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MICRO AND SMALL ENTERPRISES (MSES) IN URBAN ECONOMIES: A COMPARATIVE STUDY OF EGYPT AND TURKEY AT THE PROVINCE LEVEL

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Abstract

This paper examines how businesses operating in areas with differing rates of urbanization differ from each other with regard to firm characteristics such as firm size and the sector of economic activity. A sample of 4,136 MSE's in Egypt and another of 4,776 MSE's in Turkey are used in the analysis. Empirical findings show that manufacturing is more concentrated in provinces where the rate of urbanization is at a medium level, and that trade is a less likely outcome than other sectors و the higher the level of urbanization. Other key findings: the level of urbanization does not have an effect on firm size in Turkey, but has a significant effect on firm size in Egypt, such that firm size tends to increase with urbanization; business dependence (i.e. income from MSE is the only source of income) tends to decrease with urbanization in Turkey and Egypt alike The results of the study may shed light on the natures of policies recommended to promote MSEs in densely populated areas with large numbers of potential workers. Two policy recommendations are: 1) any assistance programs must realize that entrepreneurs are heterogeneous groups, with different needs and aspiration, requiring different levels of capital and skills. 2) Because of their micro size, most government regulations fail to reach the MSEs. As they grow in size, they become targets for tax collections and other regulations. Therefore, there is a disincentive to expand beyond a certain limit. Policies that encourage expansion and growth with tax breaks or credits will definitely support the growth of the MSEs.

JEL Classifications: D2; L11; O14; O57; P47; R11

Keywords: MSEs; firm size; growth; urbanization; Egypt; Turkey

ملخص

تناقش هذه الورقة اختلاف الاعمال في المناطق التي تشهد معدلات مختلفة من التحضر عن بعضها البعض فيما يتعلق بخصائص الشركات مثل حجم الشركة والقطاع الذى تنتمى له من النشاط الاقتصادي. وتستخدم عينة من 4136 مشروع صغير ومتناهى الصغر (MSE) في مصر وعينة أخرى من 4776 مشروع صغير ومتناهى الصغر (MSE) في تركيا. تظهر النتائج التجريبية أن التصنيع يكون أكثر تركيزا في المحافظات حيث أن معدل التحضر في مستوى متوسط، وبأن التجارة كنتيجة هي أقل عرضا من القطاعات الأخرى بالنسبة لارتفاع مستوى التحضر. النتائج الرئيسية الأخرى تشير الى ان مستوى التحضر ليس له تأثير على حجم المشروعات في تركيا، ولكن لديه تأثير كبير على حجم المشروعات في مصر، حيث أن حجم المشروعات يميل إلى الزيادة مع زيادة التحضر؛أما الاعتماد على الأعمال التجارية (أي أن الدخل من المشروع المتوسط والصغير (MSE) هو وحده مصدر الدخل) يميل إلى الانخفاض مع زيادة التحضر في تركيا ومصر على حد سواء. قد تلقي نتائج الدراسة الضوء على طبيعة السياسات الموصى بها لتعزيز المشروعات الصغيرة والمتناهية الصغر في المناطق ذات الكثافة السكانية العالية مع الأعداد الكبيرة من العمال المحتملين. توصيات السياسة العامة هما: 1) يجب على برامج المساعدة أن تدرك أن مجموعات رجال الأعمال هي مجموعات غير متجانسة، لديها احتياجات وتطلعات مختلفة، وتتطلب مستويات مختلفة من رأس المال والمهارات. 2) بسبب حجمها الصغير، تفشل معظم الأنظمة والتشريعات الحكومية للوصول إلى المشروعات المتوسطة والصغيرة. وبمجرد نموها في الحجم، فإنها تصبح أهدافا لجمع الضرائب وغيرها من الأنظمة. لذلك، فهناك عاملا مثبطا للتوسع اذا ما تجاوز المشروع حدا معينا. أما السياسات التي تشجع على التوسع والنمو مع الاعفاءات الضريبية أو اعتمادات مساندة سوف تساعد بالتأكيد على نمو المشروعات المتوسطة والصغيرة.

1. Introduction[1]

One of the distinct features of the changing demography of the MENA region is its rising urbanization. Latest estimates by the ALO (Arab Labor Organization) predicted a rise of up to 6.7% in urban population between 2005 and 2015 across the entire Arab countries. This growth in urbanization and the resultant economic restructuring in many Arab countries render the creation of substantial new employment opportunities inevitable. MSEs (Micro and Small Enterprises) have the potential to play a significant role in the future development of the urban Middle East. They have been regarded as an important employment creation mechanism, particularly in economies with abundant unskilled labor such as Egypt and Turkey.

MSEs can infuse dynamism into the economies for many years. Their unique elasticity and creativity allow them to quickly adjust to changing business environments faster and more effectively than larger businesses. In light of economic fluctuations, they act as shock absorbers for large enterprises, adjusting their own employment and production levels to reflect changes in the overall demand and supply conditions. Besides, MSEs make an important contribution as subcontractors to large enterprises, which often tend to be transnational corporations (TNCs), especially during adjustment and trade liberalization periods. Still, given its low capital requirement, MSEs are believed to stimulate growth of numerous indigenous enterprises with wide regional diffusion. They are becoming an influential tool in promoting balanced growth, and more equitable income distribution.

Developed as well as developing countries are taking advantage of the vast opportunities SMEs have to offer, from job creation, to poverty reduction and income stability, to tax revenues. MSEs in industrialized economies have accounted for most of the growth in private business sectors (OECD, 2000a). It is estimated that 95% of enterprises in OECD are MSEs and responsible for creating around 70% of new jobs. In Countries like China and India, SMEs have been key in employment creation, poverty reduction, and expansion of the local market. Ironically, MSEs in developing countries have been abandoned and discriminated against when it comes to government assistance, access to finances, or technology transfers, compared to large enterprises, which are given priority in economic and industrial development projects.

The dearth of empirical and robust analysis of the performance and growth potential of MSEs in MENA, as well as the debate surrounding the success or disappointment of MSEs in developing economies of the Middle East, lends this study a significant contribution to the literature by filling this void.

2. Review of the Literature

As a result of their increased importance, a growing interest in MSEs and their role in economic growth has emerged in recent literature. Although most of the bulk of research in the last decade pertains to developed countries, namely the US and Canada, a sizeable number of studies have been conducted in many developing countries. In recent years, developing countries have been undertaking a fundamental shift away from a large governed economy towards an entrepreneurial economy. Traditional measures of entrepreneurial success in development have always been evaluated in terms of economic contribution to the GDP and employment growth. While the contribution of MSEs in overall GDP varies across countries, the impact on employment generation is evident. Approximately 97% of firms in Mexico and Thailand are MSEs (Kantis, Angelli, and Koenig 2004; Simmons 2004). Mead

[1] The proposed research builds on and extends the analysis of two previous studies. The first, in collaboration with the co-author of this study is "The gendered aspect of MSEs in MENA: Evidence from Egypt and Turkey" which won the 8th round of the GDN research grant competition. The second, authored by the principle investigator titled "How do women entrepreneurs perform? Empirical evidence from Egypt (2010) is an ERF working paper (no. 621). Fix this reference.

and Liedholm (1998) verified that MSEs in five African counties generate close to twice the level of employment in large-scale businesses, including the public sector. In Latin America, an ILO study (2003) found that MSEs employ a little over half the working population.

Recent research has cited the firm's growth as an additional measure of performance (Haber and Reichel 2005; Rodriquez et al. 2003; Davidsson et al. 2002; Orser and Hogarth-Scott 2002; Gundry and Welsch 2001; Orser, Hogarth-Scott, and Riding 2000; Rosa, Carter, and Hamilton 1996; Kolvereid 1992). Growth, according to these studies, is likely to be in the form of higher earnings or employing a larger number of workers.

