Interregional migration of business owners: who moves and how does moving affect firm performance?

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ABSTRACT
Business owners play an important role in driving regional economic growth, and policy-makers seek to attract and retain such entrepreneurs by most means available. This paper analyses migration patterns, the factors that influence the propensity to move and assesses the relationship between firm performance and individual migration both before and after the move. The results show that (1) known explaining variables of migration propensity also hold for business owners; (2) owners with more substantial firms in terms of turnover and employees are more geographically anchored; and (3) a simultaneous move of residence and firm has an unclear impact on firm performance.

KEYWORDS
migration; business owners; regional development; Sweden

INTRODUCTION

Capital mobility is a cornerstone of economic theory, and the idea that capital seeks locations with the highest expected returns is a profound one. Its importance implies that policy-makers will seek to attract and retain capital by most means available, and make investments or change policies to facilitate capital movement into their areas of influence. In a globalized economy in which capital is increasingly mobile, people who start up new businesses are central to understanding how, why and where future companies will arise and grow. Reflecting the economic significance of such business dynamics, a large literature addresses the spatial patterns of new business formation (for overviews, see Arauzo-Carod, Liviano-Solis, & Manjón-Antolín, 2010; and Sternberg, 2012). In addition, there is a stream of studies that focus on the relocation of firms (for an overview, see Pellenbarg, van Wissen, & van Dijk, 2002). The present study contributes to the existing literature on regional patterns in business dynamics by addressing the interregional migration of the business owners. It explores the role of the characteristics of the business owners involved as well as of their firms.

With its focus on migration of the business owners, this study is one of the first to acknowledge the possible relationship between personal considerations of the business owner and consequent migration decisions and firm-level relocation patterns. Particularly given the fact that most firms are small – and increasingly so – personal locational preferences of the owner and, if present, the partner may be salient factors in determining the preferred business location (Koster & Venhorst, 2014; Reuschke, 2014; Stam, 2007). Such factors may include access to alternative labour market opportunities and residential preferences that are based on access to certain amenities. Existing studies on firm relocation have focused primarily on business-related factors to explain location dynamics of businesses (for a recent example, see Weterings &

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Knoben, 2013), which leaves the role of migration of the business owner in the decision process largely unexplored. Also, the literature has been biased towards short-distance firm relocations within regions (Pellenbarg et al., 2002).[1] This means that the effects of firm relocations from an interregional perspective are largely unknown, which is peculiar given the long-standing interest from policy-makers in attracting businesses to their regions. Whilst attempting to attract business owners (and their firms) from elsewhere may perhaps be seen as an easy way for policy-makers to create new jobs and to reinvigorate the regional business climate, the current lack of research presents an obstacle to understand the impact (if any) of migration of business owners on regional business dynamics.

In contrast to the firm relocation literature, studies on migration patterns and decisions do acknowledge the interrelationship between the business location and migration decisions. Drawing on the classical works of Smith (1776/1981) and Marshall (1920), it can be expected that business owners tend to move to places that offer the best conditions for entrepreneurial success. Such rational reasoning has given rise to the notion of 'footloose entrepreneurs', which suggests that business owners have a high migration propensity. In contrast, since many owners are highly dependent on location-specific capital, such as local networks and familiarity with local markets, a very low migration propensity might also be expected (DaVanzo & Morrison, 1981; Michelacci & Silva, 2007). Reuschke and van Ham (2013) conducted an empirical study for the UK and Germany and did not find distinct migration propensities for self-employed and wage employed, not lending clear support to either view. Part of the contrasting evidence can be attributed to the fact that previous research has been hampered by a lack of appropriate data, restricting investigations on 'migration' of business owners to short-distance relocations, making it difficult to identify the role of the firm.

This study combines insights from the firm relocation literature and migration literature, which allows for assessing the relative roles of considerations regarding the firm and other considerations that may induce migration. We address the select group of migrating business owners who simultaneously relocate their firm to a new location. In doing so, we can discern the characteristics of the owners (and their firms) that do decide to move. This can shed a light upon the apparent paradox that business owners have considerable leeway to relocate their firm to the most profitable location but they appear reluctant to do so. The group of migrating business owners may be different from those who stay. To assess further the role of the firm in migration decisions, we also assess the performance of the firm after the move. This issue is particularly relevant for policy-makers who aim to attract firms to their region.

The study adopts comprehensive population register data, covering 84,533 business owners, which allows for typifying those who move. For our purposes, a business owner is defined as a person earning most of his or her income from a self-owned business, while migration is defined as a move across labour market borders. In addition, we require that the firm relocates as well. This combination of requirements ensures that we identify moves that likely affect the market in which the firm is active. As a result, we can be confident that the firm has been a salient factor in the migration decision. The data allow for linking information of the firms and their owners and this information is used to characterize the firms and their development after and before the migration of the business owner. How do the firms fare after the relocation? We restrict the scope of the paper to deal only with owners who run an existing business both before and immediately after the move. Analyses on start-ups by migrants are left for further research.

The paper is structured as follows. The next section lays out the framework of analysis, and rather than providing a full review of the theoretical and empirical literature on firm relocation (readers are instead referred to the excellent review by Pellenbarg et al., 2002) it particularly focuses on the migration decision of business owners and the role of the firm in that decision. The data employed and associated analytical methods are then discussed. The results section presents both descriptive statistics and modelling outcomes and the paper ends with a discussion and conclusions.

LITERATURE REVIEW

Migration of individuals as well as business relocation can be conceptualized as the outcome of a decision process in which perceived push and pull factors are weighed given certain constraints. The precise interpretations in this framework differ, however. For migration, the prime elements in the framework are access to jobs and residential preferences. The latter can be interpreted broadly and includes social ties, preference for certain landscapes, access to amenities and housing preferences (Niedomysl, 2008). For wage employed, the access to jobs can be argued to be exogenous. People in wage employment need to consider the jobs available at their skill level. Business owners have considerably more leverage over their work location as they can directly influence the location of the firm from which they derive their income. Niedomysl (2008) indeed shows that compared with wage employed, access to jobs is not a main consideration for business owners. In the migration decisions of business owners, firm characteristics and the expected effect of migration on the firm performance thus represent the economic consequences of migration.

