeness to customers, good accessibility & parking, local security and cleanliness) and contacts with local residents more important for firm success than those operating in non-neighbourhood oriented sectors. These findings are not very surprising as neighbourhood oriented firms generally require proper business spaces while non-neighbourhood oriented commercial activities often take place from the entrepreneurs' home. Moreover, contacts with local residents as (potential) customers are more relevant for business prospects of neighbourhood oriented firms than for others.

5.4 Other aspects affecting local business prospects in pre- and post-war neighbourhoods

A number of other distinguishing aspects are found between pre- and post-war neighbourhoods that likely affect local business prospects. These aspects relate namely to entrepreneurs' perceptions of social interactions and disturbance in the neighbourhood, local policy and firm relations with local

authorities, and the level of local amenities. Overall, it appears that entrepreneurs have a rather positive perception of and relation with their local neighbourhoods, which was also our finding with regard to the so-called 'soft' business location factors in the prior section. Entrepreneurs generally indicate that they feel safe in their neighbourhoods, feel a sense of attachment and belonging to it and get along well with the local residents.

Looking at differences in entrepreneurs' perceptions of neighbourhood-related characteristics between the two types of neighbourhoods, it appears that the intensity of social interactions are perceived to be lower and the degree of disturbance higher in post-war neighbourhoods vis-à-vis pre-war ones. These findings are likely the outcome of the spatial use differences in pre- and post-war neighbourhoods rendering the former neighbourhoods with more vitality and tolerance, as was already illustrated in sections 5.1 and 5.3, which implies more social interactions in public spaces but also more disturbances (i.e. noise, traffic).

A second pre- and post-war neighbourhood divide is that entrepreneurs in post-war neighbourhoods tend to express lower valuations of contacts with municipality and police and higher ones for contacts with housing corporations/property owners. The higher valuations of contacts with housing corporations/property owners in post-war neighbourhoods are likely explained by the more relaxed commercial property markets there given lower local market prosperity as described in section 5.3 above. On the contrary, the lower valuations of entrepreneurs' contacts with local authorities (municipalities, police officers) in post-war neighbourhoods seem to be the outcome of less business-friendly local spatial regulations and stricter zoning policies. While entrepreneurs in general express that their relations with local authorities are not always easy, entrepreneurs' difficulties with the existing local regulations and policies as well as with government communication in post-war neighbourhoods are certainly graver. These difficulties relate to various aspects ranging from development and coordination of public works projects to lack of service orientation and bureaucratic processes of authorities. The higher level of entrepreneurs' difficulties with authorities in post-war neighbourhoods is a likely consequence of

the fact that, as these neighbourhoods are not prioritizing commercial activities; business owners need to spend more effort on solving day to day issues, which hampers their business prospects. The following quotes of local experts (of pre- and post-war neighbourhoods respectively) and an entrepreneur provide illustrations of how firm-government relations and entrepreneurs' perceptions of local policies in pre- and post-war neighbourhoods differ respectively.

'... there is a foundation managed by the community with currently 25,000 Euro, and the aim is to increase it to 50,000 Euro, and the foundation is for the stimulation of entrepreneurship in Zeeburg. And that means that many of the ideas to do with the improvement of stores, houses [can be realized].'

'In such a neighbourhood...in the neighbourhood action plan of Overvecht a great deal is missing in the area of local economy and entrepreneurship. The word economy that is one of the pillars in all of the neighbourhood action plans, is of course still a very thin pillar... because in post-war neighbourhoods the [business] infrastructure is lacking.'

(Quote of entrepreneur in post-war neighbourhood in consumer services)

'And I called four times [with the municipality], they would send someone, someone should still come now and they do not listen to anything...But now they stopped 100 metres from Elbedreef and now they have to continue... and now the busses can still not pass. So shortly we are simply three weeks without busses... And then they break open the road ... and so the road is closed for three weeks ...It cost the supermarket a mega turnover....'