There are two types of capital that are crucial to the success and survival of MSEs: human capital and financial capital. Human capital theory differentiates between general and specific human capital (Becker 1964). General human capital includes attributes such as age and formal education, while specific human capital pertains to specific knowledge, skills and training essential to the growth and success of the business such as relevant experience and specific training. The second type of capital—a resource based one (Barney 1991) is financial capital or the ability and willingness to secure external debt, where the shortage of financial capital has been reported in the literature to be a major barrier to MSE growth.

Empirical evidences have documented a consistent and robust relationship between human and financial capital and the performance of the business. Higher levels of general human capital pave the way for a successful and a growing business: they raise the expectations of the businessperson and lower the likelihood of failure, enable the entrepreneur to identify and exploit opportunities, and empower him/her with tools necessary to succeed in securing external capital (Kangasharju and Pekkala 2002; Pena 2002; Schiller and Crewson 1997; Bates, 1990; Honig, 1998; Ucbasaran et al. 2003; Shepherd and DeTienne 2005; Ucbasaran et al. 2008; Unger et al. 2008).

Age, a component of general human capital, contributes to business performance; the older the entrepreneur the greater his/her life experience, maturity, ability to accumulate financial credibility and manage a business (Bertaut and Starr-McCluer 2000; Kennickell, Starr-McCluer, and Sunden 1997). Education has a substantial impact on business performance. Box et al. 1993 establish a linear relationship between levels of education and performance in the manufacturing firms of the U.S. A. Bates, 1990; Kangasharju and Pekkala, 2002, and Pena, 2002, have confirmed a strong relationship between higher levels of education and lower probability of failure.

The impact of specific human capital measures (i.e. relevant experience and specific training) on business performance is consistent in the literature as well. For example, Loscocco et al. (1991) and Bosma et al. (2004) confirm that industry specific experience has a deterministic effect on the performance of the firm in the U.S. and the Netherland respectively. Related experience also suggests increased number of contacts with suppliers, contractors, and customers (see reviews by Cooper and Gimeno-Gascon 1992; Rauch and Frese 2000). In a special study on retail trade and services, Brush and Chaganti (1998) find that human capital and industry specific experiences have great impact on firm's revenues and employment levels. As Jovanovic (1982) puts it, there is a learning process involved; entrepreneurs with more experience, education and training are more likely to grow their businesses than those with lower stock of human capital.

Some researchers went further to establish that human and financial capitals are substitutes, Chandler and Hanks (1998). They showed how high (low) levels of financial or low (high) levels of human capital may lead to similar performances. It is important in this context to point to the fact that financial institutions take the level of human capital of the owner in account when providing financial capital. In other words, it is considered a signaling tool to

lenders and lowers financial constraint (Parker and van Praag 2006; Backes-Gellner and Werner 2007).

Both Egypt and Turkey have introduced substantial economic reforms since mid 1980s. They have undertaken a number of policy and regulatory changes to liberalize a comprehensive, highly protected, and public-sector-dominated economy. Measures that have particularly influenced the private sector include the introduction of a market-based foreign exchange system, liberalization of trade policy, privatization of state-owned enterprises, fiscal policy reform, and accepting the role of Micro and Small Enterprises (MSEs)[2] in economic development.

Hendy and Zaki (2012) and El-Hamidi and Başlevent (2010) work with the same data set utilized in this study, but focus, respectively, on the informality and the gendered aspect of MSEs (i.e. how the sectors of activities, income, growth, etc. differ by the gender of the entrepreneur). The Hendy and Zaki study finds that the firm's years in business, the entrepreneur's gender, age, and education have a significant impact on the probability of belonging to the informal sector. The study also finds a negative effect of informality on productivity in both Egypt and Turkey.

The El-Hamidi and Başlevent study tests some of the main claims of the rather modest available literature by means of an econometric analysis. Numerous studies have shown that there are differences between male and female MSE owners in OECD countries (Goeffee and Scase 1985; Carter and Cannon 1992; OECD 2000a; OECD 2000b), and in transition countries (Zapalska 1997; Glas and Petrin 1998). In general, female-owned businesses are found to be more different than similar to male-owned businesses (Brush 1992). These differences seem to exist regardless of economic context. Previous studies have also shown that female business owners most often start businesses in the 'traditional' service sectors such as retail trade, hotels and catering (Schrier 1975; Smith, McCain and Warren 1982; Hisrich and Brush 1983; Cuba, Decenzo and Anish 1983; Scott 1986; Neider 1987; OECD 2000a; Du Rietz and Henrekson 2000). These studies have shown that women have different objectives and ambitions than men, often interested in balancing their home and business responsibilities, and are less moved by profits or the size of their business. In light of this literature, the gender of the owner/manager of the enterprise will be included the among the control variables utilized in the econometric work.

El-Mahdi (2006b) provides an extensive review on the literature on MSEs in Egypt, which ranged from limited and controlled to wide range and detailed studies. Hafez (1986) investigated 25 establishments in the manufacturing industry. Later, Meyrs (1988) carried out a survey on a sample of 1149 small sized establishments in the manufacturing industry in Cairo. El-Mahdi and EL Saids', (1996) study was also confined to a small city, the Tenth of Ramadan City. Large empirical studies were carried out by CAPMAS in 1985, 1988, and 1998. These studies were comprehensive in nature to represent the Egyptian market, with sample sizes reaching 5000 establishments. The latter survey estimated that small enterprises (less than 50 workers) represented more than 90% of the all private sector enterprises in Egypt employing 63% of total employment, with the bulk in the 1-10 workers category.

A review on the literature on micro, small, and medium-sized enterprises in Turkey can be found in Özar (2006). While many of the cited works focus on small and medium-sized enterprises that employ up to 250 persons (e.g. Taymaz and Kılıçaslan 2000; Erzan and

[2] The formal definition of an MSE involves the volume of annual transactions, but firms are mainly classified according to the number of workers such that "micro" enterprises are the ones that employ less than 10 workers; and "small" enterprises are the ones that employ 10 to 49 workers. The term SME, which is also commonly used in the literature, stands for "small and medium-sized enterprises" (10-to-249 workers).

Filiztekin 2005) studies that focus on MSEs are few in number and are limited to the textile sector (Çınar et al. 1987, 1988, and Evcimen et al. 1991).

Razzak (2010) used educational attainment of the entrepreneur, the scope of the market; and the type of technology to fit a Cobb- Douglas production function for countries for which data is available: Egypt, Lebanon, Morocco and Turkey. The findings reveal wide differences in returns to scale between Turkey on one side, where positive returns are visible, and three other Arab countries, where negative returns to scale are evident.

3. Data and Methodology

The analysis in this study depends on a unique and rich MSEs data for Egypt and Turkey. This data set is comprehensive in terms of methodology adopted in choosing samples, listing techniques, and coverage of policy relevant issues. The advantage of using this data set is its unique link between the establishment and the household of the entrepreneur. On the one hand, household information provides a detection tool of some home based economic and background characteristics. On the other hand, establishment surveys enable researchers to capture the bulk of economic details and movements outside the household, providing an extensive representation of the activity.

The primary objective of the sample design of MSEs in Egypt was to provide estimates on the national level and three major administrative regions. Eight governorates were selected from the three regions. The selection was based on an attempt to represent governorates with different economic characteristics. Information is available on the characteristics of business owners (gender, age, martial status, etc.) and characteristics of the enterprise (startup year; size of capital, employment size, employment characteristics, hours of operation, industry, forward and backward linkages with other sectors; and access to financial sources). Fieldwork took place in 2003.