In the case of business relocation, the push and pull factors pertain primarily to performance indicators of the firms. The classical theoretical models explaining business location and relocation are based on the idea that firms seek out those locations that are most profitable (Rawstron, 1958; for overviews, see Pellenbarg et al., 2002, and McCann, 2013). Such a rational view, however, is at odds with the empirical finding, that many firms do not actually improve their performance after relocation (Weterings & Knoben, 2013). This apparent paradox can be resolved by introducing uncertainty in the decision process

which was the key contribution of the behavioural approach to the firm relocation literature (Pellenbarg et al., 2002). Business owners do not have all information, nor can they take all aspects in the decision process into account (bounded rationality) which makes firm relocation a risk that may, or may not, pay off. Also, perception rather than factual information governs the decision process (Pellenbarg et al., 2002). An alternative resolution to the paradox, however, could be that firm considerations are only one of the elements in the decision to relocate the firm. Particularly in smaller firms, the owner is crucial in relocation decisions (Stam, 2007) and considerations that pertain to migration may have a large influence on the outcome of the firm location as well. Even though a firm move is observed, the interests of the firm may have been only secondary in this decision.

We thus propose that firm relocation processes and migration of business owners can be intimately linked. Existing work on both firm relocation and migration has not extensively addressed their reciprocal roles as the two literatures have developed largely in isolation (Reuschke, 2014). In this study, we take migration of business owners as the starting point as we are interested in the characteristics of moving business owners and how moving affects firm performance. In the following we integrate considerations regarding the firm in the migration decision.

Business considerations in migration decisions

Relocating a business can be conceptualized as the trade-off between anticipated costs and expected benefits at the new location compared with the current. The costs of relocating a business, particularly across larger distances, may be substantial. Apart from the costs directly involved in the relocation, the firm may incur substantial additional operational costs because local inputs are generally important for the success of a business. Dahl and Sorenson (2009, 2012) stress the importance of localized social capital for the success of a firm. Also, access to finance is smoother locally (Jenssen & Koenig, 2002; Kerr & Nanda, 2009; Michelacci & Silva, 2007). It is not just the inputs to the firm that may be jeopardized after relocation: a new client portfolio may also need to be established in the new location. Relocation also involves risk to the revenues of the business. A tell-tale sign of such risks is the observation that firms tend to relocate across short distances (Weterings & Knoben, 2013), driven largely by a lack of space (Pellenbarg et al., 2002) but remaining nearby presumably to retain access to important consumers and employees.

Given the risks involved, the firm is likely to act as a drag on migration of business owners and as such they can be expected to be relatively rooted in place. Depending on the characteristics of the firm they own, the rootedness of business owners may vary, however. Firms more dependent on the local region in terms of market area and inputs are likely to act as a drag on the migration intentions of the business owner. Also, size as such may hinder migration. The opportunity costs of relocating the firm increase with size, making it more costly for the business owner to

migrate as well. There is no clear empirical evidence supporting the idea of entrepreneurial rootedness, though. In a small-scale study on the UK and Germany, Reuschke and van Ham (2013) do not find any indications that self-employed are more or less migratory than those with a stable employment situation, although the sample precludes definite conclusions. Rather, they find that any change in labour market status (between unemployment, self-employment and wage employment) is associated with higher propensities of migration. Though clearly a sign that owning a firm does not prevent self-employed from migration, the result does not necessarily fully reject the rootedness hypothesis. This interpretation is contingent on the implicit assumption that migrating business owners are equally likely to remain in the same position as the wage employed. This is not necessarily the case as the wage employed may switch jobs while remaining in wage employment. Also, their findings suggest that business owners abandoning their firm (for unemployment or wage employment) have the highest propensities of migration of all groups identified in the study. One interpretation is that the firm did act as an anchor and that it is left behind once migration became a reality. These results also hint at the importance of motivations for migration apart from considerations of the firm.

The role of the firm in the migration decision can also be reflected in the firm performance after the move. Some locations are more attractive than others and, according to Storey (1994), a location in a suitable place impacts firms' growth. Davidsson, Kirchhoff, Abdulnasser, and Gustavsson (2002) examine in detail several factors that are connected to the growth of firms and also find a relevant, though small, positive impact of firm relocation. This finding can indicate the locational benefits for the firm that offset the potential risks and costs of relocation. A causal interpretation of this relationship is contentious, however, as growth of the firm may have instigated the relocation process in the first place, particularly if the move was short distance. Indeed, Pellenbarg (2005) concludes that the main push factor for relocation is lack of space for growth. This factor has been dominant in three studies in the Netherlands conducted in 1977, 1988 and 1999.

In conclusion, there are no clear a priori expectations regarding the effect of the characteristics of the firm on the propensity to move and the effects afterwards. Business owners of successful firms may be inclined to move in search of new markets, access to better matched inputs and cooperation with other firms. Yet, the opportunity costs of the relocation are relatively high, which would suggest that the firms may act as a drag on migration. The bigger the firm is, the larger the effect may be given the higher opportunity costs. By the same token, the effect of the relocation of the firm is uncertain. The well-known home market is left behind, but the new market may offer more opportunities for growth. Relocation of the firm and associated migration of the business owner may very well be a mechanism to facilitate the further growth of the firm.

Other considerations in migration

As stated, the decision where to live can be viewed as solving a locational puzzle in which economic opportunities and residential preferences are optimized given certain constraints. In such a framework, the relocation effect on the firm is but one dimension in the migration decision of business owners. Other dimensions include the economic opportunities for other household members, potentially the formation of a family and, more generally, the residential preferences. Even though the exact preferences vary from person to person, the life course stage has been shown to be a powerful general framework to understand migration dynamics (Kulu & Milewski, 2007; Mulder, 1993). The main tenet is that during the life course people's preferences change systematically regarding access to employment opportunities as well as neighbourhood and dwelling preferences (Niedomysl, 2008). As such, age is a crucial proxy in assessing migration dynamics in order to account for changing preferences. A priori, there are no indications that the role of the life course and the associated changing residential preferences in migration dynamics – after taking into account business considerations – will be fundamentally different in the group of business owners than in other groups.

