

## **Immigrant entrepreneurship on the move: a longitudinal analysis of first- and second-generation immigrant entrepreneurship in the Netherlands**

Pascal Beekers<sup>a\*</sup> and Boris F. Blumberg<sup>b</sup>

<sup>a</sup>*Radboud University Nijmegen, Department of Geography, Planning and Environment, Institute for Management Research, P.O. Box 9108, 6500 HK Nijmegen, Nijmegen, The Netherlands;*

<sup>b</sup>*Maastricht University, School of Business and Economics, P.O. Box 616, 6200 MD Maastricht, Maastricht, The Netherlands*

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Second-generation immigrants starting businesses in industries not traditionally associated with immigrants have inspired a new line of research on migrant entrepreneurship. New entrepreneurs are expected to profit from better economic prospects arising from the relatively high levels of human capital available to them and improved integration into society compared to their parents' generation. So far, it is unclear whether these expectations have been met owing to a lack of reliable data on immigrants in general and immigrant entrepreneurs in particular. This paper uses newly available data from Statistics Netherlands (1999–2004) to compare the differences between the business success of second- and first-generation immigrant entrepreneurs. The data enable us to compare these intergenerational differences for each of five major non-Western groups of immigrants in the Netherlands and contrast them with developments among native entrepreneurs from both inter-temporal and longitudinal perspectives. Contrary to expectations, the higher levels of socio-cultural integration of second-generation immigrants do not necessarily lead to better business prospects. The differences between the major ethnic groups of immigrants are noteworthy, as are those with non-immigrant entrepreneurs. While high levels of human capital and social integration foster entrepreneurial success, they are no guarantee of good business prospects.

**Keywords:** immigrant entrepreneurship; intergenerational differences; business performance; migrant integration; non-Western migrants

### **1. Introduction**

Over the past decades, most Western countries, including the Netherlands, have seen a notable increase in immigrant business ownership, especially for migrants originating from non-Western countries (ITS 2007; CBS Statline 2009). This development seems promising in the light of the ongoing disadvantages the latter groups face in the labour market. Participation rates are low, and there is a substantial earnings gap between the native population and immigrants originating from Western countries. Although immigrant entrepreneurship can be a promising avenue enabling individuals to gain economic mobility and social recognition (Van den Tillaart 2001; Choenni 1997; Kontos 2003; Ram and Smallbone 2003), it is commonly discredited on the grounds of being low

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\*Corresponding author. Email: [p.beekers@fm.ru.nl](mailto:p.beekers@fm.ru.nl)

value-added, rarely innovative and only marginally profitable (Light and Rosenstein 1995; Waldinger 1996).<sup>1</sup>

Explorative studies by Van den Tillaart (2001), EIM (2004) and Rusinovic (2006), however, suggest that the traditionally bleak image of migrant entrepreneurship needs to be reassessed as a new group of migrant entrepreneurs – namely the second-generation children of migrants – has started businesses in more promising sectors of the economy. Therefore, the first objective of this paper is to investigate the claim that second-generation migrant entrepreneurs hold substantially better economic positions with promising future prospects compared to their parents' generation. More specifically, we offer a systematic account of first- and second-generation migrant entrepreneurs in the Netherlands based on the administrative data from different sources. From a theoretical perspective, the paper contributes to the field in two ways. First, while much of the current literature on migrant entrepreneurship has emphasized human and social capital as important determinants for entering into self-employment (see e.g. Fairlie 1999; Clark and Drinkwater 2000; Ram et al. 2000; Levent, Masurel, and Nijkamp 2003; Arenius and De Clercq 2005; Wilson, Kickul, and Marlino 2007; Andersson and Hammarstedt 2010), we address the success of migrant ventures and focus more on the firm and firm location characteristics. In our view, addressing business success is an essential missing piece, as many self-employed in general, and the migrant self-employed, in particular, operate marginal businesses within fragmented industries. Thus, looking only at the self-employment issue itself does not capture its heterogeneity, ranging from self-employed generating incomes approaching social security benefits to the wealthy and community-respected businessmen (Collins 2003; Collins and Low 2010). Second, we illustrate the heterogeneity across different migrant groups and develop hypotheses relating to the entrepreneurial success of non-Western migrant entrepreneurs in the Netherlands.

The paper is structured in six sections. Following the introduction, Section 2 provides a general overview of migrant entrepreneurship in the Netherlands with special focus on the recent developments of the non-Western group. Section 3 discusses previous literature on migrant integration trajectories and entrepreneurship to develop the research hypotheses of the study. Sections 4–6 present the research methodology, study findings and related discussion. Section 7 presents the conclusion.

## **2. Migrant entrepreneurship in the Netherlands**

Table 1 depicts the self-employment figures of different population groups in the Netherlands between 1999 and 2004. Overall, self-employment has remained relatively constant, while self-employment among non-Western migrants has strongly and consistently increased from 32,700 to 45,300 and relatively from 4.3% to 5.9% between 1999 and 2004. Similar growth trends of non-Western entrepreneurship are found in many other European countries such as the UK (Thompson, Jones-Evans, and Kwong 2010; Ram, Jones, and Barrett 2006), Germany (Wilpert 2003) and France (Ma Mung and Lacroix 2003; Baycan-Levent and Nijkamp 2009). The non-Western group of entrepreneurs is further broken down into first-generation and second-generation entrepreneurs to show that the former accounts for the lion's share (more than 85%) of business activities as most second-generation migrants were still of school age at the time. Nevertheless, over the period 1999–2004, the second generation has increasingly entered self-employment with annual growth rates averaging at more than 10%.

As the population of non-Western migrant entrepreneurs is rather heterogeneous, we have selected the five largest groups originating from Turkey, Morocco, Suriname, the

Table 1. Entrepreneurship in the Netherlands (1999–2004).

Year	All		Native		Western		Non-Western	
	Count	%	Count	%	Count	%	% 1gen.	% 2gen.
1999	764,200	87.75	7.97	32,700	4.29	3.78	0.47	
2000	787,300	87.41	7.95	36,500	4.64	4.14	0.55	
2001	803,700	86.78	8.01	41,800	5.20	4.58	0.64	
2002	795,500	86.61	8.02	42,700	5.38	4.69	0.68	
2003	788,700	86.16	8.08	45,400	5.76	4.96	0.75	
2004	768,200	86.10	8.00	45,300	5.91	5.01	0.83	

*Note:* Entrepreneurs defined as persons reporting income from self-employment ('eigen bedrijfsvoering') (excludes freelancers, director main shareholders ('directeur-groootaandeelhouders'). Definitions: Western and non-Western, first- and second-generation migrants according to the Netherlands Statistics Bureau, whereby non-Western migrants are individuals born (or people with at least one parent born) in a non-Western country of Asia (excluding Japan and Indonesia), Africa, Latin America and Turkey. Western migrants are individuals born (or people with at least one parent born) in other countries outside the Netherlands. First-generation migrants were born abroad and second-generation migrants are children with at least one parent born abroad. *Source:* CBS Statline (2009).

Dutch Antilles/Aruba and China, which together account for more than half of the non-Western entrepreneurship. Among these five parties, the Turkish group is by far the largest (7,700–11,500), followed by Surinam (5,900–7,400), China (3,400–4,700), Morocco (2,700–4,700) and, lastly, the Dutch Antilles/Aruba (1,300–2,000).

Table 2 shows the self-employment tendencies of the different populations by country of origin for the period 1999–2004 including the five principle non-Western groups. Self-employment is still higher among the native population (11.5%) than among non-Western migrants (8.8% for the first generation and 4.5% for the second generation), but the gap is narrowing as non-Western migrant self-employment has increased by 20% over the 6-year period. Figures differ considerably between the five groups investigated. Self-employment is more popular among Turkish and Chinese migrants than those of the other three origin clusters.<sup>2</sup> Finally, over the 6-year period, self-employment propensities increased for first and second generations of the Turkish, Moroccan, Surinamese and Antillean groups, but decreased for the first-generation Chinese and remained fairly constant for the second. In summary, over the period 1999–2004, non-Western entrepreneurship has notably increased in scale, largely attributed to the developments of these five main groups.

### 3. Integration trajectories and immigrant entrepreneurship

This section deals with the issue that first to second generation changes in migrant entrepreneurship are closely related to migrant integration trajectories within their host societies. These have been intensively studied to date (Portes and Zhou 1993; Alba and Nee 2004; Portes, Fernandez-Kelly, and Haller 2009; Vermeulen and Penninx 1994, 2000; Crul 2000; Dagevos 2001), but surprisingly, the literature turns a blind eye to self-employment, although labour market positions are stated to be an important outcome of integration. Equally, within the labour market, it is expected that integration into the host society increases the chances of entering into self-employment and raises the developmental prospects of existing firms, because integration enhances the migrants' abilities to access vital business information and to mobilize the necessary resources (see also Constant and Zimmermann 2006; Evans and Jovanovic, 1989; Le 2000).

Table 2. Self-employment propensities per groups (in %).

Year	Native	Western		Non-Western		Turkish		Moroccan		Surinamese		Antillean		Chinese	
		Western	1gen.	2gen.	1gen.	2gen.	1gen.	2gen.	1gen.	2gen.	1gen.	2gen.	1gen.	2gen.	1gen.
1999	11.8	10.7	7.8	4.1	9.7	3.7	4.2	1.6	4.6	4.1	2.9	4.8	61.2	11.4	
2000	11.9	10.7	8.2	4.3	10.5	4.2	4.7	1.9	5.0	4.3	3.0	4.8	60.5	10.7	
2001	11.9	10.8	8.9	4.6	12.2	4.9	5.4	2.3	5.4	4.4	3.2	5.2	57.9	11.4	
2002	11.7	10.7	8.8	4.5	12.6	5.2	5.5	2.3	5.3	4.3	3.1	5.3	53.5	10.9	
2003	11.6	10.8	9.4	4.8	13.1	5.8	6.2	2.5	5.4	4.5	3.4	5.4	52.4	11.1	
2004	11.4	10.6	9.5	5.0	13.3	6.1	6.5	2.9	5.4	4.4	3.3	5.5	53.1	10.9	

Note: Defined as population aged 15–65 with income from self-employment (excluding freelancers, director main shareholders) as share of population with employment income as of last Friday in September of respective years. Definitions: Western and non-Western as well as first- and second-generation migrants as in Table 1 based on definitions of the Netherlands Statistics Bureau.  
 Source: CBS Statline (2009).

### **3.1 Intergenerational differences in host society integration**

In this paper, we utilize the integration definition of Vermeulen and Penninx (1994, 2000) which distinguishes between two dimensions of integration, namely the socio-cultural and the structural dimensions.<sup>3</sup> The socio-cultural dimension reflects interpersonal relations between the native Dutch population and the extent of cultural, attitudinal and behavioural changes towards the host society (i.e. Dagevos, Gijsberts, and Van Praag 2003; Dagevos 2001; Vermeulen and Penninx 2000; Veenman 1995; Rusinovic 2006). Structural integration refers to the participation of immigrants in core institutions of society and is usually measured by educational attainment, their position within the labour market and residential integration (Dagevos 2001; Rusinovic 2006).

Integration-related aspects of migrants and their children in the Netherlands have been widely studied (see e.g. Crul and Pásztor 2007; Pels and de Gruyter 2006; Crul 2000). The studies' findings generally support the segmented assimilation model (Portes and Zhou 1993), which suggests that different ethnic groups follow different assimilation pathways at a different pace. Despite occasional concerns of the intergenerational downward social mobility of disadvantaged immigrant groups, Alba and Nee (2004) point out that even in the most disadvantaged groups, the dominant trend is still one of upward social mobility.

Using the integration terminology of Vermeulen and Penninx (1994, 2000), the socio-cultural and structural integration of the five major migrant groups in the Netherlands is assessed in Table 3. In general, the second generation is more integrated along the socio-cultural and the structural dimensions. They have a better command of the Dutch language, have more interpersonal relations with native Dutch people and demonstrate opinions, attitudes and behaviour, which more closely resemble those of the native Dutch population (Dagevos, Gijsberts, and Van Praag 2003; Beekhoven and Dagevos 2005; Rusinovic 2006). With regard to the structural dimension, the second generation generally appears to achieve higher levels of education and hold more favourable positions in the labour market than their parents. Nonetheless, migrant disadvantages, compared to the native population, persist in the educational achievements of certain groups and in the labour market for all groups (Vermeulen and Penninx 1994, 2000; Dagevos and Bierings 2005; Zorlu and Traag 2005; Rusinovic 2006).<sup>4</sup> Residential location, which indicates exposure to the host culture, has hardly changed between the first and second generation with the exception of the Dutch Antillean group. Thus, the picture regarding integration on the structural dimension is mixed. The second generation demonstrates a higher level of integration regarding education, but not in terms of the labour market or residential choices.