The Turkish sample is also nationally representative in coverage. As described in Özar (2006), it was chosen by stratified, multi-stage systematic sampling method by the TURKSTAT. The 19 (out of 81) provinces surveyed were selected from five strata that were defined in terms of socioeconomic development level of the provinces compiled by the State Planning Organization of Turkey. The main survey took place in the second half of 2001.[3]

A total of 5000 interviews were carried out both in Egypt and Turkey. Urban MSEs in Egypt represents 90% of total sample, which reflects the concentration of wealth in urban regions. Excluding rural MSEs returned 4,434 urban MSEs for Egypt and 4,776 enterprises in Turkey. A further exclusion of 103 observations for Egypt and 74 observations for Turkey were made because the activity of the firm was “seasonal” or “temporary” rather than “permanent”.

The survey also provides information on whether the workplace being visited is the only location in which the enterprise operates. It turned out that this is not the case for about 4 percent (Egypt) and 10 percent (Turkey) of the observations in the sample. Considering the fact that an analysis of the workforce, growth plans, etc. of just a branch of a larger enterprise may be inappropriate, we decided to leave these firms out of the working sample, which consists of 195 enterprises for Egypt and 464 for Turkey. The final sample for Egypt is 4,136 and 4,238 for Turkey. The figures reported in the analysis are based on this sample, and they have been weighted by the design weights available in the data set to be representative of the national distribution of firms with respect to the gender of the entrepreneurs and firm size.

To facilitate comparison across provinces/governorates, MSEs are grouped according to their regional distribution in Egypt as follows: Cairo, Giza and Alexandria are clustered into

[3] A comprehensive description of the data as well as information about the sampling process can be found in the ERF research report by chief investigator Şemsa Özar titled *Micro and Small Enterprises in Turkey: Uneasy Development*.

"Metro" region, "urban lower Egypt" is represented by Damitta and Gharbia; whereas Fayoum, Assuit (Asyut) and Sohag comprise "urban upper Egypt". Since Upper Egypt is the least privileged in terms of economic development and HDI, this grouping is also expected to capture the possible effect of urbanization.

For Turkey, using figures derived from the 2000 population census, the 19 provinces[4] are grouped into four categories according to their level of urbanization, where urbanization level is defined as the share of a province's population residing in an urban area. It takes on its values as follows: 1 where urbanization rate is less than 60%; 2: if urbanization rate is between 60% and 75%; 3 if it is between 75% and 90%; and 4 if it is more than 90%.

The scope of the analysis implicates answering and testing the following questions/claims:

- Is there a significant difference in the types of urban-based business activities between the two countries?
  - *Methodology 1*: descriptive statistics and tests of significance.
  - *Methodology 2*: using a discrete choice model where the dependent variable is type of business, and independent variables include age, education, experience, skill level, marital status, number of children, access to credit, and year of start of business.
- Is there a significant difference in firm size between the two countries? What are the main determinants of the size of business?
  - *Methodology*: using an ordinary least square regression model where business size is regressed on personal characteristics such as age, education, experience, access to credit, and year of start of business, type of business, number of workers, and work hours.
- Are there differences in the determinants of urban-based business interdependence?
  - *Methodology*: using a binary choice model, the dependent variable is a binary choice (1= if the business is main source of income and is sufficient for the family; 0= otherwise). The independent variables are age, education, experience, type of business, number of workers, and work hours. [The SME is linked to the owner's household survey, which provides information on the household and their expenditures].
- Are there differences in the determinants of plans for future growth?
  - *Methodology 1*: using a binary choice model, the dependent variable is a binary choice (1=if the owner plans to expand the business in the next year; 0=otherwise). The independent variables are age, education, experience, type of business, access to credit, size of current loan, size of revenues, business is linked to other enterprises, business is exporting, number of workers, and work hours.
  - *Methodology 2*: using an ordinary least square model, the dependent variable is the change in the number of workers since the start-up of the business. The independent variables are age, education, experience, type of business, access to credit, size of current loan, size of revenues, business is linked to other enterprises, business is exporting, number of workers, and work hours.

4. Contextual Background—Regional Characteristics

In this section, we provide a brief background on urban regional characteristics in Egypt and Turkey. The concept of urbanization is almost synonymous with internal migration. Therefore, academic work from different social sciences needs to take into account the role of population movements when examining the impact of urbanization on socio-economic,

[4] The 19 provinces of Turkey which are included in the sample are: Adana, Adiyaman, Afyon, Agri, Bursa, Corum, Erzurum, Eskisehir, Gaziantep, Istanbul, Izmir, Kahramanmaras, Kirsehir, Konya, Manisa, Mugla, Sanlıurfa, Trabzon, Van.

cultural, and political outcomes. As far as the current study is concerned, the labor market effects of migration are of primary relevance. At earlier stages of urbanization, internal migrants provide the necessary unskilled labor for the industrialization process. An important contributing factor for this stage has been the rapid rise in the urban population, which implied both an increasing labor supply and rising demand, in the goods market. One of the goals of our empirical work, therefore, is to observe whether the sectoral composition of the MSE sector can be linked to the level of urbanization.

According to 2006 census, urban population in Egypt reached a little over 31 million, representing about 43% of the Egyptian population. The comparable figure in Turkey is 70%, indicating significant socio-economic developmental differences between the two countries.

4.1 Egypt

Egypt is the most populated country of the Arab region. There is one Egyptian for every four Arabs. Between 1950 and 2005, the population of Egypt tripled from 25 million to more than 70 million. Adding almost 1.35 million yearly, it is projected to reach 94 million by 2020 and a little over 100 million by 2025 (IIASA 2007). The overpopulation of Egypt is accentuated by the fact that 95% of the population lives on almost 6% of the land. Except for rural regions, the rate of population growth has been leveling off in recent decades, from 4.4% in 1980s to 3.6% in 1990s and 3% in 2005.

Urban populations are projected to accommodate an additional 14 million during the period 2005-2020. Conservative estimates call for the creation of at least 560,000 new jobs annually to shelter current unemployment and new entrants to the labor market (IIASA 2007).

Metro area and urban Lower Egypt have been centers of economic growth for the last 60 years, so they have attracted the bulk of internal migration in Egypt. In fact, over 60% of migrants residing in urban areas had previously resided in urban areas. Of all migrants in greater Cairo, 31% came from urban Lower Egypt and an equal percentage came from urban Upper Egypt.

The highest concentration of poverty and the worst market access are in Upper Egypt, especially rural Upper Egypt. Combating poverty requires tailored strategic policy actions. Upper Egypt also has the lowest density of “micro firms” -- those employing 1 to 4 workers – with only 21 per 1000 inhabitants compared to 50 in metropolitan areas and 35 in Lower Egypt. This underdevelopment is more pronounced for small and medium enterprises: one per 1000 in the category 5-9 workers, compared to almost two in Lower Egypt, and in the category 10 to 99 workers, 0.2 versus 0.4 in Lower Egypt. In their study, Gavian et al. (2002) looked at the effect of agricultural incomes on the development of rural SMEs. They found that because of excess capacity, rural SMEs are less likely to expand employment in response to increased demand. Less labor intensive SMES are more likely to generate employment. In particular, the services sector which had a higher likelihood to generate employment. In other words, diversification away from agriculture is necessary for job creation

4.2 Turkey

During the last sixty years, the urbanization rate in Turkey has increased from about 25 to 75 percent due to the more-than-three-fold population increase and the massive migration from rural to urban areas. The movement has mainly been from the east and north towards the west and south, that is, from the less developed and poorer parts of the country to the more industrialized and richer regions. According to the 2000 population census, twenty-eight percent of Turkey’s population, of the then 68 million, resided in a province other than the one they were born in. As can be observed in Figure 1, this ratio is the highest in provinces surrounding the western, northern and eastern shores of the Marmara Sea and those lying across the southern Aegean and the Mediterranean coastline between Izmir and Adana, as

well as the three inland ones between the Marmara Sea and Ankara in the center. These sixteen provinces with migrant shares of over one-fourth incorporate 45 percent of Turkey's population and 75 percent of those living outside their birth provinces. Migrants make up 47 percent of their aggregate population. In the Istanbul province, this ratio is even higher at 61 percent.