That having been said, business owners are a select group that, as a whole, may portray residential preferences different from other groups. Arguably, the most prominent feature of the group of business owners is the fact that it is overwhelmingly male. Delmar and Davidsson (2000), for example, show that in the group of Swedish business owners 72.6% are male, while the corresponding percentage for the entire working population is only 49.5%. Given that migration dynamics are gendered with women having a slightly lower propensity to migrate in comparison with the rest of the labour market (e.g., Faggian, McCann, & Sheppard, 2007; Niedomysl & Fransson, 2014), the migration behaviour of business owners may be different. Alluding to the same idea, a few studies suggest a relatively high propensity of amenity-oriented migration among business owners as they can move relatively independently of employment opportunities. While the extent of such amenity-oriented migration is uncertain, small-scale studies suggest that the phenomenon exists both within countries (Findlay, Short, & Stockdale, 2000; Herslund, 2012; Johnson & Rasker, 1995; Snepenger, Johnson, & Rasker, 1995; Williams, Shaw, & Greenwood, 1989) and across national borders (Lardiés, 1999; Stone & Stubbs, 2007).

In the current study, we are not so much interested in the propensity (and possible gains) of migration of business owners compared with other groups. Instead, we focus on characterizing the owners who chose to migrate compared with owners who do not. Even though there is no evidence base regarding the life course in relation to migration dynamics of this specific group, there are no obvious arguments why migration dynamics for reasons of family formation and changing residential preferences would be different across the life course of this specific group. This idea is empirically substantiated in studies into the characteristics of entrepreneurs who argue that entrepreneurs are not very different from most other people (e.g., Bingham & Melkers, 1989).

That having been said, there is an argument to be made that the attitude towards the business and with that the weight attached to business considerations in migration is mediated by the life course and personal characteristics. This argument would be particularly salient if entrepreneurial aspirations and ambitions vary systematically with age and gender. Jayawarna, Rouse, and Kitching (2013) propose a conceptual link between life stage and motivations for entrepreneurship and find anecdotal evidence of such a connection. The empirical evidence from studies that cover a larger sample of entrepreneurs, however, do not find any clear evidence of systematic patterns in the relationship between life course, measured as age, and motivation and aspirations (e.g., Estrin, Korosteleva, & Mickiewicz, 2013; Kolvereid, 1992). Rather, personal traits that appear less related to life course and age and other personal characteristics appear more important in explaining growth aspirations (Frank, Lueger, & Korunka, 2007).

RESEARCH DESIGN

For the purpose of the study, we use a longitudinal register database covering the entire Swedish population. The database allows one to identify business owners and follow them through time, while monitoring the business location as well as their residential location. The data also allow one to impose restrictions on the migrants in order to ensure that business consideration are likely an integral part of the migration process. The intuition is that we select those moves in which the firm cannot remain and operate in the same market as it used to. In this set-up, the migration decision is as much a strategic business decision and the interplay between the two elements is at the heart of the analysis.

In the following we first introduce the data set and the restrictions imposed. We then discuss the empirical approach, including the model formulation.

Longitudinal register data and definitions

The database used gives access to what is likely the world's most detailed data for the population of a whole country, capturing all individuals living in Sweden between 1997 and 2008. The database contains a variety of detailed information about the individuals, such as their demographic, geographic and socioeconomic characteristics, with annual updates. Importantly for the present study, the database also contains considerable information on work-related factors, such as the business information used to identify owners and their businesses' characteristics.

Business owners are identified on the basis of official income records from the Swedish tax agency. A person is defined as a business owner if most of his or her income comes from a self-owned business.[2] Also, we restrict the sample to those who own businesses with only one establishment so that other business locations do not have an

impact on the migration decision. Parallel ownership is thus excluded. As a result, the sample of business owners is relatively small compared with other studies using the same data.

We record a migration event if both the place of residence and the location of the firm is moved across the borders of a local labour market region. We also include home-based businesses. Local labour market regions are functional regions defined by the working population's contemporary commuting patterns. Over time, the local labour market regions increase in size due to improvements in infrastructure and changes in demand for and supply of labour. Since local labour market regions define the contemporary 'maximum' commutable area, they are suitable for use in migration studies as more than 80% of movers across a local labour market borders travel a distance longer than 80 km (Niedomysl & Fransson, 2014).[3] Since local labour market regions ($N = 75$) span large areas, a move across borders involves rebuilding social and economic relations, importantly also for the firm. By singling out long-distance moves, it is ensured that the business is a relevant factor in the decision. This is evidenced by the fact that the overwhelming majority of migrating business owners also relocate the firm in the process. Those who do not (11% of all migrants) are recorded as non-migrants as the business is left in its original location. It is thus excluded from the equation in the migration decision. We do not require the business relocation and the migration to be simultaneous, that is, in the same year. As they involve different processes, the firm relocation and migration may take place with some time in between, the one following the other. To eliminate such possibilities, we require the business owners to have active businesses in the year 2000 and identify moves and business relocations in the window period 2000–02. People who move multiple times in this period, either with or without relocating the business, are excluded from the analysis so the focus is on one migration event. As regards the simultaneity of the two movements, we thus only consider moves/relocations that happen within three years. In the remainder we use the term 'migration' to indicate the simultaneous (as defined in the above) relocation of the business and the place of residence.

Using these definitions, we identify 84,533 business owners of whom 1360 relocated their firm and 1138 relocated their home in the period 2000–02. Of these, 996 (1.18%) relocated both their home and their firm across labour markets and are thus counted as migrants.[4] We then revisit the firms measuring outcomes, comparing those business owners who moved over the period 2000–02 with those who did not over the period 2003–08.

The restrictions imposed (interregional migration and simultaneous change of the firm and the residential location) leave a relatively small sample. Yet, the selection ensures a group that is likely to have both the best interest of the firm and the residential location in mind. This allows one to address, to an extent, the relative importance of both considerations. Also, the relatively large distance traversed increases the likelihood that the owner has gone through a careful decision process. For this explorative study on the relationship between firm and personal considerations in migration, we value a sample selection that contributes to conceptual clarity over a sample that may be more representative of the total number of relocating firms and migrating business owners.

Empirical approach

The intuition behind the empirical strategy is that the influence of the firm should be visible both before and after the move. In other words, given certain characteristics of the firm, business owners may be more or less inclined to migrate. Focusing on firms moving in the period 2000–02 allows one to have a clear before and after period. This allows one to control for firm and personal characteristics associated with the propensity to move. Likewise, the firm performance after migration is suggestive of the weight of the firm in the migration decision. A move resulting in increased performance, for example, would be consistent with firm-relocation theories based on rational decision-making. Such a result would also suggest that firm considerations were likely important in the decision to migrate. This intuition is translated in a two-step approach in which we first estimate a logit model for the decision to migrate. In the second step, we adopt models investigating the associations between migration on several indicators of firm performance.

