Mercury’s Messengers
Swedish Business Graduates in Practice
by
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1. Introduction

In the National Gallery in London, visitors can admire a painting by the Flemish painter Peter Paul Rubens representing Paris’ choice. To the left in the picture, there are three sparsely dressed women, the Roman goddesses Juno, Minerva and Venus. On the right, stands Paris and the messenger of the gods, Mercury. In fact this seems to be one of the few occasions when Mercury -- the god of merchants -- and Minerva -- the goddess of wisdom, arts and sciences -- were seen close to each other in Roman mythology. In modern times, however, their relationship has become more profound. As shown by Engwall (1992) through the development of contemporary academic management education they have progressed into a situation of co-habitation. This in tum has implied that Mercury, the messenger of the gods, has gained a large number of messengers of his own, i.e. academic business graduates.

Needless to say this has not been a rapid development but a step-by-step process. For quite some time resistance to these messengers was considerable, both from academia and from practitioners. One example of the negative attitude of university professors is in the statement made in 1918 by the famous American economist and social theorist, author of The Theory of the Leisure Class, Thorstein Veblen (1918, pp. 209-210) that:

A college of commerce is designed to serve an emulative purpose only -- individual gain regardless of, or at the cost of, the community at large -- and it is, therefore, peculiarly incompatible with the cultural purpose of the university. It belongs in the corporation of learning no more than a department of athletics.

And the attitude was equally sceptical in the business community. Fritz Redlich noted in the late 1950s that “there could be no growth of academic training for business as long as businessmen insisted that would-be merchants must become apprenticed at an age of fourteen or fifteen years and stay in business thereafter” (Redlich, 1957, pp. 45-46). Thus providers of business education, a Odysseus caught between the dangers of Scylla and Charybdis, face the difficult task of finding a balance between academia and the world of practice. The dilemma can be further illustrated by the post-war development in the United States. In the 1950s the Carnegie Commission and Ford Foundation set up committees, to work with the improvement of business education. These committees presented reports suggesting that business studies in
the United States should be more scientifically oriented (Pierson, 1959 and Gordon & Howell, 1959). This scientific orientation did come to be, but led, in the late 1980s, to the opinion that business studies had become too scientific, that is business administration professors were considered to place too much weight on theoretical research and to have lost touch with the realities of the business world (Porter & McKibbin, 1988).

Nevertheless, business graduates were quite successful in penetrating business corporations and later even public organizations. Flookstein (1990, p. 282) reports that while in 1959 only two of the presidents of the 100 largest US corporations held an MBA, the number was tenfold in 1979. However, these Company presidents constituted only the tip of the iceberg of a large population of business graduates in the United States. Similarly, we will show in the present paper how business graduates have been successful in the Swedish context. This will be done by following up of a study done by Sune Carlson 50 years ago of top managers in large Swedish companies (Carlson, 1945). However, before turning to the penetration of business graduates in Sweden we will look into an important prerequisite for this process. It is the mechanisms of supply and demand.

2. The Supply and Demand for Academic Business Education

Academic business education is far from a normal consumer good. First of all the demand is coming from a number of different sources: industrialists and politicians who for various reasons promote such education, students who enroll in the education and employers who hire the graduates. The first demand is particularly important for the establishment of new institutions, while the second and third constitute responses to an existing supply. Basically the three types of demand are hierarchically dependent on each other. The first constitutes a prerequisite for the second, which is a prerequisite for the third. What we see in studies of penetration of graduates is thus just the last link in this chain. This demand in turn appears to be reinforced by two types of forces, one technical and the other social.

The technical force is a result of the emergence of an increasing number of large enterprises. Their mere size has led to a need for division of labour and specialization (cf. Chandler, 1962, 1977 and 1990). This in turn has implied a need for sophisticated economic
control systems both internal and external ones. Needless to say this development has increased the demand for business graduates. Similarly, growth aspirations have resulted in the emergence of marketing functions, which have also provided a job market for business graduates. In this way such graduates got the opportunity to reach top management positions and thereby to challenge the two types of graduates that earlier had dominated large companies, engineers and lawyers. Of these two, lawyers were most likely to loose, since they, like the business graduates, work mainly in administrative functions. However, also engineers faced a risk of loosing, even if their risk is lesser than that of lawyers, since their competence is more difficult to challenge. As a result we should also expect business graduates to be more successful in non-manufacturing such as trade, finance, etc.