5. Data and Descriptive Findings

The survey we work with provides 4-digit industrial classification (International Standard Industrial Classification, 3rd Revision) codes for the enterprises. The firms can be allocated into three broad categories: (1) manufacturing, (2) trade, and (3) services sectors. For convenience, "manufacturing" is defined so that it includes the very small number of firms in agriculture, fishing and mining. Trade sector includes wholesale and retail trade, hotels and restaurants, including food services such as meal preparation. The services sector comprises the following subsectors: transport and communications, financial intermediation, construction, transportation, real estate, education, health, other social and personal service activities.

It is a common perception that MSEs are overwhelmingly made up of vendors and other small traders. In the data we work with, the allocation of MSEs by economic sector for Turkey is 67%, 22%, and 11% for, trade, manufacturing and services, respectively while it is 63%, 18%, and 19% for Egypt. Considering the fact that these sectors respectively account for 16%, 28%, and 56% of Turkey's Gross Domestic Product as of 2012, (and 12% for trade, 19% for manufacturing and 47% for services in Egypt), it is clear that services has a disproportionately large share in the MSE sector. The sectoral allocation of enterprises by urbanization categories reveals that the share of trade tends to decline with urbanization, at the retribution of service sector. In the econometric work, we will see whether this trend holds after several other factors have been accounted for.

The figures reported in Table 4 reveal that enterprises are less likely to operate in only one location in highly urbanized areas. This result makes sense because many businesses in larger provinces choose to operate under more than one branch in order to reach a larger number of customers. We also find that enterprises have been operating for a larger number of years in business in less urbanized areas. There might be several factors contributing to this finding. First of all, it might have to do with the fact that urban areas are developing more rapidly and a larger proportion of firms have been established recently. Urban areas may also provide entrepreneurs more incentives and information to switch from one activity to another. In areas with small populations, on the other hand, once a firm is successfully established, it can continue to operate for a long time without many new entrants to the market while enjoying the loyalty of their customers.

Total employment tends to increase with urbanization. In line with this finding, the proportion of firms employing only 1 or 2 workers (including the entrepreneur) decreases with urbanization. In terms of the employment status of the respondent, this trend translates into a higher share of own-account work in less urbanized areas. Unpaid family workers are also more common in such areas probably due to the prevalence of family businesses.

The sectoral division of economic activity according to broad categorizations follows a reasonable pattern across our urbanization categories. While the share of trade is the highest in less urbanized provinces, the share of services is the highest in highly urbanized areas. Industrial activities are more concentrated in provinces where the rate of urbanization is at a medium level.

The proportion of enterprises run by the owner (as opposed to a manager) is quite uniform across the urbanization categories. However, the division of owners between the employment

states of ‘employer’ and ‘own-account work’ depends on urbanization as the gap between the shares of the two subcategories increases with urbanization. This result must in part be driven by the pattern in average firm size as well as the prevalence of family business in smaller towns.

The ‘growth plans’ figures in the table reveal that forty-five percent of respondents expressed future plans for their MSEs to grow in at least one of the areas of employment, output, assets, or revenues. Urbanization does not appear to be an important determinant here.

In terms of the respondents’ characteristics, we observe that the enterprises in highly urbanized locations are run by older owners/managers who have more labor market experience. However, we do not find a discernible trend with respect to the years of education. The number of years declines with urbanization, but this is probably due to the fact that the years of operation of the enterprise also exhibits a declining trend.

Among male workers, the share of skilled and unskilled workers increases with urbanization while the opposite is the case for semi-skilled workers and apprentices. This finding probably reflects the fact that the urban labor market typically employs a larger number of skilled workers in sectors such as finance along with unskilled workers in retail, hotels, and restaurants. The relatively large skilled worker share in the lowest urbanization category is likely to reflect the large number of civil servants as well as size of the health and education sectors that employ teachers and doctors. Very similar patterns are observed among female workers as well.

At all three skill levels, we find that the female-male wage ratio is the largest in the highest urbanization category. It remains to be seen whether this result holds in the multivariate context.

In the case of both male and female workers, those in the age group of 25 to 29 years old make up the majority of the work force. However, this share is lower among females (57% vs. 74%) due to the fact that females are typically out of the labor force or retire at an earlier age than male workers. With regard to urbanization, we observe that the share of the 15-to-24 year old age group declines with urbanization while the opposite is the case for the 25-to-59 year old age group. This pattern must have to do with the fact that the urban labor market tends to employ more educated workers.

In addition to the previous characteristics, the household questionnaire provides information on the income sources of the entrepreneur’s household. We utilize this information to make inferences about the extent of the dependence of the household on the income generated from their businesses. There are several ways dependency can be defined. One is to identify the households where the income from the MSE is the only source of income and label these as the ones that are dependent on the business. Another way is to identify the households where the income from the MSE exceeds the monthly expenditures of the household. The latter definition probably implies sufficiency rather than dependency.

In the Turkish sample, 53 percent of the respondents declared their income from the MSEs, as the only source of income while the sufficiency rate is higher at 76 percent. The corresponding figures for Egypt are 76 and 63 percent. The discrepancy between the figures in the two countries suggests that Egyptian business owners have a more difficult time making ends meet even though they are more likely to be receiving receive income from sources other than their enterprise.

6. Econometric Work

The aim of this section is to go beyond the discussion of descriptive statistics in the examination of the potential impact of the level of urbanization on various outcomes that are

intended to provide concrete evidence as to the way the MSE sector functions in Egypt and Turkey. As mentioned earlier, there are four urbanization categories in the Turkish data such that larger values of the urbanization variable correspond to higher degrees of urbanization. In the case of Egypt, the Metro region, which includes Cairo, is indicated by the value of 1. In the regressions, it serves as the reference category. The remaining two regions, namely lower and Upper Egypt are indicated by "2" and "3", respectively.

6.1. Econometric Results for Turkey

In the econometric work, we first examine the possible association between the level of urbanization and the sectoral division of economic activities in the MSE sector using a multinomial logit model that controls for several owner characteristics as well as two enterprise characteristics, namely the years in business and the indicator for whether financial credits were taken during the setup of the firm (See Table 6.1.1.). Since the base category of the dependent variable is the manufacturing sector, statistically significant positive coefficients are interpreted to mean that "manufacturing" becomes a less likely outcome in comparison to the sector in question when the value of the relevant explanatory variable increases. Also, since the omitted category among the dummy variables indicating the level of urbanization is category 1, which is the lowest level of urbanization, the coefficient estimates reflect the sectoral differences in comparison to areas where urbanization is the lowest.

According to the sample shares presented earlier in the descriptive analysis, the share of the trade sector was the highest in less urbanized provinces while the share of services was the highest in highly urbanized areas. Industrial activities were found to be more concentrated in provinces where the rate of urbanization is at a medium level. The coefficients on the urbanization dummies in our multinomial model suggest that considerable differences continue to exist in the presence of the control variables. The negative coefficients on the urbanization dummies in the "trade" equation imply that manufacturing is a more likely outcome in all three of the second, third, and fourth urbanization categories. Furthermore, the relative magnitudes of the coefficients suggest that the gap between the two outcomes is the largest in the second and third categories. Since the significantly negative coefficients in the services equation are also obtained for the second and third categories, the multivariate analysis confirms the earlier observation that manufacturing is more concentrated in provinces where the rate of urbanization is at a medium level. Another statistically significant finding is that trade is a less likely outcome than the other sectors in the fourth, i.e. highest, urbanization category.

We examine the possible association between the level of urbanization and firm size using an OLS model that controls for several owner characteristics, the two enterprise characteristics used earlier, and the sector of economic activity. According to the results presented in Table 6.1.2, it turns out that after these factors accounted for, the level of urbanization does not have a significant effect on firm size. However, the positive coefficient on dummy for category 4 is very close to being significant at the 10 percent level of significance meaning that firm size tends to increase with urbanization.