Table 3 also reveals that integration trajectories of the five migrant groups differ as segmented assimilation theory would predict. With regard to socio-cultural aspects, for example, gains in language skills are higher for the Turkish, Moroccan and Chinese than for the Surinamese and Dutch Antillean migrants, undoubtedly because Dutch is the official language of the latter two countries. Although the Turkish, Moroccan and Chinese migrants have social contact with the native population, a clear intergenerational catch-up trend is visible within these groups. Turkish and Moroccan migrants also identify more strongly with their ethnic groups and are more likely to uphold traditional values. This may be explained by cultural and linguistic considerations, and by the groups' relatively higher levels of self-sufficiency, as sufficiently large ethnic groups can form viable sub-clusters within the host society.

With regard to structural integration, a clear converging trend towards the native population can be observed in first- to second-generation migrant educational

Table 3. Socio-cultural and structural integration for five groups of non-Western migrants in the Netherlands.

Dimensions of integration	Natives	Turkish		Moroccan		Surinamese		Antillean		Chinese	
		Igen.	2gen.	Igen.	2gen.	Igen.	2gen.	Igen.	2gen.	Igen.	2gen.
<b>Socio-cultural</b>											
Dutch language proficiency (1, low; 2, medium; 3, high) <sup>d</sup>	n.a.	1.7	2.4	1.8	2.7	2.8	2.9	2.5	2.9	1.7	2.8
Never receives visit by native friends (%) <sup>d, f</sup>	n.a.	40	30	50	18	33	14	25	6	33	18
Often contacts with natives in free time (%) <sup>d, e, f, g</sup>	n.a.	21	47	29	58	50	70	61	92	12	42
Identification with own group (%) <sup>d</sup>	n.a.	99	93	97	89	90	68	83	31	No info.	
Modern values (gender roles, family relations, emancipation, religious liberalism; 1, least modern; 5, most modern) <sup>e</sup>	n.a.	2.8	3.1	2.8	3	3.2	3.5	3.3	3.7	No info.	
<b>Structural</b>											
<i>-Educational outcomes (highest level of education)<sup>b</sup></i>											
Only basic education (max. bo)	22	67	35	78	41	34	17	33	9	58	7
Some secondary education (vbo/mavo) <sup>e</sup>	28	13	37	8	27	31	29	31	18	18	32
Starting qualification (mbo/havo/vwo/hbo/wo)	50	18	28	14	31	35	54	36	73	25	61
<i>-Labour market outcomes/social security</i>											
Share of working age population working <sup>a</sup>	66	43	54	43	54	64	57	55	63	31	55
Share unemployed <sup>b</sup>	4	18	15	19	22	9	11	14	8	11	(8)
Share of work age pop. receiving public assistance <sup>a</sup>	2	14	4	19	5	13	6	21	4	12	2
Job functional level – elementary/low <sup>b</sup>	37	78	65	77	72	51	55	51	39	48	
Job function level – medium <sup>b</sup>	32	15	26	17	21	33	26	33	30	38	
Job function level – higher/scientific <sup>b</sup>	32	7	9	6	7	15	19	16	32	15	
<i>-Residential allocation (across neighbourhood type)<sup>a</sup></i>											
0–15% non-western migrants in neighbourhood	86	29	31	28	29	30	37	37	55	54	58
15–50% non-western migrants in neighbourhood	13	48	48	50	49	46	45	47	36	35	33
50+ % non-western migrants in neighbourhood	1	22	21	23	22	24	18	16	9	10	9

<sup>a</sup> Source: The Netherlands Bureau of Statistics, Stratline 2009 (means of period 1999–2004, working age population defined as age 15–65).

<sup>b</sup> Source: SPVA '98/CHIN '97, for education indicators only individuals who finished their schooling period are included.

<sup>c</sup> Source: SCP, Rapportage minderheden 2003, SPVA '02.

<sup>d</sup> Source: SCP, Rapportage minderheden 2003, SPVA '98/CHIN '97; the National Bureau of Statistics figures define second generation only as individuals born in the Netherlands with at least one migrant parent, while the SPVA also include migrants to the Netherlands before the age of 6 as second generation. For Chinese, the language proficiency ranking is computed as follows: 1 – speaks no Dutch/often language difficulties, 2 – sometimes difficulties, 3 – speaks Dutch well.

<sup>e</sup> For Chinese group, the havo educational qualification is grouped to this lower category although it fits better in the higher category. This was necessary due to the difficult distinction between mavo and havo levels in the Chinese education system. As a consequence, education levels of the Chinese are somewhat understated when compared to other groups.

<sup>f</sup> Chinese data based on responses of household heads, partners and children above 12, other group responses based on information of household heads only.

<sup>g</sup> For non-Chinese migrant groups, this indicator is somewhat understated as it indicates the share of migrants with more contacts to natives than their co-ethnic groups.

achievements, where the second generations of Chinese, Antillean and Surinamese are actually bettering the education levels of the native group. The Turkish, Moroccan and Chinese groups show the largest gain between the generations. Despite considerable intergenerational improvements in education achievements, the labour market prospects of the second-generation migrant groups consistently lag behind those of the native population, even the second generation who are better educated than the Dutch. The Turkish, Moroccan and, to a lesser extent, the Surinamese migrants experience difficulties making the transition phase from education to the labour market (Dagevos 2001; Crul and Pásztor 2007). In the Antillean and Chinese cases, the advances of the second generations seem to have translated into significant labour market improvements (Vogels, Geense, and Martens 1999; Dagevos 2001; Martens 1995).

Regarding residential allocation, the final element of the structural dimension, we can see certain differences between the five migrant groups but few changes between first and second generations. Although both generations of Turkish, Moroccan and Surinamese migrants reside in areas with a high migrant concentration, second-generation Antilleans have moved to less concentrated areas. The Chinese migrants form a special group, as both its first generation and, to an even greater extent, its second generation are widely dispersed across the country, residing in low concentration areas.

### ***3.2. Mixed embeddedness framework and migrant entrepreneurship***

The above analysis reveals that the second generation has achieved higher levels of socio-cultural and structural integration in society than their parents' generation for all five ethnic groups, but the question is how do these changes translate to the dynamics in migrant entrepreneurship? The mixed embeddedness framework developed by Kloosterman, van der Leun, and Rath (1999) offers a useful theoretical approach. The framework builds upon interaction theory (Aldrich et al. 1990; Light and Rosenstein 1995) and considerations regarding social embeddedness (Granovetter 1985). It departs from the notion that immigrant entrepreneurship depends on multiple contingencies determining the interplay of individual characteristics of the entrepreneur, on the one side, and the characteristics of the wider social, economic and politico-institutional environment, on the other. The latter context, which Kloosterman, Van der Leun, and Rath (1999) termed opportunity structures, describes the setting, creating business opportunities for prospective and established entrepreneurs. Opportunity structures are shaped by economic factors both on the supply side, such as entrepreneurs' individual and cultural characteristics, and on the demand side, such as the presence of an accessible customer base. At the same time, political–institutional factors, namely existing national rules and legislation, institutions and laws, enable or hamper businesses start-ups and development (Kloosterman 2010). The framework helps to explain why integration affects migrant business success as it stresses that the level of human, social and financial capital of migrant entrepreneurs determines the extent to which they can benefit from (local) opportunity structures (Lindgreen and Hingley 2010).

Entrepreneurs need to possess higher levels of education as well as business and country-specific skills to access attractive markets with better growth perspectives and higher profit margins, such as the high-tech sector or business services. Without education, the business activities of migrant entrepreneurs are confined to traditional sectors (i.e. small-scale retail, snack bars and restaurants) or low-skilled post-industrial services (i.e. cleaning, housekeeping and pet care) where competition is generally high and economic rewards are low (Blackburn and Ram 2006). In this regard, Figure 1 and

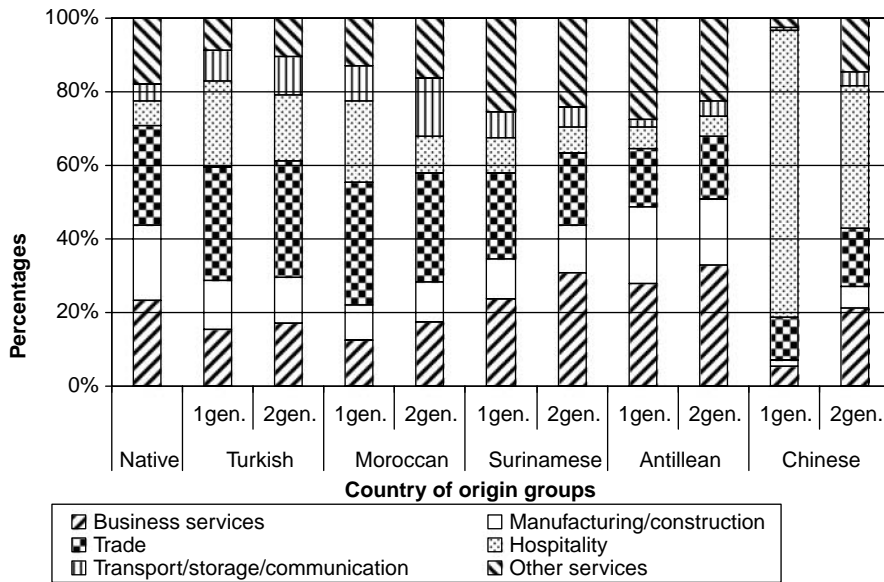


Figure 1. Distribution of native and non-Western migrant entrepreneurs across sectors (as % of group total) for the first and second generations. Note: the agricultural sector is excluded as it contains too few cases for some migrant groups, and migrant firms in this sector are not comparable to those of natives. First- and second-generation migrants defined as in Table 1 according to definition of the Netherlands Statistics Bureau.

Table 3 suggest that the business activities, particularly of first-generation Moroccan, Turkish and Chinese entrepreneurs, are largely restricted to these low-profit sectors, given their low levels of education and country-specific skills. Conversely, the business activities of the second generation are more diverse, especially in the case of the Chinese, which might be an indication that the higher achievements in education and skills of the second generation have enabled many of its entrepreneurs to gain access to more promising markets.

Apart from education, business skills and financial capital, the mixed embeddedness framework also stresses the importance to business success of entrepreneurs' social capital (Bonacich 1973; Waldinger, Aldrich, and Ward 1990; Light and Gold 2000). Prior research has shown that migrant entrepreneurs benefit considerably from upholding diverse social networks with both the co-ethnic community and the native community. On the one hand, migrant entrepreneurs derive benefit from the strong bond with their co-ethnic community, drawing on its resources, including 'ethnic ideologies, industrial paternalism, solidarity and ethnic institutions' (Light and Rosenstein 1995, 25; Collins and Low 2010). Local resources such as family capital and labour are of particular importance, as the ethnic entrepreneur generally has limited access to the institutional capital, such as knowledge and skilled manpower, of the mainstream economy (Drori and Lerner 2002, 137; Waldinger, Aldrich, and Ward 1990; Light and Gold 2000).

On the other hand, in order to achieve growth and sustain the long-term viability of the business, migrant entrepreneurs need to break out of co-ethnic markets and access the mainstream markets. To reach this goal, native contacts and other migrant groups are essential. Migrant entrepreneurs catering entirely to their co-ethnic community's needs are disadvantaged as their opportunity structure is predetermined by and confined to that



community. An interesting illustration of how important social networks with the native community are for migrant business development is presented by Hingley, Lindgreen, and Beverland (2010), who show how lacking contact with native food growers for fresh product foodservices in the UK can result in growth barriers for migrant entrepreneurs.

Considering the findings from Table 3, namely that second-generation migrants have a considerably higher proficiency in the Dutch language and more frequent contact with the native population than the first generation; second-generation entrepreneurs consequently have an advantage in gaining access to mainstream markets. This is in line with Sepulveda, Syrett, and Lyon (2011), who find that younger (second-generation) entrepreneurs, partly educated in the UK where they had gained a better understanding of how things work and spoke better English, were also involved in more diverse business activities (Sepulveda, Syrett, and Lyon 2011).