Looking then at the social force, it is grounded on the fact that consumption to a not negligible extent is a social process. This means that the demand of one individual or group is influenced by the demand of other individuals or groups. Another way to express this phenomenon is that demand is socially constructed (Berger & Luckmann, 1966). If this observation is applied to recruitment we may expect that certain practices are developed within an organization or an organizational field. These practices in turn are likely to be governed by the values of the dominant actors of that organization or organizational field. An important basis for these values is the educational background of the dominant actors. This can even be expected to constitute a significant factor in screening job applicants and to provide an important barrier to entry for applicants with a different educational background than the dominant actors. So, in the same way as new consumer products have difficulties during an introductory phase we can expect new types of education to have similar problems of acceptance. However, as such an education has been successful to penetrate an organization or a field to a certain extent it is likely to attract an increasing number of similar people. In a sense this growth process has even features in common with communication systems like mobile telephones, fax and electronic mail, that is, in order for the consumption to take off there is a need to reach critical levels. It is thus difficult to be an early user of a communication system if one does not have any counterparts. Similarly it is problematic to introduce single graduates of a certain kind. However, as they spread they can develop a communication system through a
language of concepts, which is taking over earlier practices. So business and management
corcepts have had a tendency to take over in the organizational language just as English has
taken over in international communication. Both these tendencies is part of a modernization of
society (cf. e.g. Giddens, 1991), which is manifested through rationalization and marketization.
This in turm has implied tendencies for isomorphism implying that business organizations tend
to imitate each other and that public organizations such as hospitals, universities, schools tend
to follow suit (cf. e.g. DiMaggio & Powell, 1983 and Meyer & Scott 1992/1983). Against this
background the purpose of the present study is to investigate how academic management
education has succeeded in Swedish industry from the second world war and on.

The growth of academic education should of course be expected to be reflected among
the top managers so that an increasing share of them have academic degrees. This in turn is
also likely to have an effect on mobility. The more managers with a general education, the less
they will be attached to a particular Company. By the passage of time we would therefore
expect top managers to increasingly have been employed by more than one Company.

The above reasoning implies that academic business education can be expected to first
exhibit a slow development and then a considerable growth as a result of both the emergence
of large corporations and the social interaction of actors in the field. Another implication is that
business graduates are likely to outnumber particularly law graduates, but also to a certain
extent engineering graduates, in top management positions. Finally, the increasing share of
academic graduates in business can be expected to reduce the number of executives having a
single Company career. These expectations should be kept in mind as we now turn to the
empirical results.
3. The Supply and Demand of Business Graduates in Sweden

3.1. The Supply

In terms of supply of Swedish academic business education, we can identify five major epochs (Table 1). The first of these is characterised by efforts which did not result in long-term success. However, it also includes a chair entitled *jurisprudentia, economia et commerciorum*, that was created in a mercantilistic spirit at Uppsala University as early as 1741. In this way, Sweden was second only to Germany, where chairs had been created in Halle, Frankfurt an der Oder, and Rinteln, about a decade earlier. By the end of the century, the Swedish chair lost its orientation towards the economic sciences, and commercial education became instead a task for the grammar schools of various commercial centres in Sweden. Efforts to introduce accounting to university curricula were met with criticism.2

The second epoch implied a breakthrough for academic business education in Sweden, through the foundation of the Stockholm School of Economics in 1909. This event was preceded by a number of study visits, particularly to Germany, to find appropriate models for a Swedish school. At the time, the Wharton School in Philadelphia and École des Hautes Études Commerciales had been operating for more than a quarter of a century. They had also gained followers in various universities in the German speaking world (Aachen, Leipzig, St. Gallen and Vienna in 1898; Cologne and Frankfurt am Main in 1901; Berlin in 1906; and Mannheim in 1907) and in the United States (University of California, University of Chicago, 1898; Dartmouth, 1900; Columbia University and Harvard University in 1908).3

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1 This section is mainly based on Engwall (1992) and sources referred to therein, particularly Gunnarsson (1988) and Wallerstedt (1988).