A third aspect that differs between pre- and post-war neighbourhoods, the local presence of amenities, has already been mentioned in prior sections but should be highlighted again as it helps explain the divide in local business prospects between the neighbourhoods. Certain amenities, such as a quality supermarket, street cafes, cultural and athletic facilities, can stimulate other local businesses as they draw visitors to the neighbourhood and may increase the neighbourhood image.

This is especially relevant for firms operating in neighbourhood oriented sectors, but may also be beneficial for other firms for which neighbourhood image and quality of life are important.

6. Conclusions

To start a business, entrepreneurs - migrants and natives alike - have to both perceive and seize opportunities. They have to identify a market, which they, with their particular set of resources, could, in principle, cater to. This process of matching between, on the one hand, supply (entrepreneurs) and, on the other, opportunities (demand), has a clear spatial dimension. Markets are in most cases spatially delineated and (aspiring) entrepreneurs tend to be attached to places through housing, social ties, and knowledge of a particular area. Given the fact that many businesses need concrete spaces to function, the match between entrepreneurs and opportunities is also dependent on the availability of affordable business spaces. This availability in its turn is the result of the interplay between the built environment and the zoning regulations pertaining to a particular area or neighbourhood. If the built environment does not offer suitable business spaces (in terms of rent, size, location, accessibility, or outside appearance) and if the zoning regulations do not allow the construction of new or the transformation of existing spaces into suitable business spaces then, although both aspiring entrepreneurs and market opportunities do exist, the match will not take place- at least not in that particular neighbourhood. This intervening *spatial* variable of the built environment with its set of rules tends to be neglected in much research on (migrant) entrepreneurship.

Above, we have looked at to what extent the built environment and the zoning in migrant neighbourhoods impact on business prospects of local entrepreneurship by comparing two different types of neighbourhoods. The first type of neighbourhood is the mixed-use, pre-WWII neighbourhood and the second type is the much more mono-functional, residential post-WWII neighbourhood, which was mainly built during the post-war reconstruction under the aegis of modernist urban planning with its strong emphasis on the spatial separation of functions. The two types of neighbourhoods differed not only in types of dwellings, street plans and diversity of the

buildings, but also with respect to the zoning plans. The pre-war neighbourhoods are characterised by relatively low (up to four stories) and small blocks, with finely grained street plans, relatively diverse housing and business spaces, and comparatively tolerant zoning plans. The post-war neighbourhoods, in contrast, have higher and larger housing blocks, are connected to major thoroughfares, tend to be more monotonous and have stricter zoning plans.

We have used both a quantitative data set supplied by the chambers of commerce and we have drawn on interviews and focus groups with entrepreneurs and neighbourhood experts to tease out the different impacts of these spatial and regulatory contexts on business prospects of entrepreneurs. The observed differences between the two types of migrant neighbourhoods are rather salient.

A first conclusion is that pre-war migrant neighbourhoods tend to be more supportive of entrepreneurship in general. These neighbourhoods not only have less restrictive spatial regulations and more available commercial spaces, but there are also fewer conflicts with municipalities and policymakers resulting in better business prospects (except in neighbourhood oriented sectors). The pre-war neighbourhoods have a long-standing tradition of a mix of functions and a dense fabric of small-scale economic activities by native and migrant entrepreneurs. This is much richer and more fertile for starting a business.

A second conclusion, related to the first, is that pre-war neighbourhoods have more to use Ray Pahl's (1984) term *getting-by potential* for neighbourhood oriented firms than post-war neighbourhoods, the latter of which attracts entrepreneurs merely on basis of low costs of business space and convenience grounds, for instance due to free of charge abundance of parking spaces. Firms in relying on these advantages appear to be much more vulnerable for shifts in demand.

Third, business prospects differ considerably between neighbourhood oriented and non-neighbourhood oriented commercial activities. The latter seem to be faring relatively worse in post-war neighbourhoods as compared to pre-war neighbourhoods. The reason for this seems to be the relatively restrictive local regulations, which aim at confining local commercial activities to those serving the needs of the local residents. The more restrictive zoning in post-war neighbourhoods has

another effect on firms located there. By capping the numbers and type of firms allowed in the neighbourhood, the competition for firms in the neighbourhood oriented sectors is severely limited thus creating protected local markets for the already established firms.

