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Women Entrepreneurship and Management in Norway - a Statistical Overview

by

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Abstract:

This paper presents a statistical analysis of the current situation for women and men in business. Based on the extraordinary access we have had to important Norwegian databases, the data gives the most comprehensive statistics published on operating businesses in Norway.

In general there seems to be a balance of around 20-80 percent indicating the share between women and men as actors in economic life. On average women account for 21 percent of all start-ups as recorded by the VAT Register, and women account for 18 percent of all managers as recorded by the National Firm Register. Among all firms organised as sole proprietorships women hold a 21 percent share, and also among owner-managed firms, women have a similar share.

When economic factors are considered, it is revealed that the economic importance of a business started or managed by women is less than those organised by men. Although the vast majority of all firms are small, businesses operated by women tend to be distributed even more towards the lower end of the scale than those of men. Thus, in the larger companies a very small minority of CEO positions are held by women. Among joint stock companies the percentage is just 2,2.

This tendency may also be supported by the fact that among all board chairmen, women account for no more than ten percent. When we look at Norwegian employment figures in total, it turns out that women's firms account for only 6.4 percent of all employment. On the whole, the imbalance between men and women in economic life is severe. There is a long way to go before an acceptable balance between men and women is found in Norwegian economic life.

The role of women as starters and managers of businesses are to a great extent reflected by their traditional roles in the labour market. Thus, the most important sectors for women to start and organise business are mostly in 'soft sectors' like personal services and retail. But there are also important groups of women in consultancy services and in agriculture.

Findings regarding the performance of women's firms may be in contrast to traditional perceptions of female owned businesses. First, our data indicate that the survival rate of firms started by women is slightly lower than for men. Although the differences are not very significant and the data reliability may be questioned, the difference may be explained by the propensity of women to start businesses that are more marginal than those started by men.

Second, the performance of women's firms as assessed by credit rating scores, do not confirm that women's firms are more healthy or viable in economic terms than men's firms. Although the picture is complicated, there is a tendency that economic performance of women's firms by and large is slightly more toward the low performance end of the scale.

Contents

Preface	4
1 Introduction	5
2 Income, Property and Ownership.....	7
3 Entrepreneurship and start-ups	9
3.1 Introduction to entrepreneurship	9
3.2 Total number of registrations and deregistrations	10
3.3 Start-ups by ownership, industry and gender	10
3.4 Size structure	12
3.5 Regional distribution	13
3.6 Survival rates	14
4 Management.....	16
4.1 Introduction	16
4.2 Management by type of company.....	16
4.3 Management by industrial sector.....	17
4.5 Size distribution.....	19
4.6 Economic performance.....	20
5 Owner Management.....	22
5.1 Owner-managed firms	22
5.2 Economic rating	23
6 Summary on Gender Imbalances.....	25
Appendix: Supplementary Tables	27

Preface

The purpose of this paper is to present available register based data on gender relations in economic activity. The background for the study is a Nordic project organised to provide an overview of gender related business statistics for the Nordic countries. Partly, the project will also discuss how these statistics may be improved to present a better overview of gender relations.

This discussion paper presents the Norwegian contribution to the Nordic project, and reveals the most comprehensive data that has been compiled so far on gender relations and entrepreneurs and managers in Norwegian industries.

The study was initiated by Aud Sanner, SND - the Norwegian Regional and Development Fund, who contacted our center in January 2001 and asked about the possibility of conducting a Norwegian study related to the ongoing Nordic project. The Norwegian Regional Development Fund has funded the study.

The analysis has to some extent been organised in contact with the Nordic research project, which is coordinated by Professor Paula Kyro, visiting professor at the Jönköping International Business School. However, the basic point of departure for this analysis has been the Norwegian interest in gender based statistics, as expressed by Aud Sanner, and what kind of analysis available data have made possible.

The data analysis is based on close collaboration with Tore Widding, CreditInform, who has provided access to the data bases upon which the analyses are based.

Most of the data included in this paper were presented at the Annual Conference on Women in Business at Hennie Onstad Sentret, Høvikodden on May 29, 2001.

I would like to take this opportunity to express my gratitude to Aud Sanner and SND for initiating and funding the study; to Tore Widding and CreditInform for providing access to data and for excellent advice when I was facing syntax problems when approaching the data registers, and finally to Paula Kyro and her colleagues for collaboration in the Nordic project.

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Olav R. Spilling

1 Introduction

Over the last decade there has been growing interest and concern about significant imbalances between men and women as actors in economic development. To some extent this is reflected through growing research activities on gender relations and entrepreneurship, and through a growing political debate on strategies to create a better balance between men and women in business.

However, an important aspect of the current situation is a significant lack of data that can describe the situation in detail. As stated in a previous OECD report¹ statistics in this field are generally very poor. Most available data are based on smaller surveys. Where national statistics are available, they tend to cover fragmentary aspects of women's role in business. To the extent that statistics have been available, they create a clear picture of women being in a minority position among managers and entrepreneurs.

The purpose of this paper is to present data on the current situation for women entrepreneurs and managers in the Norwegian business community. The point of departure for these analyses is previous statistical analyses undertaken by the author², which have documented severe imbalances between men and women as entrepreneurs and managers.

Keeping these analyses in mind, the expectations to the current study are not to reveal new and unknown gender based imbalances in the economy, but rather to provide an updated and to some extent more detailed picture of the situation. The current analysis also includes new types of analyses that, to the knowledge of this author, have never been carried out in this field before.

Before presenting the statistical analyses, it should be commented that this paper will not summarize current research on women entrepreneurship and management, as this has been done in previous works³, and will also be thoroughly discussed in a forthcoming book⁴. Nor is the purpose of this paper to analyze the current situation in order to develop models for discussing strategies for altering the significant imbalances between men and women. This will also be covered in a forthcoming article⁵.

The purpose of this paper is 'purely statistical', i.e. it will provide a broad and updated picture of the current situation for women and men in business. Based on the extraordinary access we have had to important Norwegian databases and with virtually unlimited opportunities for combining data between different registers, the data

¹ OECD (1998). Women entrepreneurs in small and medium enterprises. Paris, OECD.

² Cf. Spilling, O. R., Ed. (1998). *SMB 98 - fakta om små og mellomstore bedrifter i Norge*. (Facts on Small and Medium Sized Enterprises in Norway). Bergen, Fagbokforlaget.

Spilling, O. R. and N. G. Berg (2000). Gender and small business management: the case of Norway in the 1990s. *International Small Business Journal* **18**(2): 38-59.

³ See Spilling 1998 and Spilling and Berg 2000, op.cit.

⁴ Berg, N. G. and L. Foss (eds.) (forthcoming) *Kjønnsperspektiver på entreprenørskap*. (Gender Perspectives on Entrepreneurship) Oslo: Konkret.

⁵ Spilling, O. R. and L. Foss (forthcoming). Kjønn, entreprenørskap og politikk (Gender, entrepreneurship and politics). In N. G. Berg and L. Foss (eds.) op. cit.

presented here gives the most comprehensive statistics published on operating businesses in Norway.

The analyses are based on the following three different types of data:

- The VAT-Rregister⁶ administered by the tax authorities. This data register is regarded as the best source for identifying new firms – although the register is not complete due to the fact that some industries are not liable for paying VAT, and other weaknesses discussed later in the paper.
- The National Firm Register⁷ which has identified most legal economic activity in Norway. In addition to providing basic profiles of Norwegian firms, this register also makes it possible to identify the managers, board chairmen and owners of these firms.
- Data on credit rating provided by CreditInform.
- The Taxpayer Register⁸ which provides income data on Norwegian taxpayers.