3 For further discussion and sources, cf. Engwall (1992, Section 1.3).
### Table 1. Five Epochs in Swedish Business Administration

<table>
<thead>
<tr>
<th>Epoch</th>
<th>Characteristics of the Epoch</th>
</tr>
</thead>
<tbody>
<tr>
<td>pre-1909</td>
<td><strong>An epoch of unsuccessful attempts:</strong> Attempts to introduce the discipline into the university with only short-term success. Resistance from the academic community.</td>
</tr>
<tr>
<td>1909-32</td>
<td><strong>An epoch of commercial techniques:</strong> Establishment of the discipline with the successful foundation of two business schools on private initiatives. Only one professor in each department. Accounting predominates.</td>
</tr>
<tr>
<td>1933-56</td>
<td><strong>An epoch of consolidation:</strong> Addition of chairs to the established schools and to specialised institutions. Increasing demand for business education. Attacks on the duopoly, which fights back. Financial support from the government.</td>
</tr>
<tr>
<td>1957-68</td>
<td><strong>An epoch of entries:</strong> Support from the government creates departments of business administration in all universities. The number of chairs more than doubles. GSE is taken over by the state.</td>
</tr>
<tr>
<td>1969-</td>
<td><strong>An epoch of expansion:</strong> Great expansion of research and teaching of business administration. The introduction of new Ph.D. programmes. Expansion of business administration into local colleges.</td>
</tr>
</tbody>
</table>


Significant supporters of the business school in Stockholm were members of the Wallenberg family, a financial dynasty in Sweden. However, their motives for the foundation seem to have been governed more by an interest to raise the status of businessmen, than by educational content. The early years were difficult for the school in terms of hiring competent professors, and labour market success of the graduates.

The second period also saw the creation of a second business school in 1923 in Gothenburg, the commercial centre on the west coast of Sweden. Plans for this project went back to the last century but had not materialized, likely due to there already existing a non-academic education of high standing in Gothenburg. In founding of the business school in
Gothenburg it went through a similar development, with similar problems, as had the one in Stockholm. In both schools, accounting dominated and the German influence was considerable.

The interwar period and years up to the mid-1950s, i.e. the third epoch in Table 1, constituted a period of consolidation for the two first business schools. Additional chairs were created in business administration, in addition to chairs in the field being created at specialised institutions like the Royal Agricultural College (1931), the Royal College of Forestry (1933), and the Royal Institute of Technology (1939). An increasing demand for academic business studies also brought forth the government proposal to introduce them into university programmes. This was resisted until 1957, when chairs and departments were created in Lund and Uppsala. In terms of curricula, we observe a gradual transition from a strong emphasis on financial issues toward administrative and marketing issues being given increased attention. The first defence of a doctoral dissertation in business administration, in 1950, also belongs to this period.

In the fourth epoch, chairs and departments were created in all universities. This increased the capacity to offer academic business education considerably. The period also implied that one of the private schools, the Gothenburg School of Economics, was forced, for financial reasons, to give up its private status and become integrated with Gothenburg University.

The fifth epoch, finally, meant considerable expansion in the number of business graduates. The departmental expansion of the previous period now bore fruit. In addition, the discipline was introduced into local colleges. Today business administration is one of the largest disciplines of Swedish post-secondary education. Parallel to this development, one can also observe a considerable growth in terms of research.

3.2. The Demand

The development described meant a rather slow growth in departments, chairs and number of graduates until the 1950s. In the 1960s in particular, the capacity then increased drastically through the creation of departments and chairs. As a result, a real take-off for business
graduates took place in 1970s and 1980s. This in turn implied that business graduates came to increase their market shares of the labour market. If we consider business, law and engineering graduates as belonging to the same cohort of job seekers, we thus find that business graduates increased their share of the market from 13.5 per cent in 1911-15, to 40.1 per cent in 1980-85. This growth has primarily occurred at the expense of law graduates, whose market share for the two periods mentioned fell from 36.9 to 16.2. The figures for engineering graduates remained stable, at about 50 per cent (Engwall, 1992, pp. 99-101).