Concluding, this study showed that the built environment and its zoning do indeed appear to play a significant role in shaping the local business prospects of firms. Restrictive zoning in mono-functional, residential environments appear to hamper the matching of aspiring entrepreneurs and opportunities and, moreover, thwart the expansion of already successful businesses. Jane Jacobs' (1961) view of diverse, mixed-use urban neighbourhoods as vibrant and resilient formulated almost half a century ago seems to be vindicated again.

Notes

1. The neighbourhood selection is based on data available by CBS on all neighbourhoods in the Netherlands. The neighbourhood does not correspond perfectly with the geographical units used in our study and originating from the Chamber of Commerce business register (i.e. 5 digit postal code areas), but this is the best information source that is available to us and the approximation is fairly accurate.
2. Acknowledging that this is likely a limitation of our study, the financial resources available for our study largely restrict the number of neighbourhoods to be investigated.
3. 5 digit postal code areas vary in size depending on population density, but generally are of dimension 200x200 metres.
4. Entrepreneurs who live in or nearby the neighbourhood where their firms are located or were living there at the point when the firm started in the neighbourhood.
5. As geographical information on business locations originates from the chamber of commerce trade register, where locations are recorded by postal codes, we define neighbourhood movers as businesses that relocated to another postal code (5 digit level) in the period 1 January 2005 to present.

6. In absolute terms, there should be no price differences between the chosen pre- and post-war neighbourhoods as we controlled for this in our neighbourhood selection based on data of the Netherlands Bureau of Statistics.

Literature

Aalders, R., Bakkeren, A. et al. (2008) *De kracht van de wijk. Belang van wijkeconomie voor de leefbaarheid in Amsterdamse krachtwijken*. Amsterdam: Rabobank Amsterdam en Omstreken/EZ Amsterdam/MKB Amsterdam.

Audretsch, D. B. and Dohse, D. (2007) Location: A neglected determinant of firm growth, *Review of World Economics* 143(1), pp.79-107.

Beckers, P. and Blumberg, B. (forthcoming) *Immigrant entrepreneurship on the move - A longitudinal analysis of first and second generation immigrant entrepreneurship in the Netherlands*.

Bridge, S., O'Neill, K. et al. (2003) *Understanding enterprise, entrepreneurship and small business*. Basingstoke/New York: Palgrave Macmillan.

Buit, J. (1965) *De structuur van het stadsgewest als productiemilieu*. Amsterdam: SISWO.

Bulterman, S., Klink, A. v. et al. (2007) Ondernemers en hun bedrijven in de wijk. Het cement voor de economische pijler, in: J. v. Dijk and V. Schutjens (Eds.) *De economische kracht van de stad*. Assen: Van Gorcum.

Burgess, E. (1968) The growth of the city: an introduction to a research project, in: R. E. Park, E. W. Burgess and R. D. McKenzie (Eds.) *The city*, pp.47-62. Chicago: University of Chicago Press.

Cooper, A. and Artz, K. (1995) Determinants of satisfaction for entrepreneurs, *Journal of Business Venturing*, 10, pp.439-457.

Dantuma, E. (2008) *Bedrijfshuisvesting en groei - MKB Special 2008*. Amsterdam: ING Economisch Bureau.

