Why Less?

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WORKING PAPER:

'Why Less?'
The gendered aspects of small- and medium-sized enterprise[1] (SME) ownership under Economic Transition

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Abstract

This paper explores the gendered influence on SME development under economic transition in Lithuania. Previous studies have shown that male and female business owners are more different than similar in terms of personal and business characteristics (Brush 1992). An analysis of 332 SME owners in Lithuania using descriptive statistics and regression analysis indicates that there are significant differences not only in objective criteria such as business size and business turnover but also in terms of subjective criteria such as perceived business financial 'success' and general business 'success'. Gendered expectations such as norms, values and social expectations (i.e. informal rules) that have been internalized or continue to exert external pressure seem to be at the heart of this discrepancy.

Keywords: SMEs, gender, transition economies, Lithuania, entrepreneurship

1. Introduction

In this paper, I use data from the Litsme survey to look at the gendered aspects of business size, turnover, financial success, planned business growth and business success amongst small- and medium-sized enterprise (SME) owners in Lithuania. SMEs have become an important area of study since they account for most of the entrants, exits, growth and decline of private businesses in OECD countries (OECD 2000a). As a result, they contribute considerably to research and development (R&D) and innovation. In OECD countries, SMEs make up 95 percent of all enterprises and account for 60 - 70 percent of all jobs. Though most business owners are men, currently female business owners make up one-fourth to one-third of the total business population in the OECD countries (OECD 2000b). In some countries such as in the USA, female business start-ups are outnumbering male business start-ups

(NFWBO 2002). It can be argued that some of the main contributing factors to the phenomenal increase of female entrepreneurs are related to more positive attitudes towards women as active economic agents. These changes have resulted in the overall increase of women in the labor force, increased educational access for women and increased social acceptability for women to start their own businesses. In addition, increasing numbers of female business owners has also been attributed to continuing discrimination of women at higher decision-making levels (i.e. the glass ceiling) as well as the inadequacy of paid employment to accommodate unpaid labor responsibilities such as childcare (NFWBO 2002).

Analysis of the number of female SME owners in Lithuania indicates that there are considerably fewer female SME owners than male SME owners. As table 1 shows, the percentage of female SME owners in Lithuania is comparable to the percentage of female business owners in both advanced western countries and transition countries. This is striking since it seems to indicate the existence of deeply rooted gendered social norms and values that transcend economic developments. A deeper layer of values, norms and expectations (i.e. gendered roles) seems to inform the actions of men and women even during the profound social, political and economic changes that characterize economic transition. In addition, it seems that women who want to become entrepreneurs in both advanced and transitional economies are faced by similar external barriers such as lack of financing, exclusion from male-dominated informal networks and the social attitude that business ownership is a male activity. Many of these external barriers are not formal barriers such as discriminatory laws or regulations but related to informal barriers since they are based on cultural norms, values and customs.

Various studies have shown that there are differences between male and female SME owners in OECD countries (Goeffee & Scase 1985; Carter & Cannon 1992; OECD 2000a; OECD 2000b) and also in transition countries (Zapalska 1997; Glas & Petrin 1998). In general, women owned businesses are found to be more different than similar to male owned businesses (Brush 1992:15). These differences seem to be present regardless of economic context. An analysis of external barriers to SME business owners in Lithuania indicates that there is no significant difference between their effect on female or male SME owners (Aidis 2002). However, no comprehensive

study comparing the personal and business characteristics of SME owners has been carried out in Lithuania[2]. By analyzing the descriptive statistics of the Litsme survey data collected on SME owners in Lithuania and using a combination of regression models, this paper hopes to shed light on the gendered[3] aspect of SME development in terms of both personal and business characteristics.

Table 1: Percentages of female SME[1] owners in selected countries

Country	Data year	Female SME owners
Advanced western countries (a selection)		
USA[2]	1999	38
Canada[3]	1990 – 1999 average	37
The Netherlands[4]	1990 – 1999 average	30.5
Portugal[5]	1990 – 1999 average	41
Germany[6]	1990 – 1999 average	27
Finland[7]	1990 – 1999 average	33
Transition countries		
Lithuania[8]	1999	34
Latvia[9]	1997	24
Estonia[10]	1996	24
Poland[11]	1990 – 1999 average	39
Hungary[12]	1990 – 1999 average	31.5
Czech republic[13]	1990 – 1999 average	27
Bulgaria[14]	1998	26
Russia[15]	1996	21
Romania[16]	1997	26

The structure of this paper is as follows. Section two provides a further description of studies done on male and female business owners in advanced western economies and in transition countries from which we develop our study's hypotheses. Section three describes the Litsme survey data collection methods and some general survey characteristics. Section four presents an overview of the similarities and differences

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[1] SME definitions differ amongst countries so the data is not completely comparable.
[2] NFWBO (National Foundation for Women Business Owners) www.nfwbo.org
[3] OECD Labor Force Statistics (2000)
[4] ibid.
[5] ibid.
[6] ibid.
[7] ibid.
[8] Not only SMEs, this percentage includes all female business owners (Lithuanian Department of Statistics 2000).
[9] For actual data sources for Bulgaria, Latvia, Estonia, Russia and Romania please refer to Unicef (1999:103)
[10] ibid.
[11] OECD Labor Force Statistics (2000)
[12] ibid.
[13] ibid.
[14] Unicef (1999:103)
[15] ibid.

between male and female SME owners based on descriptive statistics. Section five presents the regression methods used and section six presents our regression results. A discussion of the results is provided in section seven. This paper ends with a conclusion in section eight.