In order to gather more information about the entrepreneurs, a "household questionnaire" was also administered in addition to the main survey our data is drawn from. Along with other bits of information such as the ages of other household members, the household questionnaire provides detailed information on the income sources of the entrepreneur's household. In the econometric work, we utilize this information to make inferences about how much the household depends on the income from the business. We examine dependence by identifying the households where the income from the MSE is the only source of income and refer to these as households those that are dependent on the business. The binary logit model in which

this dummy variable (1 if there's dependence) is the dependent variable includes controls for the respondents' characteristics including whether s/he is an owner or manager. According to the results presented in Table 6.1.3a, it turns out that business dependence tends to decrease with urbanization.

Another potentially informative exercise involves the identification of the households where the income from the MSE equals or exceeds the monthly expenditures of the household. This indicator of sufficiency was also examined in a logit model, the results of which are summarized in Table 6.1.3b. This time we found that sufficiency does not depend on the level of urbanization having controlled for several owner characteristics.

In order to examine the influence of the level of urbanization on 'growth plans', we estimated a probit model where the urbanization dummies appear as dependent variables. The parameter estimates reported in Table 6.1.4 reveal that compared to those in the least urbanized areas, the respondents in the second category were less likely to express future plans for their MSEs to grow in at least one of the areas of employment, output, assets, or revenues. With a statistically significant positive coefficient, the opposite is the case for those in the third category. Since the estimated model controls for several factors including the sector of activity and firm size, urbanization dummies may be reflecting the varying impact of the economic crisis on different parts of the country.

According to the results presented in Table 6.1.5, female-male wage differential turns out to be smaller in the second urbanization category. A closer examination of the sectoral composition of the regional economies as well as the participation rates of males and females appears to be necessary to explain why this finding has been obtained.

6.2 Econometric Results for Egypt

The econometric results for Egypt are presented in Tables 6.2.1 through 6.2.5. The coefficients on the control variables in Table 6.2.1 reveal that the managers/owners in manufacturing are more likely to be male and to have more labor market experience, but they also are less educated than the managers/owners in other sectors. The firms in the trade sector are also more likely to have used formal at the time of the setup of the business. The coefficients on the urbanization dummies in our multinomial model suggest that considerable differences continue to exist in the presence of the control variables. The positive coefficients on the urbanization dummies in the "trade" equation imply that manufacturing is a less likely outcome in both of the second and third urbanization categories. Since a significantly positive coefficient in the services equation are also obtained for the third category, the multivariate analysis confirms the earlier observation that manufacturing is more concentrated in provinces where the rate of urbanization is at a medium level.

We examine the possible association between the level of urbanization and firm size using an OLS model that controls for several owner characteristics, the two enterprise characteristics used earlier, and the sector of economic activity. We find that firms that have been in business for longer time periods are likely to be larger, and the same goes for firms that are run or owned by males and more educated managers. It turns out that after all these factors accounted for the level of urbanization still has a significant effect on firm size such that firm size tends to increase with urbanization.

As in the Turkish case, we examine dependency by identifying the households where the income from the MSE is the only source of income and refer to these as households those that are dependent on the business. The binary logit model in which this dummy variable (1 if there's dependency) is the dependent variable includes controls for the respondents' characteristics including whether s/he is an owner or manager. It turns out that dependency

tends to decrease with urbanization even though only one out of the two relevant coefficients is statistically significant.

The exercise involving the identification of the households where the income from the MSE equals or exceeds the monthly expenditures of the household is also repeated using the Egyptian data. This indicator of sufficiency is also examined in a logit model. This time we find that sufficiency is less likely to be the case in the third urbanization category. The firms with female and more experienced manager/owners are more likely to have growth plans. As far as the level of urbanization is concerned, the firms in the second urbanization category are more likely to have growth plans. Finally, the regression results regarding female and male wage differentials reveal that the differentials that exist are not explained by the variables available in the data set including those that indicate the level of urbanization.

7. Conclusion

As in the rest of the world, small-sized enterprises play a major role in the Egyptian and Turkish economy. While about 99 percent of the existing firms in Turkey are ones that employ less than 50 workers, these businesses account for about 90 percent of Turkey's workforce. In a rapidly changing global economy and a steadily increasing rate of urbanization, it is difficult to guess whether small-sized businesses will continue to serve as, so-called, engines of growth, leading sources of employment, or catalysts for innovation. However, as things stand at the moment, there is definitely a need to know more about the way they function. For a variety of reasons, mostly having to do with lack of access to appropriate data, much of the academic work relating to MSEs in the Middle-east and North Africa (MENA) region in general, and in Egypt and Turkey in particular is derived from descriptive findings that do not rely on systematic empirical analysis to support the proposed claims. Any claims made in such studies must therefore be considered in most cases as a set of premises that require further assessment and verification.

The main purpose of this paper was to examine how businesses operating in areas with differing urbanization rates differ from each other with regard to various firm characteristics such as firm size and the sector of economic activity. We undertook this task by making use of a detailed micro data set that provides information on the characteristics of the entrepreneur as well those of the business. What distinguishes the current study from most of the existing ones that researched MSEs in Egypt and Turkey is its rigorous empirical nature along the lines of urbanization. To the best of our knowledge, no comprehensive, empirical study comparing the entrepreneur's personal and business characteristics across urbanization categories has been carried out for countries in the MENA region.

Earlier studies of MSEs have focused almost exclusively on their employment growth and job creation potential, and the policies proposed to support MSEs are justified on their presumed employment growth. In contrast, the results of the current study are expected to shed light on the natures of policies recommended to promote MSEs in densely populated areas with large numbers of potential workers. By identifying the sectors and types of activities that are more likely to thrive in urban areas, this study calls attention to those sectors where direct intervention by the government is likely to be more effective. Two policy recommendations that immediately come to mind are: 1. Any assistance programs must realize that entrepreneurs are heterogeneous groups, with different needs and aspiration, requiring different levels of capital and skills. 2. Because of their micro size, most government regulations fail to reach the MSEs. As they grow, they become visible to taxes and other regulations. Therefore, there is a disincentive to expand beyond a certain limit. Policies that encourage expansion and growth with tax breaks or credits will definitely support the growth of the MSEs.

In light of our findings, which we were able to obtain using relatively simple estimation methods, we believe that there is still a lot to be learned from data sets such the one made available to researchers by the ERF. In fact, data is also available from a follow-up survey administered about a year later to some of the businesses that took part in the survey we have worked with. Therefore, among other things, future work may focus on if and how the patterns analyzed here have changed between the two surveys. Specially designed surveys that inquire about the perceptions of MSE owners/managers regarding the impact of functioning in densely populated areas with large workforces should produce interesting results as well. Finally, alternative measures of the level of urbanization that offer more precise reflections of the particular conditions the MSEs are operating in are likely to yield more significant findings in both statistical and economic terms.

