

Chapter 4

Collaboration Between Universities in Sweden

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4.1 Introduction

For the last decades, the European university sector has faced a major, and still on-going, transformation, affecting the role of universities in the knowledge economy. The university is shifting from a social institution providing public goods towards a knowledge business providing a mix of public and private goods and services (Deiaco et al. 2009). The transformation has primarily entailed:

1. increased competition, for resources such as students, academic staff and funding; as well as
2. increased autonomy of universities (Geuna 2001; Lawton Smith 2006; Vincent-Lancrin 2006; McKelvey and Holmén 2009).

Across Europe, the new globally competitive regime for universities has meant, amongst others, the introduction of competitive funding mechanisms, reduced relative share of government funding and less centralized governance of universities (e.g. Henkel and Little 1999; Geuna 2001; Vincent-Lancrin 2006; Lawton Smith 2006).

The increased competition and autonomy facing universities has led some researchers to argue that universities are gradually being forced to learn how to compete, and that they are therefore increasingly facing a need to act strategically, not least through specialization and differentiation (Clark 1998; Bonaccorsi and Daraio 2007a; McKelvey and Holmén 2009; Deiaco et al. 2012). Mergers among

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universities are arguably considered to be among the strategic responses to the on-going transformations, and we have indeed witnessed an increase in the number of mergers across Europe in the last decades (see e.g. Harman and Meek 2002).

The purpose of this chapter is to outline the Swedish experience of university mergers, from the perspective of the broader pressures for change and strategic behaviour resulting from the on-going transformation. In doing so, we have two particular objectives. First, we draw out the main pressures facing Swedish universities, here referred to as higher education institutions (HEIs), by outlining the significant trends and key changes in public policy affecting the Swedish university system during the last decades.

Secondly, we present and analyze three university mergers taking place in Sweden during this period. In line with our purpose of examining mergers from the perspective of strategic behaviour, in this chapter we focus upon “voluntary” mergers. These are mergers initiated by the merging HEIs themselves, and thereby resulting largely from bottom-up processes, as opposed to “forced” mergers that are initiated and driven by actors external to the merging HEIs (cf. Skodvin 1999; Harman and Meek 2002).

Determining whether a merger is voluntary or forced is however not straightforward, since “voluntary ones are often forced by circumstances” (Skodvin 1999). We have here chosen to consider a merger as forced if it to a large extent was the outcome of centralized decisions, by the government. For example, the Stockholm Institute of Education was merged with Stockholm University in 2008. This merger was initiated by the HEIs themselves through the commissioning of an assessment of the potential merger. When the report was delivered, proposing the two HEIs to merge, the Stockholm Institute of Education decided not to take part of it after all. In the end it was the Ministry of education and research that drove the merger to completion, by simply deciding that the two HEIs should merge.¹

The three mergers presented in this chapter are all the mergers taking place in Sweden during the last two decades, which were identified as “voluntary”, meaning that they were largely driven – from initiation to implementation – by the merging HEIs themselves. We treat these three mergers as small case studies: For each case, we present the experience in terms of the background, explicitly stated rationales and outcomes of the merger.² To address the question of mergers as strategic behaviour of universities, we moreover analyze these three cases from the perspective of “strategic positioning”, following Bonaccorsi and colleagues (e.g. Bonaccorsi and Daraio 2007b; Dario et al. 2011). This is a conceptualization of universities as strategic actors with multiple inputs, such as personnel and funding, and multiple outputs, such as scientific publications and graduated students (see Bonaccorsi and Daraio 2007a, b). Using this conceptualization, it is possible to analyze whether and how universities strategically differentiate by studying how individual universities

¹ See for instance a press release issued shortly after the Stockholm Institute of Education backed out of the merger, in which the then Minister of education and research Lars Leijonborg stated that “Stockholm Institute of Education ‘will’ be merged with Stockholm university.” The teaching education provided by the Stockholm Institute of Education had for long been considered to be lacking in quality, and the government viewed this merger as key for remedying this problem.