Migrant entrepreneurs maintaining ties with their ethnic community as well as with the native community access the bridging function in their networks, which allows them to exploit brokerage opportunities (Burt 2005). Four factors increase the chances of migrant entrepreneurs successfully breaking out of co-ethnic markets and gaining access to more promising mainstream markets: (1) entrepreneurs' close contacts with other ethnic groups including the majority population; (2) an advanced and broad competence profile; (3) financial resources and (4) cross-border business relations (Drori and Lerner 2002, 138; Bager and Rezaei 2000). As the second-generation groups of entrepreneurs score better on at least the first two aspects, they are more likely to successfully sell their products and services in mainstream markets.

Socio-cultural and structural integration affect opportunity structures of prospective and established migrant entrepreneurs, as they create a match between the supply side (products/services offerings) and the demand side (products/services demanded by customers) in mainstream markets. In other words, integration determines to what extent migrant entrepreneurs are able to identify and seize business opportunities in mainstream markets. Generally, we expect that integration in society fosters the entrepreneurial prospects of migrants, because they have better opportunities to address a broader range of potential markets.

### **3.3 Hypothesis development**

Following on from the prior discussion on the relationship between integration and migrant entrepreneurship, this section introduces the research hypotheses. To recap, this study sets out to investigate the effects of the first and second generations on the entrepreneurial outcomes of the five major non-Western migrant groups in business. More specifically, it offers possible explanations for the observed business performance and the intergenerational differences therein, which can partly be attributed to differences in integration. Across all origin groups, the second generation has achieved higher levels of integration than the first, which enhances the business prospects of the second (younger) generation as they are better equipped to enter self-employment (Sepulveda, Syrett, and Lyon 2011). Hence Hypothesis 1, the main hypothesis of the study, reads more formally as follows:

*Hypothesis 1:* Business prospects of the second-generation groups of migrant entrepreneurs are more promising than for their first-generation counterparts.

For the following hypotheses, we first link the variables reflecting the opportunity structures to business performance. In the second step, we introduce generation as a

moderator and investigate whether the second generation profits more from certain opportunity structures than the first generation. In general, the business prospects of entrepreneurs are greater in more prosperous areas characterized by higher employment rates and wage levels, because the customer base in those areas has a higher spending power. Although this positive relationship holds for all groups of entrepreneurs, the second generation will profit relatively more from these market opportunities than the first due to their higher levels of socio-cultural and structural integration.

*Hypothesis 2a:* Local employment rates and wage levels are positively related to migrant business performance.

*Hypothesis 2b:* Business prospects of migrant entrepreneurs are increasing with local employment rates and wage levels, but more so for the second generation than for the first.

Although the literature on migrant entrepreneurship stresses that the local presence of the co-ethnic community plays a role in the development of migrant businesses, because entrepreneurs are socially embedded in their communities (Light 1979, 1985; Portes and Bach 1985; Rajman and Tienda 1999; Renzulli, Aldrich, and Moody 2000), the direction of the effect is ambiguous. On the one hand, the presence of the co-ethnic community is portrayed as an asset, which may create specific migrant business opportunities (co-ethnic markets), render a supportive customer base and/or offer business advantages through reduced recruitment and hiring costs. On the other hand, the presence of the co-ethnic community may also affect migrant business prospects negatively as the community creates obligations that conflict with further business development. Moreover, entrepreneurs locked into their co-ethnic markets reach growth limits. Irrespective of the direction, it is expected that the local presence of the co-ethnic community will have a larger effect on the business prospects of first-generation migrants than on those of the second, as social and business relations of the former group are more centred on their local co-ethnic community. Furthermore, as first-generation migrant firms tend to cluster in the same industries, the local co-ethnic business presence is likely to have a stronger effect on the business prospects of the first generation than on those of the second. This suggests the following hypotheses, which focus on the local co-ethnic residential and business concentration:

*Hypothesis 3a:* Local co-ethnic residential and business concentrations are negatively related to migrant business performance.

*Hypothesis 3b:* The magnitude of the relationships between local co-ethnic concentrations and migrant business prospects is larger for first-generation entrepreneurs than for the second.

From an entrepreneurial perspective, large cities have an advantage purely through their population size, as a larger population ensures that even people with extraordinary interests can easily find people with matching interests. An aficionado of Mexican art would find it easier to meet like-minded people in Amsterdam than in a small coastal town. A sufficient number of like-minded individuals can lead to more business opportunities; so opening a gallery for Mexican art has a better survival chance in Amsterdam than in a small town. Moreover, the wider variety of interests facilitates the emergence of new ideas and innovation, as there are more opportunities for the cross-fertilization of ideas (Glaeser 2011). As second-generation migrants are more likely to do business in the less traditional sectors, we argue that they can benefit more from location in the big cities than the first generation.

*Hypothesis 4a:* Business performance of migrant firms in the four major Dutch cities is higher than elsewhere in the country.

*Hypothesis 4b:* The business setting in the four major Dutch cities is relatively more beneficial for business prospects of second-generation entrepreneurs than for those of the first.

As previously mentioned, first- and second-generation migrant entrepreneurs tend to operate in different industry sectors, which explain the variation in business development patterns between the two groups (Van den Tillaart 2001; EIM 2004; Rusinovic 2006). Although the first generation is predominantly active in the low margin trade and hospitality sectors, the business activities of the second generation are more diverse including more promising sectors like business services. In addition, market opportunities of first- and second-generation entrepreneurs are not the same at the point of business establishment, as there has been an economic evolution from production to services in recent decades. Therefore, second-generation entrepreneurs are more frequently found in the more promising services, especially in the business services sectors, while the share of entrepreneurs operating in the hospitality sector has reduced. It is thus expected that the second generation is more successful in entrepreneurship than the first, as they are operating in more promising sectors. Moreover, as business operations in these sectors often demand high levels of education and country-specific skills from entrepreneurs, this offers the second generation an advantage over the first. This advantage is likely to bring greater firm success for the second generation compared to those of the first in these sectors.

*Hypothesis 5a:* Migrant business performance is higher in the more promising sectors, such as the business services sector, than in the traditional migrant sectors, like the trade and hospitality sectors.

*Hypothesis 5b:* Second-generation migrant entrepreneurs operating in promising sectors are more successful than their first-generation counterparts in these sectors.

## **4. Methodology**

### **4.1 Data sources**

The analysis is based on administrative data for the 6-year period 1999–2004 collected by Statistics Netherlands and covers all Dutch residents (16 million people) including 800,000 who are self-employed. The self-employment data are taken from the SSB (Social Statistical Database), which complements the information from the administrative registers with demographic and socio-economic information. We match three data-sets, namely the GBA (Gemeentelijke Basisadministratie – Base administrative register of the municipalities) providing demographic information as well as place of residence and the SSB Zelfstandigen (Social Statistical Database of Self-employed) providing information on firms, such as size (number of employees) and location, industry sector, annual profits, deductibles and tax contributions and the SSB Banenbestand (Social Statistical Database of Jobs) containing information on all employment relationships in the Netherlands (about 10 million records in 2004) from social insurance records, which is complemented with information from tax records as well as data from a large-scale employer survey (EWL).

These three data-sets are merged on the basis of the personal identifiers (ID codes) of the entrepreneurs as well as the municipal location codes of the firms. The resulting panel

data-set for the period 1999–2004 makes it possible to track entrepreneurs over time and by place and conduct an in-depth business performance analysis of the various origin groups of entrepreneurs. The data-set is reduced to include six groups of entrepreneurs by ethnic origin, namely native (991,308 individuals), Turkish (19,708 individuals), Moroccan (7,618 individuals), Surinamese (12,300 individuals), Dutch Antillean (3,298 individuals) and Chinese entrepreneurs (8,578 individuals). Furthermore, it is restricted to small- and medium-sized firms with up to 100 employees and excludes agricultural firms.

#### **4.2. Measurements**

Table 4 depicts the variables used in the later analyses. Performance is a multi-dimensional concept, which is captured by three distinct indicators, namely business profit, firm growth (increase in number of employees) and firm survival. For small firms particularly one needs to acknowledge that in specific cases each of these indicators individually might not reflect performance; therefore, we analyse all three to counter-balance the problems associated with each indicator. The bivariate variable set ‘first generation’ and ‘second generation’ indicates the groups to which the entrepreneurs belong. In the later analyses, these variables will reveal the differences between native entrepreneurs and first- and second-generation migrants, respectively. Characteristics of the entrepreneur and the firm considered are age, marital status, gender and the sector in which the firm is active. The demand side of the opportunity structure is captured by various variables describing the environment (municipality) surrounding entrepreneurial operations, namely the local employment level, the average wage level and the concentration of migrants and firms belonging to the same group as the entrepreneurs.

### **5. Findings**

#### **5.1 Descriptive analysis**

This section presents the study’s descriptive findings visualized in Table 5 and Figure 1. To start with, Table 5 provides an overview of the variables’ descriptive elements for each origin group separated for first and second generations. Although the aim of the study is to compare first- and second-generation groups of entrepreneurs, the inclusion of the native Dutch group as a reference category is essential to obtain a meaningful interpretation of some of the results. A distinction is made in the table between the entrepreneur and firm-based characteristics which are defined on the individual level and the firm location-based characteristics, which are a number of collective characteristics shared by entrepreneurs with the same business location.

With regard to the entrepreneur and firm-based characteristics, as expected, second-generation entrepreneurs across all migrant groups are younger and more likely to be single. Moreover, the second generation includes relatively more female entrepreneurs than the first. Migrant entrepreneurship is strongly concentrated in the country’s four major cities for both generations. In particular 40–50% of the Turkish, Moroccan and Surinamese entrepreneurs are located in these four cities compared to just 30% for the Dutch Antillean and only between 19% and 34% for first- and second-generation Chinese. Furthermore, it is striking to observe that, except for the Surinamese group, the migrant business concentration in the major four cities has not reduced from first to second generations. This suggests that the four major cities continue to attract first- and second-generation migrant entrepreneurs alike.

Table 4. Description of variables.

<i>Dependent variables</i>	
Annual profit (ln) <sup>t</sup>	Natural logarithm of sum of all business profits per person per year. Figures originate from the definite income tax assessments note for the years 1999 and 2000 and from the entrepreneurs' tax declarations for the years 2001–2004
Growing <sup>t</sup>	Forward looking binary variable taking the value 1 if the firm has moved from one size category to a higher size category between years. Size categories are no employees, one employee, two to four employees and five and more employees
Survival <sup>t</sup>	Forward looking binary variable taking the value 1 if the firm is still operating in the coming year
<i>Independent variables: personal and firm characteristics</i>	
First generation	Set of dummy variables with the reference category 'natives'. First-generation dummy variable takes value 1 if entrepreneur belongs to the first-generation migrants, i.e. was born outside the Netherlands
Second generation	Second-generation dummy variable takes value 1 if entrepreneur belongs to the second-generation migrants, i.e. was born in the Netherlands but at least one parent was born abroad
Age	Entrepreneur's age in years
Married	Binary variable taking the value 1 if entrepreneur is married
Female	Binary variable taking the value 1 if entrepreneur is female
Trade	Set of dummy variables to capture the firm's sector with the reference category manufacturing/construction. The variable of the sector of the firm is active and takes the value 1, all other variables take the value 0
Hospitality	
Transport/storage/com.	
Business services	
Other services	
<i>Independent variables related to demand side</i>	
Employment <sup>t</sup>	Employment rate in the municipality
Wage level (ln) <sup>t</sup>	Natural logarithm of the mean wage level in the municipality
Citytop4	Binary variable that takes the value 1 if firm is located in one of the four major Dutch cities (Amsterdam, the Hague, Rotterdam or Utrecht)
Concentration <sup>t</sup>	Number of migrants of the group investigated divided by the total population in the municipality
Firm concentration <sup>t</sup>	Number of firms owned by migrant group investigated divided by all firms in that municipality

Note: *t* indicates time-varying variables.

Comparing firm-based performance indicators between the generations of the origin groups, three clusters emerge, namely the Turkish/Moroccan, the Surinamese/Dutch Antillean and the Chinese. These three clusters reflect important differences in the migration histories of the groups to the Netherlands. Most first-generation Turkish and Moroccan migrants entered the country as labour migrants in the 1960s when the Netherlands – like many other European countries – experienced a tremendous shortage of workers and the government implemented programmes to attract them from abroad. In contrast, most first-generation Surinamese and Dutch Antillean migrants originate from former Dutch colonies and entered the Netherlands in great numbers from the 1970s onwards. Finally, most first-generation Chinese migrants entered the country in the 1960s, and originate from Hong Kong and other Chinese coastal areas that historically maintained trade relations with the Netherlands. A second, less numerous group of Chinese migrants have settled in the Netherlands more recently having sought political asylum.