In terms of industries, it is clear that the manufacturing industry has been the major recipient of business graduates. Data reported by Engwall (1992, pp. 106-107) shows that before the war about a quarter of the graduates went into manufacturing, and after the war this rose to a third. In this widely defined industry, business graduates have been particularly successful in the engineering industry, i.e. in the stronghold of engineers. Both during the war and in 1980, a large number of business graduates entered the public sector, which at these times attracted as many as one quarter of the graduates.

Upon analysis of the jobs of business graduates, we find that marketing and economic control have been the major functions. For the period 1931-50 about one quarter of the graduates first jobs were in marketing, and about two-fifths in economic control (Engwall, 1992, p. 105). Interestingly enough, figures regarding the functions of business graduates in 1966, 1970 and 1974 are very similar (ibid., p. 108).

3.3. Concluding Remarks

The evidence provided above implies that academic business education in Sweden was a rather small activity before World War II, but has grown considerably in the post-war period, particularly after the 1960s. This has had effects on both the absolute number of graduates and their position particularly in relation to law graduates. Despite the fact that the supply of business graduates has increased considerably, the demand has maintained a high level. In terms of their tasks, a majority of business graduates have been working with economic control and marketing. There is also evidence that business degrees have been important vehicles for
careers in the Swedish business community. We will now turn to this topic, the main focus of the present paper.

4. The Penetration of Top Management

The founding fathers of the Stockholm School of Economics really did have ambitions beyond the education of merchants. The renowned Swedish economics professor Gustav Cassel argued, in an article of 1907, against those who favoured that the school offer a strictly commercial education. He declared that “the Stockholm School of Economics must have as its mission to educate those who once will become the leaders of our economic life.” To find out to what extent these ambitions have been fulfilled, we will compare the results of three earlier studies and our own study which examine the educational background of top managers in Sweden.

4.1. Earlier Studies

Our point of departure is, as mentioned in Section 1, a 1944 study conducted by Sune Carlson. In this study, Carlson investigated the background of 200 presidents and vice presidents of the then most prominent Swedish trading och industrial companies, evenly distributed amongst ten different lines of business. The names of these executives were taken from official publications such as Who is Who in Trade and Industry (Vem är vem inom handel och industri), Who is Who (Vem är det) and various other sources. The variables considered in the study were the formal education of the presidents, their career inside and outside the Company, and their international experience.

Carlson’s study has been replicated on two other occasions. The first by Fred Ohlsson, in 1956, when a follow-up study using references similar to Carlson’s was conducted in order to define a total of 100 presidents and vice presidents. Ohlsson also investigated the same characteristics as Carlson had. The second replication was undertaken sixteen years later in 1972 by Erik Bolin and Leif Dahlberg, who studied the top managers in the 200 largest

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4 Our italics and our translation from the Swedish text, which reads as follows: “Men handelshögskolan måste ställa som sin uppgift att utbilda dem, som en gång skola bli ledame af vårt ekonomiska lif.” (Cassel, 1907, p. 287).
companies, 15 largest banks, and 10 largest insurance companies in Sweden. Since two of the
subjects held CEO positions in two companies, their sample contained 223 presidents of 225
companies. Information about these individuals was collected through a mail survey, which
when completed showed a 70 per cent response rate.

In addition to the three studies mentioned above, which will be used below in comparisons with the situation in 1994, there are a number of other studies on the education of top managers. In the 1950s, Hökby (1950) and Malmenström & Wiedenborg (1958) also presented studies, in addition to the one by Ohlsson. However, since their populations differed considerably from that of Carlson, they have not been used as major sources for comparison in the present study. The same is true of a study on the top managers of the 1,000 largest Swedish companies presented in the business magazine Ledarskap (1987). Similarly, a very recent study on top management in the 76 largest Swedish companies (listed as well as unlisted) presented in Affärsvärlden (1994), has been difficult to use for comparison as it takes a somewhat different approach and looks at a greater number of the members of top
management group.5

4.2. The Design of the Present Study

We have chosen in the present study to look at the presidents of the 105 Swedish companies
listed on the Stockholm Stock Exchange. The survey also included the chairmen but data for
them are not included in the present study. The names of these persons were provided by the
Stock Exchange. Information has then been solicited from the subjects with addresses in
Sweden, through a short questionnaire to be returned by fax. The respondents were asked to
state their educational background (school, year etc.) and their career path inside and outside
the Company. Following several reminders some respondents have not yet returned the
questionnaire. However, even without these replies the response rate was 94%, the number of
missing answers totals 6 out of 105.

