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Women Entrepreneurship, Management and Ownership in Norway 2004

A Statistical Update



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Preface

The purpose of this paper is to present an update of register based statistics on gender relations in economic activity. The study was initiated by Aud Sanner in Innovation Norway, and motivated by an ongoing EU project on “Women ownership in business and agriculture”.

The data analysis presented here is based on the structure of a similar analysis organized three years ago and presented in a discussion paper in 2001. The mandate of the current study was to give an update of the 2001 statistical analysis. This is the reason why this paper to a significant extent follows the same structure as the previous paper. However, there are some differences as the data sources applied this time to some extent differ from the previous data set. There are also some differences as we this time have tried to develop the analysis on ownership somewhat beyond what has previously been done, and we also have the opportunity of comparing data from the two investigations.

In an international context, the data presented here is fairly unique. To my knowledge, similar register based data on gender relations are not available for any other country. The reason for this unique situation is the access we have obtained to databases provided by Statistics Norway and CreditInform. From Statistics Norway, we have been provided access to data on all new registrations of firms during the period 2001-2003. From CreditInform we have been given access to data on the national firm register and personal tax data.

Most of the data included in this paper were presented at a meeting in the advisory committee for the project on October 8, 2004. I appreciate many valuable comments given in this meeting.

I take this opportunity to express my gratitude to Aud Sanner and Innovation Norway for providing this opportunity of updating the statistics; 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 to Statistics Norway by Liv-Reidun Sletmoen and Jan Furnes for providing access to the most recent data on new firms registrations.

Oslo, December 14, 2004

Olav R. Spilling

1 Introduction

Over the last decade there has been a growing interest and concern about the very 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 creating a better balance between men and women in business. This is also the background for an ongoing EU-funded project – “Women and ownership, in business and agriculture” – which is organised and coordinated by Innovation Norway.

Based on a request from Innovation Norway, the purpose of this paper is to provide updated statistics on gender relations in business in all fields it is possible to obtain relevant and adequate statistics. This paper takes as its point of departure a previous analysis written by the author on gender relations in the Norwegian business community in 2001¹. The purpose is, to the extent possible, to provide updates for all the statistics presented in the 2001-paper and make comparisons to identify potential trends.

Having this in mind, the objective of the current study is not to reveal new and unknown gender based imbalances in the economy, but rather to discuss to what extent the picture now is different from that given three years ago. The analyses are based on the following data:

- The national register on firms and establishments² administered by Statistics Norway; based on which annual statistics on new registrations of businesses are generated.
- The national firm register³, which has identified most legal economic activities in Norway, and which in addition to some basic firms characteristics, provides opportunities for identifying managers, board chairmen and owners. Access to the data is provided by CreditInform.
- Data on credit rating provided by CreditInform.
- The taxpayers register⁴ that provides data on all people having an income and who pay tax in Norway; access is provided by CreditInform.

These are mostly the same data sources as in the 2001-study, with the exception of data for new business registrations. In the previous study, this was based on the VAT-register, which provided information on all entries and exits of new firms liable to pay VAT. The implication of that was that important parts of the service sectors were not included, and also very small firms (with annual turnover less than NOK 30.000) were not included.

By changing to Statistics Norway’s register on firms and establishments, this problem is avoided, as ‘all’ firms in all sectors are included, however with one important exception, as the primary sectors are excluded from the registrations. We will discuss the implications of this in Chapter 3.

It should also be commented that an advantage of the current data set, is that it provides opportunities for more details in our analyses of ownership, which is discussed in Chapter 5.

¹ Spilling, O.R. 2001: “Women Entrepreneurship and Management in Norway – a statistical overview.” Norwegian School of Management BI, Discussion paper 3/2001.

² In Norwegian: Bedrifts- og foretaksregistret – BOF.

³ In Norwegian: Foretaksregistret, which is based in the Brønnøysund-registres

⁴ In Norwegian: Skattelikningsdata.

2 Income and Property

In the first part of this data presentation we will have a brief look at the distribution of net income and property in the Norwegian population. These data are not the most important in order to assess gender relation in economic activity, but they may provide some background that may be part of a total picture of the balance between men and women in the economy. First, data on income and property will tell 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 for men and women of net income and net property. The data are based on taxation data for 2002, and include all individuals who were liable to pay tax that year, i.e. about 3.7 million people.

The analysis shows that on average women had a net income of 143.000 NOK, while the average value for men was 234.000, 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 700 billion NOK, and this is divided with about 38 percent, on women and 62 percent on men.

In table 2.1 the distribution of net income is presented. In accordance with the previous data, the distribution shows a higher share of women than men being in the lowest group, while far more men than women are in the higher income groups. In total, more than 16 percent of men had a net income higher than 400.000, while the share of women only was 3.3 percent.

Table 2.1: Net income by gender, 2002. Data based on tax data.

	Incomes (1000 NOK)						(N)
	0-99	100-199	200-399	400-699	700-999	1000+	
Women (%)	47,1	18,2	31,4	2,9	0,3	0,1	1 871 940
Men (%)	38,2	10,3	35,0	13,1	2,6	0,7	1 840 109

A similar tendency characterizes the data on the distribution of property. On average, women had a net property of 169.000 NOK; while men owned 308.000, i.e. fifty percent more than women. When aggregating the total net property, it adds up to 883 billion NOK, which are shared with about 36% on women and 64% on men.

Table 2.2: Net property by gender, 2002. Data based on tax data.

	Property (1000 NOK)						(N)
	0-99	100-199	200-399	400-699	700-999	1000+	
Women (%)	68,2	10,0	10,6	6,2	2,4	2,6	1 871 940
Men (%)	66,5	6,1	9,1	8,1	4,0	6,3	1 840 109

Table 2.3: Comparison of income and property by gender, 1999-2002.

	Aggregated income (billion NOK)		Aggregated property (billion NOK)	
	1999	2002	1991	2002
Total	601	699	751	883
Women (%)	37,9	38,4	34,6	35,7
Men (%)	62,1	61,6	65,4	64,3

The reason for this inequality may be found by looking at the people belonging to the property groups. While the vast majority have less than one million NOK in net property, there is a small minority – 2,6 percent of women and 6,3 percent of men who account for a very significant share of the total property. As there in this group are significantly more men than women, this also contributes significantly to the unequal distribution in total.

The data presented here show a very stable pattern when compared with the data of the previous report. As summarized in Table 2.3, there are only smaller changes in the distribution between men and women, however, the changes that may be observed, are in favour of women.

3 Acquisitions and start-ups

3.1 Introduction

In the literature there are many definitions of entrepreneurship. A primary focus will often be around the act of starting new businesses, i.e. on start-ups. However, one will also find approaches in which being self-employed often is regarded as synonymous with being an entrepreneur, which is for instance the case in some OECD reports.⁵ In particular when presenting statistical analyses with the ambition of giving a broad overview of entrepreneurship, it might have been appropriate with a thorough discussion of the concept and various alternatives for operationalising the concept and suggesting indicators for entrepreneurship. But that is beyond the scope of this paper, just a few brief remarks is to be presented.

Entrepreneurship is about the basic processes in economic development of starting new business activity, here we will take as our point of departure the classical definition provided by Schumpeter⁶ of “entrepreneurial innovation” which is related to the act of starting a new business activity based on some kind of innovation. Based on this definition, it should be distinguished between entrepreneurial and non-entrepreneurial start-ups, and it may also be distinguished between entrepreneurial activity organised inside an incumbent firm (intrapreneurship or corporate entrepreneurship) and entrepreneurship organised independently. 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 called a ‘new combination’, or it may be based on a replication of previously developed business concepts, i.e. what is often called imitative start-up.

It follows from this that the concept of entrepreneur is related to an individual or a group of individuals, who is organising the new firm. This aspect of the entrepreneur should be emphasized, as it is the central element of being an entrepreneur: to organise 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 very often will 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. And the act of starting a business is different from managing it; particularly in the long run management will involve routine tasks that may be very different from what is typical about starting up something new.