2. Personal and business characteristics of male and female business owners

Our comparison of the general personal and business characteristics of male and female SME owners in Lithuania is limited to six main issues: sector, business size, turnover, planned business growth, business financial success and general business success. Other studies have shown that female business owners[4] most often start businesses that are in the 'traditional' service sectors such as retail trade, hotels and catering (Schrier 1975; Smith, McCain & Warren 1982; Hisrich & Brush 1983; Cuba, Decenzo & Anish 1983; Scott 1986; Neider 1987; van Uxem & Bais 1996; OECD 2000a; Du Rietz & Henrekson 2000). However, increasingly more female business owners are becoming involved in less traditional service sectors such as communications, finance, real estate, etc. (OECD 2000). Studies done in economic transition countries such as Poland (Zapalska 1997) and Slovenia (Glas & Petrin 1998) have found that female business owners tend to be most prominently represented in the service sector. In terms of business size and turnover, a number of studies have indicated that female businesses tend to be smaller than male owned businesses and have a lower business turnover (Schrier 1975; Schwartz 1976; Welsch & Young 1982; Geoffee & Scase 1983; Hisrich & Brush 1986; Chaganti 1986; Longstreth et al. 1988; Smith et al. 1982; Cuba et al. 1983; Scott 1986; Neider 1987; Du Rietz & Henrekson 2000).

The differences between the financial performance of male and female owned businesses (van Uxem & Bais 1996) also suggest that profit and growth may not be the main goal of female owned businesses as it is with male owned businesses (Brush 1992:14). For example, Carter & Cannon (1992) suggest that female entrepreneurs tend to run their businesses so that the interests of the immediate family do not conflict with the business. Further a study by Du Rietz & Henrekson (2000) on female entrepreneurs in Sweden found significantly lower expectations among female

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[16] ibid.

entrepreneurs for future growth. Given the results of previous studies in advanced western countries and in countries undergoing economic transition, our paper will focus on the following six hypotheses that test for a gendered effect on business sector, size, turnover, financial success and business success of the owner.

Hypothesis 1: There will be a significant difference in the types of business activities male and female SME owners engage in. Significantly more female SME owners will be engaged in trade and other services than male SME owners.

Hypothesis 2: Female SME owners will have significantly smaller businesses (in terms of number of employees) than male SME owners.

Hypothesis 3: Female SME owners will have significantly lower business turnover than male SME owners.

Hypothesis 4: Given the significant difference between male and female SMEs in terms of sector, size and turnover (as expected by hypotheses 1-3), the evaluation of financial success should be significantly less for female SME owners than for male SME owners.

Hypothesis 5: Given the significant difference between male and female SMEs in terms of sector, size and turnover (as expected by hypotheses 1-3), the plans for business growth should be significantly less for female SME owners than for male SME owners.

Hypothesis 6: Female SME owners will show significantly less business success than male SME owners.

Further, since our study analyzes gender effects in an environment of 'transition' it is of interest to compare the effect of the transition process on male and female business owners. We can approximate this effect by comparing two groups of SME owners: those who started their businesses before or in 1994 and those started their businesses after 1994. In general, the period before 1994 was characterized by lack of regulations and generally 'chaotic' market development whereas after 1994 the general business

environment became increasingly more stable and arguably over-regulated. By comparing the characteristics of male and female SME owners in these two distinct periods, we hope to obtain a clearer indication which SME characteristics are most likely gender-based and which SME characteristics are most likely related to the transitional environment.

We use both descriptive statistics and regression models to test our hypotheses. Hypothesis one is tested by analyzing the survey's descriptive statistics. Hypotheses two through six are tested separately using: ordinary least squares (OLS) to test for business size (hypothesis two), an ordered probit model to test for business turnover (hypothesis three), and logit regression models to test for business financial success (hypothesis four), planned business growth (hypothesis five) and business success (hypothesis six).

3. Litsme Survey

Due to the lack of available and reliable data on SME owners in Lithuania, we collected our own survey data (Litsme survey) from September - December 2000. Questionnaires were sent out to private business owners throughout Lithuania, most of who were members of an entrepreneurship organisation[5]. The response rate was quite high for mail surveys at fifty percent[6]. Of the 505 respondents, 332 were SME business owners. A SME business owner met the following criteria: they had their own business, it was still in operation, they had less than 50 employees[7] and their main business activities was not in the agriculture sector. The Litsme survey contained a total of fifty questions regarding business and personal characteristics.

As with most surveys, the Litsme survey has its limitations. First of all, since most respondents were members of an entrepreneurship organization, this may have resulted in a bias for businesses that are older (i.e. already established) and have higher turnovers than the average SME business in Lithuania. Secondly, our data is based on a static study, and so captures at best 'certain aspects of reality at a moment in time' (Johnson & Loveman 1995:107). This may have resulted in a bias excluding high growth businesses, the so-called 'gazelles' (Birch 1979) since only businesses that stayed within the small and medium size category (less than 50 employees) are retained in the sample. Thirdly, it is likely that business owners who were doing

poorly or on the verge of bankruptcy did not take the time to respond to our questionnaire and therefore there may be a bias for businesses that are doing better than the average Lithuanian SME. Fourthly, it is also possible that a percentage of respondents did not mark their true opinion when filling in the questionnaire. However, we assume this percentage is small and does not affect the overall results. Further, we assume that the subjective responses of SME owners are not simply an expression of optimism on the part of the respondent but capture the subjective reality informed by the experienced business knowledge of our respondents.

In terms of our samples characteristics, approximately three-fourths of the SME respondents were male (see appendix, table 2). The vast majority of the SME respondents were highly educated which is also a characteristic observed in other transition economies (Smallbone & Welter 2001). More than forty percent of the SME respondents were engaged in either retail or wholesale trade and thirty percent were engaged in either personal or business services. There was a roughly even division of SMEs that recorded a yearly turnover of less than 500 000 Lt (approximately $125 000 USD) in 1999 to those that recorded more than 500 000 Lt turnover in 1999. The majority of SME respondents were located in one of the three major cities in Lithuania (Vilnius, Kaunas, Klaipeda)[8]. On average, SME owners had 13 employees and had been in business for six years.