These data sets provide many opportunities for analyzing gender relations in entrepreneurship and management.

⁶ In Norwegian: Momsregistret or MVA-manntallet administered by Skattedirektoratet.

⁷ In Norwegian: Foretaksregistret, which is based in the Brønnøysund-Registret.

⁸ In Norwegian: Skatteligningsdata.

2 Income, Property and Ownership

In the first part of this data presentation we will take a brief look at the distribution of net income and property in the Norwegian population. This data is not key for assessing gender relations in economic activity, but they provide a background picture of the balance between men and women in the economy. First, data on income and property reveals something about economic status and position; second, the disposal of economic means may also be of importance when considering opportunities for starting a business.

The statistics presented in Table 1 and 2 show the distributions of net income and net property for men and women. The data are based on taxation data for 1999, and include all individuals who were liable to pay tax that year, i.e. about 3.4 million people.

Analysis of the data shows that on average women had a net income of 124,000 NOK, while the average value for men was 203,000, i.e. more than 60 percent higher than that of women. When aggregating the total net income for the whole population, the total adds up to about 600 billion NOK. Women account for about 38 percent of this total, while men account for about 62 percent.

In table 2.1 the distribution of net income is presented. In accordance with the previous data, the distribution shows a significantly higher share of women than men in the lowest group, while far more men than women are in the higher income groups.

Table 2.1: Net income by gender, 1999. Data based on tax data.

	Income (1000 NOK)						(N)
	0-99	100-199	200-399	400-699	700-999	1000+	
Women (%)	47.8	36.2	14.8	1.1	0.1	0.1	1 831 538
Men (%)	28.9	32.4	31.2	6.1	0.6	0.9	1 816 058

The same tendency also characterizes data on the distribution of property. Here the data show that the distributions for men and women are closer to each other than was the situation in the previous case. However, when the total figures are taken into account, inequalities are higher. On average, women had a net property of 141,000 NOK; while men owned 267,000, i.e. fifty percent more than women. When aggregating the total net property, it adds up to 125 billion NOK, with women accounting for 35 percent of this total, and men 65 percent.

Table 2.2: Net property by gender, 1999. Data based on tax data.

	Property (1000 NOK)						(N)
	0-99	100-199	200-399	400-699	700-999	1000+	
Women (%)	71.4	10.8	9.9	5.0	1.0	1.9	1 831 538
Men (%)	68.2	7.3	10.0	7.5	2.0	5.0	1 816 058

The reason for this inequality may be found by looking at the details of the distribution. While the vast majority of Norwegians have less than one million NOK in

net property, there is a small minority – about two percent of women and five percent of men who account for a very significant share of the total property. As there are significantly more men than women in this group, this also contributes significantly to the unequal distribution in total.

The third aspect we will consider briefly is ownership. The data presented was procured from the National Firm Register, which provides information on 259,000 firms, i.e. a significant share of all Norwegian businesses, among them all the major firms. Amongst other things the register contains information about the five largest owners of each firm, including their identity and share of ownership. However, for our purposes the information is not complete, particularly for the larger companies. In most cases there are many more significant owners than the five listed. For the smaller companies, however, the information is more complete. In most cases these are owned by just a few owners, in many cases just one or two.

As the data register on ownership does not include other economic data on the firms, this register was matched with the register containing accounting data, covering about 131,000 companies for 1999. Although this number is significantly less than the previous register, it still is a significant share of all firms, and virtually all larger firms are included.

In total, owner shares worth a total of 1332 billion NOK have been identified. However, a significant portion of these owner shares are held by institutional owners. Only a smaller share of 103 billion is controlled by individuals. When focusing on individual shares, the distribution between women and men is 19.4 percent for women and 80.6 percent for men. These figures confirm an imbalance between men and women as business owners, and consequently as actors of importance in the economy.

However, the data should be handled with precautions. The following problems may be mentioned:

1. We have not tested for the representativeness of the data, especially among the larger firms, so we do not have information about how large shares of the larger firms, like most of the public firms, that are not included in the register on owners.
2. Ownership is often organised in a hierarchical way, i.e. one company may be owned by another company, which is controlled by a third company etc. This implies that many owner shares have been counted more than once, most likely leading to an overestimation of the total value of owner shares.

These problems imply that better primary data is needed to develop further insights in the value of owner shares and to identify the ‘real’ distribution in ownership between men and women. Thus, the data presented above, should be taken as a preliminary indication of the imbalance in ownership shares between men and women.

3 Entrepreneurship and start-ups

3.1 Introduction to entrepreneurship

It is beyond the scope of this paper to give a thorough discussion of the concept of entrepreneurship. It will suffice with a few brief remarks.

Entrepreneurship concerns the basic processes involved in starting up new firms. The concept is applied in many ways, but according to the classical definition provided by Schumpeter⁹, entrepreneurship is related to the act of starting a new business based on some kind of innovation. Based on this definition, it should be distinguished between entrepreneurial and non-entrepreneurial start-ups. A start-up may represent a 'new' firm in the legal sense, i.e. new registration, but the new firm may be either a genuinely new firm that is based on an innovation or what Schumpeter calls a 'new combination', or it may be based on a replication of previously developed business concepts, i.e. what is often called an imitative start-up.¹⁰

It follows from this definition that the concept of entrepreneur is related to an individual or a group of individuals, who organises the new firm. This aspect of the entrepreneur should be emphasized, as it is the central element of being an entrepreneur: organising the start-up of a new business. The concept of entrepreneur should not be confused with the concept of manager or owner. Although the entrepreneur will often be the owner as well as the manager of the new venture, formally these are different roles. To own a business is different from starting it. The act of starting a business is also different from managing it. Particularly in the long run, management will involve routine tasks that may be fundamentally different from what is typical about starting up something new.¹¹

In most data registers it will not be possible to identify new firms and entrepreneurs strictly in accordance with the concepts of entrepreneur and entrepreneurship as indicated above. That implies that the data we present, represent a compromise.

The following data on start-ups of new firms are based on the Norwegian VAT Register. This register only provides information about registrations (and deregistrations) of firms when they are formally registered as new legal units. The register does not provide information about the basis for the firm, i.e. to what extent it is based on an innovation or not, nor does it specify whether the new firm is based on a reorganisation of a previously existing firm, or is, for instance, a merger or spin-off.

Furthermore the VAT-Register does not cover all Norwegian firms. It only includes firms that pay VAT, i.e. businesses in sectors that are due to pay VAT and which have an annual sales exceeding NOK 30,000. In most sectors businesses are liable for paying VAT, but there are important sectors that so far have not been liable, like banking and insurance, cultural services, teaching, health services, research,

⁹ Schumpeter, J. A. (1934, 1996). *The theory of economic development*. London, Transaction Books.

¹⁰ The definition of entrepreneurship has been discussed in Spilling, O. R. (1998). *Om entreprenørskap*. In Spilling, OR (ed): *Entreprenørskap pånorsk*. Bergen, Fagbokforlaget.

¹¹ For further discussions on the concept of entrepreneurship see Spilling 1998, op.cit.

broadcasting and consultants- and counseling services. During the 1990s the register has included around 260-270,000 active firms.¹²

3.2 Total number of registrations and deregistrations

Table 3.1 provides an overview of firms that have been due to registration or deregistration during the 1990s. While the total number of registrations has been in the range of 25-30,000 units, the number of deregistrations has fluctuated with about 37,000 as the highest value and about 24,000 as the lowest (data for 1999 are not discussed, see table). The high number of deregistrations in 1992 is due to an economic recession in Norway that culminated at this time.