Table 5. Summary statistics per migrant group, entrepreneur/firm-based and firm location-based characteristics (group means).

	Turkish		Moroccan		Surinamese		Antillean		Chinese	
	1gen.	2gen.	1gen.	2gen.	1gen.	2gen.	1gen.	2gen.	1gen.	2gen.
<b>Entrepreneur/firm-based characteristics</b>										
Observations	547,505	40,451	16,622	2,154	26,920	6,558	5,707	2,517	22,580	1,515
Female	.3192	.142	.099	.215	.275	.314	.315	.315	.397	.337
	(.466)	(.349)	(.299)	(.411)	(.446)	(.464)	(.464)	(.464)	(.489)	(.472)
Age	44.41	35.86	36.08	25.84	41.37	34.78	42.39	33.99	39.85	37.72
	(11.08)	(7.66)	(8.77)	(4.53)	(9.21)	(9.78)	(9.65)	(7.49)	(9.42)	(12.43)
Married	.6771	.782	.684	.265	.466	.341	.463	.337	.801	.466
	(.467)	(.412)	(.464)	(.441)	(.498)	(.474)	(.498)	(.472)	(.399)	(.499)
Citytop4	.107	.414	.503	.487	.546	.428	.298	.308	.187	.340
	(.309)	(.492)	(.500)	(.490)	(.497)	(.494)	(.457)	(.462)	(.390)	(.474)
Annual profit	23,678	17,910	17,442	12,935	19,150	18,751	18,413	18,925	19,131	24,369
	(36,796)	(32,129)	(34,988)	(22,369)	(33,618)	(38,777)	(37,550)	(30,254)	(22,545)	(39,539)
Growing <sup>a</sup>	.161	.158	.147	.103	.155	.136	.147	.141	.138	.121
	(.368)	(.364)	(.354)	(.304)	(.362)	(.343)	(.354)	(.349)	(.345)	(.327)
Survival <sup>a</sup>	.905	.840	.852	.812	.854	.842	.837	.846	.928	.882
	(.291)	(.365)	(.354)	(.390)	(.352)	(.364)	(.369)	(.360)	(.257)	(.321)
<b>Firm location-based characteristics<sup>b</sup></b>										
Observations	483	370	288	152	346	257	285	215	447	156
Employment	.651	.656	.657	.665	.656	.659	.658	.660	.652	.658
	(.039)	(.037)	(.042)	(.035)	(.037)	(.037)	(.037)	(.036)	(.040)	(.036)
Wage level	23,319	23,550	23,854	24,464	23,769	24,032	24,071	24,378	23,325	24,214
	(3,260)	(3,515)	(3,525)	(3,674)	(3,440)	(3,634)	(3,477)	(3,499)	(3,172)	(3,804)
Concentration	.008	.010	.010	.015	.008	.009	.005	.005	.002	.003
	(.014)	(.015)	(.013)	(.016)	(.012)	(.014)	(.005)	(.005)	(.001)	(.001)
Firm concentration	.005	.007	.003	.005	.005	.006	.003	.003	.005	.007
	(.010)	(.011)	(.004)	(.006)	(.007)	(.007)	(.002)	(.002)	(.003)	(.003)

Note: Bold numbers indicate rejected equal means tests of first and second generations per origin group at 0.1% significance level. Standard deviations in brackets. First- and second-generation migrants defined as in Table 1 according to the parameters of the Netherlands Statistics Bureau. Variable definitions are found in Table 4.

<sup>a</sup>These variables are defined in a forward-looking way indicating if entrepreneurial enterprise is growing (operating) in the coming year. As a consequence, these variables have fewer observations than stated since information is missing for the year 2004.

<sup>b</sup>These statistics are reported at the level of the municipality where the firms of the groups are located.

The intergenerational trends of the firm-based performance indicators differ across the three origin clusters introduced in the above paragraph. In the Turkish/Moroccan cluster, the second generation realizes lower profits, slower growth and has lower survival rates than its parents' generation. The already considerable performance gap between the native population and the first generation has widened even more for the second. This suggests that intergenerational advances in the socio-economic position in society have not translated into better business prospects for Turkish and Moroccan migrants. In the Surinamese/Dutch Antillean cluster, there is no difference between the two generations, which implies that their performance gap with the native country is sustained across generations. Finally, only the second-generation Chinese entrepreneurs outperform their parents in profit terms, but not in terms of growth and business survival. In terms of firm profitability, they are on a par with the native people and the second generation's business survival rate comes fairly close to that of the native population. Of all five origin groups, the Chinese is the only one in which intergenerational advances in the socio-economic position tentatively seem to have translated into a stronger business performance among the second generation.

The lower panel of Table 5 compares a number of firm location-based indicators between the generations of the origin groups. These are the local employment and wage levels as well as levels of co-ethnic local residential and business concentration.<sup>5</sup> Although no significant intergenerational changes are observed with regard to the local employment and wage levels, a rather striking intergenerational change is visible for the concentration variables. Not only does the second-generation Chinese group (as expected<sup>6</sup>) operate in areas of higher co-ethnic residential and business concentration than the first-generation counterpart, a similar pattern is found for the Turkish and Moroccan entrepreneurs. However, no intergenerational changes are observed for the origin cluster of Surinamese and Dutch Antilleans. Leaving the Chinese group aside, it is noticeable that the two origin clusters (Turkish/Moroccan and Surinamese/Dutch Antillean) with no intergenerational business performance improvements are also those that operate in environments with a high level of co-ethnic concentration.

Apart from Table 5, Figure 1 provides an important contribution to the paper's descriptive analysis as it shows the sector distribution of the business activities of the various origin groups. The clustering of origin groups observed before is again prevalent. The Turkish/Moroccan cluster is traditionally more active in the trade and hospitality sectors, but the second generation has turned from hospitality to the business service sector. The Surinamese/Dutch Antillean cluster is more active in the service sectors, and also in trade (Surinamese) and manufacturing (Dutch Antillean), although intergenerational shifts are less pronounced. The first-generation Chinese group is a special case as four-fifths of its business activities are found in the hospitality sector, i.e. typical Chinese takeaways and low-budget restaurants that are found in even the smallest Dutch village. Conversely, the second-generation Chinese group has turned away from the hospitality sector and towards business services.

The observed intergenerational sector shifts demand some further remarks. First, they document the change in market opportunities that took place from one generation to the next. This is perhaps most convincingly demonstrated by the Chinese case, in which first-generation entrepreneurs have exploited the Chinese restaurant niche market to saturation point, forcing many of the second-generation Chinese not taking over the family business to start up in different sectors. Second, next to the trends that may be expected from market developments, it seems that the second-generation groups of the first cluster (Turkish/Moroccan) have been the least successful at seizing the new opportunities offered by the

services economy. Instead, these groups tend to operate in the trade sector in a similar fashion to their parents' generation. The under-representation of these second-generation groups in the service sectors (compared to the native population and the other migrant groups) may be explained by the groups' continued educational and labour market disadvantages, the persistence of language and cultural barriers and the lack of the essential business information that troubles service business start-ups.

## 5.2 Testing of hypotheses

Econometric analyses were carried out to test the hypotheses. Our analysis strategy was as follows. For each migrant group we estimated annual profit, growth and survival separately by contrasting the respective migrant group with a random sample of native people taken from the whole Dutch population.<sup>7</sup> Each of these estimates is a sequence of three models starting with a base model that only includes the characteristics of entrepreneurs. The second and third models, base + and base ++, respectively, also include business and business-location characteristics. The latter two models are identical with the exception of the variable's local co-ethnic concentration and co-ethnic business concentration. As these two independent variables are highly correlated ( $r > .90$ ) we did not include them in one model to mitigate problems of multicollinearity. Moreover, to test Hypotheses 2–5, we extended the previous models by first- and second-generation interaction terms with other relevant variables (citytop4, local co-ethnic residential concentration, local co-ethnic firm concentration, local employment and wage levels, and industry sector dummies) and analysed specific first- and second-generation effects in line with the formulated hypotheses. Robust checks show that our results are stable.

Tables 6–8 show that the effects of the entrepreneurs' characteristics on firm prospects are consistent across the models and outcome variables. Age has a positive impact on firm performance at a decreasing rate. Thus, life and professional experience tend to result in more informed business decisions, but older entrepreneurs tend to be less able to capitalize on market opportunities. Married entrepreneurs tend to perform better, which suggests that the support of a spouse either directly (assistance in business operations and/or financing) or indirectly (emotional and/or time management support) contributes to the firm's success. Finally, female entrepreneurs have a lower performance than males.

Tables 6–9 depict the regression findings for testing the research hypotheses. The first three tables show the results of the general random-effects regressions, which include the bivariate variables first and second generation migrants, respectively. On the basis of these variables, Hypothesis 1 can be assessed. The other hypotheses are addressed in Table 9, which presents the random-effects regression findings of the interaction models. Moreover, to reduce output complexity, the table exclusively displays the first- and second-generation composite coefficients (base plus interaction coefficients) of the variables relevant to assess Hypotheses 2 and 5 as well as the corresponding test outcomes. Whenever the stated Hypotheses 2a, 3a, 4a and 5a are supported by our findings, we add asterisks to the composite coefficients. In a similar fashion, asterisks in the 'Welch (*t*)' columns indicate that the stated Hypotheses 2b, 3b, 4b and 5b are supported by our findings. Finally, since multiple test outcomes need to be considered to assess the validity of the formulated research hypotheses per origin group, we apply the general rule that a hypothesis is confirmed by the data whenever at least half of the group's test results are supportive of the stated claim at the 10% significance level.

*Hypothesis 1.* The findings of the multivariate analyses support the earlier descriptive outcomes, which illustrated a high degree of diversity in intergenerational trends. As we



Table 6. Base random effects regression estimates for dependent variable annual profits, by origin group.<sup>a</sup>

Dependent variable: annual profit (ln)	Turkish			Moroccan			Surinamese			Antillean			Chinese		
	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++
Constant	.992 (.183)***	-4.34 (1.34)***	-4.53 (1.33)***	.584 (.189)***	-5.52 (1.36)***	-5.71 (1.36)***	.540 (.187)***	-4.94 (1.35)***	-5.43 (1.36)***	.524 (.191)***	-5.13 (1.35)***	-5.44 (1.38)***	.494 (.187)***	-4.56 (1.33)***	-4.42 (1.34)***
1gen.	-.864 (.065)***	-.845 (.068)***	-.825 (.068)***	-1.04 (.097)***	-1.01 (.099)***	-.986 (.099)***	-1.12 (.078)***	-1.14 (.081)***	-1.12 (.081)***	-1.44 (.161)***	-1.53 (.159)***	-1.55 (.159)***	1.07 (.072)***	.892 (.085)***	.892 (.085)***
2gen.	-.902 (.156)***	-.827 (.155)***	-.809 (.155)***	-.670 (.245)***	-.635 (.243)***	-.608 (.244)***	-.900 (.153)***	-.892 (.152)***	-.879 (.152)***	-.864 (.237)***	-.872 (.234)***	-.879 (.234)***	-.351 (.314)***	-.394 (.310)***	-.400 (.310)***
Age	.269 (.008)***	.268 (.008)***	.268 (.008)***	.286 (.008)***	.287 (.008)***	.287 (.008)***	.288 (.008)***	.288 (.008)***	.288 (.008)***	.289 (.008)***	.289 (.008)***	.289 (.008)***	.289 (.008)***	.288 (.008)***	.288 (.008)***
Age- square/100	-.301 (.009)***	-.295 (.009)***	-.295 (.009)***	-.319 (.009)***	-.314 (.009)***	-.315 (.009)***	-.321 (.009)***	-.316 (.009)***	-.316 (.009)***	-.322 (.009)***	-.317 (.009)***	-.317 (.009)***	-.322 (.009)***	-.317 (.009)***	-.316 (.009)***
Married	.374 (.029)***	.385 (.029)***	.384 (.029)***	.367 (.030)***	.371 (.030)***	.370 (.030)***	.379 (.030)***	.382 (.030)***	.381 (.030)***	.388 (.030)***	.387 (.031)***	.389 (.031)***	.403 (.030)***	.398 (.030)***	.401 (.030)***
Female	-.671 (.033)***	-.492 (.034)***	-.493 (.034)***	-.674 (.034)***	-.496 (.035)***	-.497 (.035)***	-.693 (.033)***	-.519 (.034)***	-.520 (.034)***	-.678 (.034)***	-.496 (.035)***	-.495 (.035)***	-.653 (.033)***	-.492 (.034)***	-.491 (.034)***
Employment		3.62 (.401)***	3.54 (.400)***		3.38 (.412)***	3.34 (.406)***		3.52 (.406)***	3.65 (.407)***		3.54 (.410)***	3.50 (.412)***		3.30 (.399)***	3.26 (.399)***
Wage level (ln)		.398 (.138)***	.422 (.136)***		.488 (.139)***	.510 (.139)***		.418 (.138)***	.460 (.139)***		.434 (.139)***	.467 (.140)***		.391 (.137)***	.379 (.137)***
Concentration		-2.18 (.859)***			-1.42 (1.15)			-2.20 (1.00)**			-6.74 (2.26)***			-18.3 (7.52)**	
Firm concentration			-3.83 (.954)***			-9.70 (2.50)***			-6.71 (1.80)***			-8.47 (5.57)			-6.31 (3.61)*
Citytop4		.585 (.058)***	.637 (.058)***		.504 (.083)***	.596 (.066)***		.579 (.088)***	.645 (.078)***		.523 (.060)***	.457 (.055)***		.434 (.063)***	.363 (.051)***