5In this study 61 of the 76 companies responded to the questionnaire. It reports that the typical top
management team in Swedish companies in early 1994 consisted of 7-8 members, a President, 2 or 3 Vice
Presidents leading the most important business areas, a financial director, a controller, a personnel manager
and a Company lawyer. They are all men, of which a majority is 53-55 years age.
4.3. The Overall Development

In his study Carlson (1945) argued, as did Berle & Means (1932) and Burnham (1941), that the character of the Company president had changed since the turn of the century. In the early 1940s, top managers had become employees and their job gradually become a special occupation -- a new “profession”. This change was also reflected in the educational background of presidents. While in the early 1900s an academic degree was an exception among chief executives, in 1944 more than half of them had such a degree. For the age group containing executives younger than 5.5 years of age, academic education was even more common; almost two-thirds. And as is shown in Table 2, this trend of increasing importance of academic education for top managers has continued. Presidents without academic degrees have become successively less frequent. While 52 per cent of the managers in 1944 had an academic degree, the corresponding figure for 1994 is 84 per cent. However, Ohlsson could report as early as 1956 that the dominance of academically trained top managers had been further strengthened since 1944. In his total sample, 72 per cent had academic degrees, and for those under 50 years of age the proportion was even higher, at 77 per cent. In the study performed by Bolin & Dahlberg in 1972, the share of academic graduates had reached nearly three quarter. And in the 1990s, it is fair to agree with the conclusion of the business magazine Affärsvärlden that “an academic degree is not a must, but not to have one is becoming more and more rare” (our translation).

In contrast to the increasing share of academic graduates in top management positions, the tendency between 1944 and 1994 to have more than one academic degree does not seem to have changed much. In 1944 this figure was 4.5 per cent and in 1994 it was 6.1 per cent. The latter figure is also very close to the figure reported in 1956 (6 per cent). The most common combination is engineering and business administration.

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6 An exception during the period seems to be 1972, when as many as 16.5 per cent were reported with more than one degree. As Bolin & Dahlberg, in contrast to the other studies, considered further education within the same discipline as more than one academic degree, their figure is not comparable.
Table 2. Background of Top Managers in Sweden 1944, 1956, 1972 and 1994 (in %)

<table>
<thead>
<tr>
<th>Year</th>
<th>1944</th>
<th>1956</th>
<th>1972</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>12</td>
<td>20</td>
<td>27</td>
<td>37</td>
</tr>
<tr>
<td>Engineering</td>
<td>21</td>
<td>22</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>Law</td>
<td>13</td>
<td>20</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Other academic degree</td>
<td>6</td>
<td>10</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Total academic degrees</td>
<td>52</td>
<td>72</td>
<td>75</td>
<td>84</td>
</tr>
<tr>
<td>Grammar school</td>
<td>30</td>
<td>17</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>11</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Sample size</td>
<td>200</td>
<td>100</td>
<td>157</td>
<td>99</td>
</tr>
</tbody>
</table>

Source: Carlson (1945), Ohlsson (1957), Bolin & Dahlberg (1975) and the present survey.

It is reasonable to expect that the penetration of business graduates differs in different lines of business, i.e. that engineering graduates will be more successful in manufacturing, and business graduates more common in trade, finance and shipping. This also turns out to be the case for both 1944 and 1994 (Table 3). It is quite evident that the formal education of those occupied in industry, as well as in trade, finance and shipping, has increased considerably in the last half century. In 1944, 58 per cent had an academic degree in industry; in 1994, this figure was 84 per cent. The same trend can be found by those occupied in trade, finance and shipping. The major part of this increase comes from people holding degrees in business administration. In industry, 10 per cent of the sample had a degree in business administration 1944; in 1994, this
figure had more then tripled to 34 per cent. The corresponding percentages for trade, finance and shipping, are 14 and 43, respectively.