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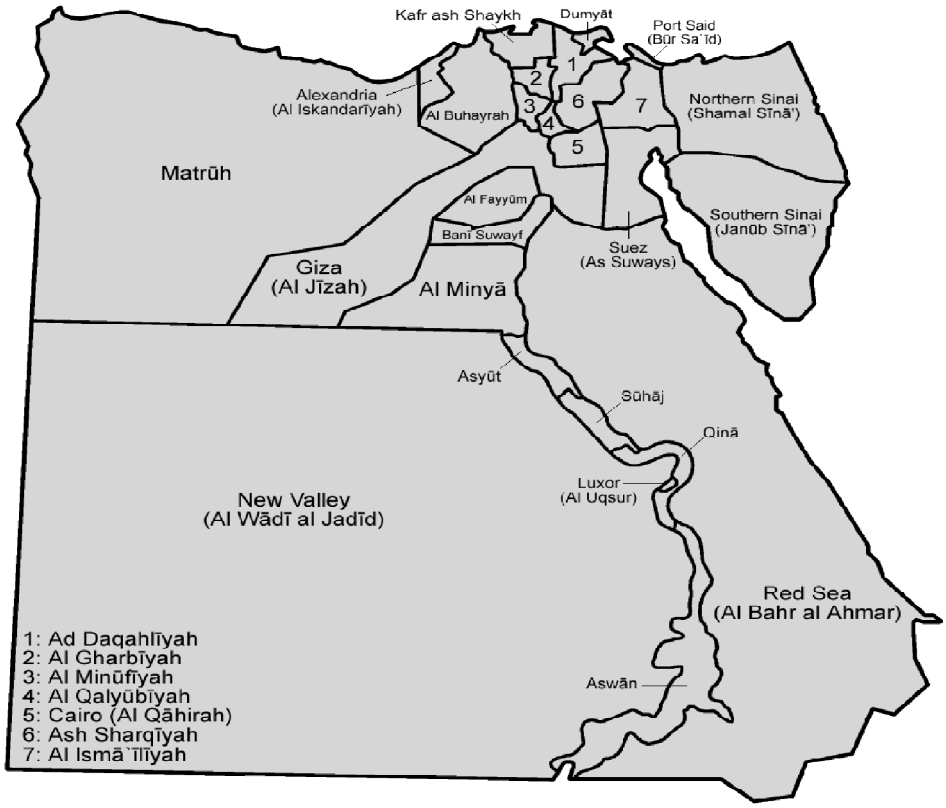
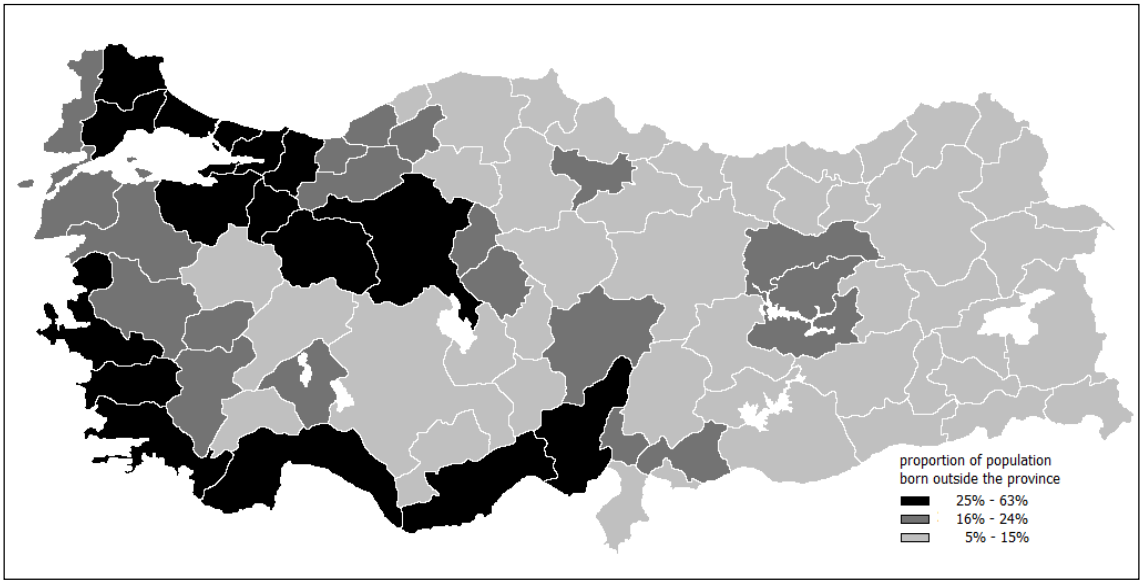
Figure 1: Map of Egypt and its Governorates



Source:http://commons.wikimedia.org/wiki/Image:Egypt_governorates_english.png#file

Figure 2: Proportion of Migrants in Turkey's Provinces



Source: Akarca and Başlevent (2010)

Table 1: Total Fertility Rates

Place of residence		1988	1992	1995	2000	2005
Total Egypt		4.4	3.9	3.6	3.5	3.1
Urban governorates		3.0	2.7	2.8	2.9	2.5
Lower Egypt		4.5	3.7	3.2	3.2	2.9
	Urban	3.8	2.8	2.7	3.1	2.7
Upper Egypt		5.4	5.2	4.7	4.2	3.7
	Urban	4.2	3.6	3.8	3.4	3.1

Source: Authors' own calculations

Table 2: Real Monthly Wages by Region and Share of Low-Wage Workers, 1998 and 2006

	Median monthly real wages in (const. 2006 L.E.)		Share of low-wage earners among employees, %	
	1998	2006	1998	2006
Metropolitan governorates	429	520	43	29
Urban Lower Egypt	353	433	53	40
Urban Upper Egypt	372	493	47	33
Egypt	311	415	62	45

Source: Gavian et al. (2002)

Table 3: Poor as % of Population

	1995 (%)	2005 (%)
Metropolitan governorates	13	6
Urban Lower Egypt	8	9
Urban Upper Egypt	11	19
Egypt	19	20

Source: The World Bank, 2009

Table 4: Characteristics of the MSEs

	Egypt				Turkey				
	Urbanization category			All	Urbanization category				All
	1	2	3		1	2	3	4	
Operates in one location (%)	95.64	94.11	98.24	96.26	94.90	93.60	87.20	89.80	90.50
Engages in other activities (%)	3.31	3.40	3.13	3.32	4.40	5.30	10.80	5.20	5.80
Used loans to set up the business (%)	2.62	3.46	9.71	3.76	10.50	8.00	12.80	9.60	10.00
Has growth plans (%)	50.99	58.78	45.01	52.75	44.90	36.60	55.60	44.20	45.00
Years in business	12.74	15.11	11.29	13.32	9.20	9.20	7.90	7.60	8.00
Total employment	2.79	1.99	1.62	2.39	3.80	3.80	4.30	4.20	4.10
Employing 1 or 2 (%)	65.64	76.66	86.18	71.69	57.70	50.20	46.40	49.30	50.20
Employing between 3 and 9 (%)	29.76	22.21	13.50	25.35	33.30	40.80	45.00	42.40	41.40
Employing 10 or more (%)	4.60	1.13	0.32	2.96	9.00	8.90	8.60	8.20	8.50
Manufacturing (%)	22.36	13.32	7.29	17.61	15.40	31.20	29.10	20.50	21.80
Trade (%)	55.55	70.07	76.94	62.83	75.40	61.00	65.50	66.50	67.10
Services (%)	22.09	16.61	15.77	19.56	9.20	7.80	5.40	13.00	11.10
Run by the owner (%)	65.28	66.90	69.35	66.30	81.20	77.80	72.00	82.40	80.60
Employment status of owner/manager									
Employer (%)	47.97	44.02	41.86	45.96	41.30	46.50	43.20	47.70	46.20
Own-account (%)	19.87	30.89	37.00	25.51	39.80	31.30	28.80	34.70	34.40
Unpaid family worker (%)	10.87	12.92	8.89	11.28	7.30	5.50	7.80	4.50	5.40
Employee (%)	21.28	12.16	12.25	17.25	11.60	16.80	20.20	13.10	14.10

Source: Authors' own calculations

Table 5: Enterprise Characteristics by Activity and Urbanization Category (% Shares)