- Florida, R. (2002) *The rise of the creative class: And how it's transforming work, leisure, community and everyday life*. New York: Basic Books.
- Fong, E., Luk, C. et al. (2005) Spatial distribution of suburban ethnic businesses, *Social Science Research*, 34, pp. 215-235.
- Garnsey, E. (1998) A theory of the early growth of the firm, *Industrial and Corporate Change*, 7, pp. 523-555.
- Hagens, J., Krabben, E. v. d. et al. (2009) *Wijkeconomie: de kleine ondernemer aan het woord. Ondernemerschap in wijk en stad: onderzoek Vastgoed en Ruimtelijke Ordening in het kader van kortlopend STIP-onderzoek 2008*. Utrecht/Nijmegen: Bureau Buiten/Radboud Universiteit Nijmegen.
- Jacobs, J. (1961) *The Death and Life of Great American Cities*. New York: Vintage Books.
- Kloosterman, R. C. (2010) Matching opportunities with resources: A framework for analysing (migrant) entrepreneurship from a mixed embeddedness perspective, *Entrepreneurship and Regional Development*, 22(1), pp. 25-45.
- Kloosterman, R. C. and Rath, J. (Eds.) (2003) *Immigrant entrepreneurs; Venturing abroad in the age of globalization*. Oxford/New York: Berg.
- Kloosterman, R. C. and Van der Leun, J. P. (1999) Just for starters: commercial gentrification by immigrant entrepreneurs in Amsterdam and Rotterdam neighbourhoods, *Housing Studies*, 14(5), pp. 659-677.
- Kloosterman, R. C., Van der Leun, J. P. et al. (1999) Mixed embeddedness: (In)formal economic activities and immigrant businesses in the Netherlands, *International Journal of Urban and Regional Research*, 23(2), pp. 253-267.
- Lambooy, J. G. (1997) Economische geografie beter gewaardeerd door economen, *Geografie*, 6 (March), pp. 32-35.
- Light, I. and Rosenstein, C. (1995) *Race, Ethnicity, and Entrepreneurs in Urban America*. New York: Aldine de Gruyter.

- Light, I. and Bonacich, E. (1988) *Immigrant entrepreneurs. Koreans in Los Angeles, 1965-1982*. Berkeley: University of California Press.
- Lofstrom, M. (2002) Labor market assimilation and the self-employment decision of immigrant entrepreneurs, *Journal of Population Economics*, 15(1), pp. 83-114.
- McCann, B. T. and Folta, T. B. (2008) Location matters. Where we have been and where we might go in agglomeration research, *Journal of Management*, 34, pp. 532-565.
- Musterd, S. and Andersson, R. (2006) Employment, social mobility and neighbourhood effects: The case of Sweden, *International Journal of Urban and Regional Research*, 30(1), pp. 120-140.
- Ouwehand, A. and Meijeren, M. v. (2006) *Economische initiatieven in stadswijken. Een verkennend onderzoek*. Gouda: Habiforum.
- Pahl, R. (1984) *Divisions of labour*. Oxford: Basil Blackwell.
- Phizacklea, A. and Ram, M. (1995) Ethnic entrepreneurship in comparative perspective, *International Journal of Entrepreneurial Behaviour & Research*, 1(1), pp. 48 –58.
- Planbureau voor de Leefomgeving (2010) *Bedrijvigheid en leefbaarheid in stedelijke woonwijken*. Den Haag/Bilthoven.
- Porter, M. E. (1998) Clusters and the New Economics of Competition, *Harvard Business Review*, 76(6), pp. 77.
- Portes, A. and Sensenbrenner, J. (1993) Embeddedness and immigration: notes on the social determinants of economic action, *The American Journal of Sociology*, 98(6), pp. 1320-1350.
- Ram, M. and Jones, T. (1998) *Ethnic minorities in business*. Milton Keynes: Open University Press.
- Ram, M., Jones, T. et al. (2002) Ethnic minority enterprise in its urban context: South Asian restaurants in Birmingham, *International Journal of Urban and Regional Research*, 26(1), pp. 24-40.
- Rekers, A. and Van Kempen, R. (2000) Location matters: ethnic entrepreneurs and the spatial context, in: J. Rath (Ed.) *Immigrant businesses - the economic, political and social environment*, pp. 54-69. London: Macmillan Press Ltd.