When comparing our survey's sample characteristics to those obtained through a survey of private businesses[9] conducted in 1999 by the Lithuanian Department of Statistics (Jancauskas 2000), we find both similarities and differences. The Lithuanian Department of Statistics survey (LDSS) gives the overall percentage of male SME owners in Lithuania to be approximately 66 percent in 1999 (ibid.). Our sample contains more male SME respondents. Further the average age of our respondents is older at 43 years of age, whereas the LDSS survey respondents average age for both male and female respondents is between 31 – 40 years of age. Level of education is the most striking difference. Whereas 69 percent of the Litsme survey respondents had a university or higher education, only 29 percent of the LDSS survey had a university or higher education. This bias seems directly related to our survey sources i.e. members of entrepreneurial organizations. It seems that more highly educated individuals will tend to become members of entrepreneurial organizations in

Lithuania than the general business owner population. Further most respondents from both surveys were located in large cities[10] (49 percent in the LDSS survey and 56 percent in the Litsme survey). A higher percentage of SME owners in the Litsme survey were engaged in retail trade[11] (36 percent for the LDSS survey and 42 percent for the Litsme survey) and in the manufacturing sector (14 percent for the LDSS survey and 22 percent for the Litsme survey).

4. Male and female SME owners in Lithuania

The similarities and differences between male and female SME owners in Lithuania were measured using t-tests and the Pearson's correlation tables. A summary of similarities and differences between male and female SME owners is shown in chart 1. Correlation tables and significance charts can be found in the appendix, table 3.

4.1 Similarities

Age, education and native language. As already noted, the majority of male and female SME owners have a university education (69 percent). Most male and female SME owners were between 30 -45 years of age. However a higher percentage of male SME owners (34 percent) were older than 45 years of age as compared to female SME owners (26 percent). Few male or female SME owners had been employed in the private sector before starting their business (17 percent) (see appendix, table 4).

Business characteristics. Though more male SME owners had previous work-related management experience, this was not a significant difference between male and female SME owners. Also, the vast majority of female and male SME owner started their businesses from 'scratch'. Only a small percentage started businesses from privatized assets or existing state-enterprise assets or facilities. Further, there were no significant differences found between male and female SME owners in terms of: location of business (95 percent located in the larger cities and urban areas), family members as employees (51 percent) or home-based business (only 12 percent of the businesses are home-based). More than 85 percent of both male and female SME owners responded that their business is their main source of income. Though more male SME owners were exporting either goods or services as part of their business, this difference was not statistically significant. In addition, though more female SME

owners were engaged in retail trade or other services[12], this difference was not statistically significant (see appendix, table 5).

Chart 1: Similarities and differences between male and female SME owners in Lithuania

Similarities between male and female SME owners:	How female SME owners differ:
	Number of SMEs • Fewer SME owners are women
Personal characteristics: • Between 30 - 45 years of age • University or higher education • Native language (Lithuanian) • Little previous work experience in the private sector	Personal characteristics: • Female SME owners have less prior work-related management experience • Fewer female SME owners are married • A small but significant percentage of female SME owners pessimistic about Lithuania's economic future
Business characteristics: • Business started from scratch • Majority employ family members • Few home-based businesses • Majority located in urban areas • Exporting goods and/or services • Business as main source of income • Businesses in other services or retail trade	Business characteristics: • Female SME owners recorded a lower annual business turnover (1999) than male SME owners • Majority of female SME owners had sole proprietorships • Female SME owners had fewer employees (full-time, permanent contract) • Business earnings for the majority of female SME owners not sufficient • Fewer female SME owners imported goods and/or services than male SME owners
Business motivations: • Pull factors: Always wanted to have their own business • Push factors: Economic necessity Business Ethics • High percentage under report earnings • High percentage give bribes • Few pay for informal business protection	

Motivation. In terms of motivations to start a business, both male and female SME owners indicated pull factors such as "always wanted to have my own business" and push factors such as "economic reasons" as the main reasons for starting a business. More female SME owners also chose "easier to combine home/work responsibilities" than male SME owners but this was not statistically significant (see appendix, table 6). This result is contrary to the results of a number of other studies which indicate

that women start their own businesses because it is easier to combine home and work responsibilities (Geoffee & Scase 1983; Scott 1986; Chaganti 1986; Kaplan 1988; Holmquist & Sundin 1988; Scherer et al. 1990; Brush 1990).

Under-reporting, propensity to bribe and need for business protection. Due to the sensitive nature of all three of these issues, we asked respondents to indicate what was the common practice amongst other firms in their industry. However, we presume that the respondents most often choose their responses based on their own experiences and with caution, we believe that the responses can be interpreted as indicating the SME owner's own behavior[13]. In all three cases, female and male SME owners showed similar response patterns. Over 45 percent of both male and female SME owners under-report their business earnings, more than 40 percent of male and female SME owners give bribes but less than 30 percent make informal payments for business protection (see appendix, table 7).

4. 2 Differences
Less married, less optimism. Most male and female SME owners were married, but male SME owners were significantly more likely to be married than female SME owners. A larger percentage of female SME owners were divorced (15 percent as compared with 5 percent for men) or single (8 percent as compared to 1 percent for male SME owners). However, these results could be inherently biased since it is possible that married male SME owners claim to be SME owners when in fact they may be co-owners with their wives. Or it could also be the case that wives are more likely than husbands to assist their spouses in their private businesses then vice versa. This may be one of the reasons why significantly more male SME owners are married than female SME owners. However, it could also be possible that female SME owners start their own businesses more often when they are not married or that their marriages cease due in part to their businesses activities. Further, though the majority of both female and male SME owners felt that the general economic situation in Lithuania will improve (52 percent and 63 percent respectively) significantly more female SME owners responded that they did not know if the economic situation in Lithuania would improve (20 percent versus 12 percent for male SME owners) (see appendix, table 8).

Business characteristics

In Lithuania, female SME owners tend to more often start sole-proprietorships (52 percent)[14] while the majority of male SME owners have corporations (55 percent)[15]. In general, female SME owners work fewer hours[16] (22 percent worked 35 hours or less a week), and have a lower turnover than male SME owners (69 percent of female SME owners reported an annual turnover in 1999 that was no more than USD 125,000. -). Female SME owners employed fewer workers (average number of employees for male SME owners was 14 while the average number of employees for female SME owners was 10) and also had less full-time employees, or employees with either permanent or temporary work contracts (see appendix, table 9).

When asked if they were earning enough income to cover their living expenses, female SME owners more often replied that their business earnings were not sufficient or completely insufficient (51 percent), while the majority of male SME owners (67 percent) responded that they earned sufficient or more than sufficient income from their businesses. In terms of importing, more male SME owners (45 percent) were importing goods and/or services than female SME owners (26 percent).