	Egypt				Turkey				
	Urbanization category			All	Urbanization category				All
	1	2	3		1	2	3	4	
Agriculture	6.82	2.81	4.31	5.23	7.5	8.9	7.9	7.5	7.7
Mining	12.59	2.58	1.72	8.05	4.2	12.5	13.5	5.5	7
Manufacturing	3.07	7.9	1.26	4.39	3.2	8.6	6.4	4.2	4.7
Electricity	0.37	0.3	0.06	0.31	0.6	1.2	1.4	3.3	2.5
Construction	64.97	77.84	84.4	71.48	75.4	61	65.5	66.5	67.1
Trade	2.63	2.01	1.06	2.24	0.5	1.1	0.6	2.6	1.9
Transport	2	1.07	2.43	1.75	2.3	1.8	0.4	4.3	3.4
Finance	0.36	0	0.19	0.23	0.1	0	0	0.2	0.1
Services	7.2	5.34	4.56	6.28	6.3	5	4.5	5.9	5.7

Source: Authors' own calculations

Table 6: Owner/Manager Characteristics by Urbanization Category

	Egypt				Turkey				
	Urbanization category			All	Urbanization category				All
	1	2	3		1	2	3	4	
Age	40.5	41.3	40.9	40.8	35.9	37.1	36.2	38.7	37.9
Age began first job	19.5	19.6	21.0	19.7	14.6	14.6	14.8	15.3	15.1
Experience	21.0	21.7	19.8	21.1	21.3	22.5	21.4	23.3	22.7
Years of education	8.5	9.2	8.1	8.7	8.7	8.4	8.9	8.8	8.8
Years in present job	9.4	11.7	10.2	10.2	10.9	12.9	10.3	9.7	10.2
Married (%)	68.6	78.0	77.0	72.7	76.5	82	73.1	78.3	77.8

Source: Authors' own calculations

Table 6.1.1: Multinomial Logit Results for Sectoral Composition of MSEs

	Trade	**Services**
Female	-0.955	-0.187
	(0.000)	(0.360)
Age	0.019	-0.043
	(0.402)	(0.197)
Age-sq. /100	-0.027	0.013
	(0.283)	(0.722)
Education	-0.012	0.021
	(0.279)	(0.190)
Experience	-0.012	0.040
	(0.143)	(0.001)
Married	-0.188	-0.403
	(0.105)	(0.015)
Credit	0.333	0.146
	(0.000)	(0.270)
Years in business	-0.004	-0.040
	(0.359)	(0.000)
Urbanization category=2	-0.913	-0.855
	(0.000)	(0.001)
Urbanization category=3	-0.796	-1.222
	(0.000)	(0.000)
Urbanization category=4	-0.324	0.060
	(0.008)	(0.737)
Constant	1.778	0.412
	(0.000)	(0.514)
Observations	4,741	

Note: Base category is "Manufacturing". The numbers in each cell are the coefficient estimates and the p-values (in parentheses).
Source: Authors' own calculations

Table 6.1.2: OLS Results for Differences in Firm Size

Female	-0.315
	(0.354)
Age	0.066
	(0.176)
Age-sq. /100	-0.109
	(0.045)
Education	0.292
	(0.000)
Experience	-0.005
	(0.762)
Married	-0.116
	(0.624)
Credit	-0.156
	(0.382)
Years in business	0.063
	(0.000)
Trade	-1.939
	(0.000)
Services	-1.822
	(0.000)
Urbanization category=2	-0.227
	(0.490)
Urbanization category=3	0.223
	(0.463)
Urbanization category=4	0.377
	(0.104)
Constant	1.788
	(0.053)
Observations	4741
R-square	0.072

Note: Dependent variable is total employment in firm. The numbers in each cell are the coefficient estimates and the p-values (in parentheses).
Source: Authors' own calculations

Table 6.1.3a: Probit Results for Business Dependence

Female	-0.803
	(0.000)
Owner	0.220
	(0.004)
Age	0.062
	(0.000)
Age-sq. /100	-0.095
	(0.000)
Education	-0.021
	(0.002)
Experience	-0.011
	(0.027)
Married	0.898
	(0.000)
Credit	-0.016
	(0.763)
Years in business	0.003
	(0.347)
Trade	-0.089
	(0.109)
Services	-0.231
	(0.004)
Urbanization category=2	-0.230
	(0.016)
Urbanization category=3	-0.202
	(0.022)
Urbanization category=4	-0.106
	(0.105)
Constant	-1.044
	(0.000)
Observations	3,512
R-square	0.105

Note: The dependent variable =1 if the income from the MSE is the only source of household income, zero otherwise. The numbers in each cell are the coefficient estimates and the p-values (in parentheses).
Source: Authors' own calculations

Table 6.1.3b: Probit Results for Business Sufficiency

Female	-0.577
	(0.000)
Owner	0.224
	(0.004)
Age	0.051
	(0.001)
Age-sq. /100	-0.078
	(0.000)
Education	0.011
	(0.131)
Experience	-0.011
	(0.045)
Married	0.507
	(0.000)
Credit	-0.005
	(0.930)
Years in business	0.017
	(0.000)
Trade	0.005
	(0.930)
Services	0.037
	(0.672)
Urbanization category=2	-0.126
	(0.226)
Urbanization category=3	0.115
	(0.240)
Urbanization category=4	-0.088
	(0.225)
Constant	-0.466
	(0.095)
Observations	3,490
R-square	0.066

Note: Dependent variable is "suff". The numbers in each cell are the coefficient estimates and the p-values (in parentheses).
Source: Authors' own calculations

Table 6.1.4: Probit Results for Differences in Growth Plans

Female	0.345
	(0.000)
Age	-0.045
	(0.000)
Age-sq. /100	0.047
	(0.000)
Education	0.019
	(0.001)
Experience	-0.003
	(0.425)
Trade	-0.128
	(0.006)
Services	-0.021
	(0.764)
Credit	-0.194
	(0.000)
Formal loan	0.092
	(0.451)
Linkages	0.180
	(0.000)
Firm size	0.027
	(0.000)
Urbanization category=2	-0.224
	(0.006)
Urbanization category=3	0.236
	(0.001)
Urbanization category=4	-0.050
	(0.378)
Constant	0.725
	(0.001)
Observations	4,776
R-square	0.044

Note: The numbers in each cell are the coefficient estimates and the p-values (in parentheses).
Source: Authors' own calculations

Table 6.1.5: OLS Results for Wage Differentials among Skilled Workers

Female	0.110
	(0.034)
Owner	0.065
	(0.078)
Years in business	0.001
	(0.465)
Trade	0.020
	(0.585)
Services	0.060
	(0.180)
Linkages	-0.057
	(0.096)
Firm size	-0.003
	(0.045)
Urbanization category=2	-0.187
	(0.017)
Urbanization category=3	-0.021
	(0.705)
Urbanization category=4	-0.034
	(0.439)
Constant	0.953
	(0.000)
Observations	304
R-square	0.088

Note: The numbers in each cell are the coefficient estimates and the p-values (in parentheses).
Source: Authors' own calculations

Table 6.2.1: Multinomial Logit Results for Sectoral Composition of MSEs

	Trade	**Services**
Female	1.785***	1.553***
	(0.339)	(0.358)
Age	0.007	-0.024
	(0.025)	(0.029)
Age-sq. /100	0.001***	0.001**
	(0.000)	(0.000)
Education	0.072***	0.067***
	(0.009)	(0.011)
Experience	-0.065***	-0.049***
	(0.009)	(0.010)
Married	-0.097	-0.060
	(0.148)	(0.169)
Credit	0.554**	0.218
	(0.258)	(0.300)
Years in business	-0.007*	-0.005
	(0.004)	(0.005)
Urbanization category=2	0.421***	-0.050
	(0.127)	(0.157)
Urbanization category=3	1.095***	0.772***
	(0.123)	(0.140)
Constant	0.505	0.412
	(0.483)	(0.552)
Observations	4,083	

Note: Base category is "Manufacturing". The numbers in each cell are the coefficient estimates and the standard errors (in parentheses). *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' own calculations