In most data registers it will not be possible to identify new firms and entrepreneurs strictly in accordance with the concept indicated above. This implies that the data presented here, represent compromises.

While we in our previous report presented data based on the Norwegian VAT register, we this time present data provided by Statistics Norway and based on the register for firms and establishments. The main advantage of this is that we now base our analysis on a register, which by principle should include ‘all’ firms in the national business community. While the VAT register only included businesses liable for paying VAT, i.e. businesses in sectors that are due to pay VAT and which have an annual sales exceeding NOK 30.000, Statistics Norway register ‘all’ companies in

⁵ “Women’s Entrepreneurship: Issues and policies”. 2nd OECD Conference of Ministers Responsible for Small and Medium-Sized Enterprises (SMEs). Istanbul, Turkey 2-5 June 2004.

⁶ Schumpeter, J. A. (1934, 1996). *The theory of economic development*. London, Transaction Books.

their data base. However, an important weakness with the data from Statistics Norway is that their statistics on new firms do not include the primary sectors.

3.2 New registrations and gender relations 2001-2003

The data we are going to present in the following sections, are based on formal registrations of new firms, i.e. of new legal entities. The statistics distinguish between acquisitions and start-ups.

Table 3.1 provides an overview of firms that have been due to registration during the years 2001 through 2003. The total number of annual registrations is around 40.000, which add up to 122.000 for all three years. The vast majority of these registrations are based on start-ups of new firms, while a smaller share, i.e. around 3000 per year or 9000 in total, are based on acquisitions.

Table 3.1: New registrations 2001-2003, all sectors except primary industries.

	2001	2002	2003	Total
Start-ups	35 537	39 041	38 747	113 325
Acquisitions	2 836	3 084	3 232	9 152
Total registrations	38 373	42 125	41 979	122 477

These data provide the basis for our analysis of gender and new registrations of firms.

Based on a procedure for linking data on the new firms with data on managers of these firms, we obtain an indicator of what shares of new firms (acquisitions and start-ups) that are organised by men and women. However, it should be kept in mind that being the registered manager of the new firms may only be regarded as a proxy for being the entrepreneur. There may be cases in which the primary organiser (i.e. entrepreneur) of the new firm employs someone else as manager of the firm; however, in the vast majority of cases the primary organiser will also register as the manager of the new firm.

An overview of the data is presented in Table 3.2. For more than 90 percent of all new firms it has been possible to identify the sex of the manager. This leaves us with a total of more than 111.000 registrations of new firms, which should provide a fairly good basis for analysing gender relations in start-ups and acquisitions of firms.

In total, for all registrations with identification of the managers, the share of female managers is 26.4 percent and the share of men is 73.6 percent. The shares vary somewhat over time, as there is a higher share of women based registrations in the last year than the first year. However, as the time interval is so short, there is no reason to speculate around if this is a temporary fluctuation or an indicator of a long-term trend.

Interestingly, it may be observed that the share of women based acquisitions of firms is slightly higher than the share of start-ups.

While the share of women based registrations of new firms in this analysis amounts to 26.4 percent, the equivalent figure in our previous analysis was 20.9 percent for the years 1997-1999. This may indicate that there has been a significant growth in women based business registrations. However, to what extent the new figure is based on a 'real' trend or rather is a result of differences in the statistical basis, is difficult to identify. The following factors will indicate that at least parts of the growth may be due to statistical reasons:

Table 3.2: New registrations 2001-2003 by gender and type of registration.

Year	Total	Sex of manager			Relative shares (%)	
		Women	Men	n.a.	Women	Men
<u>Start-ups:</u>						
2001	35 537	7 725	23 915	3 897	24,4	75,6
2002	39 041	9 424	26 367	3 250	26,3	73,7
2003	38 747	9 709	25 931	3 107	27,2	72,8
Total	113 325	26 858	76 213	10 254	26,1	73,9
<u>Acquisitions:</u>						
2001	2 836	760	1 805	271	29,6	70,4
2002	3 084	878	1 956	250	31,0	69,0
2003	3 232	889	2 093	250	29,8	70,2
Total	9 152	2 527	5 854	771	30,2	69,8
<u>Total registrations (start-ups + acquisitions):</u>						
2001	38 373	8 485	25 720	4 168	24,8	75,2
2002	42 125	10 302	28 323	3 500	26,7	73,3
2003	41 979	10 598	28 024	3 357	27,4	72,6
Total	122 477	29 385	82 067	11 025	26,4	73,6

- Generally, the statistics applied this time has a broader coverage than the previously applied statistics. The implication of this is that service sectors, which are of particular importance for women, like social and personal services and also consultancies, are much better covered in this analysis than in the previous analysis. When these sectors are included, it will contribute to a higher average value.
- On the other hand, the primary sectors are not included in this analysis. In our previous analysis, the women share within these industries on average were around 20 percent, i.e. close to the average, which means that these data would not affect the average figures very much if they were included.

The conclusion so far is that there is a tendency of a growing share of women participation in business activities, but we will leave the issue for further discussion later on in the paper.

3.3 Start-ups by type of organisation and industry

Table 3.3 shows distributions of firms started by men and women by type of ownership. It follows from the data that the majority of firms are organised as sole proprietorship, i.e. there is one person alone being the owner of the company. Among all starters, as many as 70 percent have chosen this form of organisation, i.e. sole proprietorship is the 'typical' way for all people to organise their new firms.

For women, this tendency is even stronger, as more than 80 percent of all women start their new business as sole proprietorship. Among the rest of the women starters, the most common way of organising is as limited company.

Somewhat in contrast to this, 'only' two thirds of men organise their business as sole proprietorships, while 28 percent start limited companies.

Interestingly, just a very small minority of all new firms are registered as joint stock companies. In the whole sample, only 63 companies were organised this way, and among which women led only 6 companies.

Table 3.2: Registrations by gender and type of organisation, accumulated data for 2001-03.

	Distribution of registrations over type of organisation (%)			Share of registrations within type of organisation (%)		
	Women	Men	Total	Women	Men	(N)
Sole proprietorships	81,9	66,2	70,4	30,7	69,3	78 409
Other body corporate	3,2	4,4	4,1	20,6	79,4	4 517
Limited companies	14,4	28,4	24,7	15,4	84,6	27 560
Joint stock companies	0,0	0,1	0,1	7,0	93,0	57
Other types	0,5	0,9	0,8	16,7	83,3	909
Total	100,0	100,0	100,0	26,4	73,6	
Number of firms	29 385	82 067	111 452			111 452

This structure of start-ups is interesting from the perspective of economic importance. Generally, most sole proprietorships may be regarded as rather marginal economic ventures, rarely with employees and often part time businesses as well. The most interesting firms in terms of growth and contributions to economic activity are among the limited companies, and in particular among the joint stock companies. A tendency we are going to discuss further out in this paper, is that the more economic significant the business is, the smaller the probability is that the firm is started or managed by a woman.

Compared to the data analysed in the previous report (for the period 1997-99), it this time may be noticed significantly higher shares of sole proprietorships. This applies for women as well as for men. According to our previous analysis, there were 58 percent sole proprietorships in total, while this figure now has risen to 70 percent. The explanation for this is most probably statistical, i.e. as pointed out earlier in the paper, our data this time is much more complete, and we expect that most of the 'new' groups of firms are organised as sole proprietorships.

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. For women, the most important sectors for starting up new businesses are the business services, i.e. mainly consultancy services, followed by retail trade and health and social work. Other sectors of importance are recreational, cultural and sporting activities and hotel and restaurants. When taken together, these sectors in total include about two thirds of all start-ups by women are included.

When looking at men's distribution, we can see that also in this case, business services are the most important sector. As a matter of fact, the percentage of men starting business in this sector is about the size order as for women. But with the exception of this, men's distribution is generally very different from that of women. Generally, men's business start-ups are more widely spread on a number of sectors. The second largest is construction, followed by sectors like computer activity, real estate, retail trade, recreational services and transport services.

Table 3.3: Registrations by industry and gender, accumulated data for 2001-03.