Trade	-1.67 (.039)***	-1.58 (.040)***	-1.59 (.040)***	-1.58 (.040)***	-1.56 (.041)***	-1.55 (.041)***
Hospitality	-952 (.060)***	-950 (.064)***	-1.01 (.065)***	-1.02 (.065)***	-976 (.067)***	-724 (.063)***
Transport/ storage/ communication	-919 (.069)***	-916 (.071)***	-885 (.070)***	-884 (.070)***	-881 (.072)***	-873 (.072)***
Business	-1.44 (.039)***	-1.47 (.040)***	-1.48 (.040)***	-1.48 (.040)***	-1.48 (.040)***	-1.47 (.041)***
services	-1.16 (.043)***	-1.17 (.044)***	-1.14 (.043)***	-1.14 (.043)***	-1.18 (.044)***	-1.15 (.044)***
Other services	594,106 141,231	566,281 132,873	580,983 136,401	580,983 136,401	555,729 129,618	571,600 132,747
Observations	594,106	566,281	580,983	580,983	555,729	571,600
Individuals	141,231	132,873	136,401	136,401	129,618	132,747
<b>Hypothesis 1</b>						
z-Value	.22	1.41*	1.49*	1.44*	2.36***	4.03
(H0:2gen=1gen)			1.3*	2.04**	4.44	4.06

\* All regressions are run separately by origin group with reference group native to male entrepreneurs, unmarried with businesses operating in manufacturing/construction sector and located outside the four major cities (Amsterdam, the Hague, Rotterdam, Utrecht). All regressions include year dummies. Standard errors in parentheses. \*, \*\* and \*\*\* indicate significance of coefficients at the 10%, 5% and 1% levels, respectively. Variable definitions are found in Table 4. The Hausman test (base models 11 coefficients, base + and base++ models 20 coefficients) rejects the ordinary least squares specification in favour of the random effects specifications for all regressions at the 1% significance level, suggesting the presence of unobserved individual heterogeneity corrected for in the random effects specification. The last row presents the z-values and the corresponding significance levels of the one-sided means comparison tests between the coefficients of the first and second generations. Due to high correlation of the variable's migrant concentration and migrant business concentration (.8 to .9 in most data-sets), separate regressions are run for these variables.

Table 7. Base random effects logistic regression estimates for dependent variable growth, by origin group.<sup>a</sup>

Dependent variable; growing <sup>b</sup>	Turkish			Moroccan			Surinamese			Antillean			Chinese		
	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++
Constant	-.003 (.069)	.567 (.489)	.416 (.485)	-.002 (.072)	.640 (.493)	.697 (.491)*	.042 (.071)	.844 (.491)*	.928 (.494)*	.039 (.073)	.806 (.492)*	.737 (.506)	.038 (.071)	.982 (.487)**	1.01 (.492)**
1gen.	.220 (.022)**	.248 (.023)**	.238 (.023)**	.141 (.034)**	.185 (.035)**	.191 (.035)**	.036 (.025)	.072 (.027)**	.068 (.027)**	-.014 (.056)	.011 (.056)	.015 (.056)	-.155 (.028)**	-.090 (.032)**	-.089 (.032)**
2gen.	.248 (.060)**	.270 (.061)**	.260 (.061)**	-.054 (.112)	.018 (.112)	-.013 (.112)	-.048 (.055)	-.022 (.056)	-.024 (.056)	-.055 (.088)	-.035 (.088)	-.032 (.088)	-.249 (.116)**	-.196 (.117)*	-.197 (.117)*
Age	.023 (.003)**	.024 (.003)**	.024 (.003)**	.024 (.003)**	.025 (.003)**	.025 (.003)**	.022 (.003)**	.023 (.003)**	.023 (.003)**	.022 (.000)	.024 (.003)**	.024 (.003)**	.022 (.003)**	.023 (.003)**	.023 (.003)**
Age- square/100	-.030 (.003)**	-.032 (.003)**	-.032 (.003)**	-.031 (.003)**	-.033 (.003)**	-.033 (.003)**	-.029 (.003)**	-.030 (.003)**	-.030 (.003)**	-.030 (.003)**	-.031 (.003)**	-.031 (.003)**	-.029 (.003)**	-.031 (.003)**	-.030 (.003)**
Married	.033 (.011)**	.023 (.012)*	.024 (.012)**	.032 (.012)**	.017 (.012)	.018 (.012)	.036 (.011)**	.024 (.012)**	.024 (.012)**	.030 (.012)**	.016 (.012)	.015 (.012)	.027 (.012)**	.013 (.012)	.013 (.012)
Female	-.063 (.011)**	-.048 (.011)**	-.047 (.011)**	-.058 (.011)**	-.042 (.011)**	-.043 (.011)**	-.055 (.011)**	-.040 (.011)**	-.039 (.011)**	-.060 (.011)**	-.043 (.011)**	-.044 (.011)**	-.057 (.011)**	-.041 (.011)**	-.041 (.011)**
Employment	-.160 (.152)	-.160 (.150)	-.209 (.150)	-.014 (.158)	-.014 (.158)	-.057 (.154)	-.057 (.153)	-.201 (.153)	-.241 (.155)	-.141 (.156)	-.141 (.156)	-.093 (.159)	-.097 (.151)	-.107 (.151)	-.107 (.151)
Wage level (ln)	-.047 (.051)	-.047 (.050)	-.029 (.050)	-.062 (.051)	-.062 (.051)	-.066 (.051)	-.067 (.051)	-.067 (.051)	-.073 (.051)	-.068 (.051)	-.068 (.051)	-.063 (.052)	-.088 (.050)*	-.088 (.050)*	-.090 (.051)*
Concentration	-.433 (.322)	-.433 (.322)	-.355 (.407)	-.132 (.462)**	-.132 (.462)**	-.383 (.429)**	-.327 (.394)	-.327 (.394)	-.241 (.394)	.752 (.963)	.752 (.963)	-.141 (2.75)	-.191 (3.49)	-.051 (3.49)	-.051 (3.49)
Firm concentration			.355 (.407)			-.383 (.429)**			1.23 (.756)			1.41 (2.75)			-.974 (1.67)
Citytop4		-.031 (.021)	-.062 (.022)**		.009 (.032)	-.005 (.027)		-.090 (.034)**	-.108 (.031)**		-.086 (.023)**	-.069 (.022)**		-.063 (.026)**	-.069 (.019)**
Trade		.043 (.015)**	.043 (.015)**		.040 (.015)**	.040 (.015)**		.042 (.015)**	.042 (.015)**		.040 (.015)**	.040 (.015)**		.044 (.015)**	.044 (.015)**

Hospitality	-.079 (.022)***	-.079 (.022)***	-.064 (.023)***	-.063 (.023)***	-.075 (.024)***	-.075 (.024)***	-.096 (.023)***	-.096 (.023)***
Transport/storage/ communication	.008 (.026)	.009 (.026)	-.011 (.026)	-.008 (.026)	-.003 (.027)	-.003 (.027)	-.005 (.027)	-.005 (.027)
Business services	.001 (.015)	.001 (.015)	-.010 (.016)	-.010 (.016)	-.019 (.016)	-.019 (.016)	-.018 (.016)	-.018 (.016)
Other services	-.098 (.017)***	-.099 (.017)***	-.096 (.017)***	-.102 (.017)***	-.103 (.017)***	-.102 (.017)***	-.100 (.017)***	-.100 (.017)***
Observations	424,266	424,266	406,983	417,292	400,459	400,459	411,916	411,916
Individuals	120,002	120,002	113,694	116,711	111,274	111,274	114,221	114,221
<b>Hypothesis 1</b>								
z-Value (H0:2gen=1gen)	.44	.35	1.69	1.41	.45	.46	.78	.88

\* All regressions are run separately by origin group with reference group native to male entrepreneurs, unmarried with businesses located outside the four major cities (Amsterdam, the Hague, Rotterdam, Utrecht). All regressions include year dummies, regressions of the base + and base++ models also include sector dummies. Standard errors in parentheses. \*, \*\*, and \*\*\* indicate significance of coefficients at the 10%, 5% and 1% levels, respectively. Variable definitions are found in Table 4. The Hausman test (base models 10 coefficients, base + and base++ models 19 coefficients) rejects the ordinary least squares specification in favour of the random effects specifications in all regressions at the 1% significance level, suggesting the presence of unobserved individual heterogeneity corrected for in the random effects specification. The last row presents the z-values and the corresponding significance levels of the one-sided means comparison tests between the coefficients of the first and second generations. Due to high correlation of the variable's migrant concentration and migrant business concentration (.8 to .9 in most data-sets), separate regressions are run for these variables.  
 † Binary variable, defined in forward-looking way indicating if entrepreneur is growing in the coming year. As a consequence the variable is not defined for year 2004.

Table 8. Base random effects logistic regression estimates for dependent variable survival, by origin group.<sup>a</sup>