As our descriptive statistics indicate, there is not a statistically significant difference between male and female SME owners in terms of business sector. We therefore *reject our first hypothesis* that female SME owners will be significantly more represented in the services sector than male SME owners. The remaining five hypotheses will be analyzed using regression models in the following section.

5. Regression Analysis

In order to test our remaining five hypotheses we used OLS, ordered probit and logit regression models on five dependent variables: business size (hypothesis two), business turnover (hypothesis three), planned business growth (hypothesis four), business financial success (hypothesis five) and business success (hypothesis six) (see appendix, table 10 for a description of dependent variables). Independent explanatory variables were chosen based on theory, intuition and significance and test the effect of personal and business characteristics on our dependent variables. Personal characteristics such as age, educational background, previous work experience and previous management experience were included in our models as well as motivation

to start a business (economic reasons). The influence of business characteristics such as location, type of business and home-based business on the dependent variable were also included. Further, our models contained business-related characteristics such as hours worked at the business and the influence of additional employment (see appendix, table 1 for a description of the independent variables).

6.1 Estimation and Results

Business Size. Business size is a continuous dependent variable so an ordinary least squares (OLS) model was used in order to test our second hypothesis. Our estimation model is given in figure 1.

Figure 1: Estimation model

$$\text{Log BS} = \alpha + \beta_1 \text{SEX} + \beta_2 \text{AGE} + \beta_3 \text{AGE2} + \beta_4 \text{BC} + \beta_5 \text{MC} + \beta_6 \text{SCR} + \beta_7 \text{ECON} + \beta_8 \text{BF1994} + \beta_9 \text{EDU} + \beta_{10} \text{EXP} + \beta_{11} \text{MNG} + \beta_{12} \text{SOLE} + \beta_{13} \text{HRS} + \beta_{14} \text{ADD} + \beta_{15} \text{TR} + \beta_{16} \text{MF} + \beta_{17} \text{SER}$$

Where: BS = Business size; AGE2 = Age squared; BC = Big city; MC = Medium city; SCR = Scratch; Econ = Business – economic reasons; BF1994 = Before 1994; EDU = University education; EXP = Previous job-related experience; MNG = Previous management experience; SOLE = sole proprietorship; HRS = Business work hours; ADD = Additional employment; TR = Trade; MF = Manufacturing; SER = Other services

As table 12 shows, for the total survey sample, sex is strongly and significantly negatively associated with business size. In our sample, female SME owners had significantly smaller businesses than male respondents. Further business size was significantly larger for businesses started before 1994. In addition, business size was significantly larger for older SME owners, SME owners not located in big cities and for those SME owners who did not start their businesses from scratch[17]. Also individuals who started their businesses for economic reasons had a negative effect on business size. When we control for SME owners with no employees (i.e. self-employed), the effect of SME owner becomes insignificant but all other variables remain significant[18]. Since our results indicate that sex is significant for business size and that female SME owners have significantly smaller businesses than male SME owners, *we do not reject our second hypothesis.*

Table 12: OLS regression Business size (n = 326)

Variables	Coefficient	SE	Z scores
Sex	-0.38	0.13	-2.85***
Age	0.08	0.05	1.74*
Age2	-0.00	0.00	-1.87*
Big city	-0.38	0.14	-2.75***
Medium city	-0.23	0.18	-1.23
Scratch	-0.47	0.15	-3.17***
Business - economic reasons	-0.30	0.13	-2.29**
Before 1994	0.41	0.14	2.92***
Constant	0.96	1.06	0.89

R squared: 0.12
Based on robust standard errors
Probability values: *** = p value at 1% test level; ** = p value at 5% test level: * = p value at 10% test level

Business Turnover

Since the dependent variable business turnover is a categorical and ordered variable, we used an ordered probit model in order to test our third hypothesis. Further we assume that business turnover can be used to indicate the level of a business's profitability. The estimation model used is shown in figure 2:

Figure 2: Estimation model

$$BT = \alpha + \beta_1 SEX + \beta_2 AGE + \beta_3 AGE2 + \beta_4 BC + \beta_5 MC + \beta_6 SCR + \beta_7 ECON + \beta_8 BF1994 + \beta_9 EDU + \beta_{10} EXP + \beta_{11} MNG + \beta_{12} SOLE + \beta_{13} HRS + \beta_{14} ADD + \beta_{15} TR + \beta_{16} MF + \beta_{17} SER$$

Where: BT = Business turnover; AGE2 = Age squared; BC = Big city; MC = Medium city; SCR = Scratch; Econ = Business – economic reasons; BF1994 = Before 1994; EDU = University education; EXP = Previous job-related experience; MNG = Previous management experience; SOLE = sole proprietorship; HRS = Business work hours; ADD = Additional employment; TR = Trade; MF = Manufacturing; SER = Other services

The results indicate that sex is significantly associated with business turnover. As we see in table 13, males have a significantly higher probability of generating higher business turnover than female SME owners. In general, businesses engaged in trade had a higher probability for generating a higher turnover than the sample as a whole. SME owners who had a sole proprietorship were also significantly associated with a higher probability for lower turnovers. However, SME owners with a university education and those SME owners who worked at their businesses full-time (36 hours or more a week) had a higher probability for a higher business turnover. No transition effect was found, i.e. there was no significant difference between businesses started before or after 1994. Given our model's results, *we do not reject our third*

hypothesis[19]. In addition, when we controlled for self-employed SME owners (business owners with no employees), business type i.e. sole proprietorships was no longer significant.

Table 13: Ordered probit model – Business Turnover (n = 321)

Variables	Coefficient	SE	Z scores
Sex	-0.72	0.14	-5.11***
Trade	0.77	0.33	2.36**
Manufacturing	0.42	0.34	1.25
Other services	0.07	0.34	0.22
University education	0.33	0.12	2.64***
Sole proprietorship	-0.55	0.13	-4.40***
Business hours worked	0.71	0.19	3.74***
Before 1994	0.13	0.15	0.88

Pseudo R squared: 0.11
Based on robust standard errors
Probability values: *** = p value at 1% test level; ** = p value at 5% test level: * = p value at 10% test level

Business financial success

Since our dependent variable is a dummy variable, we use a logit model in order to test our fourth hypothesis. The estimation model used is given in figure 3.