Nace	Industry	Distribution of registrations over sectors (%)		Share of registrations within sectors (%)		
		Women	Men	Women	Men	(N)
10-14	Mining and extraction	0,1	0,3	8,6	91,4	220
15-16	Food, beverages and tobacco products	0,5	0,4	33,2	66,8	449
17-19	Textiles and leather products	1,2	0,1	79,7	20,3	449
20-21	Wood and paper products	0,2	0,4	11,8	88,2	380
22	Publishing, printing and reproduction	0,7	0,8	22,5	77,5	867
23-25	Coal, oil and chemical products	0,1	0,1	21,5	78,5	135
26	Mineral products	0,3	0,1	45,6	54,4	180
27-28	Metal and metal products	0,1	0,8	3,6	96,4	662
29	Machinery, office machinery and equipment	0,0	0,8	1,7	98,3	693
30-32	Office machinery, computers, radio, tv. etc	0,0	0,2	8,9	91,1	135
33	Medical and optical instruments	0,1	0,1	24,4	75,6	135
34-35	Motor vehicles, other transport equipment	0,0	0,3	2,1	97,9	285
36	Furniture	0,6	0,5	30,3	69,7	535
37	Recycling	0,0	0,0	0,0	100,0	36
40-41	Electricity, gas, water supply and water distribution	0,0	0,2	2,0	98,0	196
45	Construction	0,9	13,8	2,3	97,7	11 359
50	Sales and repair motor vehicles	0,5	3,3	5,6	94,4	2 800
51	Whole sale trade (excl. motor vehicles)	3,0	5,8	15,6	84,4	5 512
52	Retail trade	18,5	8,0	45,5	54,5	11 809
55	Hotels and restaurants	5,3	3,8	33,4	66,6	4 594
60-63	Transport and transport services	1,9	6,2	10,0	90,0	5 566
64	Post and telecommunication	0,4	1,1	12,8	87,2	1 010
65-67	Financials services and insurance	0,1	0,7	7,5	92,5	576
70-71	Real estate and renting of machinery	2,6	8,5	9,8	90,2	7 599
72	Computer activity	2,8	9,0	10,2	89,8	8 043
73-74	Business services and R&D	21,7	20,9	27,2	72,8	23 111
80	Education	3,8	2,0	41,2	58,8	2 693
85	Health and social work	16,3	3,7	61,3	38,7	7 728
90	Sewage and refuse disposal	0,0	0,3	4,3	95,7	211
92	Recreational, cultural and sporting activities	10,5	7,0	35,3	64,7	8 635
91, 93, 95	Other service activities	7,6	0,7	78,6	21,4	2 797
	Total	100,0	100,0	26,5	73,5	
	Number of firms	29 011	80 389			109 400

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, other service activities and health and social work. These sectors are the only ones in which women have shares higher than fifty percent. Sectors in which women are holding close to fifty percent shares, are mineral products, retail trade and education.

On the other hand, there are many sectors in which men are holding overwhelming majorities. This is not surprising on the background that men generally are in a 76-24 percent position among all starters. The sectors in which they hold more than 90 percent are typical 'male' sectors like construction, machinery, motor vehicles, metal production and sewage. Also, real estate and financial services hold very high shares.

3.4 Size structure

It is a well-known fact that most new firms start small, and in most cases they will stay small during their whole lifetime. That they start small is illustrated by data presented in table 3.5, which show the size distribution of new firms. Here, the number of employees at the end of the year the firm was registered is applied as a measure of size. As there are significant differences between start-ups and acquisitions, the table provides separate data for the two groups.

The vast majority of all new firms start without any employees. Among start-ups more than 90 percent of women as well as men have no employees. And in most cases of those firms having employees, the number of employees generally is small. Among women, less than one hundred start-ups have more than ten employees, i.e. around 0,5 percent; and in the case of men the number of start-ups with more than ten people is about 550, i.e. 0,7 percent. This means that the size-distributions of start-ups by women and men are not very different; they are both very skewed towards the very small and marginal businesses. However, start-ups by men have a slightly higher share of firms with employees than women.

Table 3.4: Size distribution and employment shares of start-ups and acquisitions by gender. Accumulated data for 2001-03.

Size	Number of firms			Size distribution (%)		Employment shares (%)	
	All firms	Women	Men	Women	Men	Women	Men
Start-ups							
0	103 774	25 037	69 548	93,2	91,3	0,0	0,0
1-2	5 446	1 053	3 784	3,9	5,0	20,1	16,0
3-4	2 018	444	1 347	1,7	1,8	20,6	14,2
5-9	1 309	226	931	0,8	1,2	19,5	18,5
10-19	536	72	408	0,3	0,5	12,8	16,4
20-49	178	18	144	0,1	0,2	6,5	12,5
50-99	35	4	29	0,0	0,0	3,4	6,0
100+	29	4	22	0,0	0,0	17,0	16,3
Total	113 325	26 858	76 213	100,0	100,0	100,0	100,0
				26 858	76 213	7 292	32 371
Acquisitions							
0	3 874	1 094	2 461	43,3	42,0	0,0	0,0
1-2	1 742	559	1 042	22,1	17,8	6,9	2,0
3-4	1 104	341	677	13,5	11,6	9,8	3,1
5-9	1 228	328	790	13,0	13,5	17,9	7,0
10-19	751	147	530	5,8	9,1	15,9	9,6
20-49	314	47	237	1,9	4,0	10,3	9,5
50-99	73	6	62	0,2	1,1	3,3	5,7
100+	66	5	55	0,2	0,9	35,9	62,9
Total	9 152	2 527	5 854	100,0	100,0	100,0	100,0
				2 527	5 854	12 018	73 634
All registrations (start-ups + acquisitions)							
0	107 648	26 131	72 009	88,9	87,7	0,0	0,0
1-2	7 188	1 612	4 826	5,5	5,9	11,9	6,3
3-4	3 122	785	2 024	2,7	2,5	13,9	6,5
5-9	2 537	554	1 721	1,9	2,1	18,5	10,5
10-19	1 287	219	938	0,7	1,1	14,7	11,7
20-49	492	65	381	0,2	0,5	8,9	10,4
50-99	108	10	91	0,0	0,1	3,3	5,8
100+	95	9	77	0,0	0,1	28,8	48,7
Total	122 477	29 385	82 067	100,0	100,0	100,0	100,0
				29 385	82 067	19 310	106 005

It is noteworthy that the size distribution of acquisitions is quite different from that of start-ups, as close to sixty percent of these firms have at least one employee, and this figure is virtually the same for women and men. But again we can observe that the shares of firms with more employees are somewhat higher for men than women.

The general picture emerging from this is that the vast majority of all new firms are very, very small. But even so, firms started by women are smaller than those started by men.

3.5 Regional distribution

It may be interesting to examine if there are regional variations in the share of registrations for men and women. In Table 3.6 we have presented an overview of all registrations by counties and the shares held by men and women. Somewhat in contrast to the conclusion drawn in our previous study, when we did not find significant differences between counties, we this time may identify fairly significant differences. The share of new firms with female managers varies between 22,5 percent and 29,0 percent. We find the highest shares occur in Akershus and Oslo, i.e. the most central areas, while the lowest shares occur in areas dominated by fairly traditional industrial structures. Although the variation along these dimensions (centre-periphery and industrial structure) is not quite unambiguous, it seems to be a pattern that could be of interest for further analyses. However, that is beyond the scope of this paper.

Table 3.6: New registrations by county. Accumulated data for 2001-03.