- Rusinovic, K. (2006) *Dynamic Entrepreneurship; First and Second-Generation Immigrant Entrepreneurs in Dutch Cities*. Amsterdam University Press: Amsterdam.
- Sampson, R. J., Raudenbush, S. W. et al. (1997) Neighbourhoods and violent crime: A multilevel study of collective efficacy, *Science*, 277, pp. 918-924.
- Schutjens, V., Korteweg, P. et al. (2007) De woning als bedrijfslocatie. Van springplank naar anker, in: R. v. Kempen and S. Musterd (Eds.) *De stadsbuurt. Ontwikkeling en betekenis*. Assen: Van Gorcum.
- Schutjens, V. and Stam, E. (2003) The evolution and nature of young firm networks: A longitudinal perspective, *Small Business Economics*, 21, pp. 115-134.
- Stam, E. (2009) Entrepreneurship, evolution and geography, in: R. Boschma and R. L. Martin (Eds.) *The handbook of evolutionary economic geography*. Cheltenham: Edward Elgar.
- Stuart, T. and Sorenson, O. (2003) The geography of opportunity: Spatial heterogeneity in founding rates and the performance of biotechnology firms, *Research Policy*, 32, pp. 229-253.
- Voelker, B., Flap, H. et al. (2007) When are neighbourhoods communities? Community in Dutch neighbourhoods, *European Sociological Review*, 23(1), pp. 99-114.
- Waldinger, R. (1986) *Through the eye of the needle. Immigrants and enterprise in New York's garment trades*. New York: New York University Press.
- Waldinger, R., Aldrich, R. et al. (1990) *Ethnic entrepreneurs. Immigrant business in industrial societies*. Newbury Park CA: Sage.
- Wennekers, S., Stel, A. v. et al. (2008) *The relation between entrepreneurship and economic development: is it U-shaped?* Zoetermeer: EIM.
- Weterings, A., Dammers, E. et al. (2009) *De waarde van de kantooromgeving. Effecten van omgevingskenmerken op de huurprijzen van kantoorpanden*. Den Haag/Bilthoven: Planbureau voor de Leefomgeving.
- Weterings, A., Knobben, J. et al. (2008) *Werkgelegenheidsgroei op bedrijventerreinen. Achtergrondstudies*. Den Haag/Bilthoven: Planbureau voor de Leefomgeving.

Wilson, W. J. (1987) *The truly disadvantaged; the inner city, the underclass, and public policy*.

Chicago: The University of Chicago Press.

Table 1. Total firms, sector and neighbourhood cluster distributions

total 2006	pre- and post-WWII clusters			
	pre		post	
business sector classification	total	total per 10ha building area**	total	total per 10ha building area**
neighbourhood oriented*	350	20.3	124	14.6
% of neighbourhood total	37%		48%	
non-neighbourhood oriented	603	35.1	137	16.1
% of neighbourhood total	63%		52%	
OVERALL	953	55.4	261	30.7

Notes: * Neighbourhood oriented firms operate in the sectors hotel & catering, personal services, retail & repair. All other firms are non-neighbourhood oriented; ** includes residential and commercial spaces as well as cultural and public facilities; data of neighbourhood building area stems from Netherlands Bureau of Statistics, Statline, 2009; The agricultural sector is excluded from the display as entrepreneurial activities in this sector are very low to non-existing.

Figure 1a. Firm location factors and success: Entrepreneurs in pre-war neighbourhoods