Table 3.1: Registrations and deregistrations of firms 1990-99, based on VAT-data, Norway.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 ^{*)}
Registrations	29865	29017	25834	23804	25362	26125	26806	27104	26107	23398
Deregistrations	30610	31661	37582	28696	25582	24939	23791	25180	24627	20100

^{*)} Data for 1999 are preliminary and have not been updated. The latest data from the register will usually increase significantly when updated.

For the last three years (1997-1999) data on gender and registrations are provided in Table 3.2. For approximately 80 percent of the total number of registrations it was possible to identify the person in charge of the business, i.e. person who in the public database was recorded as the formal manager of the company. This does not necessarily mean that this person is the starter of the company, as being a manager and starter may be two different things. But for the vast majority of cases we presume that the starter and the manager will be the same person.

This leaves us with data on a total of 66,000 registrations., Of these, 20.9 percent have female managers and in most cases are started by a women, while the remaining majority of the firms, 79 percent, have male managers and have probably been started by men. For the purpose of simplicity, we will characterize these firms as started by women and men respectively in the following discussion.

3.3 Start-ups by ownership, industry and gender

Table 3.2 shows the distribution of firms started by men and women by type of ownership. It follows from the data that the majority of firms started are organised as sole proprietorships, i.e. there is one person alone who owns the company. Among the female starters as many as 70 percent have chosen this form of organisation, thus sole proprietorship is the 'typical' way for women to organise their new firms. The rest of the female starters have mostly started limited companies, which is the case in about 26 percent. In the case of men, the distribution of new firms by ownership is significantly different. 54 percent have started sole proprietorships, while 42 percent

¹² Significant changes are implemented during the year 2001 as a result of the Norwegian VAT reform, but this have not affected the data presented in this report. For the future, however, the VAT-registre will provide a much more complete picutere of registrations and deregistrations.

have started limited companies. Other forms of ownership occur as well, but they include very small shares.

Table 3.2: Registrations by gender and type of ownership, accumulated data for 1997-99.

	Women (%)	Men (%)	Total (%)
Sole proprietorships	70.8	54.6	58.0
Other body corporate	3.4	3.4	3.4
Limited companies and joint stock companies	25.7	41.7	38.4
Other types	0.1	0.2	0.2
Total	100.0	100.0	100.0
Number of firms	12929	48785	61714
Distribution women-men (%)	20.9	79.1	100.0

Table 3.3 provides an overview of how the registrations by men and women are distributed across industries, and how, within each industry, the registrations are distributed on women and men. The table shows that for women, the most important sector for starting up new businesses is the retailing industry (isic 62), which includes more than one third of all new registrations by women. The second most important industry is personal services (isic 95), which have 12 percent of all new registrations, followed by primary agriculture (11) with 10 percent and producer services (83) with 6 percent of all registrations.

Table 3.3: Registrations 1997-99 by industry and gender.

Isic	Industry	Registrations			Registrations		
		Women	Men	Total	Women	Men	Total
11	Agriculture	10.4	10.7	10.7	20.4	79.6	100.0
12	Forestry	3.8	2.9	3.1	25.6	74.4	100.0
13	Fishing	0.4	2.7	2.2	3.8	96.2	100.0
21-29	Oil and mining	0.1	0.3	0.2	10.6	89.4	100.0
31	Food and beverages	1.1	0.9	0.9	24.4	75.6	100.0
32	Textiles and leather products	3.1	0.2	0.8	79.3	20.7	100.0
33	Wood and wood products	0.7	1.4	1.2	12.6	87.4	100.0
34	Paper and paper products, printing and publishing	1.6	1.5	1.5	22.6	77.4	100.0
35	Chemical products, mineral products and basic metal	0.1	0.3	0.2	8.9	91.1	100.0
36	Mineral products	0.6	0.2	0.3	39.2	60.8	100.0
37-38	Metal and metal products	0.4	3.2	2.6	3.3	96.7	100.0
39	Other manufacturing	0.4	0.3	0.3	24.5	75.5	100.0
41-42	Electricity and water supply	0.0	0.3	0.3	2.6	97.4	100.0
50-51	Construction	1.4	19.4	15.7	1.9	98.1	100.0
61	Wholesale trade	4.6	9.7	8.6	11.1	88.9	100.0
62	Retail trade	38.1	16.4	20.9	38.1	61.9	100.0
63	Hotels and restaurants	8.4	5.1	5.8	30.2	69.8	100.0
71-72	Transport and communication	2.3	8.1	6.9	6.9	93.1	100.0
81-83	Producer services	6.2	9.8	9.1	14.4	85.6	100.0
91-92	Public services, renovation	1.8	1.3	1.4	27.9	72.1	100.0
93	Social services	1.4	0.4	0.6	50.3	49.7	100.0
94	Recreation and cultural services	0.3	0.4	0.4	17.7	82.3	100.0
95-99	Personal services and other services	12.7	4.5	6.3	42.6	57.4	100.0
	Total	100.0	100.0	100.0	21.0	79.0	100.0
	Number of registrations	12929	48781	61710			

The distribution of start-ups by men differs significantly from that of women with construction as the most frequent industry with 19 percent of all start-ups, followed by retailing (16%), primary agriculture (11%), producer services (10%) and transport (8%).

When examining the distributions by gender within the different sectors, it follows that the sectors with the highest shares of women start-ups are textiles and leather products, social services, personal services, retailing and mineral products. In the first two of these sectors, textiles and social services, women hold a majority position, with more than fifty percent of all starters. However, these two sectors are relatively small sectors with a modest number of starters.

The picture alters considerably when we look at men's share of starters in different sectors. There are many sectors in which men hold overwhelming majorities. The four sectors in which they hold more than a 96 percent position are typical 'male' sectors like construction, mechanical industry, electric power and water supply and fishing.

3.4 Size structure

It is a well-known fact that most new firms start small, and in most cases they will also stay small during their whole lifetime. This is illustrated by data presented in table 4, which shows the size distribution of new firms recorded during the years 1997-99.

Employment data from the year 2000 have been applied to identify size. This implies that the age of the firms varies between one and three years at the time employment was first recorded. However, as routines for registering employment are not well developed for the very small firms, in particular those starting as self-employed or sole proprietorships, a very significant share of the starters are not associated with any employment at all. In all likelihood, the majority of these firms employ one person full-time or less.

Table 3.4: Size structure and employment shares of registrations by gender. Accumulated data for 1997-99. Employment by 2000.

Size	All start-ups	Size distribution (%) of registrations by gender		Employment shares (%) by size groups by gender	
		Women	Men	Women	Men
0, n.a.	71.1	79.7	68.9		
1-2	11.5	8.7	12.2	10.9	3.9
3-4	6.1	5.1	6.4	14.2	4.8
5-9	5.9	4.0	6.4	20.8	9.1
10-19	3.0	1.6	3.4	17.0	10.1
20-49	1.6	0.7	1.9	15.7	12.1
50-99	0.4	0.1	0.5	5.8	7.1
100+	0.3	0.1	0.4	15.5	52.9
Total	100.0	100.0	100.0	100.0	100.0
N	61714	12929	48785		

Given the limitations in the data, it still is revealed that businesses started by women by and large are smaller than those of men. However, the general picture should be kept in mind that the vast majority of all new firms are relatively small. But even so, firms started by women are smaller than those started by men. This is best illustrated by looking at the employment shares of the different size groups. The largest firms started by men contribute more than 50 percent of the total employment created by the new firms, while the share of female businesses in the same size group is only about 15 percent. That is to say: in general few new companies grow large in a short time, and the probability of a woman starting a large firm is significantly smaller than that of a man starting a large firm.