Figure 3: Estimation model

$$BFS = \alpha + \beta_1\,SEX + \beta_2\,AGE + \beta_3\,AGE2 + \beta_4\,BC + \beta_5\,MC + \beta_6\,SCR + \beta_7\,ECON + \beta_8\,BF1994 + \beta_9\,EDU + \beta_{10}\,EXP + \beta_{11}\,MNG + \beta_{12}\,SOLE + \beta_{13}\,HRS + \beta_{14}\,ADD + \beta_{15}\,TR + \beta_{16}\,MF + \beta_{17}\,SER$$

Where: BFS = Business financial success; AGE2 = Age squared; BC = Big city; MC = Medium city; SCR = Scratch; Econ = Business – economic reasons; BF1994 = Before 1994; EDU = University education; EXP = Previous job-related experience; MNG = Previous management experience; SOLE = sole proprietorship; HRS = Business work hours; ADD = Additional employment; TR = Trade; MF = Manufacturing; SER = Other services

Our results show that sex is a highly significant variable for explaining the probability for financial success. As table 14 shows, male SME owners have a higher probability of greater financial success than female SME owners. More work hours spent at the business (36 hours a week or more) and previous work-related management experience have a positive effect on the probability for financial success while additional employment (in conjunction with private business) had a highly significant negative effect on the probability for financial success. Business sector had no significant effect on our model. No transition effect was found, i.e. there was no

significant difference between businesses started before or after 1994. When we controlled for self-employed individuals, the significance levels of all the independent variables remains.

Table 14: Logit regression – Business 'financial' success

$$Y_1 \begin{cases} 1 = \text{business is a 'financial' success } (n = 189) \\ 0 = \text{business is not a 'financial' success } (n = 143) \end{cases}$$

Variables	Coefficient	Z scores
Sex	-0.67	-2.57**
Additional employment	-2.09	-3.51***
Business work hours	1.35	2.17**
Previous management exp	0.44	1.85*
Trade	-0.06	-0.11
Manufacturing	0.30	0.51
Other services	-0.24	-0.43
Before 1994	-0.14	-0.48
Constant	0.70	1.17

Pseudo R squared: 0.07
Based on robust standard errors
Probability values: *** = p value at 1% test level; ** = p value at 5% test level: * = p value at 10% test level

Our results indicate that the probability that a business is a 'financial' success is significantly less for female SME owners. Therefore *we do not reject our fourth hypothesis*[20].

Planned Business Growth

Our dependent variable to test planned business growth is a dummy variable so we used a logit regression model to test our fifth hypothesis. Our regression model is based on the estimation model given in figure 4:

Figure 4: Estimation model

$$BG = \alpha + \beta_1 SEX + \beta_2 AGE + \beta_3 AGE2 + \beta_4 BC + \beta_5 MC + \beta_6 SCR + \beta_7 ECON + \beta_8 BF1994 + \beta_9 EDU + \beta_{10} EXP + \beta_{11} MNG + \beta_{12} SOLE + \beta_{13} HRS + \beta_{14} ADD + \beta_{15} TR + \beta_{16} MF + \beta_{17} SER$$

Where: BG = Business growth; AGE2 + Age squared; BC = Big city; MC = Medium city; SCR = Scratch; Econ = Business – economic reasons; BF1994 = Before 1994; EDU = University education; EXP = Previous job-related experience; MNG = Previous management experience; SOLE = sole proprietorship; HRS = Business work hours; ADD = Additional employment; TR = Trade; MF = Manufacturing; SER = Other services

As shown in table 15, sex was not a significant determinant for planned business growth. Instead, we find that the probability of business growth is significantly affected by big city location, businesses sector (manufacturing and trade), a higher business turnover and a larger business size. Also SME owners with a university education, who started their businesses from scratch and who had previous work-related experience in their business area had a significantly higher probability for business growth than the sample as a whole. No transition effect was found, i.e. there was no significant difference between businesses started before or after 1994. When we control for self-employed individuals business size is no longer significant and sex remains insignificant. In sum, our model does not show the probability of planned business growth is significantly affected by SME owner sex. *Therefore we reject our fifth hypothesis[21]*.

Table 15: Logit regression – Business Growth

$$Y_1 \begin{cases} 1 = \text{plans for business growth } (n = 125) \\ 0 = \text{no plans for business growth } (n = 207) \end{cases}$$

Variables	Coefficient	Z scores
Sex	0.04	0.15
Big city	0.74	2.37**
Medium city	0.54	1.43
Trade	1.02	2.06**
Manufacturing	1.09	2.08**
Other services	0.15	0.32
University education	0.72	2.68***
Scratch	0.76	2.30**
Previous experience	0.71	2.70***
Business size (log)	0.45	3.85***
Before 1994	-0.19	-0.56
Constant	-2.91	-3.79***

Pseudo R squared: 0.10
Based on robust standard errors
Probability values: *** = p value at 1% test level; ** = p value at 5% test level: * = p value at 10% test level

Business Success

A logit regression model was also used to test our sixth hypothesis. The estimation model used is given in figure 5.