Dependent variables

For the logit model, the dependent variable is whether or not migration is observed (MIGRATE). As mentioned above, migration is defined as a cross-labour market area move of the residential location as well as the firm location within the period 2000–02.

Firm performance is a multifaceted concept, and to acknowledge this we assess three distinct dimensions of firm performance. First, using a logit model, we assess the likelihood of firm exit after the move (EXIT) which include firms that cease to trade (the data do not include any firms that have merged with another firm). Then, using ordinary least squares (OLS) models, we assess the role of migration in EMPLOYMENT GROWTH and TURNOVER GROWTH. We measure these as averages over the period 2003–08. We hypothesize that if business owners move to places that offer the best conditions for entrepreneurial success, firm exit should not be influenced by migration, whereas both employment and turnover growth should be positively related to migration. However, taking into account that firm relocation involves a certain degree of uncertainty and risk, employment and turnover growth may not be very high. If firm performance is negatively related to migration, this is indicative of the interpretation that business success has not been a main driver of migration even though the current set-up prevents one from drawing any conclusion regarding causality.

Independent variables

In the models, we control for generally accepted variables that influence both the propensity to migrate as well as

firm relocation. In practice, this boils down to three groups of variables. Variables at the personal level inform the likelihood of the business owners to migrate. Variables pertaining to the firm influence firm relocation decisions and, as argued above, may act as a drag on migration. Finally, we include region-level variables as the regional context mediates both the migration and the firm relocation because it offers the opportunities or constraints to realize the preferences for residential as well as firm considerations in the migration decision.

In total, 10 independent variables are used in the analyses. At the individual level, we take the SEX (male = 1) of the business owner into account. The ORIGIN variable categorizes business owners as being born in either Sweden or abroad. Earlier migration may increase the propensity to move later in the life course. The AGE variable is the age of the business owner and informs migration decisions in the sense that younger people tend to move more often. In the models that address the firm performance after migration, age proxies for the general labour market experience (Bönte, Falck, & Heblich, 2009). More experience is generally linked to elevated levels of performance, although the desire to grow a firm may somewhat diminish with age. EDUCATION lists the business owners by levels of education; a low education corresponds to education no higher than compulsory school; a median level corresponds to upper secondary school education; and finally a higher education corresponds to university education or equivalent. Educational attainment is a pertinent variable in explaining migration. Also, it proxies for the human capital available to the firm, which can be important in explaining the performance of the firm after migration. Finally, also to proxy for the pertinent human capital available to the business owner, we include the variable ENTREPRENEURIAL EXPERIENCE, which documents the number of years the person has been active as a business owner. In order to mitigate left side censoring in the experience variable, information on entrepreneurial experience was collected from all years between 1990 and 2000.

At the level of the firm, we control for the size of the firm in terms of employment in the year 2000. Larger firms may be more difficult to relocate and may thus act as a drag on migration. The NUMBER OF EMPLOYEES variable contains information on the number of people employed by the owner. Accounting for other dimensions of the size of the firm, we also control for TURNOVER. The firm SECTOR is categorized as agriculture and mining, manufacturing, construction, retail, hotel and restaurant, transport and communication, financial and industrial services and finally other and missing. The other and missing category also lists individuals predominately active as business owners in education and health.

Finally, the regional context of the business owners is taken into account by including the variable POPULATION DENSITY, which is the population per km^2 in the local labour market region where the business owner lived before moving. Population density is a catch-all variable for agglomeration benefits that primarily

apply to the firm. Additionally, however, dense locations should provide couples with more opportunities to combine a variety of activities (Costa & Kahn, 2000). As such, denser places may act as a keep factor for the business owner.

Table 1 shows the descriptive statistics of the variables used. The data contain all business owners active in the year 2000.

RESULTS

Migration patterns of business owners
Figure 1 shows the net migration patterns of Swedish business owners. The maps summarize the net migration of business owners in absolute numbers (left) as well as relative to the size of the labour market area in terms of population (right). Thus, they show the reallocation of business owners over space. As a reference, Figure 2 shows two maps of the spatial distribution of the Swedish population as well as the business owners. The patterns observed in both figures tell an interesting story. Particularly, the Stockholm area stands out with a negative net migration of 613, by far the largest deficit. It suggests that Stockholm acts as a breeding ground for business owners (it boasts the highest start-up rate of Sweden save the smallest local labour market region in the remote north of Sweden). After start-up, however, business owners appear inclined to leave the area and set up their businesses elsewhere, potentially to realize other residential preferences or to avoid the disadvantages of agglomeration. This pattern, though at a different level, also applies to the other two metropolitan areas Gothenburg and Malmo. Even though the local labour market region of Malmo as a whole does experience a net growth, the net gain of business owners is not occurring in the labour market's core area but rather in the smaller municipalities in the periphery of the region. In fact, the municipality of Malmo experienced a net loss of business owners (not shown in the map). In general, it appears that labour market regions of intermediate size (30,000–150,000) that are located relatively close to the main metropolitan centres are the net beneficiaries of entrepreneurial migration.

Entrepreneurial migration and the firm
Figure 3 shows the performance of the firm in relation to the period of migration, 2000–02 ($t = 0$). Note that $t − 1$ corresponds to the three-year period before the move period (1997–99), $t + 1$ to the first three-year period after the move period (2003–05), and $t + 2$ to the subsequent three-year period (2006–08). We examine the three variables related to firm performance: exit in (a), employment size in (b) and turnover in (c). Exit corresponds to the percentage of firms existing each period, whereas employment and turnover are averaged over each period. Even though the indicators cover different dimensions of performance, the patterns are consistent across the board. One clear result is that the firms of migrating business owners perform at a relatively low

Table 1. Descriptive statistics of migrating and non-migrating business owners, 2000.