Table 3. Educational Background of Top Managers in 1944 and 1994 in Different Industry Sectors (in %).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Manufacturing 1944</th>
<th>1994</th>
<th>Trade, finance and shipping 1944</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>10</td>
<td>34</td>
<td>14</td>
<td>43</td>
</tr>
<tr>
<td>Engineering</td>
<td>31</td>
<td>31</td>
<td>7</td>
<td>22</td>
</tr>
<tr>
<td>Law</td>
<td>9</td>
<td>7</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Other academic degree</td>
<td>8</td>
<td>12</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Total academic degrees</td>
<td>58</td>
<td>84</td>
<td>43</td>
<td>83</td>
</tr>
<tr>
<td>Grammar school</td>
<td>29</td>
<td>16</td>
<td>38</td>
<td>17</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>0</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Sample size</td>
<td>118</td>
<td>63</td>
<td>82</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: Carlson (1945) and the present study.

An expected effect of the increased level of education among top managers would be increased mobility. We would expect that a higher education would facilitate moving between jobs.
There is also evidence for this (Table 4). In 1944, 61 per cent of the top managers had made their career within one and the same Company. This figure has gradually fallen and in the present study a mere 10 per cent of the presidents had been with the same Company for all of their professional career.7

Table 4. Share of Top Managers Making their Career in One Single Company in 1944, 1956, 1975 and 1994 (in %).

<table>
<thead>
<tr>
<th>Year</th>
<th>1944</th>
<th>1956</th>
<th>1972</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share</td>
<td>61</td>
<td>42</td>
<td>11.5</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Carlson (1945), Ohlsson (1957), Bolin & Dahlberg (1975) and the present survey.

4.4. The Three Main Roads to the Top

It is evident from the previous section that academic graduates have become more and more numerous among Swedish top managers. Among these graduates, three degrees clearly dominate: business, engineering and law. Even at the time of Sune Carlson’s study these categories could be pinpointed as the most common academic backgrounds of top managers. Together they accounted for 46 per cent of the total sample. In the later studies this share has become even more significant: 62 per cent in 1956, 59 per cent in 1972, and 72 per cent in 1994 (Ohlsson, 1957, Bolin & Dahlberg, 1975 and the present survey). There can be no doubt that graduates with these degrees have been very successful in penetrating top management of large Swedish corporations. We will therefore concentrate on these three areas in the following analysis.

7This does not exclude the possibility that they have been with their Company a long time. According to the study presented in Affärsvärlden (1994), it is very common that the top managers in large Swedish corporations have been with their Company for many years.
Limiting the population to the three categories mentioned, and looking at the market shares within this body (Table 5), we find that the business graduates have been quite successful. Their share has more than doubled from 25 per cent in 1944 to 52 per cent in 1994, a change which to a large extent had been accomplished already in 1972 (47 per cent). Those displaced were primarily holders of law degrees, whose share has decreased from 28 per cent, after peaking at 34 per cent in the 1956 study, to a mere 8 per cent in the latest studies. The market share for engineering degree holders has remained fairly constant with a slight decline and oscillating trend from 47 to 40 per cent. This is also consistent with the overall pattern for the three degrees reported above in Section 3.

Table 5. Marker Shares for Business, Engineering and Law Degrees of Swedish Top Managers 1944-1994 (in %).

<table>
<thead>
<tr>
<th>Year</th>
<th>1944</th>
<th>1956</th>
<th>1972</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Degree</td>
<td>25</td>
<td>31</td>
<td>47</td>
<td>52</td>
</tr>
<tr>
<td>Engineering Degree</td>
<td>47</td>
<td>35</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Law Degree</td>
<td>28</td>
<td>34</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Actual Number 92 62 109 71

Source: Carlson (1945), Ohlsson (1957), Bolin & Dahlberg (1975) and the present survey.

Note: In cases where an individual holds more than one degree the percentage has been divided between the groups.

In order to get a more fair comparison of the relative success of the three degrees in reaching top management positions, we must however also consider the number of candidates for those
positions holding the three degrees. As there for many years have been a greater number of persons with engineering degrees than with other degrees, if that degree is to be regarded as equally successful in reaching top positions we would need to see a correspondingly greater market share of engineers.