3.5 Regional distribution

There is generally little variation between the different regions of Norway regarding the share of businesses started by men and women. When calculating the shares at the county level (Table 3.5), small differences emerge. On average 20.9 percent of all registrations are by women, and the variation around this value is very small, with 18.6 percent as the lowest, and 22.9 as the highest. Oslo, as the most populous and urbanised region accounts for 21.0 percent of female starters.

Table 3.5: New registrations by gender and county. Accumulated data for 1997-99.

County	Registrations (%)		N
	Women	Men	
Østfold	21.2	78.8	3266
Akershus	20.9	79.1	6866
Oslo	21.0	79.0	8166
Hedmark	22.0	78.0	3029
Oppland	22.0	78.0	2996
Buskerud	19.8	80.2	3647
Vestfold	19.7	80.3	3120
Telemark	20.0	80.0	2235
Aust-Agder	21.1	78.9	1372
Vest-Agder	18.7	81.3	1895
Rogaland	22.1	77.9	4785
Hordaland	21.8	78.2	4879
Sogn og Fjordane	22.5	77.5	1531
Møre og Romsdal	19.6	80.4	2915
Sør-Trøndelag	21.4	78.6	3204
Nord-Trøndelag	20.6	79.4	1750
Nordland	19.6	80.4	2910
Troms	21.0	79.0	2000
Finnmark	22.4	77.6	1148
Total	20.9	79.1	61714

When aggregating the data at lower regional levels, the variation between different geographical areas will of course increase. Calculating the distribution at the municipal level¹³, the highest shares of female starters observed are about 47 percent, while the smallest shares are 10 percent. For two municipalities the share is zero. However, the highest as well as the lowest shares of female starters are found in very small and peripherally located municipalities. There is no easily observable pattern that may explain this variation.

3.6 Survival rates

The VAT-register in Norway allows for calculating survival rates of firms, as the register includes data for registrations as well as deregistrations of firms. The survival rate for a group of firms registered in one specific year is defined as the percentage of firms still 'alive' (i.e. not deregistered) after a specified number of years.

Table 3.6 provides an overview of annual survival rates for all companies registered during the 1990s. As shown, there are some fluctuations in the survival rates, but the general pattern is that the rates are in the range of:

- First year (year of start-up): 83-93%
- Second year: 69-82%
- Third year: 54-60%
- Fourth year: 47-53%

¹³ Norway has some 440 municipalities, some of them very small in terms of population.

It should be noted that the years indicated in the table are calendar years. This implies that at the end of the 'first year', i.e. the year of registration, on average the new firms are 6 months old. In spite of this low age, a significant share of the new firms have already been dissolved.

Table 3.6. Survival rates of firms registered 1990-1999.

Year of registration	Number of registrations	Survival rates (%) by year										
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
1990	29865	87.1	74.1	62.9	54.1	47.4	42.1	38.1	34.7	31.8	29.8	
1991	29017		85.7	72.5	62.1	54.8	48.1	43.3	39.1	35.5	33.1	
1992	25834			82.5	69.7	60.8	54.0	48.1	42.6	38.3	35.4	
1993	23804				84.6	72.6	63.7	56.3	49.4	44.0	40.1	
1994	25362					86.9	75.3	66.1	58.0	50.8	45.8	
1995	26125						87.7	77.0	67.3	59.1	52.8	
1996	26806							89.3	77.7	67.7	60.8	
1997	27104								90.9	80.2	71.4	
1998	26107									91.5	82.2	
1999	23398										93.4	

It would be of interest to split the data by gender to test if there are differences in the survival rates of firms started by men and women. In Norway we do not have data on the managers of firms for previous years, we depend on an analysis of surviving firms and their current managers, which does not give a correct picture of survival rates by gender.

In spite of this, data are presented in Table 2 giving an indication of survival rates for firms started by men and women. First, it may be commented that the survival rates calculated here are significantly higher than those presented in the previous table, which indicates that data on many of the new firms are missing. With this limitation, there may still be an indication that firms started by women generally have a slightly lower rate of survival than firms started by men. However, it may also be discussed to what extent these data are reliable for this kind of analysis.

Table 3.7: Survival rates of firms by gender. (See comments on data reliability in text.)

Year of registration	Women		Men	
	No. of registrations	Survival rate by end of 1999	No. of registrations	Survival rate by end of 1999
1995	3786	58.8	15234	62.9
1996	4304	63.3	15961	70.3
1997	4357	73.1	16753	78.2
1998	4484	84.4	16521	86.8
1999	4018	94.5	15138	95.6

4 Management

4.1 Introduction

In this chapter we will analyse the share of men and women in positions as managers in various sectors of Norwegian industries. The data are obtained from the National Register of Firms (located in Brønnøysund), which also includes data on managers. The statistics include data on all managers recorded as managing director where the identity of the individual is known. Although the data were registered during winter 2001, this does not mean that the data were current at this time. In all probability the data refer to the year 2000.

In total, the database contains information about 635,000 business units, among which data on the identity of the managers are available for about 535,000 units. Among these 18.4 percent of the businesses are managed by women, and 81.6 percent by men.

These figures may be a bit misleading as only one person may be recorded as the manager of a company. In some cases businesses are organised as partnerships or with other forms of joint management, which means that two or more persons participate in the management of the company on fairly equal terms. This will probably imply some kind of underestimation of the role of women in small businesses, as women often play an important part in the operation of family businesses, which may be registered in the name of their husbands.

4.2 Management by type of company,

Table 4.1 and 4.2 give an overview of the gender of the managing director and the type of firms. The vast majority of all firms are organised as sole proprietorships. The share of women managing this kind of organisation is significantly higher than that of men. Among all companies managed by women, 76 percent are sole proprietorships, while among companies managed by men, the percentage is 65. On the other hand 30 percent of the firms managed by men are limited companies, while only 19 percent of the companies managed by women belong to this category. When looking at the shares of female and male managers within types of firms, one can see that the share of women is particularly low for the joint stock companies where they only have a share of 2.2 percent.

Table 4.1: Distribution of firms by managers.

Type of firm	Female managers		Male managers		Unknown		All companies	
	Number	%	Number	%	Number	%	Number	%
Sole proprietorships	75014	76.0	282274	64.7	4713	4.7	362001	57.0
Other body corporate	2674	2.7	9828	2.3	10443	10.4	22945	3.6
Limited companies	18907	19.2	132886	30.5	57576	57.4	209369	33.0
Joint stock companies	12	0.0	522	0.1	17	0.0	551	0.1
Other	2047	2.1	10621	2.4	27489	27.4	40157	6.3
Total	98654	100.0	436131	100.0	100238	100.0	635023	100.0

Table 4.2: Managers by type of firm.