Variable	Migrant (N = 996)				Non-migrants (N = 83,537)				Difference of means
	Mean	SD	Minimum	Maximum	Mean	SD	Minimum	Maximum	
Women	0.35	0.48	0	1	0.29	0.45	0	1	0.05***
Age	43.77	11.62	18	80	47.45	10.75	18	93	−3.69***
Foreign born	0.14	0.35	0	1	0.13	0.34	0	1	0.01
Educational level									
High	0.27	0.44	0	1	0.17	0.38	0	1	0.09***
Medium	0.52	0.50	0	1	0.56	0.50	0	1	−0.04**
Low	0.21	0.41	0	1	0.27	0.44	0	1	−0.05***
Sector									
Agriculture and mining	0.00	0.06	0	1	0.01	0.09	0	1	−0.00
Manufacturing	0.08	0.27	0	1	0.08	0.28	0	1	−0.01
Construction	0.12	0.32	0	1	0.17	0.38	0	1	−0.05***
Retail, hotel and restaurant	0.17	0.38	0	1	0.20	0.40	0	1	−0.03**
Transport and communication	0.06	0.24	0	1	0.10	0.30	0	1	−0.04***
Financial and industrial services	0.30	0.46	0	1	0.23	0.42	0	1	0.07***
Other	0.26	0.44	0	1	0.21	0.41	0	1	0.06***
Years of entrepreneurial experience	2.67	2.32	0	6	3.52	2.35	0	6	−0.85***
Employees	0.10	0.36	0	3	0.19	0.62	0	105	−0.09***
Turnover (SEK)	465,041	447,590	0	3,877,287	631,383	1,790,517	−19,942	291,000,000	−166,342***
Population density of the home region	41.68	29.75	0.43	78.49	47.50	29.48	0.12	78.49	−5.83***

Note: *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.
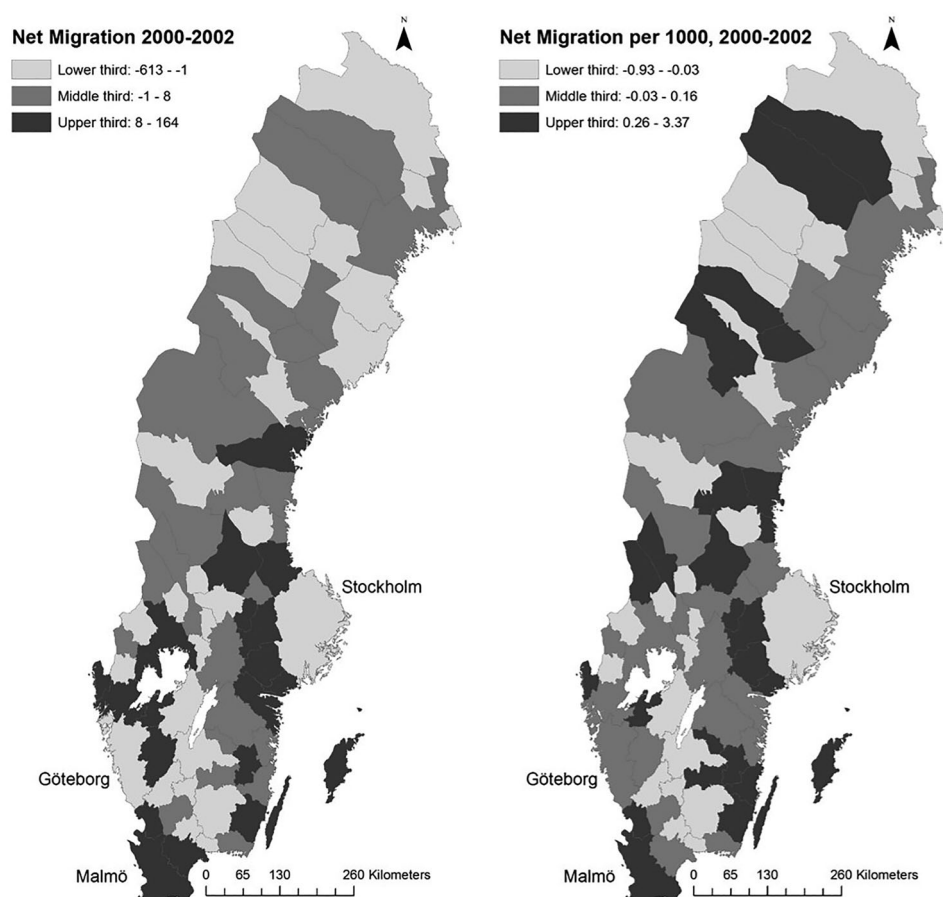
Figure 1. Migration of business owners in Sweden, 2000–02.

level throughout the study period: Exit rates are higher and they are smaller in each of the two other dimensions. This suggests, on the one hand, that such firms may indeed be relatively easy to move and that they are less of a drag on the migration intentions of the entrepreneur. On the other hand, it suggests that the performance of the firm may actually have been a pertinent argument for moving in the first place. This interpretation is consistent with the development of the firms after the move, particularly in the second period. Reflecting the economic boom period until 2008, all firms perform better in $t = 2$ compared with the earlier period. Firms of migrated business owners do catch up somewhat to the stayers. The development of these firms is more positive (higher turnover growth, for example) than for the stayers. These higher growth rates, however, do not make up for the lower initial levels of performance. Still, the on-average better firm performance after migration corresponds with the idea that the move was a conscious step away from a less suitable environment to a business environment that offers more opportunities. Note that the groups under study are selective in the sense that discontinued firms around the time of migration have been excluded from the analysis. In addition, the exit rate after relocation (in $t + 1$ and $t + 2$) is relatively high for the migrants. As a result, the remaining group may be relatively good performers regardless of their location. Also, despite some convergence between the groups, stayers consistently outperform the long-distance movers, presumably underlining the importance of local knowledge as put forward by Dahl and Sorenson (2012), for example. This is further assessed in the multivariate analysis.

Individual factors that influence migration

To illustrate further the migration behaviour of business owners, Table 2 presents the results of a logit model that characterize the situation of migrating business owners.[5]

As expected, and in line with other studies on migration, age and educational level are shown to be crucially associated with migration. Younger business owners are more likely to move than older ones. Higher levels of education are strongly and significantly associated with mobility. There is, however, no significant difference between lower and medium levels of education. Gender and country of origin are less important, although female business owners have a slightly lower probability to migrate. The entrepreneurial-experience variable's odds indicate that increases in experience are associated with lower odds for migration.[6] This is in line with the interpretation that greater experience is associated with knowledge about how to run a business locally, making migration less favourable. The analysis shows that the migration behaviour of business owners is described by individual traits that are commonly associated with migration.