To get an estimate of the relevant populations of persons with the three degrees, from which top managers could be selected, we have then to estimate the age at which the degrees are obtained and the age period between appointment to and retirement from top management positions. Based on information presented in Bolin & Dahlberg (1975, p. 102), we have estimated the graduation age to be 25 years. We can see, both in the study mentioned and our own, that top management positions are held by persons from 35 up to 65 years of age, with a concentration between the ages of 40 and 60. We have chosen to concentrate on the latter core group.

In Table 6 we have extended the analysis of success in the top management core group for the three degree groups by taking into account the number of degree holders who fall within the prospective age group (between 40-60 years). For instance, the figure 1,079 for the total number of business degree holders in 1944 represents the number who had graduated from the Swedish business schools in the period 1909 until 1928.

As the engineering group average seems to have maintained a leading position in competing with the business group, this degree has thus formed the basis for an index of relative success.

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8 The numbers for degree holders after 1937 have been taken from the official educational yearbooks Utbildningsstatistisk årsbok 1978, pp. 412-414, 446-447, 502-503; 1980, pp. 284-285, 332-333 and 1986, pp. 362-363. Prior to 1937 statistics from Swedish education were not collected systematically. Source material has been collected from Utbildningsstatistisk årsbok 1978, Handelshögskolan i Stockholm 1909-1959, Markgren (1981), and Engwall (1992). For the few years before 1911, it has been estimated that the number of law and engineering degrees were the same as for the five-year period beginning 1911. For some years between 1911 and 1937 where only five-year totals are available, the totals have been distributed equally among the five years.

<table>
<thead>
<tr>
<th>Year</th>
<th>1944</th>
<th>1956</th>
<th>1972</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Number</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Degree</td>
<td>1079</td>
<td>1754</td>
<td>3263</td>
<td>15248</td>
</tr>
<tr>
<td>Engineering Degree</td>
<td>3742</td>
<td>4746</td>
<td>8198</td>
<td>26216</td>
</tr>
<tr>
<td>Law Degree</td>
<td>2503</td>
<td>3442</td>
<td>4184</td>
<td>9426</td>
</tr>
<tr>
<td><strong>Top Managers/1 000 Degrees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Degree</td>
<td>21.3</td>
<td>10.8</td>
<td>14.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Engineering Degree</td>
<td>11.5</td>
<td>4.6</td>
<td>5.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Law Degree</td>
<td>10.4</td>
<td>6.1</td>
<td>3.4</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Degree</td>
<td>185</td>
<td>234</td>
<td>294</td>
<td>236</td>
</tr>
<tr>
<td>Engineering Degree</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Law Degree</td>
<td>90</td>
<td>132</td>
<td>66</td>
<td>64</td>
</tr>
</tbody>
</table>


Table 6 demonstrates that the number of top managers per 1,000 degree holders has **decreased** for all three groups: business degrees from 21.3 in 1944 to 2.6 in 1994, engineering from 11.5 to 1.1, and law from 10.4 to 0.7. The decline can be explained by the explosive growth in the number of candidates for top management positions from 1944 to 1994 who held degrees. In 1944, there were 7,324 degree holders (1,079 in business, 3,742 in engineering and 2,503 in law), while there were 50,890 in 1994, almost **seven** times the 1944 figure. The decrease
depends to some extent on the differences in sample sizes, 200 in 1944 and 99 in 1994, but this is only of minor importance.

The most interesting conclusions to be drawn from Table 6 seem to be found in the index figures. Particularly striking is the success in the case of the business graduates, who for the entire period of all four studies show approximately double, or above twice, the success than that of the engineers, with the lowest index of 185 in 1944, and the highest of 294 in 1972. Taking into account that the business education of the time period studied was about one year shorter than that of the two competing degrees, it could be argued that the business degree, in terms of academic studies, has served as a short cut to top management positions in Sweden.

In order to investigate the relative success in different sectors of private enterprise, figures have also been compared to those of the Carlson study of 1944. Carlson divided private enterprise into two groups, one consisting of industry, and the other of trade, banking, insurance, finance and communication. Indices for these groups have been calculated as in Table 6 above, and then compared to the corresponding figures for 1994 (Table 7).