² We do not provide any detailed presentation of the merger processes in these cases.

position themselves, relative to other universities, in terms of their inputs and outputs. This positioning can be seen as reflecting the strategic profiles of individual universities.³ Here we use the concept of strategic positioning to relate the rationales of the mergers to the profiles of the universities prior to merging. Moreover, we analyze whether any changes in the positioning of the universities studied within the Swedish university sector can be discerned after the mergers.

While the three cases represent all voluntary mergers taking place in Sweden during the last two decades, we also believe that they provide different insights with regards to the phenomenon of university mergers in general. The first case (Mid Sweden University) is a merger between two small regional HEIs, taking place in the early 1990s. It is an example of a largely horizontal merger, i.e. a merger between two universities with similar profiles (Harman and Meek 2002). This is an interesting case, since it took place already 20 years ago, there by providing a long time span for studying the results. Moreover, this merger took place in the very beginning of the transformation of the Swedish university sector, meaning that resulting (post-merger) HEI had to deal with the increasing changes and pressures during its development phase.

The second case is a merger between two regional HEIs – one university and one university college⁴ – resulting in the foundation of the new Linnæus University in 2010. As the first case, this was a largely horizontal merger. Unlike the first case, however, this merger took place during the more “competitive” regime currently facing universities.

The third case (Uppsala University) is a recent merger between a large comprehensive university and a small regional HEI. While the two other cases are examples of horizontal mergers through “consolidation”, i.e. the foundation of a new “stand-alone” university, this third case can be viewed more as a vertical merger through a take-over, in the sense that the smaller HEI was transformed into a campus within the large university. While this merger was implemented in the summer of 2013 and therefore not providing a time period long enough for analyzing its outcomes, this case provides interesting insights into the rationales for vertical mergers.

4.2 The Swedish Context

This section presents the Swedish university context with a specific focus on major trends and policy changes taking place from the 1990s onward. The first “proper” science policy in Sweden was established during the World War II period, and

³ In this conceptualization, strategy is an emergent, rather than deliberate, property of changes over time.

⁴ Traditionally, the difference between universities and colleges in Sweden was that universities had the right to grant doctoral degrees. Since early 2000, however, university colleges have the right to apply for examination right within certain disciplines.

focused on developing a research funding structure and the long-term indirect benefits from public basic research (Benner 2001; Jacob and Orsenigo 2007).

During this period, Sweden had only a handful of universities, all located in the major cities, or first tier of cities. Education exploded in the post-World War II period, and several colleges were founded as regional branches of existing universities during the 1960s and 1970s. These regional branches were placed in the next tier of cities, such as Linköping, mainly for reasons related to regional politics. The main task of these colleges as defined by the politicians was to attract more students into higher education, in order to provide the regional industry with workers. During the 1980s and 1990s, many of these organizations expanded and became independent universities or colleges.

Another wave of foundations of new regional university colleges took place in the 1990s. These regional colleges were placed in even smaller towns, often further from metropolitan areas. This was also a turbulent period, when Sweden again underwent major changes in research and education policy. The underlying mechanisms behind these changes include an economic recession, accompanied by a new belief in universities as driving economic growth.

Jacob and Orsenigo (2007) identify two major trends in Swedish research and higher education policy from the 1990s onward. First, public policy has had the ambition to make HEIs and research the means for achieving economic progress in (weaker) regions. The second trend was to utilize HEIs and research as a source of “renewal” in the transition to a knowledge economy. In relation to these trends, Jacob and Orsenigo (2007) argue that contemporary Swedish policy has had three broad objectives:

1. to promote the development of an entrepreneurial culture in higher education and research;
2. to support a greater degree of interaction between HEIs and society, primarily industry; and
3. to increase the pace of commercialization of academic knowledge. These developments are of course in line with changes in the US, Europe and Asia, but are different from the earlier objectives of Swedish public policy towards universities.