Concerning the firm characteristics, the results suggest the role of the firm as an anchor on the propensity to move.
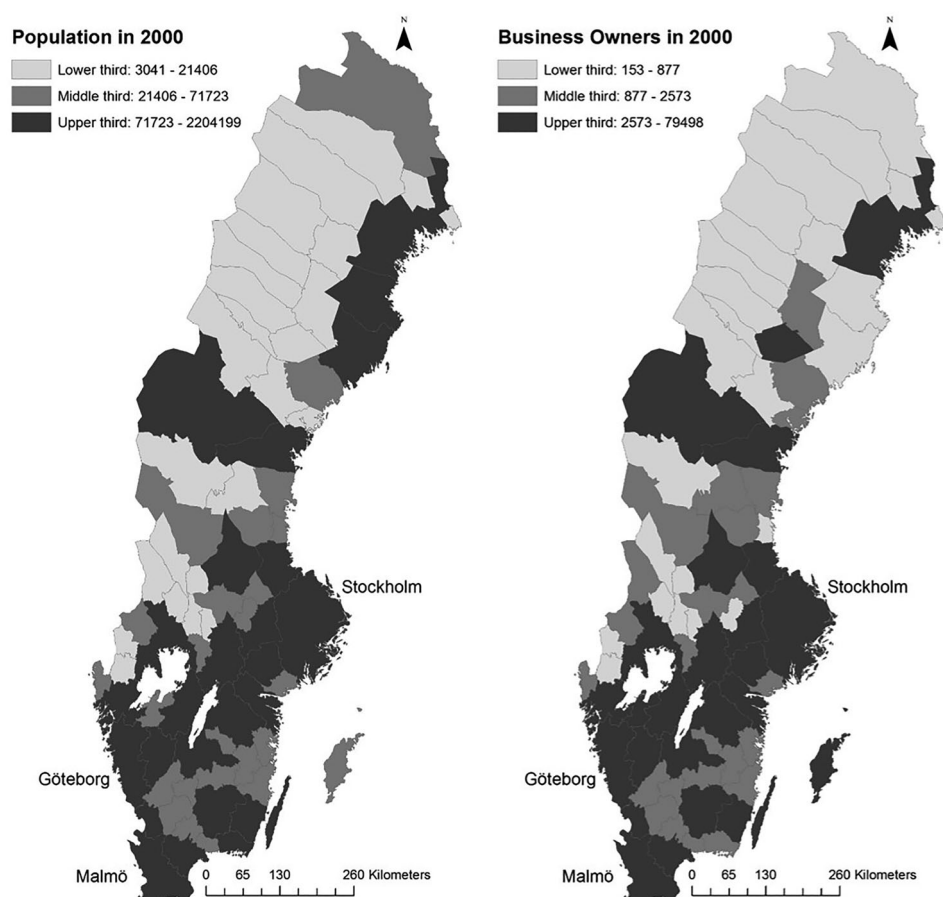
Figure 2. Population and business owners in Sweden, 2000.

Particularly, the role of the size of the firm renders strong and significant estimates where business owners with smaller firms are more likely to migrate than those in charge of larger ones. We also looked at the effect of being a sole proprietor, but it turned out that it was highly correlated with the number of employees and had a similar effect and is therefore not included. The result for turnover is less clear, but it also points to the idea that business owners with more substantial firms are less likely to move. As explained above, this may relate to the ease with which a firm can be relocated. Alternatively, it may point to a situation in which the firm is relocated in order to remedy relatively poor performance. If so, firms of migrated entrepreneurs are expected to show higher performance levels after migration. We will address this issue in the next section. Finally, also the industry of the firm is an important indicator for the ease with which business owners can migrate. Particularly, industries that generally require investments in tangible resources – manufacturing, construction, retail, transport – act as a drag on migration intentions. Business owners in business services are most likely to migrate. Even though a move across labour market boundaries may involve setting up a new clientele, business services do not need large investments in firm-specific facilities which keep manufacturing from moving.

Finally, we proxy for the regional economic and residential opportunities by means of the population density.

Population density has a slight negative effect on the propensity to migrate, which suggests that the more populated areas in the south appeal to business owners more than the remote and rural areas in the north. Figure 2, however, does suggest that the biggest cities in the south suffer from a net loss in terms of migration by business owners.

Firm performance after migration

Table 3 shows the regression results for firm performance after the migration event. We assess longevity and growth in terms of employment and turnover. The main idea is that if firm considerations are important in the migration decision, this should on average lead to a better performance of the firm. However, firm performance after migration is of course of interest in its own right.