County	Registrations			Share of registrations (%)		
	Total	Women	Men	Women	Men	Total
Østfold	6 327	1 543	4 270	26,5	73,5	100,0
Akershus	14 111	3 796	9 278	29,0	71,0	100,0
Oslo	26 048	6 674	16 644	28,6	71,4	100,0
Hedmark	3 817	908	2 580	26,0	74,0	100,0
Oppland	3 899	868	2 659	24,6	75,4	100,0
Buskerud	6 743	1 556	4 676	25,0	75,0	100,0
Vestfold	5 883	1 454	4 017	26,6	73,4	100,0
Telemark	3 649	761	2 583	22,8	77,2	100,0
Aust-Agder	2 463	546	1 736	23,9	76,1	100,0
Vest-Agder	4 081	837	2 777	23,2	76,8	100,0
Rogaland	9 039	2 049	6 142	25,0	75,0	100,0
Hordaland	10 910	2 552	7 334	25,8	74,2	100,0
Sogn og Fjordane	1 885	398	1 297	23,5	76,5	100,0
Møre og Romsdal	4 794	980	3 372	22,5	77,5	100,0
Sør-Trøndelag	6 863	1 651	4 626	26,3	73,7	100,0
Nord-Trøndelag	2 427	620	1 574	28,3	71,7	100,0
Nordland	4 495	1 047	3 064	25,5	74,5	100,0
Troms	3 411	756	2 337	24,4	75,6	100,0
Finnmark	1 561	369	1 055	25,9	74,1	100,0
Svalbard	71	20	46	30,3	69,7	100,0
Total	122 477	29 385	82 067	26,4	73,6	100,0

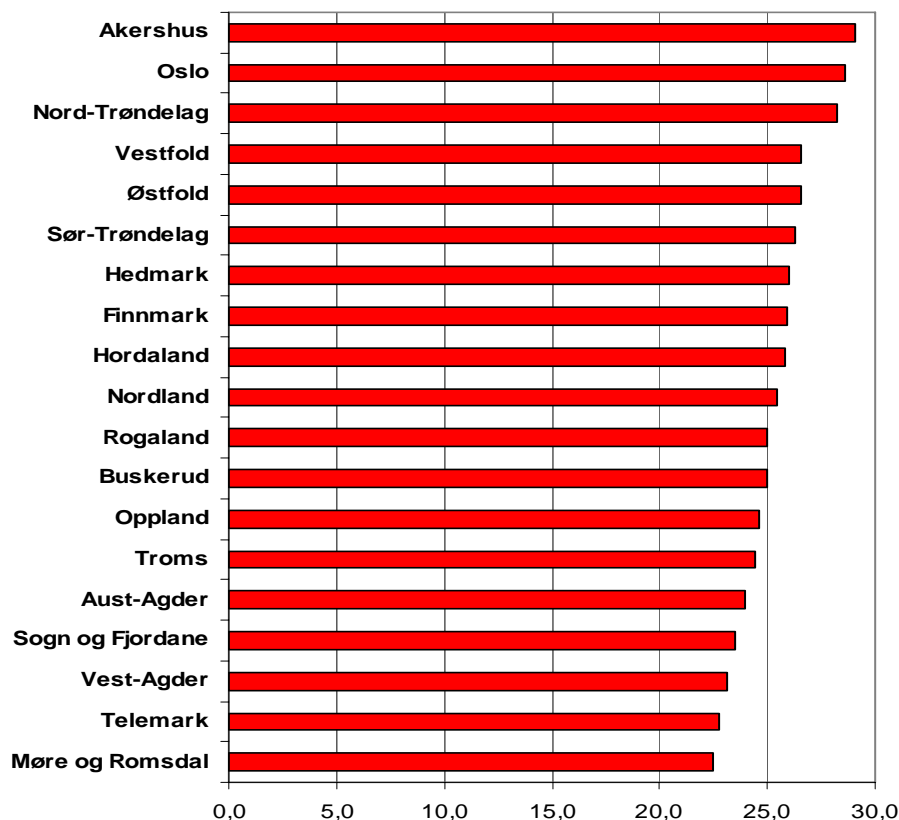


Figure 3.1: Counties ranked by share of new firms managed by women (%).

3.6 Is there a trend?

As has already been commented, there seems to be a trend in the development of women shares of new registrations since the late nineties. However, as the data on registrations of new firms applied in the present analysis is not the same as in our previous analysis, we are facing problems in identifying how significant the trend is. In the following we will discuss some details related to this issue.

A summary of the most relevant data on women's share of new registrations is given in Table 3.7. The overall figures for women's share of new registrations are 20,9 percent during the late nineties and 26,1 during the early twenties.

When the data are split on types of organizations (here we include only the two most important groups), the women's share is growing much more for sole traders than for limited companies. While the latter is changing from 14,0 to 15,4 percent, the former grow from 25,5 to 30,7. Among these two categories, the first one probably is the most reliable. The reason for this is that the better coverage of the later statistics mostly is for sectors in which we have high shares of sole traders. Thus, we presume that growth of women's share among limited companies may give a more realistic picture of the 'real' development than the growth among sole traders.

Table 3.7: Comparison of data on women's share of new registration for 1997-99 and 2001-03

	Women's share (%)		Comparability of data
	1997-1999	2001-2003	
All registrations	20,9	26,4	Low
<i>Registrations by type of organization:</i>			
Sole proprietorship	25,5	30,7	Low
Limited companies	14,0	15,4	High
<i>Registrations for main sectors:</i>			
Mining and quarrying	9,9	8,6	High
Manufacturing	21,0	22,4	High
Electricity, gas and water supply	3,5	2,0	High
Construction	1,9	2,3	High
Wholesale and retail trade	29,9	31,8	High
Hotels and restaurants	30,4	33,4	High
Transport, storage and communication	6,9	10,5	Modest
Financial intermediation	-	7,5	-
Real estate, renting and business activities	14,4	20,3	Low
Education)	41,2	Low
Health and social work) 51,9	61,3	Low
Other community, social and personal service	42,4	45,0	Low
Private household	-	72,7	

In the next part of the table we have presented data on sectors. The six sectors listed first provide the most comparable data, and mostly, these data show a growing share of women's registration of 1-2 percent points. In two cases there have been decreasing shares of women's registrations, i.e. mining and quarrying and electricity, gas and water supply. These are both fairly small sectors in terms of new registrations per year, while the larger sectors, manufacturing, construction and wholesale and retail trade all show an increase.

In the other sectors, which are more influenced by statistical problems, the growth in women's share of new registrations is significantly higher, but the reliability of these data is lower.

The main conclusion to this analysis is that there has occurred a modest growth in women's share of new start-ups. The data indicate a growth in the area of 1-2 percent points since the end of the 1990s. The level now is around 26 percent, which means that previous data has underestimated the level of women's role in new firms registration.

4 Management

4.1 Introduction

In this part we are going to analyse the share of men and women in positions as managers in various parts of Norwegian industries. The data are obtained from the national register of firms, which also include data on managers. The statistics include data on all firms with registered managers ('daglig leder') and among whom the identity of the individuals are known. The data have been received during the summer 2004, which means that the data mostly are updated by the year 2003.

In total, the database contains information on about 700.000 business units. However, not all these firms are active. Based on a procedure of sorting out firms supposed not to be active and firms with no identification of their manager, the remaining number of firms is close to 540.000. This means that we have information on this number of firms and their managers, and all statistics in this part of the paper are based on these data.

Table 4.1: Share of female and male managers in the total population of firms by 2003 and 1999.

Year	Share of managers (%)		Total	(N)
	Women	Men		
2003	20,6	79,4	100,0	539.505
2000	18,4	81,6	100,0	534.785

The data analysis indicates that women account for 20,6 percent of all managers in Norway in 2003 against 18,4 percent in 2000. This means that the share has grown with 2,2 percent points in three years, which may be fairly significant. As the data base applied this time is the same as for the previous investigation, the data are comparable and reflect a 'real' growth in women's share.

Although the increase may not look very impressive, it actually may be regarded as a rather significant change during a period of no more than three years. Later on in this chapter we will discuss different aspects of this growing share.

It should be noticed that the term 'manager' here is applied to people that are formally registered as manager, whether it is a small tiny business run by a self employed person, or it is the CEO of one of the larger corporations. As we will show later in this part, there are great variations in the share of women managers depending on type of firm.