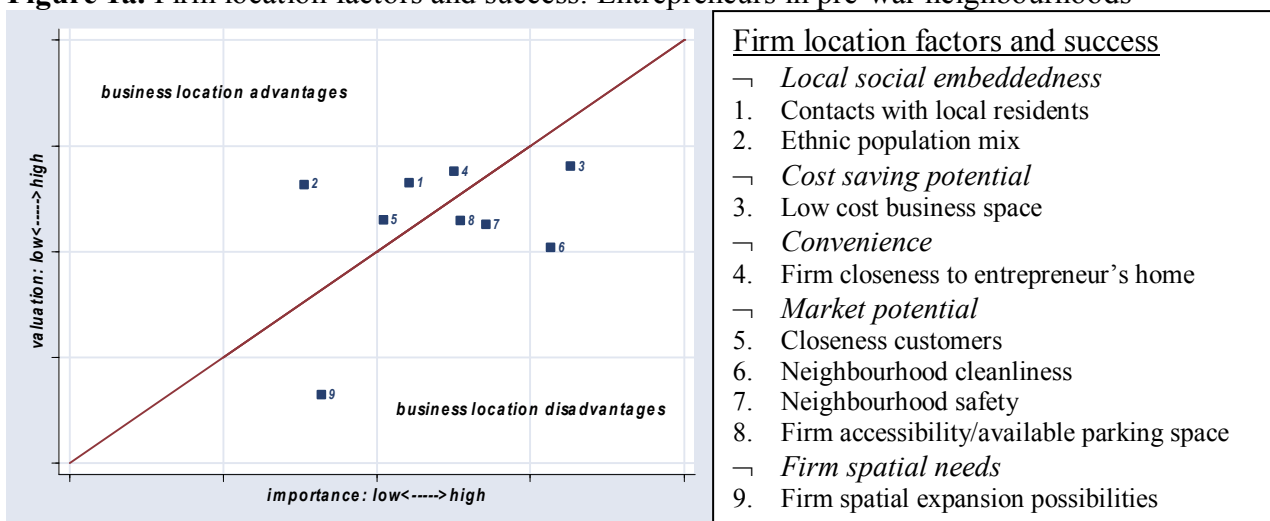
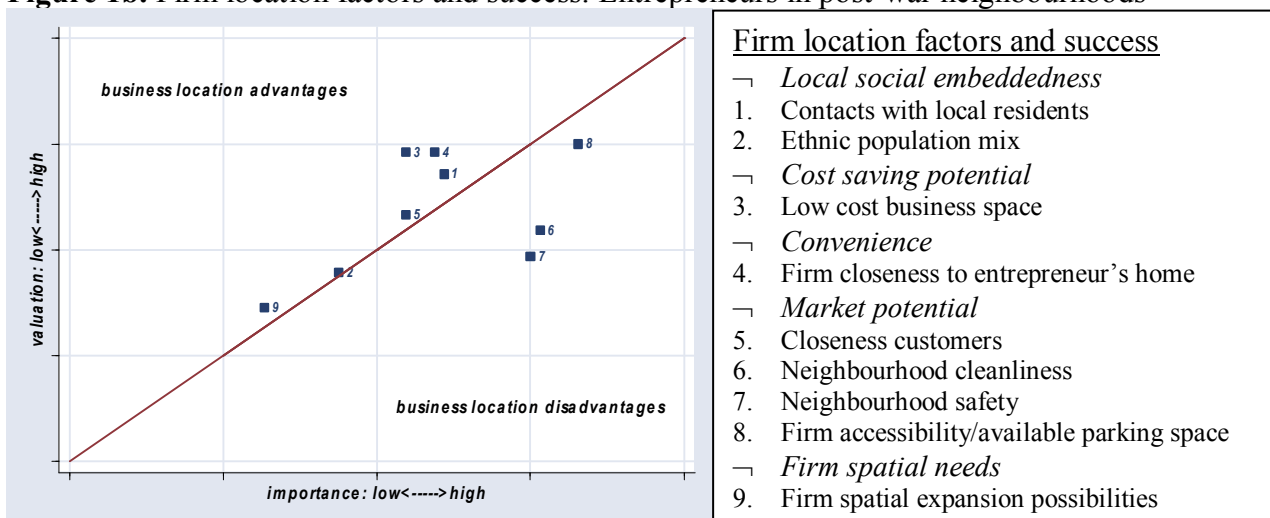


Figure 1b. Firm location factors and success: Entrepreneurs in post-war neighbourhoods



Notes: A scale from 1 to 5 is used for both importance and valuation, whereby 1 is the lowest and 5 the highest score.

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