Dependent variable: Survival to next period <sup>b</sup>	Turkish			Moroccan			Surinamese			Antillean			Chinese		
	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++	Base	Base +	Base++
Constant	.360 (.072)***	2.78 (.584)***	2.26 (.578)***	.284 (.075)***	1.36 (.591)**	1.44 (.590)**	.238 (.074)***	.886 (.588)	.503 (.591)	.251 (.076)***	1.63 (.588)***	.200 (.604)	.364 (.075)***	2.32 (.586)***	2.83 (.593)***
1gen.	-.812 (.022)***	-.721 (.024)***	-.715 (.024)***	-.658 (.034)***	-.610 (.035)***	-.585 (.035)***	-.620 (.026)***	-.553 (.028)***	-.535 (.028)***	-.768 (.054)***	-.707 (.054)***	-.715 (.054)***	.327 (.036)***	.375 (.040)***	.382 (.040)***
2gen.	-.664 (.052)***	-.577 (.052)***	-.576 (.053)***	-.550 (.087)***	-.510 (.088)***	-.491 (.088)***	-.572 (.052)***	-.493 (.052)***	-.486 (.052)***	-.575 (.084)***	-.505 (.084)***	-.497 (.084)***	-.133 (.118)	-.062 (.118)	-.071 (.118)
Age	.125 (.003)***	.125 (.003)***	.125 (.003)***	.129 (.003)***	.131 (.003)***	.131 (.003)***	.131 (.003)***	.132 (.003)***	.132 (.003)***	.131 (.003)***	.133 (.003)***	.133 (.003)***	.126 (.003)***	.127 (.003)***	.127 (.003)***
Age - square/100	-.150 (.003)***	-.149 (.003)***	-.149 (.003)***	-.155 (.003)***	-.155 (.003)***	-.155 (.003)***	-.155 (.003)***	-.156 (.003)***	-.155 (.003)***	-.156 (.003)***	-.157 (.003)***	-.157 (.003)***	-.151 (.003)***	-.152 (.003)***	-.151 (.003)***
Married	.210 (.013)***	.186 (.013)***	.189 (.013)***	.204 (.014)***	.182 (.014)***	.181 (.014)***	.217 (.014)***	.196 (.014)***	.197 (.014)***	.209 (.014)***	.180 (.014)***	.182 (.017)***	.228 (.014)***	.197 (.014)***	.204 (.014)***
Female	-.211 (.013)***	-.216 (.013)***	-.217 (.013)***	-.224 (.013)***	-.224 (.014)***	-.225 (.014)***	-.209 (.013)***	-.211 (.013)***	-.212 (.013)***	-.217 (.013)***	-.218 (.014)***	-.217 (.014)***	-.210 (.013)***	-.212 (.014)***	-.210 (.014)***
Employment	-.239 (.185)	-.239 (.184)*	-.348 (.189)**	-.288 (.193)	-.288 (.193)	-.321 (.189)**	-.303 (.188)	-.303 (.188)	-.105 (.190)	-.221 (.192)	-.221 (.192)	-.139 (.194)	-.398 (.189)**	-.398 (.189)**	-.646 (.187)***
Wage level (ln)	-.203 (.060)***	-.203 (.060)***	-.145 (.060)***	-.067 (.061)	-.067 (.061)	-.074 (.061)	-.022 (.060)	-.022 (.060)	.003 (.061)	-.099 (.061)	-.099 (.061)	.039 (.062)	-.174 (.060)**	-.174 (.060)**	-.174 (.061)***
Concentration	-4.50 (.367)***	-4.50 (.367)***	-4.50 (.367)***	-3.63 (.524)***	-3.63 (.524)***	-3.63 (.524)***	-4.30 (.440)***	-4.30 (.440)***	-4.30 (.440)***	-14.6 (1.04)***	-14.6 (1.04)***	-14.6 (1.04)***	-45.4 (3.86)***	-45.4 (3.86)***	-45.4 (3.86)***
Firm concentration	-5.26 (.425)***	-5.26 (.425)***	-5.26 (.425)***	-12.6 (.813)***	-12.6 (.813)***	-12.6 (.813)***	-9.64 (.813)***	-9.64 (.813)***	-9.64 (.813)***	-9.64 (.813)***	-9.64 (.813)***	-33.8 (3.02)***	-33.8 (3.02)***	-20.0 (1.93)***	-20.0 (1.93)***
Citytop4	.147 (.024)***	.147 (.024)***	.165 (.025)***	.174 (.037)***	.174 (.037)***	.192 (.032)***	.278 (.039)***	.278 (.039)***	.294 (.035)***	.294 (.035)***	.185 (.027)***	.105 (.025)***	.182 (.030)***	.182 (.030)***	.020 (.023)
Trade	-.205 (.018)***	-.205 (.018)***	-.205 (.018)***	-.236 (.019)***	-.236 (.019)***	-.235 (.019)***	-.232 (.019)***	-.232 (.019)***	-.232 (.019)***	-.232 (.019)***	-.230 (.019)***	-.231 (.019)***	-.242 (.020)***	-.242 (.020)***	-.242 (.020)***

Hospitality	-.277 (.026)***	-.278 (.026)***	-.292 (.028)***	-.292 (.028)***	-.301 (.028)***	-.302 (.028)***	-.306 (.029)***	-.304 (.029)***	-.233 (.028)***	-.233 (.028)***
Transport/ storage/ communi- cation	-.026 (.032)	-.031 (.032)	-.061 (.033)*	-.061 (.033)*	-.091 (.033)***	-.091 (.033)***	-.079 (.034)**	-.084 (.034)**	-.087 (.034)***	-.090 (.034)***
Business services	-.486 (.019)***	-.487 (.019)***	-.491 (.019)***	-.491 (.019)***	-.469 (.019)***	-.467 (.019)***	-.479 (.019)***	-.480 (.019)***	-.486 (.020)***	-.493 (.020)***
Other ser- vices	-.035 (.021)	-.037 (.021)*	-.062 (.022)***	-.062 (.022)***	-.055 (.021)**	-.053 (.021)**	-.068 (.022)***	-.069 (.022)***	-.081 (.022)***	-.084 (.022)***
Observations	496,302	496,302	473,475	473,475	486,162	486,162	465,182	465,182	478,157	478,157
Individuals	134,454	134,454	126,786	126,786	130,227	130,227	123,905	123,905	126,971	126,971
<b>Hypothesis 1</b>										
z-Value	2.70***	2.53***	1.16	1.08	1.04	.85	1.93**	2.03**	3.73	3.55
(H0:2gen < 1gen)										

\* All regressions are run separately by origin group with reference group native to male entrepreneurs, unmarried with businesses located outside the four major cities (Amsterdam, the Hague, Rotterdam, Utrecht). All regressions include year dummies, regressions of the base + and base++ models also include sector dummies. Standard errors in parentheses; \*, \*\* and \*\*\* indicate significance of coefficients at the 10%, 5% and 1% levels, respectively. Variable definitions are found in Table 4. The Hausman test (base models 10 coefficients, base + and base++ models 19 coefficients) rejects the ordinary least squares specification in favour of the random effects specifications in all regressions at the 1% significance level, suggesting the presence of unobserved individual heterogeneity corrected for in the random effects specification. The last row presents the z-values and the corresponding significance levels of the one-sided means comparison tests between the coefficients of the first and second generations. Due to high correlation of the variable's migrant concentration and migrant business concentration (.8 to .9 in most data-sets), separate regressions are run for these variables.

<sup>a</sup> Binary variable, defined in forward-looking way indicating if entrepreneur is in business in the coming year. As a consequence the variable is not defined for year 2004.



	Cityop4	Turkish	.917**	.699**	.103**	-.010	.120**	.146*
<b>Hypothesis 4</b>								
H0(4a):gen1								
<= 0;								
gen2 <=								
0H0(4b):								
gen2 <= gen1								
<b>Hypothesis 5</b>	Trade							
H0(5a):gen1(bus.serv.)		Turkish						
<= gen1(trade);		Moroccan	.612**	.440	.090	-.139	.195**	.232*
H0(5a):gen2(bus.serv.)		Surinamese	.637**	.252	.015	-.280	.264**	.108
<= gen2(trade);		Antillean	.595**	.221	-.156	-.107	.147	.272*
H0(5a):gen1(bus.serv.)		Chinese	-.510	-.175	-.076	.040	-.220	.167
<= gen1(hosp.);		Turkish	-.282**	-.398**	.105**	.178	.064	.100
H0(5a):gen2(bus.serv.)		Moroccan	-.327**	-.344	.230*	.799	-.179	.331
<= gen2(trade);		Surinamese	-.283**	-.273	.183	.066	-.079	.256
H0(5a):gen1(bus.serv.)		Antillean	-.483**	-.312*	.104	.040	-.240*	.146
<= gen1(hosp.);		Chinese	-.128	-.245	.619	-.444	-.966	.353
H0(5a):gen2(bus.serv.)		Turkish	-.111**	-.197	-.018**	.122	-.032	.017
<= gen2(hosp.);		Moroccan	-.144	-.364	.301	.923	.010	.117
H0(5a):gen1(bus.serv.)		Surinamese	-.217*	-.123	.268	-.024	-.081	.325
<= gen1(hosp.);		Antillean	-.193	-.216	.269	-.233	-.049	-.256
H0(5a):gen2(bus.serv.)		Chinese	1.20	.979	.174	-.640	-.205	1.10
H0(5b):gen2	Business							
<= gen1	services							
		Turkish	-.620	-.194	.398	.394	-.465	-.383
		Moroccan	-.108	-.250	.524	1.10	-.433	326
		Surinamese	-.172	-.219	.248	.116	.018	-.051
		Antillean	-.229	-.192	.123	-.083	.050	-.415
		Chinese	-.520	-.199	.254	-.477	-.990	362

Notes: The table displays the composite coefficients (base plus interaction coefficients) of first- and second-generation migrants per independent variable relevant for hypothesis testing. All regressions include the variables of the base + models with the exception of the regressions for migrant business concentration, which include the variables of the base+ + models. The interaction regressions are run separately for each of the following variable groups: citytop4, concentration, firm concentration, employment and wage level (ln), sector dummies. The Hausman test rejects the ordinary least squares specifications in favour of the random effects specifications in all regressions at the .1% significance level, suggesting the presence of unobserved individual heterogeneity corrected for in the random effects specification. Welch unpaired means comparison test scores identify intergenerational differences in coefficients per origin group. \* and \*\* with composite coefficients indicate rejection of stated H0 for hypotheses 2a, 3a, 4a and 5a at 10% and 5% significance levels, respectively. \* and \*\* in Welch-t columns indicate the rejection of stated H0 for hypotheses 2b, 3b, 4b and 5b at the 10% and 5% significance levels, respectively. (Sensitivity checks carried out by running means comparison tests with assumption of equal group variances, which support stated findings.) Variable definitions are found in Table 4.



compare the first and second generation coefficients in Tables 6–8 and consider the groups' means comparison test outcomes in the final rows of the tables, we observe that, for annual profits, the coefficients are larger for the second-generation entrepreneurs in the Moroccan, Surinamese and Antillean cases, approximately the same for the Turkish and smaller for the Chinese group. Thus, regarding profits, three of the five groups are doing better than their parents.

The picture changes considerably for firm growth. None of the second-generation groups of entrepreneurs grows more than their parents' generation, while the second-generation Moroccan and Surinamese groups actually tend to grow less. With respect to firm survival, second-generation Turkish and Antillean enterprises show higher survival rates than their parents' generation, while the intergenerational differences of the Moroccan and Surinamese groups are insignificant at a 10% level and the second-generation Chinese actually tends to have lower survival rates. Overall, the findings show that the intergenerational developments differ considerably between the origin groups, an outcome which supports the segmented assimilation theory.

The prior findings considered in the light of Hypothesis 1 suggest that the hypothesis, which suggests that the second generation would outperform the first, is not generally supported despite some indications of higher profitability and business survival rates in the labour migrant (Turkish/Moroccan) and colonial migrant (Surinamese/Antillean) clusters. These regression findings contrast with the prior descriptive findings on business performance (see Table 5), which suggested promising intergenerational developments for the Chinese group and few promising developments for the labour migrant (Turkish/Moroccan) cluster.

On a similar note, two observations from the regression findings are particularly noteworthy. First, within the colonial migrant cluster we detect different intergenerational trends for the Antillean and Surinamese groups. The second generation of Antillean entrepreneurs tends to outperform its parents' generation, whereas the second generation of Surinamese does not. This difference between the two groups may be explained by the noted difficulties of the second-generation Surinamese group in the (transition to the) labour market (see Table 3), which are not shared by the Antillean second generation. The bleak labour market scenario is likely to trigger subsistence self-employment among the Surinamese second generation given the generally unfavourable start-up conditions faced by these entrepreneurs.

Second, in contrast to the descriptive findings, the regression findings for the Chinese group clearly point towards an intergenerational reduction in business performance. This perhaps surprising outcome – given the group's substantial intergenerational advances in education and labour market achievements – may be explained by any one or a combination of the following factors: a negative selection effect into self-employment and/or a change in market opportunities from the first to the second generation. As the Chinese second generation is considerably more successful in the labour market than its parents', it is possible that self-employment for the second-generation Chinese becomes a fallback strategy attracting relatively more individuals who have failed to find suitable employment in the salaried labour market. Another explanation may be that the second generation is facing less promising market conditions than the first, which over the past decades has effectively established and maintained a unique competitive edge in the profitable and low-risk Chinese restaurant niche market. However, as this niche is at saturation point because the second generation looks for self-employment opportunities, they are being forced to compete in riskier and more competitive mainstream markets that may offer promising rewards for some, but clearly not all.

Hypotheses 2a and 2b argue that economic prosperity in the municipality (indicated by high employment and average wage levels) enhances the prospects of success for migrant entrepreneurs and that second-generation entrepreneurs are better equipped to seize opportunities in these more prosperous markets. The composite coefficients of first- and second-generation migrants and their corresponding test outcomes in Table 9 reveal that higher employment and wage levels generally do have the expected positive effects on firm profitability (except for wage level effects in the Turkish and Surinamese cases), but their effects on firm growth and survival rates are less clear. Although higher local wage levels tend to positively impact on migrant firm growth, the effects of higher employment rates on growth are not significant. In the firm survival models, higher local employment rates are associated with higher survival rates, but increased wage levels actually tend to reduce migrant firm survival time. Thus, the excess money available in prosperous municipalities improves profitability, but not growth and survival, and therefore Hypothesis 2a is only supported in the profit model. This suggests that migrant entrepreneurs utilize the prosperity of their markets to increase their profit, but they seem to be reluctant to invest those profits in further growth and seem to be more vulnerable to failure as a result of greater competition.