Another point that may be made is that the only person we have information about, is the one who formally is registered as managers. In many cases, there will be more people in the management teams, and this probably means that the figures to some extent may underestimate the role of women as managers in small businesses, as women often play an important part in the operations of family businesses, which may be registered in the name of their husbands.

4.2 Management by type of company

Table 4.2 and 4.3 give an overview of distributions of firms by type of ownership. The vast majority of all firms are organised as sole proprietorships, on average 72 percent. However, the share of women managing this kind of organisation is significantly higher than that of men, i.e. 80,6 percent versus 70,3 percent. Limited companies are

the second most important group with 14,5 percent for women and 24,8 percent for men. Other types of firms have just very small share.

When comparing the shares of firms managed by women and men within each specific group, a significant variation is revealed. On average women hold a 20,6 percent share of all managers; among sole traders this share is slightly higher, i.e. 22,9 percent, while among limited companies the share is significantly lower with 14,5 percent, and in the economically most important group of firms, i.e. the joint stock companies, the share of women managers are no more than 3,9 percent.

Table 4.2: Distribution of firms by managers and type of firm.

Type of firm	Female managers		Male managers		All companies	
	Number	%	Number	%	Number	%
Sole proprietorships	89 364	80,6	301 358	70,3	390 722	72,4
Other body corporate	3 470	3,1	13 455	3,1	16 925	3,1
Limited companies	16 074	14,5	106 401	24,8	122 475	22,7
Joint stock companies	20	0,0	490	0,1	510	0,1
Other	1 951	1,8	6 922	1,6	8 873	1,6
Total	110 879	100,0	428 626	100,0	539 505	100,0

Table 4.3: Managers by type of firm.

Type of firm	Share of managers (%)		Total (%)	(N)
	Women	Men		
Sole proprietorships	22,9	77,1	100,0	390 722
Other body corporate	20,5	79,5	100,0	16 925
Limited companies	13,1	86,9	100,0	122 475
Joint stock companies	3,9	96,1	100,0	510
Other	22,0	78,0	100,0	8 873
Total	20,6	79,4	100,0	539 505

In the next two tables we present the same type of data related to chairmen of boards of directors. In total there are recorded 170.000 companies with a board of directors, among which the chairman is a woman in about 22.000 of the cases, i.e. 13 percent, while men are having this position in almost 87 percent of the cases. Most of the firms having a board of directors are organised as limited companies. Among these the share of female chairmen is 10 percent, while among the joint stock companies this percentage is just 2,5.

Table 4.4: Board chairmen by type of firm.

Type of firm	Board chairmen			Share of chairmen (%)		
	Women	Men	Total	Women	Men	Total
Other body corporate and sole prop.	4 159	6 114	10 273	40,5	59,5	100,0
Limited companies	14 794	129 831	144 625	10,2	89,8	100,0
Joint stock companies	13	498	511	2,5	97,5	100,0
Other companies	3 378	11 677	15 055	22,4	77,6	100,0
Total	22 344	148 120	170 464	13,1	86,9	100,0

One interesting aspect of the gender balance in management is the relationship between managers and board chairmen. In table 4.6 we have calculated the share of women and men as board chairmen when the manager is a woman or a man. It may be no surprise that the relationship is very asymmetric. In the case when a woman is the manager, there is close to 50 percent chances that the board chairman is either a man or a woman. However, in the case when a man is the manager, the chances for the

board chairman to be a woman, is just six percent, i.e. in companies managed by men, the vast majority of board chairmen are also men.

Table 4.6: Relationship between managers and board chairmen

Manager of firm	Board chairman		Total	(N)
	Women	Men		
Women	52,5	47,5	100,0	18 585
Men	5,9	94,1	100,0	116 486
(N)	16 595	118 476		135 071

4.3 Management by industrial sector.

Table 4.7 provides the distribution of managers over industries, and share of female and male managers within each industry.

The general pattern emerging here is very close to the structure for new firms (with the exception that the primary industries were not included in the data on new firms). The industrial profile of companies managed by women and men are to some extent different. Generally however, we will find female and male managers in all sectors, but the extent to which they occur within different sectors will vary. The most important sectors for female managers are, in addition to agriculture, in retailing, business services (mostly consultancy services) and health and social work. Other services, recreational activities and hotel and restaurant are also important.

For men, the most important sectors, in addition to agriculture, are business services, construction, real estate and retail trade. Beyond this, it is a tendency that men are more dispersed on many sectors than the case is for women.

The most interesting part of these data is how the share of managers varies between different sectors, which is illustrated in Figure 4.1. There are only three sectors in which women hold more than fifty percent of manager position, i.e. other service activities (which includes fields like hairdressing and other beauty treatment, washing and dry-cleaning, physical well-being activities), textiles and leather products, and health and social work. Other sectors, in which women hold more than a third, include retail trade, education and retail trade.

On the other hand men hold very strong majorities in a number of sectors, in some even more than 95 percent, like construction and recycling, which are the sectors most dominated by men. These sectors are followed closely by production of machinery and motor vehicles and fishing.

The pattern displayed in Figure 4.1 very clearly illustrates that there is a strong male-female dimension related to the fields in which women and men are involved as managers. Strong traditions related to gender roles and traditional division of labour is an important underlying factor, and although patterns are changing and there is a 'diffusion' of men and women into the different areas, the role of women and men still is characterised by a pattern of gender based segregation.

Interestingly, women are holding fairly strong positions in two different sectors within manufacturing, i.e. textiles and mineral products, and they both confirm the point made regarding gender based segregation. While the first is obvious, the other sector (mineral products) includes glass blowing, ceramics and similar activities, which also have become important fields for women.

Table 4.7: Business managers by industry. Businesses with no industry identification are not included.

Nace	Industry	Distribution of managers on sectors (%)		Share of managers within sectors (%)		Total number of firms
		Women	Men	Women	Men	
1-2	Agriculture and forestry	14,0	20,7	14,8	85,2	101 495
5	Fishing	0,3	2,4	3,2	96,8	10 537
10-14	Mining and extraction	0,1	0,3	8,6	91,4	1 297
15-16	Food, beverages and tobacco products	0,5	0,5	20,6	79,4	2 631
17-19	Textiles and leather products	1,9	0,2	73,2	26,8	2 783
20-21	Wood and paper products	0,2	0,7	7,8	92,2	3 028
22	Publishing, printing and reproduction	0,9	1,1	17,7	82,3	5 719
23-25	Coal, oil and chemical products	0,1	0,2	12,7	87,3	893
26	Mineral products	0,4	0,2	32,8	67,2	1 189
27-28	Metal and metal products	0,1	0,9	3,9	96,1	3 812
29	Machinery, office machinery and equipment	0,1	0,8	2,0	98,0	3 604
30-32	Office machinery, computers, radio, tv. etc	0,0	0,2	5,1	94,9	974
33	Medical and optical instruments	0,1	0,2	18,0	82,0	784
34-35	Motor vehicles, other transport equipment	0,0	0,4	2,2	97,8	1 842
36	Furniture	0,8	0,6	26,1	73,9	3 104
37	Recycling	0,0	0,0	1,6	98,4	182
40-41	Electricity, gas, water supply and water distribution	0,0	0,2	4,3	95,7	844
45	Construction	0,7	12,2	1,5	98,5	51 778
50	Sales and repair motor vehicles	0,5	2,8	4,8	95,2	12 350
51	Whole sale trade (excl. motor vehicles)	3,2	5,5	13,0	87,0	26 529
52	Retail trade	17,9	7,0	39,7	60,3	48 673
55	Hotels and restaurants	4,4	2,2	33,5	66,5	14 011
60-63	Transport and transport services	2,3	6,5	8,3	91,7	29 481
64	Post and telecommunication	0,3	0,5	13,5	86,5	2 357
65-67	Financials services and insurance	0,2	0,6	9,2	90,8	2 710
70-71	Real estate and renting of machinery	3,6	7,3	11,2	88,8	34 074
72	Computer activity	1,5	4,1	8,8	91,2	18 826
73-74	Business services and R&D	14,6	12,8	22,7	77,3	69 173
80	Education	2,2	1,0	36,7	63,3	6 469
85	Health and social work	12,4	3,1	50,9	49,1	26 351
90	Sewage and refuse disposal	0,0	0,2	4,2	95,8	923
92	Recreational, cultural and sporting activities	7,0	3,7	32,9	67,1	22 960
91, 93, 95	Other service activities	9,4	0,7	77,0	23,0	13 201
	Total	100,0	100,0	20,5	79,5	
	Number of firms	107 776	416 808			524 584