Table 7. Relative Success in Top Management for Business, Engineering and Law Degree holders in Two Sectors of Swedish Private Enterprise

<table>
<thead>
<tr>
<th>Year</th>
<th>1944</th>
<th></th>
<th>1994</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td>Industry</td>
<td>Trade, etc</td>
<td>Industry</td>
<td>Trade, etc</td>
</tr>
<tr>
<td>Business Degree</td>
<td>112</td>
<td>636</td>
<td>188</td>
<td>344</td>
</tr>
<tr>
<td>Engineering Degree</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Law Degree</td>
<td>36</td>
<td>399</td>
<td>63</td>
<td>70</td>
</tr>
</tbody>
</table>
Table 7 shows that business graduates have been more successful even in the industrial group. The difference between business and engineering is however, as expected, even more obvious in the trade and finance oriented sector. It is also mainly in this sector that the law degree has had any significance, though its importance is dramatically reduced from 1944 to 1994.

The reported results seem consistent with those of other studies on Swedish top management. The above mentioned study of the mid-1980s presented in Ledarskap (1987) thus reported that business graduates had taken over the lead in the population of top managers in the 1,000 largest Swedish companies. 32 per cent of these managers were found to be business graduates, 22 per cent were engineering graduates, and 9 per cent law graduates. 27 per cent had some other academic education and only 10 per cent had no academic degree whatsoever. In certain areas engineers held on to their lead over business graduates, i.e. manufacturing (34 as against 31 per cent) and consulting (30 as against 21 per cent).

5. Conclusions

The present study seems to provide a number of important conclusions regarding Swedish top managers. Firstly, the tendency found by Sune Carlson 50 years ago, i.e. that an increasing number of top managers held academic degrees, has been confirmed. There do still exist, however, men who have made a successful career without an academic education (e.g. Volvo President Sören Gyll, SE-Banken Vice President Anders Hedenström), though they are becoming increasingly fewer. One important reason behind this tendency is probably the use of academic degrees as a first screening device in recruiting. Related to this is also, as pointed out in Section 2, that people with a certain background are more apt to show preference to those similar to themselves, i.e. that academic graduates are likely to hire academic graduates.

Secondly, it is quite clear that academic business education has experienced considerable success since the start of the Stockholm School of Economics in 1909, therein providing firm evidence that this school and its followers in the field of academic business education have been successful. It seems justified to say that Gustav Cassel’s vision of an education for “those who once will become the leaders of our economic life” (Cassel, 1907, p. 208) has to a
considerable extent come true. The likelihood of a business graduate becoming a top manager in the post-war period has been more than twice that of an engineering graduate, and in 1972 close to three times as high. This is also in accordance with our expectations expressed in Section 2. An important reason for this development is that business graduates have been appointed to strategic positions in the companies, i.e. economic control and marketing. Both of these activities involve the management of critical relationships of a Company, to financiers and customers. These links to critical resources may in turn create important power bases in the development of a Company (cf. e.g. Pfeffer & Salancik, 1978). Needless to say, the personal networks established both during studies and earlier in one’s career also play important roles.

In this context it is not unreasonable to expect that graduates from the oldest of Swedish business schools, the Stockholm School of Economics, have had certain advantages over graduates of other schools as a result of their school having been on the market longer and thereby having more people placed in influential positions in Swedish companies. The extent to which this is true will be a topic for future research.

In concluding, it is also appropriate to try to see the results of the present study in a wider context. In fact the results reported here belong to the general issue of the selection of business elites. This in turn is definitely an issue that calls for thorough comparative research. A first step in that direction is offered in a recent volume by Engwall & Gunnarsson (1994), in which evidence regarding academic management studies in various countries is presented. The study observes interesting differences, not least between Japan and Western countries, and should lead to more cross-cultural research regarding top management recruitment. This in turn would lead to the issue of how behavioural rules are developed in different business systems (cf. e.g. Whitley, 1992). Perhaps such studies would illuminate interactive processes, through which actors in different organizational fields adapt to each other in a copy-cat manner. Business education is one factor in these processes, and may facilitate communication between actors and thus reduce uncertainty. Another important factor, for both the structure of business education and business behaviour, is the industrial structure, with respect to orientation, ownership, Company size, etc., of a particular country.
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