When comparing the first- and second-generation composite coefficients in Table 9 and considering the corresponding test results in the 'Welch (*t*)' columns, we conclude that Hypothesis 2b is generally unsupported. Despite their better education, the second generation is not able to reap the benefits of economically prosperous regions more than their parents. A select number of intergenerational differences appear supportive of Hypothesis 2b at the 10% significance level, and no clear pattern is observable among these differences except perhaps for the group of Moroccan origin. In the Moroccan case, the second generation benefits more from higher wage levels in terms of profits and growth rates, but less in terms of survival rates than their first-generation counterparts. However, these findings are difficult to interpret as the intergenerational comparison of the employment rate effects on firm performance, yields either insignificant or less beneficial outcomes for the second generation vis-a-vis the first generation.

Hypotheses 3a and 3b argue that local co-ethnic residential and business concentrations negatively affect migrant business performance, and that these relationships are stronger in magnitude for first-generation entrepreneurs than for the second. As depicted in Table 9, local co-ethnic residential and business concentration tend to negatively affect firm profitability and survival rates of migrant entrepreneurs' businesses, but their effects on firm growth range from insignificant to positive, except in the case of the Moroccan group of entrepreneurs. Thus, Hypothesis 3a is supported in the profit and survival models, but not in the growth model. This suggests that, while migrant entrepreneurs benefit from the local presence of the co-ethnic community through it facilitating labour recruitment, they also lose, as concentration triggers local business rivalry and/or co-ethnic business claims that hinder business development.

Hypothesis 3b argues that the business prospects of the first generation are more affected by the local presence of the co-ethnic community than those of the second generation as the first group is more involved with their local co-ethnic communities. The Welch *t*-test findings in Table 9, however, demonstrate that the concentration effects on business prospects of first- and second-generation migrant entrepreneurs show no significant differences supporting the hypothesis. Hypothesis 3b is therefore generally not confirmed by our data.

Hypotheses 4a and 4b focus on the four major Dutch cities, Amsterdam, Rotterdam, the Hague and Utrecht forming the economic heart of the Netherlands. Specifically, the hypotheses claim that migrant business performance in these four cities is stronger than

elsewhere in the country, and that their special business settings are relatively more beneficial for the second than the first-generation groups of entrepreneurs.

The migrant composite coefficients and the corresponding test results (Table 9) show that the migrant firms located in the four major cities generally report higher profitability and survival figures than firms located elsewhere, but growth rates are comparable and sometimes smaller (except for the Turkish first generation). Therefore, although business prospects in these cities do indeed seem more promising, entrepreneurs are reluctant to hire given the general scarcity of suitable business space. The Chinese group is an exceptional case as firms in the four major cities actually show lower profitability and survival rates (the latter only for the first generation) than those elsewhere, a trend that is probably driven by the entrepreneurs in the Chinese restaurant niche, who face fiercer levels of competition than elsewhere in the country. Overall, the Chinese group aside, Hypothesis 4a is supported in the profit and survival models but not in the growth model.

Comparisons between the two generations (see Table 9) reveal that intergenerational differences in the effect of the four major cities are not systematic, and therefore Hypothesis 4b is rejected. The only intergenerational finding supportive of the hypothesis is that second-generation Chinese firms show higher survival rates than their parents' generation in the major four cities. This difference can be attributed to the fact that the second generation is less active in the Chinese restaurant niche, which – as has been explained – offers relatively lower business rewards in the four cities compared to elsewhere in the country.

Hypotheses 5a and 5b focus on performance implications of the intergenerational distribution differences of business activities across industry sectors, as observed in Figure 1. The figure generally shows that the second generation is operating to a greater extent in the more promising sectors, such as business services, while the first generation prefers more traditional sectors, such as trade and hospitality. More specifically, Hypothesis 5a claims that migrant business prospects in the former industry sectors are higher than in those of the latter.

Hypothesis 5b, in turn, argues that second-generation entrepreneurs are outperforming the first in the more promising sectors. Focusing our analysis on the three sectors; trade, hospitality and business services, the findings in Table 9 suggest different patterns for the three origin clusters in relation to Hypothesis 5a. In the labour migrant (Turkish/Moroccan) cluster, Hypothesis 5a is supported for the firm profitability and perhaps growth models but not in the survival model. In other words, Turkish and Moroccan entrepreneurs operating in the business services sector tend to have higher profits and growth rates, but not higher business survival rates, than those operating in the trade and hospitality sectors.

For the migrants from the former Dutch colonies (Suriname/Antilles), the findings for Hypothesis 5a are mixed. The hypothesis is generally supported in the profit model, but not in the firm growth and survival models. This indicates that the same-sized firms (in terms of employees) generate higher financial returns in the business services sector than in traditional migrant sectors, but they may also face a greater risk of business failure especially in the start-up phase.

Finally, in the Chinese case, Hypothesis 5a overall is not supported as firms in the hospitality sector report higher profits and also firm survival rates than those active in business services and firms in the trade sector show the highest growth rates. Strikingly, for the Chinese group of entrepreneurs, the traditional commercial activities centred on speciality restaurants and international trade, and so seem to offer the most favourable business prospects for both generations.

The analyses depicted in Table 9 reveal little systematic evidence that the second generation is doing better in the promising sectors. Thus, Hypothesis 5b is generally

rejected. Apart from this general trend, a few additional observations can be made on the origin clusters of labour migrant and Chinese entrepreneurs, which are however rather fragmented and thus difficult to interpret. In the case of the labour migrant cluster, the second generation is not more profitable than the first, but it does report higher survival rates in business services. This is also found in the case of the group of Chinese origin.

Overall, we recapitulate that Hypothesis 5b is clearly rejected. Combining the insight from the regression analyses with our previous descriptive findings enables us to add some further remarks. The fact that the second generation is apparently operating more in the promising sectors and turning away from the traditional sectors indicates that the second generation has apparently understood that the former sectors offer more opportunities, but it is not managing to seize them more successfully than the previous generation. Thus, improvements in the economic status of the second generation are purely due to selection effects – the second generation is more likely to start a business in promising sectors than its parents' generation – but they are not due to greater capabilities or better integration, as we have not observed differences between the generations within a sector.

## 6. Discussion

From the 1960s onwards, many Western European countries moved from being emigration countries to immigration countries. Today, migrants form a substantial part of their population. For example, in the case of the Netherlands, nearly one in five residents has a migration background, of which the so-called second generation is rapidly increasing in size and economic importance. The presence of this latter group is also ever more visible in the self-employment landscape, but these new entrepreneurs are largely neglected in the literature. As a consequence, while migrant entrepreneurship in general has already been studied extensively (Light 1979, 1985; Portes and Bach 1985; Raijman and Tienda 1999; Renzulli, Aldrich, and Moody 2000; Kloosterman, Van der Leun, and Rath 1999), little is known about the intergenerational dynamics of migrant entrepreneurship. In particular, studies based on representative longitudinal samples are missing. This study takes the first step towards closing this gap in the migrant entrepreneurship literature.

### 6.1 *Inter-group differences*

One of our most striking findings is that the five migrant origin groups investigated can roughly be divided into three clusters, with notable differences in their history of migration to the Netherlands. The clusters identified in this paper were termed 'labour migrant entrepreneurs' originating from Turkey and Morocco, 'colonial migrant entrepreneurs' originating from the former Dutch colonies of Suriname and the Dutch Antilles and the 'Chinese entrepreneurs', who came from China and Southeast Asia to the Netherlands to escape economic hardship and political persecution. It is thus interesting to find that migrant entrepreneurship patterns seem to reflect the differences in the migration history of the groups to the Netherlands.

The differences between the ethnic clusters manifest themselves in the nature of the business start-ups (see also Rusinovic 2006; Van den Tillaart 2001; EIM 2004) as well as the business success of the ethnic groups, whereby notably the labour migrant entrepreneurs are less represented in more promising business sectors and are generally less successful than colonial migrant entrepreneurs and Chinese entrepreneurs. But how can these differences between the clusters be explained?

Over the last decades, the Dutch economy has undergone considerable changes with declining manufacturing and agriculture employment and growth in services (Arts et al. 2005; Weterings, Knoben, and Van Amsterdam 2008). The changing market demands have compelled new and established entrepreneurs to adopt a new business orientation in order to seize opportunities in the promising services sectors and to remain competitive therein. To exploit these new business opportunities, entrepreneurs, however, need to possess higher levels of human capital, business-specific and country-specific cultural skills than were required in the traditional migrant sectors. In this regard, migrant integration in society becomes essential to foster the need between supply and demand, which explains why some groups of migrants characterized by lower integration levels (the labour migrants) are less represented in the service sectors than other groups like the colonial and Chinese migrants, and also appear to be less successful in business.

More specifically, a number of notable integration-related differences were observed between the migrant origin clusters, concerning the following aspects: first, the degree of cultural distance to the receiving society, second, the degree of co-ethnic group identification, orientation and self-sufficiency, and third, the mean educational and labour market outcomes.

First, the origin groups differ in their degree of cultural distance to the receiving society, which affects the ability of entrepreneurs to access and service mainstream markets. Among the migrant origin groups, the cultural distance to the receiving society is larger for the clusters of labour and Chinese migrants than for those from former colonies. The native population and migrants from Suriname and the Dutch Antilles have developed a mutual understanding as a result of many years of shared history. This facilitates entrepreneurs' communication with the native Dutch population and makes access and service to mainstream markets easier than for the other origin clusters.

Second, the origin clusters differ in their degree of co-ethnic group identification, orientation and self-sufficiency. To start with, the labour migrant cluster is known for its strong own-group identification and orientation that is partly vested in shared religious norms. Moreover, as labour immigrants, members of these groups usually maintain strong bonds with family and friends in the home country, and many would spend a couple of weeks in their home countries each year. Furthermore, as the close-knit Turkish and Moroccan communities are quite large and centred around the major cities, they have acquired a higher level of local self-sufficiency than other origin groups (Dagevos and Bierings 2005). This reflects in the more numerous Turkish and Moroccan cultural associations, and also in the local business landscapes of urban migrant neighbourhoods, which accommodate many firms serving the specific needs of these co-ethnic communities.

The firms of labour migrant entrepreneurs tend to be located in areas of higher local co-ethnic concentration than is the case for the other origin clusters, which may have negative implications for firm development prospects. As our findings on Hypothesis 3a have indicated, increased local presence of the co-ethnic community negatively affects firm profitability and the survival rates of migrant businesses.

The Chinese community is also known for its strong own-group identification and orientation, but is less self-sufficient as it is a smaller group and spread more widely across the country. In addition, the own-group orientation has decreased notably from the first to the second generation as the latter possesses near-native language skills and has strong social relations with the Dutch. Finally, in the case of colonial migrants, the identification and orientation of the co-ethnic group is low compared to previous origin groups. This can be explained by the groups' cultural and linguistic proximity to the native population, which facilitates social interaction and results in a blurring of inter-group boundaries.

Third, the three clusters also differ with respect to their average educational achievements and labour market outcomes. It is notable that the labour migrant cluster, which experiences the largest educational and labour market disadvantages compared to the native population, also turns out generally to be the least successful in business and that mostly confined to traditional low-skilled migrant sectors. In the case of the colonial origin cluster, the migrants' educational achievements are similar to those of the native population but, despite that, the group's labour market disadvantages persist and likewise entrepreneurial success rates are lower. Thus, the findings for both origin clusters indicate that self-employment is not a route for upward social mobility, as it does not guarantee escape from the interdependencies typical of the paid labour market.

Finally, the Chinese migrants present an exceptional case. When the first generation came to the Netherlands, most of its members became self-employed (see Table 2) and their children did exceptionally well in the education system (see also Vogels, Geense, and Martens 1999). The second generation tops even the native population's educational and labour market achievements and scholars also report parity in terms of business success with the native Dutch. Strikingly, success for Chinese entrepreneurs in the group's traditional commercial activities (speciality restaurants and international trade) remains higher than in the generally more promising services sectors. This indicates that the group is effectively maintaining its competitive position in its well-established and highly profitable niche markets. At the same time, many members of the second generation successfully start businesses in the service sectors brought about through their high levels of education and training.