Table 6.2.2: OLS Results for Differences in Firm Size

Female	-0.288*
	(0.151)
Age	0.040*
	(0.020)
Age-sq. /100	-0.000**
	(0.000)
Education	0.088***
	(0.008)
Experience	-0.005
	(0.006)
Married	-0.337***
	(0.119)
Credit	-0.431**
	(0.200)
Years in business	0.032***
	(0.003)
Trade	-0.777***
	(0.114)
Other services	0.082
	(0.134)
Urbanization category=2	-0.786***
	(0.091)
Urbanization category=3	-0.909***
	(0.129)
Constant	1.701***
	(0.412)
Observations	4,096
R-square	0.108

Note: Dependent variable is total employment in firm. The numbers in each cell are the coefficient estimates and the standard errors (in parentheses). *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' own calculations

Table 6.1.3a: Probit Results for Business Dependence

Female	-0.143
	(0.138)
Owner	-0.040
	(0.085)
Age	0.046**
	(0.019)
Age-sq. /100	-0.001***
	(0.000)
Education	-0.017**
	(0.007)
Experience	0.003
	(0.005)
Married	0.056
	(0.115)
Credit	-0.149
	(0.147)
Years in business	0.005
	(0.003)
Trade	-0.101
	(0.090)
Other services	-0.110
	(0.115)
Urbanization category=2	-0.388***
	(0.106)
Urbanization category=3	-0.056
	(0.074)
Constant	-1.330***
	(0.360)
Observations	2,774

Note: The dependent variable =1 if the income from the MSE is the only source of household income, zero otherwise. The numbers in each cell are the coefficient estimates and the standard errors (in parentheses). *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' own calculations

Table 6.2.3b: Probit Results for Business Sufficiency

Female	-0.784***
	(0.138)
Owner	0.314***
	(0.079)
Age	0.060***
	(0.016)
Age-sq. /100	-0.001***
	(0.000)
Education	-0.018***
	(0.007)
Experience	-0.001
	(0.006)
Married	0.067
	(0.097)
Credit	-0.188
	(0.140)
Years in business	0.005*
	(0.003)
Trade	-0.099
	(0.093)
Other services	-0.072
	(0.109)
Urbanization category=2	0.002
	(0.094)
Urbanization category=3	-0.440***
	(0.069)
Constant	-0.643**
	(0.321)
Observations	2,774

Note: Dependent variable is "suff". The numbers in each cell are the coefficient estimates and the standard errors (in parentheses). *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' own calculations

Table 6.2.4: Probit Results for Differences in Growth Plans

Female	0.189**
	(0.095)
Age	0.004
	(0.010)
Age-sq. /100	-0.000*
	(0.000)
Education	0.007
	(0.005)
Experience	0.011**
	(0.004)
Trade	0.073
	(0.069)
Other services	0.066
	(0.085)
Credit	0.089
	(0.140)
Formal loan	0.160
	(0.242)
Linkages	0.458
	(0.291)
Firm size	0.063***
	(0.019)
Urbanization category=2	0.229***
	(0.061)
Urbanization category=3	-0.043
	(0.057)
Constant	-0.248
	(0.228)
Observations	4,136

Note: The numbers in each cell are the coefficient estimates and the standard errors (in parentheses). *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' own calculations

Table 6.2.5: OLS Results for Wage Differentials among Skilled Workers

Female	0.021
	(0.285)
Owner	0.258
	(0.274)
Years in business	-0.003
	(0.012)
Trade	0.132
	(0.679)
Other services	0.718
	(0.723)
Linkages	-0.478
	(1.326)
Firm size	0.032
	(0.068)
Urbanization category=2	0.069
	(0.322)
Urbanization category=3	0.050
	(0.344)
Constant	0.550
	(0.790)
Observations	403
R-square	0.012

Note: The numbers in each cell are the coefficient estimates and the standard errors (in parentheses). *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' own calculations

Table 7: Composition of Employment by Skill Level (% Shares)

		Egypt				Turkey			
	Urbanization category			All	Urbanization category				All
	1	2	3		1	2	3	4	
Male workers									
Skilled	73.87	83.10	86.80	78.38	68.50	59.70	72.00	74.20	71.90
Semi-skilled	16.81	14.87	7.79	15.09	16.70	16.10	12.80	8.20	10.50
Unskilled	3.65	0.87	1.94	2.56	9.30	14.60	9.80	14.90	13.50
Apprentice	5.67	1.16	3.47	3.97	5.50	9.60	5.40	2.80	4.00
Female workers									
Skilled	81.51	91.64	82.48	85.27	82.20	57.00	78.30	71.90	73.50
Semi-skilled	15.70	5.01	8.93	11.20	11.00	18.80	8.60	8.00	8.90
Unskilled	2.12	2.73	8.23	2.90	6.40	23.20	9.30	18.70	15.80
Apprentice	0.67	0.63	0.36	0.63	0.40	1.00	0.60	1.40	1.10

Source: Authors' own calculations

Table 8: Female-Male Wage Ratio by Skill Level (% Shares)

		Egypt			Turkey		
	Urbanization category			Urbanization category			
	1	2	3	1	2	3	4
Skilled	0.50	0.66	0.45	0.89	0.47	0.86	0.92
Semi-skilled	0.64	0.62	0.47	0.94	0.94	0.97	1.03
Unskilled	0.76	0.72	0.49	0.42	0.85	0.73	0.88

Source: Authors' own calculations

Table 9: Composition of Employment by Age Group (% shares)

	Egypt				Turkey				
	Urbanization category			All	Urbanization category				All
	1	2	3		1	2	3	4	
Male workers									
<15	0.42	0.55	0.76	0.50	2.70	2.70	1.30	0.60	1.10
15-to-24	12.16	13.17	14.71	12.79	36.60	27.40	24.30	16.80	21.20
25-to-59	73.92	73.16	71.96	73.44	59.30	67.00	71.80	78.20	74.00
60+	13.51	13.12	12.57	13.27	1.40	2.90	1.40	4.40	3.50
Female workers									
<15	1.20	1.90	1.37	1.47	0.53	0.70	1.10	0.00	0.30
15-to-24	32.34	48.32	35.90	38.46	53.96	51.40	55.90	35.40	41.20
25-to-59	55.42	41.49	52.33	50.08	43.80	47.00	39.40	63.50	57.00
60+	11.03	8.30	10.39	9.98	1.71	1.00	2.30	1.10	1.40

Source: Authors' own calculations

Table 10: Business Interdependence and Sufficiency

	Egypt				Turkey				
	Urbanization category			All	Urbanization category				All
	1	2	3		1	2	3	4	
Business interdependence (%)									
All	73.66	84.81	75.46	76.48	59.10	52.40	49.40	52.20	52.90
Manufacturing	66.82	85.97	76.95	70.97	55.70	58.00	50.60	54.20	54.20
Trade	75.68	86.31	73.89	78.03	60.60	51.50	49.60	53.30	53.90
Services	76.26	76.16	82.60	77.11	52.50	42.00	38.50	43.70	44.30
Manager	75.24	80.90	77.01	76.59	42.80	31.90	24.90	43.30	39.10
Owner	73.14	85.74	74.95	76.44	61.50	54.80	53.80	53.10	54.50
Sufficiency (%)									
All	65.35	65.92	50.08	62.93	79.90	76.10	80.70	74.40	76.10
Manufacturing	73.99	66.52	57.30	71.46	81.30	76.80	80.90	71.70	74.80
Trade	62.03	64.19	49.86	60.09	78.80	78.40	82.50	75.10	76.90
Services	64.27	73.82	47.19	63.60	86.50	60.20	56.40	75.10	74.20
Manager	54.84	60.17	41.48	53.47	69.00	72.80	67.90	69.00	69.10
Owner	68.80	67.28	52.91	65.83	81.40	76.50	83.10	75.00	76.90

Source: Authors' own calculations