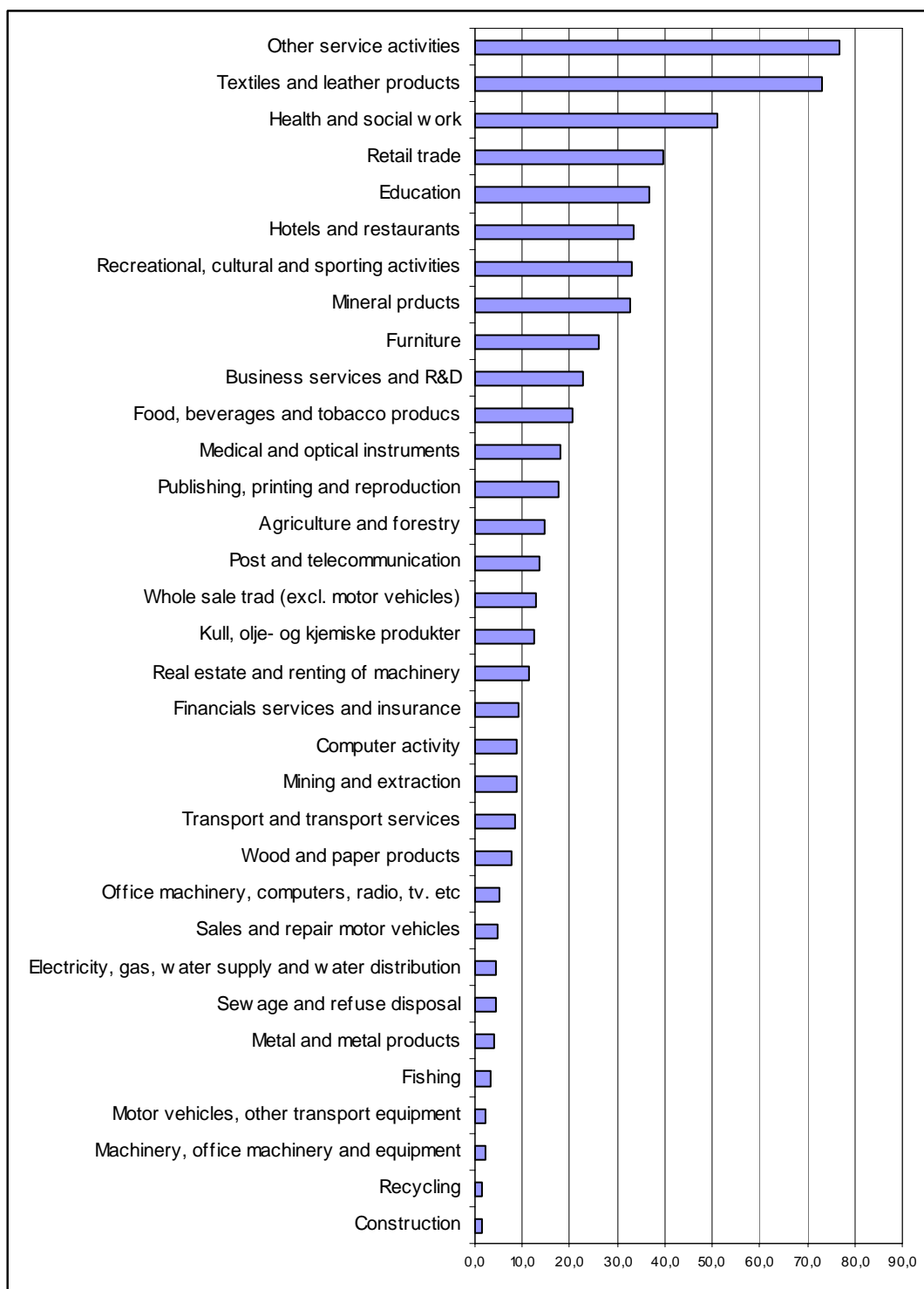


Figure 4.1: Sectors ranked by share of female managers

4.5 Size distribution

In table 4.7 the size distribution (based on employment) of companies is presented. When the size firms are compared for women and men, it should be kept in mind that generally most firms are small whether men or women manage them, as more than 85 percent of all firms do not have any employees, and there are just around 1400 firms that have more than 100 employees. However, the data show that the distribution for men goes slightly more towards the higher end of the size scale than it does for women.

Table 4.7: Size distribution of firms by gender.

Size	Firms	Employment	Size distribution of firms (%)		Employment distribution (%)		Share of managers within size-group (%)	
			Women	Men	Women	Men	Women	Men
0, n.a.	463 413		89,9	84,9			21,5	78,5
1-2	28 267	39 742	4,2	5,5	6,4	2,9	16,6	83,4
3-4	14 445	49 633	2,4	2,8	8,3	3,6	18,1	81,9
5-9	15 284	99 373	2,0	3,1	12,9	7,6	14,2	85,8
10-19	9 583	127 187	0,9	2,0	12,7	10,1	10,8	89,2
20-49	5 547	163 165	0,4	1,2	13,1	13,3	8,8	91,2
50-99	1 550	106 187	0,1	0,3	6,3	8,9	6,6	93,4
100+	1 416	644 902	0,1	0,3	40,2	53,6	6,6	93,4
Total	539 505	1 230 189	100,0	100,0	100,0	100,0	20,6	79,4
(N)			110 879	428 626	106 914	1 123 275	110 879	428 626

When comparing the share of managers for the different size groups, it turns out that the larger the firms are, the smaller is the share of female managers. Among the firms without employees, the share of women managers is 21,5 percent. The general trend is that the share of women managers is smaller the larger the firms are. For the two largest groups, the shares of women managers are 6,6 percent.

This tendency is in line with what is pointed out earlier in the paper; the more important the firms are in terms of economic activity, the smaller is the share of women managers.

4.6 Economic performance

In this section we will have 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 scores between 0 and 100; 0 is the lowest and indicates extremely low credit worthiness, while a score of 100 indicates a very well economic situation of the company. The scores are 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 is 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 are ranging between 0 and 10. In order to simplify the presentation of data, we have selected to focus on the two most important groups of firms; limited companies and sole traders.

The data reveal that there is a rather diverse pattern. There are very significant variations in economic performance distribution whether the firms are managed by men or women,

and for both groups of firms, firms are ranging from excellent to very poor performance.

However, there are some tendencies of differences between women and men. Taking the limited companies first, although the distributions for women and men are very close to each other, there is a tendency that firms managed by men perform better than firms managed by women. In particular for the groups performing extremely well (i.e. rating of 7 or higher), the share of men is significantly higher than the share of women. On the other hand, women have higher shares in the lower end of the scale; particularly in the 'lower middle'.