Type of firm	Female managers	Male managers	Total	(N)
Sole proprietorships	21.0	79.0	100.0	357288
Other body corporate	21.4	78.6	100.0	12502
Limited companies	12.5	87.5	100.0	151793
Joint stock companies	2.2	97.8	100.0	534
Other	16.2	83.8	100.0	12668
Total	18.4	81.6	100.0	534785

In the next two tables we present the same type of data related to the chairmen of the boards of directors. In total there are recorded 208,000 companies with a board of directors, among which the chairman is a woman in about 22,000 of the cases, i.e. 11 percent, while men occupy this position in almost 89 percent of the cases. Most firms with a board of directors are organised as limited companies. Among these the share of female chairmen is ten percent, while among the joint stock companies this percentage is just 1.3.

Table 4.3: Board chairmen by type of firm.

Type of firm	Female chairman		Male chairman		Total	
	Number	%	Number	%	Number	%
Other body corporates and sole prop.	738	3.3	5120	2.7	5858	2.8
Limited companies	18930	84.3	169,920	91.2	188850	90.4
Joint stock companies	7	0.0	543	0.3	550	0.3
Other companies	2781	12.4	10,765	5.8	13546	6.5
Total	22456	100.0	186,348	100.0	208804	100.0

Table 4.4: Board chairmen by type of firm.

Type of firm	Female chairmen	Male chairmen	Total	(N)
Other body corporates and sole prop.	12.6	87.4	100.0	5858
Limited companies	10.0	90.0	100.0	188850
Joint stock companies	1.3	98.7	100.0	550
Other companies	20.5	79.5	100.0	13546
Total	10.8	89.2	100.0	208804

4.3 Management by industrial sector.

In this section we will look into the sectoral differences between companies managed by men and women. Table 4.5 provides the distribution of companies over industries, while table 4.6 provides the distribution of managers within the specific industries. These two tables present summarised data for main industrial sectors, for more details see Tables 1 and 2 in the Appendix.

The industrial profile of companies managed by women and men are to some extent different. Generally however, we find female and male managers in all sectors. The most important sectors for female managers are in retailing, real estate and consultancy services, health and social work, other service activities and the agricultural sector.

Male managers are found in agriculture, real estate and consultancy, construction and wholesale and retailing.

Table 4.5: Business managers by industry (See Table 1 in Appendix for more details.)

NAC E Code	Industrial sector	Female Managers		Male managers		n.a. All companies		
		No	%	No	%	No	No	%
	NA	13752	13.9	57892	13.3	45798	117442	18.5
A	Agriculture and forestry	11911	12.1	82925	19.1	683	95519	15.1
B	Fishing	256	0.3	10294	2.4	1097	11647	1.8
C	Mining and quarrying	85	0.1	1052	0.2	255	1392	0.2
D	Manufacturing	5339	5.4	25605	5.9	3193	34137	5.4
E	Electricity, gas and water supply	23	0.0	631	0.1	158	812	0.1
F	Construction	717	0.7	48470	11.1	2961	52148	8.2
G	Wholesale and retail trade	23060	23.4	66142	15.2	10796	99998	15.8
H	Hotels and restaurants	4590	4.7	10078	2.3	2265	16933	2.7
I	Transport, storage and communication	2436	2.5	28634	6.6	3641	34711	5.5
J	Financial intermediation	166	0.2	2044	0.5	486	2696	0.4
K	Real estate, renting, business activities	15073	15.3	78482	18.0	24221	117776	18.6
M	Education	715	0.7	2043	0.5	228	2986	0.5
N	Health and social work	6824	6.9	7891	1.8	1079	15794	2.5
O	Community, social and personal service	13484	13.7	12597	2.9	2075	28156	4.5
P	Private households	109	0.1	60	0.0	35	204	0.0
	Total	98540	100.0	434840	100.0	98971	632351	100.0

Table 4.6: Business managers by gender within industries. (Businesses with unknown identity of manager are not included). (See Table 2 in Appendix for more details.)

Industry	Managers (%)			
	Women	Men	Total	N
0 NA	19.2	80.8	100.0	71644
A Agriculture and forestry	12.6	87.4	100.0	94836
B Fishing	2.4	97.6	100.0	10550
C Mining and quarrying	7.5	92.5	100.0	1137
D Manufacturing	17.3	82.7	100.0	30944
E Electricity, gas and water supply	3.5	96.5	100.0	654
F Construction	1.5	98.5	100.0	49187
G Wholesale and retail trade	25.9	74.1	100.0	89202
H Hotels and restaurants	31.3	68.7	100.0	14668
I Transport, storage and communication	7.8	92.2	100.0	31070
J Financial intermediation	7.5	92.5	100.0	2210
K Real estate, renting and business activities	16.1	83.9	100.0	93555
M Education	25.9	74.1	100.0	2758
N Health and social work	46.4	53.6	100.0	14715
O Other community, social and personal service	51.7	48.3	100.0	26081
P Private households	64.5	35.5	100.0	169
Total	18.5	81.5	100.0	533380

A better way of indicating differences in the occurrence of female and male managers is revealed by taking a look at the percentages of the two groups within the different industrial sectors (Tables 4.6 and 2 in the Appendix). Only two of the sectors in Table 4.6 have women's shares higher than fifty percent, that is in private households (which is a very small sector) and social and personal services. It also may be noted that health and social services have a share of women managers close to fifty percent. In all other sectors male managers hold majorities when aggregation of data is done at the level indicated in table 4.6. Some of the sectors are heavily dominated by males, like fishing and construction, with shares of male managers at 97-98 percent.

4.5 Size distribution

In table 4.7 the size distribution (based on employment) of companies is presented. The data register applied in this case, only provides employment data for about 100,000 companies, i.e. more than 520,000 are without employment data. In most cases it may be presumed that these companies are very small, i.e. with one person or less.

The data confirm a tendency that firms organised by women generally are smaller than those managed by men. However, when making this comparison, it should be kept in mind that generally most firms are small whether they are managed by men or women. But when comparing the size distributions, the data show that the distribution of men goes slightly more towards the higher end of the size scale than does the distribution of companies led by women.

Table 4.7: Size distribution of firms by gender.

Size group	Firms	Employment	<u>Size distribution:</u>			<u>Employment distribution</u>		
			Manager:			Manager		
			Women	Men	N.A.	Women	Men	N.A.
0, n.a.	520028		87.95	83.35	81.08			
1-2	40569	57244	5.77	6.26	8.74	10.6	3.3	4.3
3-4	19421	66350	2.68	3.12	3.66	11.4	4.1	4.4
5-9	19532	126660	2.07	3.32	3.46	16.6	8.2	7.9
10-19	11366	150085	0.95	2.04	1.80	15.4	10.3	8.3
20-49	6579	191679	0.43	1.24	0.87	15.3	13.8	8.8
50-99	1825	123508	0.09	0.36	0.22	7.3	9.2	5.3
100+	1556	754109	0.06	0.31	0.17	23.5	51.1	60.9
Total	620876	1469635	100.00	100.00	100.00	100.0	100.0	100.0
(N)			98494	433696	88686	78420	1141805	249410

In particular this may be illustrated by summarising the total employment in companies managed by men and women. Of the total employment of 1.2 million people in companies where we know the identity of the managers, only 6.4 percent are in companies managed by women, while the remaining 93.6 percent are in companies managed by men.

4.6 Economic performance

In the last section of this chapter we will take a brief look into the economic performance of the companies to see if there are significant differences between companies managed by men and women. The point of departure for this analysis is credit rating information provided by CreditInform. The companies have been given a score between 0 and 100, where 0 is the lowest and indicates extremely low credit worthiness, while on the other hand a score of 100 indicates a very healthy economic situation in the company. The score is calculated by a model taking into account the most usual economic indicators like profitability, equity etc. When applying this measure for credit rating, usually all scores above 75 are regarded as excellent, while scores below 30 are regarded as very poor.