Figure 5: Estimation model

$$BSuc = \alpha + \beta_1\,SEX + \beta_2\,AGE + \beta_3\,AGE2 + \beta_4\,MC + \beta_5\,SC + \beta_6\,SCR + \beta_7\,ECON + \beta_8\,BF1994 + \beta_9\,EDU + \beta_{10}\,EXP + \beta_{11}\,MNG + \beta_{12}\,SOLE + \beta_{13}\,HRS + \beta_{14}\,ADD + \beta_{15}\,TR + \beta_{16}\,MF + \beta_{17}\,SER$$

Where: BSuc = Business success; AGE2 = Age squared; MC = Medium city; SC = Small city; SCR = Scratch; Econ = Business – economic reasons; BF1994 = Before 1994; EDU = University education; EXP = Previous job-related experience; MNG = Previous management experience; SOLE = sole proprietorship; HRS = Business work hours; ADD = Additional employment; TR = Trade; MF = Manufacturing; SER = Other services

As table 16 indicates, sex seems to be a significant determinant for business success amongst SME owners. Females seem to evaluate their businesses as less successful than male SME owners. SME owners, who are located in medium-sized cities and have had previous work-related experience had a higher probability for exhibiting business success. University education is especially strongly associated with the probability for business success. No transition effect was found, i.e. there was no significant difference between businesses started before or after 1994. When we control for self-employed individuals, sex is insignificant while all other model variables remain significant. Given the fact that our results indicate that the probability was significantly greater for female SME owners to exhibit less business success than male SME owners, *we do not reject our sixth hypothesis[22]*.

Table 16: Logit regression – Business success

$$Y_1 \begin{cases} 1 = \text{business is 'successful'}\,(n = 233) \\ 0 = \text{business is not considered 'successful'}\,(n = 99) \end{cases}$$

Variables	Coefficient	Z scores
Sex	-0.49	-1.82*
Medium city	0.72	1.82*
Small city	0.17	0.54
Previous experience	0.58	2.17*
University education	0.74	2.70***
Manufacturing	0.66	1.19
Trade	-0.05	-0.10
Other services	-0.26	-0.51
Before 1994	0.19	0.58
Constant	-0.07	-0.11

Pseudo R squared: 0.06
Based on robust standard errors
Probability values: *** = p value at 1% test level; ** = p value at 5% test level: * = p value at 10% test level

In general, our R squared values were quite low for our regression models indicating that the explanatory power of some of our variables is significant but our regression models do not capture all possible significant independent variables.

6. Discussion

According to our data, male and female SME owners in Lithuania are similar in terms of personal characteristics such as age, education, native language and private sector employment experience. Male and female SME owners also exhibit a similar propensity to start their businesses from scratch, employ family members, start home-based businesses and locate in urban areas. Further, male and female SME owners are both heavily engaged in the service sector. Their motivations for starting a business and business ethics are also similar.

We had expected to find significant differences between male and female SME owners in terms of business activities but our data did not substantiate our initial expectations. As a result, *we reject our first hypothesis* that there would be a significant difference between business sectors for male and female SME owners. The majority of female SME owners are engaged in the service sector, but that holds true also for male SME owners. Further analysis of existing studies reveals that our expectation may have been misinformed. Oftentimes, studies on female business owners provide no comparative data, thus providing the misleading interpretation that female business owners are more often engaged in the service sector –than male business owners. However other studies have shown that women tend to be over represented in personal services while male business owners are over represented in financial services (OECD 1986). It may also be important to distinguish between types of service sector activities. In any case, in most countries, SME owners are highly represented in the service sector regardless of the owner's sex.

In our regression analysis, we find that both business size, turnover and business financial success are significantly lower for female SME owners whereas we do not find a similar effect for planned business growth. Further, for business success, we find that significance of sex is related to business size[23]. When we control for self-employed SME owners (no employees) then there is no significant difference between male and female SME owners. As a result, *we do not reject our second, third, fourth*

and sixth hypothesis but reject our fifth hypothesis. The probability that female SME owners will have smaller businesses, lower business turnovers and are less satisfied with their business earnings is significantly higher than for male SME owners. However, there is no significant difference between the responses of male and female SME owners in terms of business growth and business success (when we control for the self-employed). This seems to indicate that motivation levels and commitment of male and female SME owners are similar when they have employees yet their business outcomes in terms of size and turnover are different. The probability that female SME owners will increase their business size or turnover as measured by planned business growth is not significantly different from male SME owners. But the actual increase in terms of either additional employees or additional turnover seem lower and less for female SME owners.

Why would women necessarily have smaller businesses, lower business turnover and less business income than men? Both external and internal factors seem likely to influence this process. External factors include the discrimination against women and exclusion of women from influential formal and informal networks which occurred even during the so-called 'egalitarian' Soviet system (Bridger et al. 1996:120). The general importance of networks for business development has been shown in a number of studies (Birley et al. 1991) and the exclusion of women from 'old boy's networks' in various countries has been shown to create a barrier for female business development (Gould & Parzen 1990; OECD 1998). Women tend to engage in smaller networks consisting primarily of women (Brush 1992). Not having access to larger informal networks can reduce a female business owner's access to capital, information, potential partners, customers and/or clients. Therefore it seems that the internalization of the gendered norms, values and expectations of society is a likely factor influencing the discrepancy between male and female businesses. Other studies (Sexton et al. 1990; Stigter 1999; Verheul & Thurik 2001) have also shown that women often have different goals and objectives for their businesses than men. Often female business owners are more interested in balancing their home and work lives and less focused on purely increasing business size and profit.

Does the transitional setting breed a different type of male and female SME owner? Our results do not indicate this and fall very much in line with other studies done in

advanced western countries and other transition countries. Other studies show that there is a fundamental difference between male and female SME owners regardless of economic context. In addition, the results based on the transition context in Lithuania show that different start-up dates during the transition process (before and after 1994) have a significant effect on business size. Lithuanian male and female SME owners who started their businesses before or in 1994 have significantly larger businesses than those business started after 1994[24].

7. Conclusion

The subjective responses measuring business growth potential revealed no significant differences between male and female SME owners in Lithuania. In addition, perceived success did not differ between male and female SME owners with employees. These results combined seem to indicate that though female SME owners have smaller businesses with lower business turnover they are as committed grow their businesses as male SME owners.

Deeply embedded informal rules such as differing 'gendered' expectations for men and women in society can lead to differing economic outcomes in spite of dramatic social, economic and political changes as have occurred during the transition process. Gendered differences result from a complex process informed by both the norms and values of the individual and society. In our study, we were interested in uncovering the possible influences of the transition process on the gendered nature of SME development in Lithuania. Our analysis reveals that there are significant differences between male and female SME owners in Lithuania in terms of business size, business turnover and financial success. When comparing these results to other studies, these differences do not seem to be transition specific but seem to characterize differences between male and female SMEs regardless of economic context. Studies focusing on the characteristics of female SME owners only, however, can be misleading because they do not provide comparative data. Though literature on female business owners often highlights the participation of female business owners in the service sector, in reality, most SMEs (male or female owned) are engaged in service-related activities.