Even though the descriptive analysis suggests that firms after relocation/migration tend to catch up with staying firms, we do not find a clear relationship between migration and firm performance in the multivariate analysis. There is a positive effect of migration on turnover growth (model 3), but it is absent for employment growth (model 2). In addition, firms of migrated owners are 1.49 times more likely to discontinue than those of business owners who stay put (model 1). Note that in the current set-up, this means that the firm is discontinued after it has been relocated to the new location. This indeed suggests that the firm has not been a crucial aspect in the migration decision.
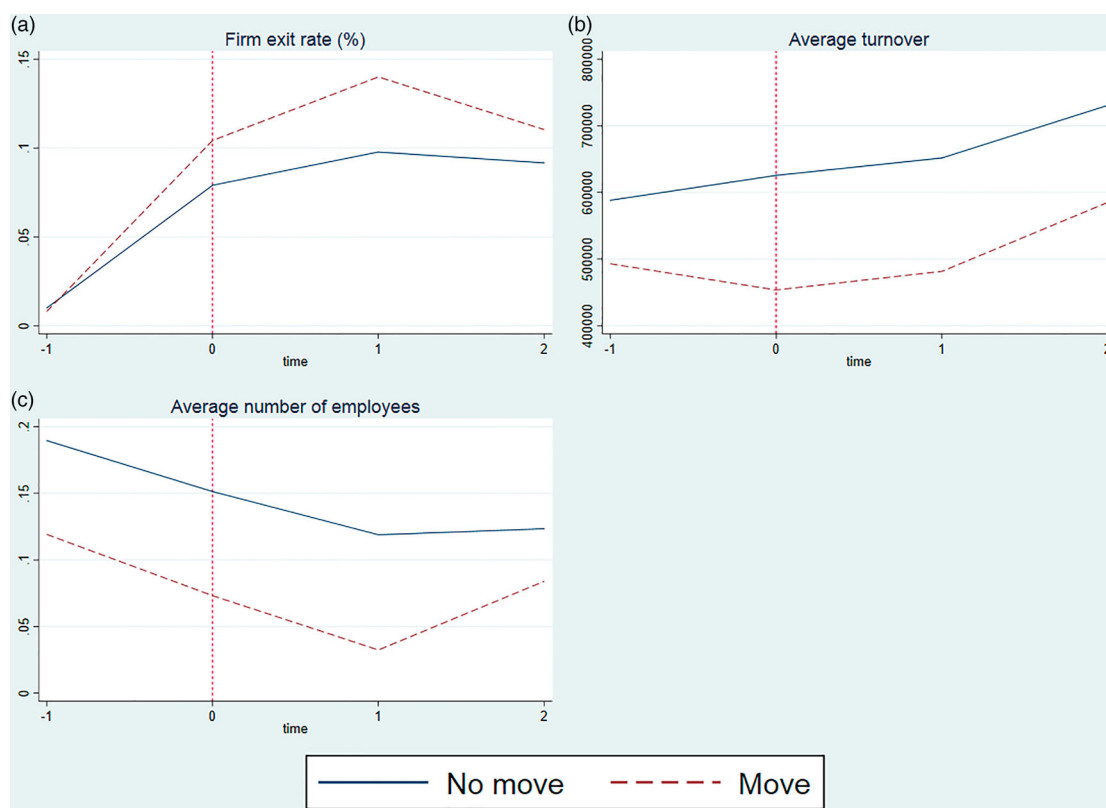
Figure 3. Firm performance of migrating entrepreneurs.
Note: Firm performance relative to the migration event: (a) firm exit rate; (b) average turnover (SEK); and (c) average number of employees.

Table 2. Logit estimations on the propensity to migrate.

Variables (reference = Non-migrant business owners)		Odds ratio[a]	95% Confidence interval (CI)
Sex	Male	1	.
	Female	0.932	0.795–1.092
Age		0.974***	0.968–1.020
Country of origin	Born in Sweden	1	
	Foreign born	1.020	0.846–1.230
Education	Low	1	
	Medium	0.891	0.754–1.052
	High	1.475***	1.209–1.799
Entrepreneurial experience		0.901***	0.875–0.927
Number of employees		0.678***	0.549–0.838
Sector type	Other	1	
	Manufacturing	0.839	0.639–1.103
	Construction	0.713***	0.554–0.918
	Retail, hotel and restaurant	0.776**	0.623–0.967
	Transport and communication	0.69**	0.504–0.934
	Financial and industrial services	1.183*	0.979–1.430
	Agriculture and mining	0.542	0.198–1.484
Turnover		1.000***	1.00–1.00
Population density		0.990***	0.988–0.992
Constant (B)		0.111***	0.075–0.164
Observations		84,533	
Log-likelihood		−5216.03	

Notes: [a]Exponential (B). Robust standard errors.
*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Table 3. Outcome regressions on firm performance after migration.

Variables		Model 1		Model 2		Model 3	
		Logit: firm exit		**OLS: average employment growth**		**OLS: average turnover growth**	
		Odds ratio[a]	95% CI	Estimates	95% CI	Estimates	95% CI
Migrant	Non-migrant	1	–	1	–	1	–
	Migrant	1.49***	1.27–1.75	0.04	−0.05 to 0.13	28.83**	7.05–52.61
Sex	Male	1	–	1	–	1	–
	Female	0.86***	0.83–0.90	−0.03***	−0.05 to 0.01	6.17	−64.23 to 76.58
Age		1.04***	1.04–1.04	−0.00***	−0.00 to 0.00	0.71	−2.84 to 4.27
Country of origin	Born in Sweden	1	–	1	–	1	–
	Foreign born	0.93***	0.88–0.98	−0.183***	−0.22 to 0.15	20.19	−66.59 to 107.0
Education	Low	1	–	1	–	1	–
	Medium	1.04*	0.99–1.08	0.02**	0.00–0.04	29.05	−80.90 to 139.0
	High	1.02	0.96–1.08	0.05***	0.02–0.07	39.52	−38.24 to 117.3
Entrepreneurial experience		0.93***	0.92–0.94	0.01***	0.00–0.01	−14.80	−35.49 to 5.93
Number of employees		0.93**	0.89–0.972	−0.00	−0.00 to 0.00	112.1	−56.98 to 281.2
Sector type	Other	1	–	1	–	1	–
	Manufacturing	1.26***	1.18–1.36	0.04**	0.00–0.08	−196.7	−569.4 to 176.1
	Construction	1.00	0.94–1.07	−0.02	−0.05 to 0.01	−58.57	−163.4 to 46.29
	Retail, hotel and restaurant	1.27***	1.19–1.34	0.01	−0.02 to 0.05	−17.79	−131.2 to 95.62
	Transport and communication	1.14***	1.06–1.23	−0.109***	−0.15 to −0.07	10.54	−42.50 to 63.58
	Financial and industrial services	1.48***	1.40–1.56	0.0702***	0.04–0.1	−73.46*	−158.0 to 11.08
	Agriculture and mining	0.86	0.70–1.05	0.078***	0.02–0.13	−81.08	−203.3 to 41.17
Turnover		1.00***	1.00–1.00	0.00	−0.00 to 0.00	0.00	−0.00 to 0.00
Population density		1.00***	1.00–1.00	0.00***	0.00–0.00	−0.90	−2.89 to 1.11
Constant (B)		0.12***	0.10–0.14	−0.50***	−0.56 to −0.44	29.30	−201.1 to 259.7
Observations		61,916		10,707		59,426	
Log-likelihood		−39875.44		–		–	

Notes: [a]Exponential (B). Robust standard errors. CI, confidence interval; OLS, ordinary least squares.
*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Likewise, it is indicative of the risks involved in moving the firm even if the intention would have been to keep it up and running.