This score is used as a proxy for economic performance, and in our calculations the score has been truncated down to the nearest ten, so that scores range between 0 and 10.

The data reveal that there are some differences between companies led by men and women. First, Table 4.8 shows that men (companies led by men) are slightly more distributed towards the very low end of the scale with a total of 22.5 percent scoring less than 3, while the equivalent share of women is 19 percent. Second, a larger share of women compared to men belong to the low middle group, while a higher share of men belong to the high middle group. And, finally, when looking at those with very high scores, i.e. those of economic excellence, there are about 6.5 percent of companies led by men obtaining such high scores, while the women's share in this group is just 3.5. Generally then, businesses led by men are slightly more dispersed towards the poor as well as the good end of the scale.

It might be that part of the difference observed here may be explained by type of firms rather than gender, so in Table 4.9 data for the three most frequent types of firms are calculated separately. The most interesting observation here is that there seems to be some correspondence between type of firm and credit rating, as limited companies and in particular other body corporates have rather high shares of poor scores. On the other hand, the differences by gender seem to remain for two of the groups, i.e. sole proprietorships and limited companies, where differences follow the same patterns as indicated above. For the third group, however, the difference by gender seems to be rather marginal.

Table 4.8: Credit rating for all firms by gender.

Score	Women		Men		N.A.		Total	
	Firms	%	Firms	%	Firms	%	Firms	%
0	8486	10.8	43647	12.0	23492	41.6	75625	15.1
1	5475	7.0	34215	9.4	7817	13.9	47507	9.5
2	926	1.2	3982	1.1	425	0.8	5333	1.1
3	16853	21.4	47504	13.0	2350	4.2	66707	13.3
4	19661	25.0	73144	20.1	6907	12.2	99712	19.9
5	15251	19.4	66402	18.2	6607	11.7	88260	17.7
6	9533	12.1	72262	19.8	5002	8.9	86797	17.4
7	2040	2.6	18070	5.0	2406	4.3	22516	4.5
8	469	0.6	4812	1.3	856	1.5	6137	1.2
9	60	0.1	739	0.2	540	1.0	1339	0.3
10	0	0.0	16	0.0	8	0.0	24	0.0
	78754	100.0	364793	100.0	56410	100.0	499957	100.0

Table 4.9: Credit rating for firms organised as sole proprietorships, limited companies and other body corporates by gender.

Score	Sole proprietorship		Limited companies		Other body corporate	
	Women	Men	Women	Men	Women	Men
0	7.3	6.4	10.5	11.8	24.5	24.5
1	5.0	7.9	10.2	11.3	14.3	12.5
2	0.9	1.0	0.7	0.6	2.3	1.4
3	25.5	16.0	6.1	4.9	7.9	7.0
4	27.4	22.5	24.5	19.7	15.4	14.6
5	19.8	18.5	19.0	14.1	17.8	17.9
6	12.0	22.8	17.9	18.5	11.6	13.3
7	1.8	4.1	7.3	10.5	4.9	6.5
8	0.4	0.9	2.7	5.6	1.2	1.9
9	0.0	0.0	1.1	2.9	0.2	0.4
10	0.0	0.0	0.0	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	60780	245697	15510	109814	2453	8856

5 Owner Management

5.1 Owner-managed firms

Small firms are often regarded as identical with owner-managed firms, i.e. one and the same person is the owner and manager of the firm. For Norway, the National Register of Firms provides an opportunity to identify such firms and analyse some characteristics of these firms.

The owner-managed firms have been identified in the following way:

1. First, we identified firms with one person owning a minimum of 50 percent of the firm from the database with information on the five largest owners of the companies;
2. Then, we matched this group with a database containing information about the managers of the firms. Companies, in which the manager is identical with the person identified as owning a minimum of 50 percent, are identified as owner-managed firms.

Based on this procedure, we have identified 98,000 owner-managed firms in Norway.

Table 5.1 provides an overview of the owner-managed firms by type of firm and gender. Among the 98,000 owner-managed firms, about 21,000 are owned and managed by women, i.e. about 21 percent. This is approximately the same percentage as for women's share of new firms.

Table 5.1: Owner-managed firms by gender and type of firm.

	Women		Men		Total	
	Number	%	Number	%	Number	%
Sole proprietorships	18570	88.7	60330	78.1	78900	80.3
Limited companies and Joint Stock Companies	2336	11.2	16842	21.8	19178	19.5
Other Forms	23	0.1	104	0.1	127	0.1
Total	20929	100.0	77276	100.0	98205	100.0

The vast majority of owner-managed firms are organised as sole proprietorships, accounting for 80 percent of all firms, while the remaining firms are mostly organised as limited or joint stock companies. When the types of firms for women and men are compared, it is revealed that women have a significantly higher share of their firms organised as sole proprietorships, almost 89 percent belong to this category, while among men this share is 78 percent. This means that men, to a greater extent than women, tend to organise their firms as limited companies. For men this share is 22 percent, while it is 11 percent for women.

As has been commented on earlier in this report, the vast majority of all firms are small. This is also the case with owner-managed firms, which tend to be distributed to the low end of the size scale more often than other types of firms. The data in Table 5.2 show that for all owner-managed companies, we have the 'normal' structure with a

higher share of small firms managed by women compared to the companies managed by men.

However, when we split the data on type of firms, there is virtually no difference between men and women in size distribution for sole proprietorships, while there are some differences in the size distributions for limited companies.

Table 5.2: Owner-managed firms by gender, type of firms and size of firm.

	Number employed								Total	N
	n.a./0	1-2	3-4	5-9	10-19	20-49	50-99	100+		
<i>All companies:</i>										
Women	89.21	6.08	2.27	1.62	0.56	0.19	0.04	0.02	100.00	20929
Men	83.34	7.95	3.27	3.08	1.60	0.65	0.09	0.03	100.00	77276
<i>Limited companies and joint stock companies:</i>										
Women	25.1	37.4	17.0	13.7	4.8	1.6	0.3	0.1	100.0	2336
Men	31.4	32.0	13.3	13.0	6.9	2.9	0.4	0.1	100.0	16842
<i>Sole proprietorships:</i>										
Women	97.3	2.1	0.4	0.1	0.0	0.0	0.0	0.0	100.0	18570
Men	97.8	1.2	0.5	0.3	0.1	0.0	0.0	0.0	100.0	60330

5.2 Economic rating

Table 5.3 provides data on the economic rating of owner-managed companies. The data on rating has been calculated by CreditInform, cf. description provided in section 4.6. Based on credit rating scores ranging between 0 and 10, distributions are presented in Table 5.3. In order to facilitate the identification of differences in distributions for the companies by gender, the data are also illustrated in the two graphs in Figure 5.1 and 5.2.

Table 5.3: Owner-managed firm by gender, type of firms and rating.