Why do women have smaller businesses, less turnover and lower business earnings? And, why are there less female SME owners? Gendered values, norms and expectations (i.e. informal rules) that have either been internalized or continue to exert external pressure seem to be at the heart of this discrepancy. In terms of SME development under transition, starting up a private business early in the transition process (before 1994) in Lithuania proves beneficial for both male and female SME owners.

Appendix

Table 1: Independent explanatory variable - definitions

Variable Name	Definition
Sex	One if female, zero otherwise.
Age	Continuous variable.
Age2	Age variable squared.
University education	One if the respondent has a university education, zero otherwise.
Business – economic reasons	One if the respondent started their business out of economic reasons (needed money), zero otherwise.
Previous experience	One if the respondent had started their business in a sector where they had previous work-related experience, zero otherwise.
Previous management exp	One if the respondents had previous work-related management experience before starting their business, zero otherwise.
Before 1994	One if the respondent started their business before or in 1994, zero otherwise.
Big city	One if the respondent's business is located in a large city (Vilnius, Kaunas, Klaipeda), zero otherwise.
Medium city	One if the respondent's business is located in a medium city (Panevezys, Siauliai, Alytus), zero otherwise.
Small city	One if the respondent's business is located in a small city (not in a big or medium city) or rural area, zero otherwise.
Scratch	One if business was started from scratch, zero otherwise.
Business size (log)	Log of number of employees.
Sole proprietorship	One if the business is a sole proprietorship, zero otherwise.
Business work hours	One if the respondent worked 36 or more hours at their business, zero if less.
Additional employment	One if the respondent had paid employment in addition to their private business, zero otherwise.
Trade	One if the business engages in trade (retail or wholesale) as their main business activity, zero otherwise.
Manufacturing	One if the business engages in manufacturing as their main business activity, zero otherwise.
Other services	One if the business engages in services other than trade (personal, business or restaurant/hotel) as their main business activity, zero otherwise.

Table 2: General characteristics of SME owner respondents

(Total number of responses given in parenthesis)

Characteristic	Category	Percent
Sex (n = 332)	Male	73
	Female	27
Education (n = 332)	University or equivalent	69
	Other	31
Sector (n = 332)	Trade[17]	42
	Other services[18]	30
	Manufacturing	22
	Other	6
Turnover 1999 (n = 321)	Up to 500 000 Lt	46
	More than 500 000 Lt	54
Location (n = 329)	Big city	56
	Medium city	17
	Small city	27
Characteristic	**Mean**	**SD**
Age (n = 326)	43 yrs.	9 yrs.
Age – female SME owners (n = 87)	42 yrs.	8 yrs.
Age – male SME owners (n = 239)	43 yrs.	9 yrs.
Number of employees (n = 332)	13.10	13.00
No. of empl. – female SME owners (n = 91)	14.29	13.47
No. of empl. – male SME owners (n = 241)	9.86	11.08
Years in business (n = 326)	6.22	4.18
Yrs. in business – female SME owners (n = 89)	5.52	2.82
Yrs. in business – male SME owners (n = 237)	6.48	4.56

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[17] Includes retail and wholesale trade activities.

[18] Includes other services such as restaurants, hotels, personal and business services.

Table 3: Pearson's correlation table

Variable	Correlation with sex[19]
Age	-0.049
Education	0.028
Native language	-0.029
Employed in state or private sector	-0.056
Work-related prior management experience	0.108
Business start- up: from scratch, etc.	0.027
Family members employed	0.029
Home-based business	-0.088
Business location	-0.059
Business as main source of income	0.053
Business sector: services	0.087
Reason for starting business (first choice)	0.078
Under reporting of business earnings	0.050
Bribing	0.057
Making informal payments for business protection	-.118
Export goods and/or services	-0.70
Married	-0.236**
Economic situation in Lithuania	0.112*
Business turnover 1999	-0.308**
Business type	-0.173**
Employees	-0.152*
Full-time employees	-0.190**
Employees on permanent contract	-0.161**
Employees on temporary contract	-0.108*
Business earnings	0.152**
Import goods and/or services	-0.168**

** = Correlation is significant at the 0.01 level (2-tailed), * = Correlation is significant at the 0.05 level (2-tailed)

Table 4: Personal characteristics of male and female SME business owners in Lithuania (in percentages)

Issue	Female business owners	Male business owners
Age (30 – 45 years of age) (n = 326)	68	58
Education (University or higher) (n = 329)	71	69
Native language: Lithuanian (n = 327)	97	96
Private sector employment experience (n = 328)	17	17

[19] Sex = 1 for females, sex = 0 for males.

Table 5: Business characteristics of male and female SME business owners in Lithuania (in percentages)

Issue	Female business owners	Male business owners
Prior work-related management experience (n = 327)	41	53
Business started from scratch (n = 331)	80	83
Employment of family member (n = 332)	52	51
Home-based business (n = 323)	17	10
Business location: urban areas (n = 329)	92	96
Business as main source of income (n = 330)	82	87
Exporting goods and/or services (n = 332)	36	43
Business Sector: services[20] (n = 330)	56	49

Table 6: Motivation of male and female SME business owners in Lithuania (in percentages) (n = 326)

Issue	Female business owners	Male business owners
Motivation: 'Always wanted to have my own business'	35	45
Motivation: 'Economic reasons'	35	34

Table 7: Propensity to bribe amongst male and female SME business owners in Lithuania (in percentages)

Issue		Female business owners	Male business owners
Reporting of earnings	100 %	15	20
(n = 327)	31 – 75%	44	46
	< 31%	2	4
	Don't know	39	30
Bribing (n = 328)	Yes	42	49
	Don't know	45	39
Pay for business	Yes	29	21
protection (n = 326)	Don't know	48	52

Table 8: Prior experience of male and female SME business owners in Lithuania (in percentages)

Issue	Female business owners	Male business owners
Civil status: married (n = 329)	70	89
General economic situation will improve (n = 325)	52	63

[20] Services include the following categories: wholesale and retail trade, restaurants and hotels and business and personal services.