These broad policy objectives have led to three types of reforms being undertaken in Sweden during the last two decades. The first set includes reforms that changed the balance between fixed and competitive funding. These changes include a reorganization of the research financing system to promote more reliance on competitive funding, through redistribution from fixed funding to external funding through research councils and foundations, and the creation of infrastructure to commercialize research results (e.g. Benner 2001; Jacob and Orsenigo 2007).

Similar to the general trend in Europe, there has been a decrease in the relative share of direct government funding during the last few decades in Sweden (Hällsten and Sandström 2002; Heyman and Lundberg 2002). This more competitive environment and the restructuring of public authorities were facilitated by the introduction of new public research foundations, intended to stimulate strategic

research and to enhance co-operation and interaction with industry (Schilling 2005). This led to a decrease of fixed research funding, which has meant that education, and not research, has become the major source of fixed income for Swedish HEIs.⁵ In other words, in Sweden, as in Europe in general, we can observe an increasing importance of external research funding and a more competitive environment for research funding.

Secondly, public research was expanded during this period, with more HEIs receiving fixed research funding. Since 1997, all universities and university colleges receive research funding from the government. Earlier, fixed research funding was related to university status,⁶ but from 1997 university colleges also receive such funding, although initially rather limited amounts (e.g. Sörlin and Törnqvist 2000; Benner 2001). However, the total amount of fixed research funding given to HEIs was not originally significantly increased, but rather spread out more thinly amongst more actors.

The third set of reforms includes changes that increased the autonomy of independent HEIs. These changes pertain particularly to reforms in postgraduate education and in the appointment system. Importantly, professors are no longer appointed by the government in Stockholm but instead by the HEIs themselves. Moreover, reforms in the 1990s increased the organizational autonomy to hire and promote at all levels (Benner 2001; Jacob and Orsenigo 2007). Unlike many southern European countries, Swedish university professors (and all other university employees) are not national civil servants, but employees of the individual organization. The reforms of the 1990s also shifted the science policy system away from the previous, more German-inspired system of resources concentrated around 'chair professors' to a more American-inspired one of tenure as related to promotion, albeit in a context of European labour laws regulating employment.

More recently, public policy has changed from a focus on "quantity", which dominated the agenda in the 1990s with the research expansion, towards a focus on "quality" during the last few years. Two main assumptions can be seen as underpinning this new focus. The first public policy assumption is that Sweden needs elite universities, which are able to compete not just nationally but also at an international level. The second assumption is that the resources available in Sweden are currently too limited to achieve this aim (e.g. Björklund 2011).

This new focus has led to changes in recent years, both in public policy and locally within individual universities. Of significance is the fact that the total amount of fixed research funding given to HEIs has increased substantially for the first time since the mid-1990s, starting in 2007 (HSV 2012a). Since 2009, 10 % of the fixed research funding is allocated based on universities' research

⁵ In contrast to research funding, all income from education comes from fixed funding, which is based on the number of enrolled students and passed degrees.

⁶ Traditionally, university status was related to the right to examine doctoral students, a right that university colleges did not have. However, this distinction between universities and colleges has become less straightforward, during the last decade.

performance. The assumption is that allocation based on performance will encourage increased research quality. Universities' research performance has so far been evaluated based on publication and citation records and on the amount of external research funding that the universities have attracted. From 2013, the proportion of performance-based research funding has doubled (20 %), and the evaluation will be based upon peer review.

The increased focus on quality has also led to a trend towards evaluations of mainly research but also education, both nationally and locally at individual universities. Several universities have undertaken internal research evaluations in recent years, as well as allocating a portion of the fixed research funding based on performance, usually measured through (self-reported) publications.⁷ Moreover, a national evaluation of higher education was launched in 2012, starting with evaluation of all Master programs provided by Swedish HEIs in a chosen set of fields. Moreover, a number of different national rankings of universities have been introduced, such as Urank,⁸ and these have gained increased attention in the last years, both from the public, policymakers, and from universities themselves.