	Rating										N	
	0	1	2	3	4	5	6	7	8	9		
<i>All companies:</i>												
Women	1.5	9.2	1.8	21.6	33.7	18.1	10.7	2.7	0.7	0.0	100.0	19049
Men	2.8	14.1	1.7	15.6	27.7	16.1	14.8	5.8	1.4	0.0	100.0	72001
<i>Limited and joint stock companies:</i>												
Women	2.6	19.0	3.3	10.5	22.5	23.4	13.4	4.5	0.6	0.1	100.0	2333
Men	1.5	16.4	1.9	9.6	19.6	25.8	17.7	6.2	1.0	0.2	100.0	16825
<i>Sole proprietorships:</i>												
Women	1.3	7.8	1.6	23.1	35.3	17.4	10.3	2.4	0.7	0.0	100.0	16704
Men	3.2	13.4	1.7	17.4	30.1	13.2	13.9	5.6	1.5	0.0	100.0	55114

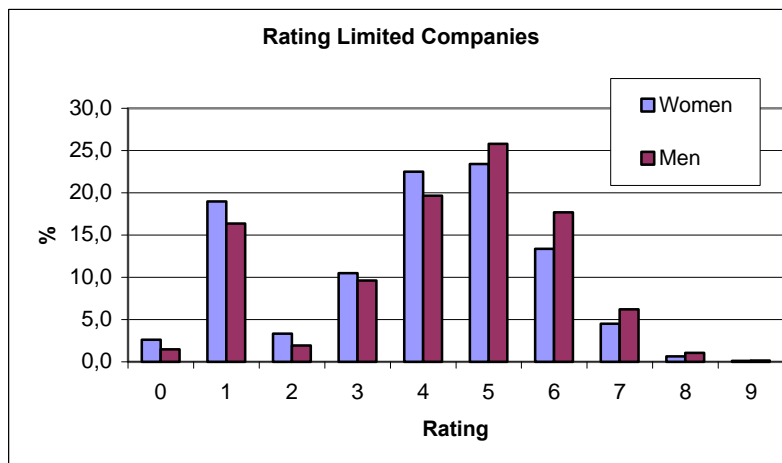


Figure 5.1: Rating of owner-managed firms organised as limited companies.

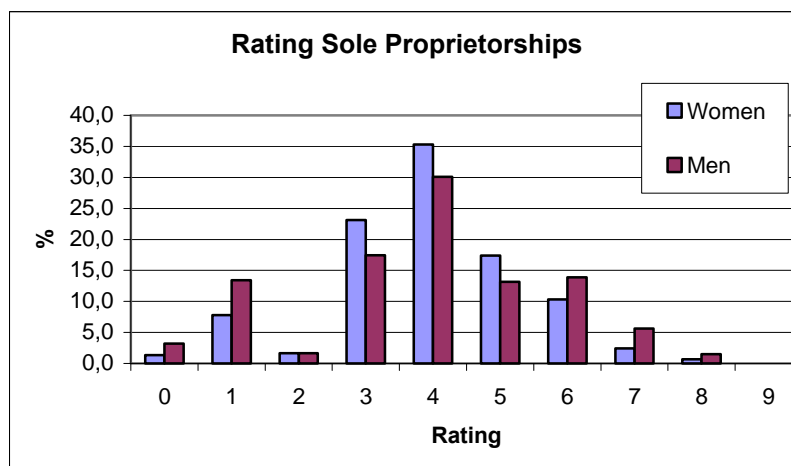


Figure 5.2: Rating of owner managed firms organised as sole proprietorships.

As the distribution of companies by rating is rather different for the two main types of owner-managed firms, it is important to look at the two groups separately. We also find different gender profiles. For limited companies there is generally a higher share of companies with low ratings, and there is a weak tendency that women have a higher share of low ratings than we find among men. These figures also show that men have a greater share of high performance firms. This is the opposite of traditional perceptions of female businesses, which are often regarded as being more carefully operated, and taking smaller risks, than those run by men.

On the other hand, data for sole proprietorships indicate differences in the opposite direction, i.e. that women have a lower share of firms performing poorly compared to men. At the same time, however, women have a lower share of firms performing highly.

6 Summary on Gender Imbalances

This analysis has confirmed previous knowledge about the very serious imbalance between men and women as entrepreneurs and managers in Norwegian industries, but the analysis has also added new knowledge to the area by presenting analyses on data registers that have previously not been examined in Norway. The findings may be summarised in the following points:

In general there seems to be a balance of around 20-80 percent indicating the share between women and men as actors in economic life. On average women account for 21 percent of all start-ups as recorded by the VAT Register, and women account for 18 percent of all managers as recorded by the National Firm Register. Among all firms organised as sole proprietorships women hold a 21 percent share, and also among owner-managed firms, women have a similar share.

However, these distributions are skewed even more favorably to men when the economic importance of the business is taken into account. Generally, the economic importance of a business started or managed by women is less than those organised by men. Although the vast majority of all firms are small, businesses operated by women tend to be distributed even more towards the lower end of the scale than those of men. Thus, in the larger companies a very small minority of CEO positions are held by women. Among joint stock companies the percentage is just 2,2.

This tendency may also be supported by the fact that among all board chairmen, women account for no more than ten percent. When we look at Norwegian employment figures in total, it turns out that women's firms account for only 6.4 percent of all employment. On the whole, the imbalance between men and women in economic life is severe. There is a long way to go before an acceptable balance between men and women is found in Norwegian economic life.

Sectoral differences are also of importance, and the role of women as starters and managers of businesses are to a great extent reflected by their traditional roles in the labour market. Thus, the most important sectors for women to start and organise business are mostly in 'soft sectors' like personal services and retail. But there are also important groups of women in consultancy services and in agriculture. In typical male sectors like construction and manufacturing, women entrepreneurs and managers amount to very marginal groups.

This report has provided some insight into the performance of women's firms, and the findings here may be in contrast to traditional perceptions of female owned businesses. First, our findings indicate that the survival rate of firms started by women is slightly lower than for men. Although the differences are not very significant and the data reliability may be questioned, the difference may be explained by the propensity of women to start businesses that are more marginal than those started by men. Thus, the vulnerability for closing down will be stronger among women than for men.¹⁴

Second, the performance of women's firms as assessed by credit rating scores, do not confirm that women's firms are more healthy or viable in economic terms than

¹⁴ To close a firm should not be confused by going bankrupt. Just a smaller part of firms closing down go bankrupt, most firms that are closed are done so in an 'organic' way.

men's firms. To the contrary, the economic performance of women's firms by and large seem to be slightly more toward the low performance end of the scale. Although the picture is diverse, it indicates that women are more in the lower middle score than men. Particularly in the higher end of the scale, men have a significantly higher share than women. On the other hand, however, there is also a tendency for men to have a higher share among firms with a very poor economic performance.

Appendix: Supplementary Tables

Table 1: Business managers by industry. (Industrial codes 75, 88, 98 and 99 are not included).