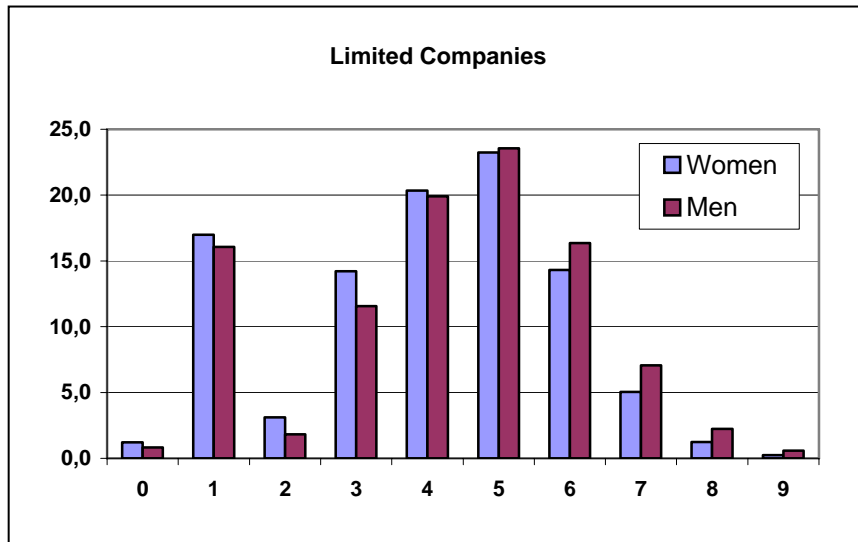


Figure 4.2: Credit rating for limited companies

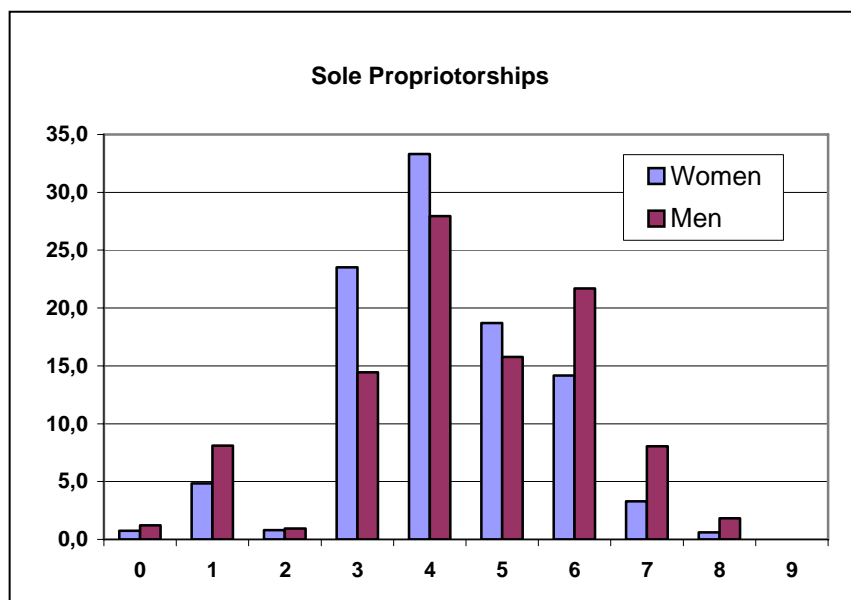


Figure 4.3: Credit rating for sole proprietorships

A partly similar and partly different pattern characterises the distributions for sole proprietorships. The similarity is related to the well performing firms, as firms managed by men have significantly higher shares in the upper part of the scale than firms managed by women. On the other hand, the tendency of women to concentrate in the 'lower middle' is stronger for sole traders than for limited companies, and contrary to the previous case, it is firms managed by men that have the highest shares among the very bad performers.

Many factors may explain these patterns. Partly, it may be related to firm strategies and the tendency of risk aversion or not, partly it may be related to factors like type of firm, which sector it is operating in and what kind of market it is competing in. For instance, there is a tendency that men to a higher extent than women are in very profitable sectors like financial services and lawyers.

However, in this field we are facing rather complicated issues. And there is an emerging literature discussing various aspects of this in which the performance of enterprises organised by men and women is compared. It is beyond the scope of this paper to go into details, but one thing is for sure - we can reject simple views that firms managed by women or men generally perform better or worse than the other part.

4.7 Is there a trend?

In contrast to what is the situation regarding the data on new registrations, the data on existing firms are fairly reliable in the sense that they allow for direct comparisons of the current and the previous investigation. An overview of the data is given in table 4.8.

As has already been commented, the overall trend is an increase of women's share of managers from 18,4 percent in 1999 to 20,6 percent in 2003, which may be regarded as a fairly significant change given the large number of firms involved. Taking account of the total stock of firms, it means that the number of firms managed by women has grown from about 99.000 firms to 111.000, i.e. a growth of around 12.000 firms.

However, is this development of growing shares of women also affecting what may be regarded as the strategic imbalance between women and men? One of the important aspects in this respect is that women are less involved the more powerful and influential positions. From this point of view it is more important that women's share of management positions is growing in limited companies and joint stock companies than among sole traders; and it is more important that the share grows in the strategically most important sectors and in larger firms.

From this perspective, it is noteworthy that women's share of limited companies has grown from 12,5 to 13,1 percent, i.e. with no more than 0.6 percent points. Among joint stock companies, the share has risen somewhat more, from 2,2 to 3,9 percent. Also among larger firms, the share has risen somewhat more from 4,3 to 6,6 percent, but in both these groups the imbalance generally is extremely skewed in women's disfavour.

Table 4.8: Comparisons of share of female managers 1999 and 2003.

	Total number of firms		Share of female managers (%)	
	1999	2003	1999	2003
All companies	534 785	539 505	18,4	20,6
<i>Type of company:</i>				
Sole proprietorship	357 288	390 722	21,0	22,9
Other body corporate	12 502	16 925	21,4	20,5
Limited companies	151 793	122 475	12,5	13,1
Joint stock companies	534	510	2,2	3,9
Other	12 668	8 873	16,2	22,0
<i>Industrial sector</i>				
Agriculture and forestry	95 519	101 495	12,6	14,8
Fishing	11 647	10 537	2,4	3,2
Mining and quarrying	1 392	1 297	7,5	8,6
Manufacturing	34 137	30 545	17,3	18,3
Electricity, gas and water supply	812	844	3,5	4,3
Construction	52 148	51 778	1,5	1,5
Wholesale and retail trade	99 998	87 552	25,9	26,7
Hotels and restaurants	16 933	14 011	31,3	33,5
Transport, storage and communication	34 711	31 838	7,8	8,7
Financial intermediation	2 696	2 710	7,5	9,2
Real estate, renting, business activities	117 776	122 073	16,1	17,4
Education	2 986	6 469	25,9	36,7
Health and social work	15 794	26 351	46,4	50,9
Community, social and personal service	28 156	37 084	51,7	47,8
Private households	204	131	64,5	59,5
<i>Size groups:</i>				
0, n.a.	448 118	463 413	19,3	21,5
1-2	32 817	28 267	17,3	16,6
3-4	16 177	14 445	16,3	18,1
5-9	16 461	15 284	12,4	14,2
10-19	9 770	9 583	9,6	10,8
20-49	5 811	5 547	7,3	8,8
50-99	1 627	1 550	5,2	6,6
100+	1 409	1 416	4,3	6,6

The changes of the sectoral pattern of women's share of management position do not reveal very significant trends. Mostly, the changes are in the same size order as the over all development. The most important exception from this is in the field of education, in which women's share have undergone a very significant 'jump' from 25,9 to 36,7 percent.

5 Ownership

In this part we will focus on ownership and analyse variations by gender. The basis for this analysis is a data file with data on owners for some 130.000 firms, which mostly include the joint stock companies and the limited companies. For each firm the file include information about up to the fifty largest owners. For each owner, we have identification of the individual and the corresponding owner share. In order to identify the 'value' of the shares, we have matched the data on ownership with accounting data for 2002.

Based on this, we have data on about 184.000 owners that together hold 250.000 ownership position of an estimated aggregated value of 320 billion NOK⁷. An overview of the data is given in Table 5.1.

Table 5.1 Owners by number of ownership positions.

Positions	Owners						Total	
	Women		Men		Firms			
	Number	%	Number	%	Number	%	Number	%
1	33 897	89,8	94 817	79,0	16 830	64,2	145 544	79,1
2-4	3 829	10,1	24 319	20,2	7 461	28,4	35 609	19,3
5-9	40	0,1	925	0,8	1 509	5,8	2 474	1,3
10+	0	0,0	36	0,0	426	1,6	462	0,3
Total	37 766	100,0	120 097	100,0	26 226	100,0	184 089	100,0
Aggregated value (billion NOK)	7,4		34,4		278,0		319,8	

Among the 250.000 owners, there are about 224.000 personal owners, among whom 24 percent are women and 76 percent men. As it follows from the table, the tendency of concentrating ownership positions on a few hands is stronger among men than women. In total, there are 961 men (0,8% of all) with five or more positions, while there only are 40 women (0,1% of all) with so many positions.