Table 9: Business characteristics of male and female SME business owners in Lithuania (in percentages)

Issue	Female business owners	Male business owners
Annual business turnover (1999) no more than USD 125,000. – (n = 321)	69	38
Business type: sole proprietorship (n = 332)	52	39
Business size: 10 or less employees (n = 332)	63	51
Business with full-time employees[21] (n = 332)	69	84
Business with employees on permanent contract[22] (n = 332)	70	77
Business with employees on temporary contract[23] (n = 332)	19	26
Business earnings sufficient or more than sufficient to cover living expenses (n = 332)	49	67
Importing goods and/or services (n = 332)	26	45

Table 10: Dependent Variables - definitions

Hypothesis	Variable Name	Definition
2	Business Size	Continuous variable measuring number of employees (from 0 to a maximum of 49 employees).
3	Business Turnover	Ordinal variable indicating annual business turnover for 1999. Five categories were possible ranging from 'up to 100 000 Lt.' to 'more than 5 000 000 Lt.'
4	Business Financial Success	One if respondents state their business is their main source of income and they can live sufficiently off their business earnings, zero otherwise.
5	Planned Business Growth	One if a respondent intends to increase business size or turnover in the next five years, zero otherwise.
6	Business Success	One if a respondent intends to increase business size or turnover in the next five years, their business is their main source of income and they can live sufficiently off their business earnings, zero otherwise.

[21] Of those with employees, this indicates the percentage with full-time employees.
[22] Of those with employees, this indicates the percentage with employees on a permanent contract.
[23] Of those with employees, this indicates the percentage with employees on a temporary contract.

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NOTES

[1] Though the term "small and medium-sized enterprises" is widely used, its definition varies greatly from country to country. In Lithuania, according to a law which came into effect in January 1999, small and medium-sized enterprises are registered businesses (or patent holders) who have less than 50 employees. Further, our sample also met the following criteria: SME owners had their own business, it was still in operation and their main business activities were not in the agriculture sector. The term "business owner" is defined here as an individual who has his/her own business and is still actively involved in the daily running of the business. The author has chosen not to use "entrepreneur" to describe business owners since "entrepreneur" is frequently associated with "innovative behaviour" which may or may not be present in a business at any given time and was not explicitly tested for in the survey data used. However, when referring to other studies, the author does use the term "entrepreneur" when it was used in the original literature.

[2] The Lithuanian Department of Statistics provides basic statistical data showing the differences between female and male business owners.

[3] Gender here refers to a cognitive construct that varies culturally and greatly influences attitudes, expectations, and stereotypes for both men and women. Further, as a cognitive construct, gender roles do not necessarily reflect the reality of a given situation, but embody the ideals and different expectations for male and female behaviour. These expectations often have a strong effect on the differing roles enacted by men and women. See also Nelson (1996).

[4] There is a need for consistent and clear research methodology for studying female entrepreneurship (OECD 2000b).

[5] The Litsme survey was not based on a random sample and most addresses were obtained through the membership lists of various entrepreneurship organisations in Lithuania.

[6] A total of 1011 valid questionnaires were sent out and 505 completed questionnaires were returned.

[7] According to the official Lithuanian SME definition.

[8] A smaller percentage was located in small cities or rural areas and the smallest percentage were located in medium-sized cities (Panevezys, Siauliai, and Alytus).

[9] The survey is not limited to SMEs and three percent of the respondents are from businesses with 50 or more employees.

[10] Vilnius, Kaunas and Klaipeda.

[11] The LDSS survey includes the following additional activities under trade: automobile and motorcycle repair and personal/household repair services.

[12] Other services include wholesale trade, business services, personal services, restaurant or hotel activities.

[13] Though SME owners will be reluctant to reveal the level of their own under reporting, we presume that SME owners will most often respond based on their own experiences, and with caution we believe the responses can be interpreted as indicating the SME owner's own behavior (see Johnson, et al. 2000).

[14] A survey conducted by the author of traders at the largest informal market in the Baltics (Gariunai, Lithuania) revealed that most traders were women using renewable trading licenses (see Aidis 2002b). A license allows an individual the right to engage in legal trading activities (and various other activities) but does not allow for hired workers other than family members to assist the license holder. License holders are considered SME business owners under Lithuanian law.

[15] The legal requirements for sole proprietorship and an incorporated business are different. Sole proprietorships are easier to create but expose the business owner to total liability for business activities. Incorporated businesses require more complex set of procedures but the business 'owner' is subject to a limited liability for the business. It is generally recognized that incorporated businesses form a more advanced stage of business development than sole proprietorships.

[16] This may indicate that female SME owners prioritize time flexibility and choose to work fewer hours in their businesses than their male counterparts.

[17] Either by buying an existing business or through privatised assets.

[18] A number of variables were omitted because they did not significantly contribute to our model. These included both business characteristics such as business sector and personal owner characteristics such as education (human capital), previous work-related experience, and previous management-related work experience.

[19] A number of variables were omitted because they did not significantly contribute to our model. These included both business characteristics such as business sector and personal owner characteristics such as previous work-related experience, and previous management-related work experience.

[20] A number of variables were omitted because they did not significantly contribute to our model. These included both business characteristics such as location as well as personal owner characteristics such as previous work-related experience, and age.

[21] Further a number of variables were omitted because they did not significantly contribute to our model. These included personal owner characteristics such as previous work-related experience, and previous management-related work experience.

[22] A number of variables were omitted because they did not significantly contribute to our model. These included both business characteristics such as business sector and personal owner characteristics such as previous work-related experience and age.

[23] Sex is significant for the total sample but insignificant when we control for self-employed individuals (those with no employees).

[24] The results are based on cross-sectional data and provide no longitudinal insights. It is possible that businesses started prior to 1994 that were smaller and unsuccessful ceased their operations and therefore were not represented in the survey. This may have resulted in bias for larger businesses started before 1994 than after 1994.