NACE Industrial sector	Female		Male		n.a. All companies		
	Managers		managers		No	No	%
	No	%	No	%			
0 NA	13752	13.9	57892	13.3	45798	117442	18.5
1 Agriculture	9577	9.7	72784	16.7	531	82892	13.1
2 Forestry	2334	2.4	10141	2.3	152	12627	2.0
5 Fishing	256	0.3	10294	2.4	1097	11647	1.8
10 Mining	3	0.0	20	0.0	1	24	0.0
11 Extraction of oil	17	0.0	365	0.1	132	514	0.1
13 Mining of metal ores	1	0.0	12	0.0	3	16	0.0
14 Other mining and quarrying	64	0.1	655	0.2	119	838	0.1
15 Food and beverages	497	0.5	2320	0.5	407	3224	0.5
16 Tobacco products		0.0	7	0.0		7	0.0
17 Textiles	933	0.9	497	0.1	86	1516	0.2
18 Wearing apparel	914	0.9	226	0.1	86	1226	0.2
19 Leather products	48	0.0	111	0.0	14	173	0.0
20 Wood products except furniture	201	0.2	2759	0.6	303	3263	0.5
21 Pulp, paper and paperboard	15	0.0	128	0.0	21	164	0.0
22 Publishing, printing and reproduction	1173	1.2	5386	1.2	785	7344	1.2
23 Coke and petroleum products	3	0.0	19	0.0	9	31	0.0
24 Chemicals and chemical products	47	0.0	244	0.1	59	350	0.1
25 Rubber and plastic products	37	0.0	513	0.1	77	627	0.1
26 Other non-metallic mineral products	345	0.3	776	0.2	142	1263	0.2
27 Basic metals	4	0.0	220	0.1	27	251	0.0
28 Fabricated metal prod. exc. machinery	116	0.1	3224	0.7	246	3586	0.6
29 Machinery and equipment	69	0.1	3400	0.8	279	3748	0.6
30 Office machinery and computers	2	0.0	78	0.0	14	94	0.0
31 Electrical machinery	39	0.0	706	0.2	85	830	0.1
32 Radio, tv and comm. equipments	13	0.0	214	0.0	29	256	0.0
33 Medical and optical instruments	108	0.1	611	0.1	76	795	0.1
34 Motor vehicles	4	0.0	170	0.0	21	195	0.0
35 Other transport equipment	39	0.0	1446	0.3	149	1634	0.3
36 Furniture	729	0.7	2353	0.5	243	3325	0.5
37 Recycling	3	0.0	197	0.0	35	235	0.0
40 Electricity, gas, water supply	22	0.0	552	0.1	110	684	0.1
41 Water distribution	1	0.0	79	0.0	48	128	0.0
45 Construction	717	0.7	48470	11.1	2961	52148	8.2
50 Sales and repair of motor vehicles	578	0.6	11363	2.6	1313	13254	2.1
51 Wholesale trade exc. motor vehicles	3240	3.3	22706	5.2	3733	29679	4.7
52 Retail trade, except motor vehicles	19242	19.5	32073	7.4	5750	57065	9.0
55 Hotels and restaurants	4590	4.7	10078	2.3	2265	16933	2.7
60 Land transport	1507	1.5	21666	5.0	870	24043	3.8
61 Water transport	119	0.1	2142	0.5	1498	3759	0.6
62 Air transport	13	0.0	88	0.0	46	147	0.0
63 Transport services	589	0.6	3255	0.7	1073	4917	0.8
64 Post and telecommunication	208	0.2	1483	0.3	154	1845	0.3
65 Financial services	58	0.1	663	0.2	286	1007	0.2
66 Insurance and pension funding	15	0.0	145	0.0	14	174	0.0
67 Other financial services	93	0.1	1236	0.3	186	1515	0.2
70 Real estate activities	2487	2.5	19918	4.6	16227	38632	6.1
71 Renting of machinery	369	0.4	2884	0.7	626	3879	0.6

72 Computer activity	975	1.0	10788	2.5	1224	12987	2.0
73 Research and development	31	0.0	196	0.0	41	268	0.0
74 Other business activities	11211	11.4	44696	10.2	6103	62010	9.8
80 Education	715	0.7	2043	0.5	228	2986	0.5
85 Health and social work	6824	6.9	7891	1.8	1079	15794	2.5
90 Sewage and refuse disposal	37	0.0	819	0.2	57	913	0.1
91 Activities of membership organisations	85	0.1	398	0.1	191	674	0.1
92 Recreational. cultural and sporting act.	3716	3.8	8641	2.0	953	13310	2.1
93 Other service activities	9646	9.8	2739	0.6	874	13259	2.1
95 Private household services	109	0.1	60	0.0	35	204	0.0
All industries	98540	100.0	434840	100.0	98971	632351	100.0

Table 2: Business managers by gender within industries. (Industrial codes 75, 88, 98 and 99, and businesses with unknown identity of manager are not included).

NACE Industry	Managers (%)			
	Women	Men	Total	N
0 NA	19.2	80.8	100.0	71644
1 Agriculture	11.6	88.4	100.0	82361
2 Forestry	18.7	81.3	100.0	12475
5 Fishing	2.4	97.6	100.0	10550
10 Mining	13.0	87.0	100.0	23
11 Extraction of oil	4.5	95.5	100.0	382
13 Mining of metal ores	7.7	92.3	100.0	13
14 Other mining and quarrying	8.9	91.1	100.0	719
15 Food and beverages	17.6	82.4	100.0	2817
16 Tobacco products	0.0	100.0	100.0	7
17 Textiles	65.2	34.8	100.0	1430
18 Wearing apparel	80.2	19.8	100.0	1140
19 Leather products	30.2	69.8	100.0	159
20 Wood products except furniture	6.8	93.2	100.0	2960
21 Pulp. paper and paperboard	10.5	89.5	100.0	143
22 Publishing. printing and reproduction	17.9	82.1	100.0	6559
23 Coke and petroleum products	13.6	86.4	100.0	22
24 Chemicals and chemical products	16.2	83.8	100.0	291
25 Rubber and plastic products	6.7	93.3	100.0	550
26 Other non-metallic mineral products	30.8	69.2	100.0	1121
27 Basic metals	1.8	98.2	100.0	224
28 Fabricated metal prod. exc. machinery	3.5	96.5	100.0	3340
29 Machinery and equipment	2.0	98.0	100.0	3469
30 Office machinery and computers	2.5	97.5	100.0	80
31 Electrical machinery	5.2	94.8	100.0	745
32 Radio. tv and comm. equipments	5.7	94.3	100.0	227
33 Medical and optical instruments	15.0	85.0	100.0	719
34 Motor vehicles	2.3	97.7	100.0	174
35 Other transport equipment	2.6	97.4	100.0	1485
36 Furniture	23.7	76.3	100.0	3082
37 Recycling	1.5	98.5	100.0	200
40 Electricity. gas. water supply	3.8	96.2	100.0	574
41 Water distribution	1.3	98.8	100.0	80
45 Construction	1.5	98.5	100.0	49187
50 Sales and repair of motor vehicles	4.8	95.2	100.0	11941
51 Wholesale trade exc. motor vehicles	12.5	87.5	100.0	25946

52 Retail trade, except motor vehicles	37.5	62.5	100.0	51315
55 Hotels and restaurants	31.3	68.7	100.0	14668
60 Land transport	6.5	93.5	100.0	23173
61 Water transport	5.3	94.7	100.0	2261
62 Air transport	12.9	87.1	100.0	101
63 Transport services	15.3	84.7	100.0	3844
64 Post and telecommunication	12.3	87.7	100.0	1691
65 Financial services	8.0	92.0	100.0	721
66 Insurance and pension funding	9.4	90.6	100.0	160
67 Other financial services	7.0	93.0	100.0	1329
70 Real estate activities	11.1	88.9	100.0	22405
71 Renting of machinery	11.3	88.7	100.0	3253
72 Computer activity	8.3	91.7	100.0	11763
73 Research and development	13.7	86.3	100.0	227
74 Other business activities	20.1	79.9	100.0	55907
80 Education	25.9	74.1	100.0	2758
85 Health and social work	46.4	53.6	100.0	14715
90 Sewage and refuse disposal	4.3	95.7	100.0	856
91 Activities of membership organisations	17.6	82.4	100.0	483
92 Recreational, cultural and sporting activities	30.1	69.9	100.0	12357
93 Other service activities	77.9	22.1	100.0	12385
95 Private household services	64.5	35.5	100.0	169
Total	18.4	81.6	100.0	533380