The total estimated value of the personal ownership positions is 43.8 billion, among which the women's share is 17 percent against 83 percent owned by men.

These data may only provide a first look into the structure of ownership, as the data will not allow for more detailed and maybe more 'realistic' examination of ownership. As is indicated in the table, by far the most important owners are firms. However, this category includes all owners not identified as a person, which may be anything from personally owned investment companies to venture capital firms or financial institutions like banks and insurance companies. In many cases, individuals organise investment companies and coordinate their ownership positions through these companies. This means that the role of personal ownership may be significantly underestimated by the data presented above.

To control for this, we have applied a procedure to identify firms which own other firms one hundred percent and which themselves are fully owned by one single person. When including these firms as personal owners, the share owned by personal owners is increased a little, while the balance between women and men is altered slightly in favour of men (by about one percent point). However, this should be examined more carefully in order to draw more reliable conclusions.

Following up on this, we will have a brief look at the geographical distributions of ownership positions and owner values, which are displayed in Table 5.2. It should be

⁷ Estimation of value is based on book equity.

noted that in this case ownership is not related to the area where the owners are living, but the areas where the firms are located.

Maybe not very surprising, more than two thirds of all values are concentrated in the Oslo region (Oslo and Akershus). Regarding the personally owned values, these are slightly more dispersed than values owned by institutions, but for women as well as men around 45 percent of all values are concentrated in the Oslo region. The distributions for women and men are generally very similar, with one main exception, which is related to the Oslo area. While women's values are more concentrated to the municipality of Oslo, men have higher shares in the surrounding area (i.e. Akershus).

Table 5.2 Geographical distribution of owner value.

County	Owners			Total
	Women	Men	Firms	
N.A.	1,5	1,5	1,1	1,1
Østfold	2,5	3,7	1,9	2,1
Akershus	10,6	19,6	11,1	12,0
Oslo	35,1	24,7	60,2	55,8
Hedmark	1,7	1,9	2,0	2,0
Oppland	2,0	1,9	0,5	0,7
Buskerud	5,1	4,8	1,3	1,8
Vestfold	4,2	4,1	0,8	1,2
Telemark	2,0	2,2	0,9	1,1
Aust-Agder	1,0	1,6	0,3	0,5
Vest-Agder	2,8	2,4	0,4	0,7
Rogaland	10,8	10,3	7,7	8,1
Hordaland	7,6	6,5	4,4	4,7
Sogn og Fjordane	1,1	1,2	0,1	0,3
Møre og Romsdal	5,6	3,8	2,6	2,8
Sør-Trøndelag	3,0	5,5	2,6	2,9
Nord-Trøndelag	0,7	1,0	0,1	0,2
Nordland	1,4	1,7	1,6	1,6
Troms	0,7	1,0	0,2	0,3
Finnmark	0,5	0,5	0,1	0,1
Svalbard	0,0	0,0	0,0	0,0
Total	100,0	100,0	100,0	100,0
Total value (billion NOK)	7,4	34,4	277,8	319,6

In Table 5.3 we have shown the sectoral distribution of owner values. Generally, owner values are spread on a variety of sectors, but with fairly strong concentration in two sectors, i.e. real estate in which 22 percent of all values are concentrated and 14 percent in business services (which includes consultancy services, research activities, financial services etc). For women the pattern is very close to this, with 24 percent in real estate and 13 percent in business services. However, there is one important difference from the general pattern, i.e. women hold a high share in retail trade, which amounts to 16 percent, and this is in contrast to men with only nine percent of all. This means that women's owner values are more concentrated, and the three sectors mentioned account for 53 percent of their owner values, while the share of men's owner values in the same sectors is 43 percent.

6 Summary on gender imbalances

This paper is a follow up study of a previously undertaken investigation of gender based imbalances related to entrepreneurship and management in Norwegian industries in order to investigate if there are changes in the roles of women. Not surprisingly, the picture of rather serious gender imbalances in disfavour of women is confirmed. Although some changes towards higher shares of women as entrepreneurs and managers have been identified, the structural imbalances still are quite significant.

The main findings in this paper may be summarised as follows:

Entrepreneurship

When the formally registered manager of the new firm is applied as a proxy for being an entrepreneur, the statistics show that on average for the investigated period women hold a 26 percent share of all entrepreneurs. This level is significantly higher than the results from the previous investigation (21 percent), but mostly the higher share of women is due to more complete statistics. The implication of this is that our previous investigation has underestimated the level of female entrepreneurship. However, it may also be recognised a growing share of female entrepreneurship in the size order of 1-2 percent points since the late 1990s.

There are significant variations in women's share of entrepreneurs depending on type of firms and sector. For sole traders, i.e. the most marginal type of firms, women have close to 31 percent share of entrepreneurs. Among limited companies it is 15 percent, and – in contrast to this - among joint stock companies it is just seven percent. There is also a tendency that firms started by women are smaller than those started by men. However, here it should be noticed that generally the vast majority of all new firms are very small, mostly without employees other than the starter, and most of them are marginal in economic sense. But among those fairly few with employees, the tendency is that in relative terms, a higher share of men than women start firms with employees.

The sectoral variations show typical gender based differences with women's shares ranging from 60-70 percent as the highest and down to two percent as the lowest. Typically, the higher shares occur in areas where women traditionally have a strong position, while the low shares occur in typically male dominated sectors like for instance construction.

Management

The pattern revealed by the investigation of managers is very similar to that of entrepreneurship. Among all managers – and here we have data for more than half a million of firms– women's share is 20,6 percent. Interestingly, this share has increased from 18,4 percent in three years, which may be regarded as fairly significant for such a short period of time.

However, when examining the details, structural problems similar to those observed for entrepreneurs are revealed. Sole traders (sole proprietorships) is the typical organisation for women, and women have their highest shares in this group, while the share of limited companies is 13 percent and just 3,9 percent for joint stock companies.

Similarly, women's share of businesses varies by size groups. The highest share of around 21 percent occur for businesses with no employees, and then the share is smaller the larger the firm is, with the lowest shares of about six percent for the largest firms. The pattern of sectoral variation is similar to that of entrepreneurs, i.e. the

highest shares occur in sectors that may be regarded as female oriented, while the share in the traditionally male oriented sectors still is very low with fishing and construction as the most extreme ones.

An interesting aspect of women's role in business is their fairly strong position in business services, i.e. mostly consulting activities. This sector is often regarded as one of the knowledge based sectors and in this perspective may be of strategic importance to the future role of women in industrial development.

Regarding the performance of women's firms, the analysis of this paper – as in our previous investigation – reveals a fairly complicated pattern. Based on data for credit rating of firms, our data show great variations among firms managed by women as well as men. Both groups have the whole range of performances, from the extremely good to the very bad. To the extent there are differences, men have higher shares of the very good performers, but also the very bad performers, while there is a tendency that women concentrate more in the lower middle. There may be many explanations for this; however, these explanations have to go beyond simple perceptions of generally different behaviours among men and women.

Ownership

In this paper we have had the opportunity of presenting data on ownership positions in businesses and the share of women's ownership among personal owners. To our knowledge, this is the first time this type of data has been applied for this kind of analysis.

Not surprisingly, the data on ownership show a gender-based imbalance similar to that revealed in the other parts of the analysis. Among those individuals that has been identified as business owners, there is a 24-76 percent share between women and men, and to the extent our account of the values related to these ownership positions are reliable, it shows a women's share of around 17 percent. However, further analysis should be done into this field to more carefully explore the role of women as business owners.

This aspect is important, as it generally will be strong relationships between ownership and roles as entrepreneurs and managers, and visible women owners in business life may have an important impact on the future development as role models for the future generation of businesswomen.