## **6.2. First and second generation differences**

Given that overall the second generation is much better integrated in the host society, we find no clear evidence that the second generation uses that improved integration to become more successful in business. This is contrary to the results by Rusinovic (2006), who finds, based on a small sample of 70 firms, that the share of surviving firms was significantly higher for the second generation than for the first generation. Based on a much larger, more representative sample, we sketch a more differentiated picture. This paper proposes quite different paths of intergenerational evolution in line with the segmented assimilation theory that seem promising for the Chinese and possibly colonial migrant groups, but less so for the labour migrant groups. The standard neoclassical assumption that higher levels of human capital lead to higher earnings does not hold true across the board, nor are higher levels of socio-cultural and structural integration a proven success factor towards achieving greater economic success for immigrant entrepreneurs.

The previous literature on the determinants of self-employment among migrants might provide a possible explanation for this perplexing finding. Clark and Drinkwater (2010) found a negative correlation between educational attainment and the self-employment propensities of migrants in the UK, which suggests that for more highly educated groups of migrants, self-employment becomes less attractive compared to salaried employment, so self-employment may become a fallback strategy attracting people who cannot find suitable jobs. This group's compositional difference between first- and second-generation migrant entrepreneurs might explain why, despite higher levels of human capital and host-country-specific skills, the second generation is not more successful in business than the first. At the same time, some migrant groups, the Chinese for instance, are known for their entrepreneurial tradition, which seems to be handed down through the generations. Given that fact, it is plausible that the second-generation Chinese group of entrepreneurs includes

many highly educated people, who have chosen to become entrepreneurs in order to seize business opportunities in promising markets in line with the arguments of Wilson, Kickul, and Marlino (2007) and Arenius and De Clercq (2005).

A promising intergenerational trend is visible, namely that the second generation generally tends to operate in more promising industry sectors. This is also concluded by Rusinovic (2006), who finds that business activities of the second generation are to a larger extent found in mainstream, rather than ethnic markets, and are more focused on business services and less on traditional migrant business sectors (i.e. hospitality, retail and personal services). However, these sectors are also more dynamic, exposing entrepreneurs to higher vulnerability for business failure, especially those possessing lower levels of business and cultural skills.

The divergent intergenerational trends between the origin clusters are best illustrated by the stark contrast between the groups of labour migrant and Chinese entrepreneurs. The second-generation labour migrants – more so than other groups – are following in the footsteps of their parents, establishing businesses in the same industries and in the same areas. Their greater integration enabled them to set up businesses with better survival prospects, but not stronger growth or improved profitability. This suggests that in practice, entrepreneurship turns out to be a minimum income generation or unemployment avoidance strategy rather than a path to socio-economic mobility. Conversely, the achievements of the second-generation Chinese migrants in terms of integration have allowed them to move beyond their parents' careers as owners of small, low-budget Chinese restaurants (see also Van den Tillaart 2001; EIM 2004). Many second-generation entrepreneurs have managed to set up businesses in other sectors including business services, and apparently quite successfully. Given the fact that the Chinese second generation is younger than its counterparts from other ethnic groups and many of its members acquire a university education, we might even have underestimated their entrepreneurial success, as their time has yet to come.

A somewhat puzzling finding of this study is that, contrary to our expectations, the second-generation groups of entrepreneurs show lower rates of firm growth than the first. However, after further reflection, it seems that this is likely to arise from more formalized recruitment practices of the second-generation groups of entrepreneurs (see also Rusinovic 2006), which increase the costs and complexity of hiring and thus reduce the desire of entrepreneurs to take on more staff.

The question remaining is: Why is the second generation not universally more successful than the first generation given its better integration? Two possible answers relate to the age of the firm and the effects of selection. Our sample covers the years 1999–2004. Thus most of the firms of first-generation migrants are probably larger, well-established firms, while the second-generation firms include many new start-ups. Unfortunately, we could not include a control variable for firm age as in a panel model such a variable correlates closely with the entrepreneur's age.<sup>8</sup>

We know that the average length of time spent in education differs considerably between the different ethnic groups. Although Chinese migrants often obtain a university degree, Turkish and Moroccan migrants feature more commonly among early school leavers. The second-generation Chinese entrepreneurs in the sample had much better start-up conditions (educational qualifications) than the second-generation groups of Turkish and Moroccan origin, who went into self-employment younger and with a weaker education.

Yet another reason explaining the many insignificant intergenerational findings relates to the large variation of entrepreneurial outcomes within the second-generation groups of

entrepreneurs, which is substantially larger than that of the first. It is likely that the diversity among the former groups is caused by integration-related factors at the entrepreneur level, which could not be covered in this study. Future research should, therefore, aim to further explore this intra-group variation by identifying relevant integration-related (or other) aspects causing this trend and conducting thorough comparisons between the resulting subgroups of entrepreneurs.

Finally, differences in entrepreneurial motivation may also explain why we find no differences in success factors between the first and the second generations. Performance measures alone may not be adequate to compare entrepreneurship across the generations as second-generation entrepreneurs are likely to have a more long-term business orientation while the first generation are more short-term profit orientated. This can be explained by the groups' age differences and their situation within the business cycle. Since first-generation entrepreneurs are considerably older, they tend to be less inclined to invest in the sustainability of their firms. Conversely, for second-generation entrepreneurs, the payoff of the longer term investment would be greater. However, in the second group's case, the sacrifice of short-term profits in exchange for longer-term benefits cannot be assessed adequately owing to the relative youth of the firms.

### **6.3. Limitations**

Before we continue with the concluding discussion in Section 7, we should mention some of the study's limitations. First, in spite of the many advantages of the government data used for our study, it has its limits. To obtain the base data-set for our analysis, several administrative records were merged, causing a loss of data, as individuals do not have records in each and every data source. In particular, the self-employment data source lacks much variable information with regard to the variables of firm location, size, industry sector and annual profits. Although this missing information has been imputed from the records of other years whenever possible, unfortunately it still results in the exclusion of almost 50% of the observations due to missing data. Fortunately, given the relatively random nature of the distribution of missing observations across the relevant subpopulations of this study, reducing the data-set to the observations with fully available information on all variables is justifiable without risking the data becoming unrepresentative.

Another concern relates to the face value of our variables. The variables describing the environment (i.e. average wage, migrant concentration) are defined at the municipal level. It is, however, debatable whether in large municipalities the whole city is the relevant social environment, particularly in larger cities where a specific district is a more likely candidate. Furthermore, given that districts within larger cities are rather heterogeneous, the variables used at municipal level provide only rough indications of the local business environments at best. With respect to our dependent variable, the three performance indicators chosen are widely used, but they focus on financial aspects of performance and neglect non-financial aspects such as motivation and satisfaction. Thus, dissimilarities between first- and second-generation entrepreneurship could also be caused by the different priorities of older and younger entrepreneurs. It is therefore possible that the second generation may have business targets quite different from those of their parents. The targets of the second generation may, as some evidence suggests, be of more long term and tie in with the second-generation entrepreneurs being willing to sacrifice current profits for the prospect of future growth.

The current research was unable to open the black box sitting between integration and business success as our data on integration-related indicators were not available at the individual level. To obtain a more complete picture of the relationship between integration



and business success, it would be desirable to link individual data on educational and (previous) labour market achievements of entrepreneurs to the self-employment data.

## **7. Conclusion**

Our study documents the importance of integration in successful migrant entrepreneurship. It shows that entrepreneurship is therefore not an independent route towards gaining socio-economic mobility, bypassing the formal requirements of the standard labour market. Opportunities in the salaried labour market are important determinants not only for self-employment decisions (i.e. Barrett, Jones, and McEvoy 1996; Clark and Drinkwater 2000; Constant and Zimmermann 2006; Thompson, Jones-Evans, and Kwong 2010) but also for the business success of migrants. Although self-employment may be a strategy to avoid unemployment, discrimination and/or blocked mobility in the labour market for some migrants, for others it is a lucrative way of capitalizing on unique human and/or social capital funds (Kloosterman 2003). Therefore, integration has an essential moderating role in matching the supply and demand side within the opportunity structure of entrepreneurs, as suggested by the mixed embeddedness framework. Moreover, it seems that integration facilitates entrepreneurial success only after a minimum threshold of integration is passed, which tends to increase over time in line with higher demands regarding occupational qualifications in the labour market. In this respect, (relative) migrant-to-native individual differences appear more important than (absolute) first-to-second generation changes, indicating the presence of a market-driven mechanism.

The migrant entrepreneurship literature demonstrates a growing recognition that migrant entrepreneurs need to break out of their co-ethnic markets and gain access to mainstream markets in order to grow and secure the long-term sustainability of their businesses (i.e. Waldinger, Aldrich, and Ward 1990; Light and Gold 2000; Drori and Lerner 2002). Bager and Rezaei (2000) stress that the success of migrant entrepreneurs increases if they maintain contact with other ethnic groups including the majority population. This study offers evidence supporting this claim: closer contact with the native population and higher levels of education and country-specific skills, tending to coincide with the more diverse business activities of second-generation entrepreneurs, when compared to those of the first generation.

The mixed embeddedness framework is now widely used in the literature on migrant entrepreneurship. It suggests that the level of human, social and financial capital of migrant entrepreneurs determines the extent to which they can benefit from (local) opportunity structures (Lindgreen and Hingley 2010). The findings of this study have provided initial indications that migrant entrepreneurs require a certain level of education, country-specific language and cultural skills, and social contact with the native population in order to benefit from these opportunity structures. This is particularly true if entrepreneurs wish to access economically attractive markets, such as the high-tech sector, marketing or commercial services. The business activities of migrants without these qualifications clearly remain confined to traditional sectors, such as small-scale retail, snack bars and restaurants, or low-skilled post-industrial services, such as cleaning, housekeeping and pet care. In these economic sectors, competition is generally high and economic rewards are low (Blackburn and Ram 2006). This outcome is also in line with the findings of Sepulveda, Syrett, and Lyon (2011), who found that younger (second-generation) entrepreneurs were also involved in more diverse business activities, as they were advantaged by being partly educated in the UK where they had gained a good understanding of how things work and spoke better English than their parents.

Although integration – within the context of the mixed embeddedness framework – is an important determinant of migrant business success, it is also highly path dependent, as integration varies greatly by migration motive. In this paper, we have established a connection between these migration motives and entrepreneurial success for three distinct migrant business profiles, which we termed ‘labour migrant entrepreneurs’, ‘colonial migrant entrepreneurs’ and ‘Chinese entrepreneurs’. These profiles reflect the heterogeneity across different migrant groups and may provide fertile ground for future research aimed at a better understanding of the phenomenon of migration entrepreneurship.

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### Notes

1. In this discourse, migrant entrepreneurship refers to businesses operated by migrants originating from non-Western or less developed countries.
2. The first-generation Chinese population is a unique case as self-employment is more popular than salaried employment. This pattern is explained by the large number of Chinese migrants (mostly from Hong Kong) who entered the Netherlands in the 1960s and predominantly opened Chinese restaurants.
3. A thorough discussion of varying definitions of migrant integration is beyond the scope of this paper. Please refer to the studies by Dagevos (2001), Portes, Fernandez-Kelly, and Haller (2009) for comprehensive overviews of particular definitions.
4. It should be noted that the comparison of the first and second generation on educational attainment and labour market position is problematic due to the age difference between the two groups, and the fact that many second-generation migrants, especially those with better prospects, are still in education. Thus, the population segment at the lower end of the education span and labour market is over-represented.
5. For the native people, the levels of local ethnic residential and business concentration are defined as the average levels of local ethnic concentration of the five migrant groups (residential and business concentrations, respectively).
6. As the first generation operates, by and large, Chinese speciality restaurants spread throughout the country.
7. Missing variable information of entrepreneurs in the data-set is imputed from information available for other years wherever possible and favouring temporal proximity. Nonetheless, 3.1 million observations (around 50%) of the data-set lacked variable information with regard to firm location, size, country of origin information, industry sector or annual profits. Given the relatively random nature of the distribution of missing observations across the relevant subpopulations of this study, and given the importance of the variables for the further analysis, it was decided to reduce the data-set to the observations with fully available information on all variables.
8. If selection effects would be present, one would expect that the variation in growth, annual profits and survival is smaller for the first generation than for the second generation, as first generation largely consists of successful survivors. A comparison of the coefficient of variation calculated from the means and standard deviation depicted in Table 5 supports, by and large, the notion that the variation of these variables is slightly larger in the second generation, although exceptions exist. One should, however, note that larger variation could also be caused by the fact that the second generation starts in more dynamic and hence more risky business sectors.

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