Summarizing the models in a more general way, it becomes clear that growth in turnover is difficult to represent in the model set-up. Exit and firm employment growth is better characterized by the models and the models clearly show that they cover different aspects of firm performance. Men, highly educated business owners and older owners are more likely to discontinue their firm. At the same time, they are more likely to grow as well. These seemingly contradicting results may indicate structurally different risk profiles of the owners. The same pattern holds for population density. Denser places increase the likelihood of exit as well as the chance on employment growth. This can indicate the selection environment which is perhaps harsher in urban areas. The firms that do survive, though, are likely to be relatively successful in terms of growth.[7]

To probe further what the characteristics of the migrants are that lead to these outcomes, we interacted the migration dummy with all the other independent variables (the results available from the authors upon request). The results show that migrating business owners who are either female, older or whose business is in the manufacturing sector have a statistically significant lower exit rate. In terms of employment growth, those in the agricultural sector experienced lower growth, whereas longer entrepreneurial experience and being the sole proprietor were associated with significantly higher employment growth. As regards turnover growth, the only significant effect we found was for migrant business owners in the financial and industrial services which positively influenced turnover growth.

DISCUSSION AND CONCLUSIONS

Business owners play a widely recognized and important role in driving regional economic growth, and policy-makers seek to attract and retain entrepreneurs. Nevertheless, the drivers and patterns of domestic migration of this group are largely unknown. This is remarkable given the emphasis on capital mobility for the functioning of contemporary capitalism. Lack of suitable data is likely an important reason why little research has been done in this field previously. This paper is the first to characterize the domestic migration of business owners throughout a country. We have addressed two fundamental research issues. Firstly, the migration propensity of business owners and the factors influencing this were examined. The findings are consistent with existing studies on migration. The crucial variables that correlate with migration are age and educational level. Younger business owners tend to migrate more often as well as those who attained a degree at an institute of higher education.

Secondly, the study opens up a more conceptual discussion on the role of the firm in the migration decision as well as the relationship between firm relocation and residential preferences. Migration and firm relocation studies have remained largely separate, but this paper shows the salience of firm characteristics in the decision to move. The main argument appears to be that firms act as a drag on the migration intentions of business owners and the smaller the foothold of the firm in the region of origin – in terms of employees, for example – the less likely it is to deter the owner from moving. Likewise, migration in combination with firm relocation does not seem to be instigated in order to improve the firm's performance. In any case, the business owners do not succeed in increasing performance. In fact, firms of migrated business owners have a higher chance of being discontinued than firms of stayers. It shows that migration as well as the relocation of the firm is importantly influenced by both firm characteristics and other factors (see also Dahl & Sorenson, 2012).

On a conceptual level, the results have an important bearing on understanding firm behaviour, in particular relocations of firms. The main theoretical ideas explaining firm relocation put forward the betterment of the firm as the guiding principle. This study suggests that for business owners, utility is not only derived from the performance of the firm but also rather includes a variety of other considerations. These may include access to other jobs and residential preferences both of the business owner and of other family members if present. Migration accompanied by the relocation of the firm then likely serves to maximize utility across the whole set of aspects that are taken into consideration rather than only the firm. Given the still increasing numbers of small businesses in Sweden and other countries in Europe, taking into account explanations of firm relocation that are outside of the realm of the firm itself appears increasingly important.

The set-up of this study precluded addressing such additional aspects into great detail as they are derived from the results, rather than measured directly. However, detailed and longitudinal information on biographies of business owners becomes more easily available in a number of countries. Such new data sources can help in gauging the role of the dynamics of the firm in the labour market transitions and migration patterns that the business owner experiences. The characterization of the relationship between firm relocation and migration can be further explored in such studies. In addition, the observation that reasons for firm relocation are not necessarily firm related calls for more survey-based studies that disentangle the motives and goals of relocation and migration decisions.

Given the explorative nature of the study, policy implications should be drawn with caution and they are not clear-cut as the underlying mechanisms of the patterns distinguished have not been assessed. Yet, the findings do resonate with the message that actors seeking to lure new businesses to their regions are facing a difficult challenge since very few business owners migrate and bring with them their firms. Also, firms that are relocated into the region along with its owners do not appear to be very successful. Nonetheless, even if they may not be very successful in terms of their own growth, they may still provide valuable input to the region in terms of transferring new ideas, links to other regions, competition etc. In short,

then, policy-makers who seek to improve the regional business climate are well advised to seek other ways than focusing on attracting external business owners and pay more attention to facilitating the growth of the ones that are already present, regardless of origins. By facilitating the general business climate, incoming entrepreneurs can also benefit. Finally, the argument points towards an encompassing strategy that sees the business climate as a combination of factors, pertaining to the firms and the residential preferences of the owners alike. Further studies into the relative weights of these aspects and the situations in which they are relevant can inform more precise formulations of such strategies.

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DISCLOSURE STATEMENT

NOTES

1. Weterings and Knoben (2013) is an exception: they explicitly model firm relocation across different distances.
2. Unfortunately, the data do not allow one to identify if the owner is also the founder of the firm.
3. To preclude the possibility that the results are driven by short-distance migration, we also performed an analysis including only those migrants who moved further than 100 km (measured as the Euclidian distance between the population centroids of municipalities; for details, see Niedomysl, Ernstson, & Fransson, 2017). The qualitative results do not change. These results are available from the authors upon request.
4. Seen over the longer time-horizon of 15 years, approximately 6% of the business owners will have migrated (on average each year about 0.4% of all business owners relocate their home and firm over a local labour market).
5. To address the possibility of a selection effect into migrating biasing the outcomes, we also ran Heckman two-step selection models explicitly modelling the selection into migrating. The exclusionary condition in the first step is the age of the entrepreneur. Arguably, this is a strong predictor of migration, but should not affect the performance of the firm. However, no significant selection was found in any these models. Because of this we choose to exclude the estimates from the paper. The estimates are, however, available from the authors upon request.
6. We have also tried to include firm age as an independent variable. It turned out that the two variables firm age and entrepreneurial experience are collinear and cannot be included in the same regression. However, the estimates are similar and it does not change the interpretation of the other variables. The conclusion is that they capture much of the same variation. For brevity we only include regressions with entrepreneurial experience. The results with firm age are available from the authors upon request.

7. As robustness checks of the correlations, we also ran regressions with firm/business owner-level fixed effects and pooled OLS estimations, which include time-fixed controls. The results (available from the authors upon request) were, however, not significantly different from those presented in the text.

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