As in the rest of Europe, higher education has expanded dramatically since the 1960s in Sweden. Moreover, the Bologna reform to a Bachelor-Masters degree structure together with the Swedish policy of no fees (even for non-Swedish residents) up until 2011 has led to a huge increase in students from abroad for Masters programs. Some universities and colleges had almost exclusively (up to 96 %) foreign students in Masters programs (HSV 2012a), before national fees were introduced in 2011. However, fears have now been expressed that the student enrolment into the universities peaked in the last years, and that it will decrease significantly in the coming years.⁹ The reason for this is changing demographics, with the cohorts eligible for higher education studies significantly decreasing in size in the coming decade (HSV 2012a).¹⁰ This together with a decrease in the number of foreign students due to the introduction of student fees for non-EU/EES residents in 2011 suggests that Sweden will face an increasing contraction of education in coming years.

To some extent this contraction might however be mitigated by the dramatic increase in distance education during the last decades, which currently stands at approximately 20 % of all students as compared to around 6 % in 2002 (HSV 2012a). One indication that distance education might to some extent mitigate the

⁷ Such local evaluations have taken place, in, among others, Lund University, Uppsala University and University of Gothenburg.

⁸ <http://www.urank.se>

⁹ Such fears can for instance be seen in a recent article in one of Sweden's largest newspapers, in which the vice-chancellor of Uppsala university is interviewed (Tenfelt 2012). In the article, the vice-chancellor predicts that the number of students will decrease by up to 10 % in the coming 7 years, based on available demographic statistics.

¹⁰ For instance the number of 19-year olds in Sweden, which is the cohort that commonly enter into higher education, will decrease from around 140,000 in 2010 to below 100,000 by 2015 (HSV 2012a).

contraction of education is the fact that it is to a large extent relatively older people enrolling into this type of education, with more than 40 % of the students being older than 40 years (HSV 2012a).

Finally, policy makers and the government have during the last years discussed and actively encouraged collaborations and (voluntary) mergers among HEIs. While the government has not formally demanded or driven any mergers, they have openly and consistently highlighted the rationale of small regional HEIs merging with large research strong universities, in terms of achieving scale effects, such as critical mass of researchers, in order to survive in an increasingly bootstrapped environment (see e.g. Björklund 2011). To facilitate potential mergers, the government has earmarked funds to financially support merger processes.

4.3 Overview of the Swedish University Sector

The Swedish university sector comprises more than 50 HEIs providing education, including 16 universities, 22 university colleges and several independent education providers. Table 4.1 presents an overview of the 29 HEIs that conduct research and teaching in a broad set of subjects, including all universities and all but seven specialized university colleges.¹¹ The majority of these HEIs are state controlled, while three are private foundations.

In 2011, approximately 320,000 full-time students were enrolled in higher education in Sweden (HSV 2012b).¹² Roughly 20 % of these students were only enrolled in distance education. The expenditure of higher education and research in the Swedish university sector was 58 billion SEK in 2011, corresponding to approximately 1.7 % of Sweden's GDP (HSV 2012b). Research accounts for slightly more than half of these expenditures, amounting to approximately 32 billion SEK. Fixed research funding stands at around 45 % of the research expenditures, while the rest is external research funding from e.g. governmental agencies and public and private foundations.

Table 4.1 suggests a wide diversity of HEIs in Sweden, ranging from relatively large universities with large expenditures and many students to quite small ones.¹³ In fact, a handful of the larger universities account for the lion's share of the research expenditures. Indeed, the Swedish university sector is highly polarized into two different categories of HEIs (see Ljungberg et al. 2009). On the one hand, there are the (older) teaching and research-intensive universities. These are largely

¹¹ These 29 HEIs account for almost all research and education expenditures. Seven of the university colleges are specialized within one narrow subject, such as arts.

¹² The number of individual students was around 400,000.

¹³ Sweden has, by international comparison, no large universities, but rather only small and medium-sized ones, with the largest HEI educating around 30,000 students annually and employing 2,000 researchers.

Table 4.1 Overview of the Swedish HEIs (2011/12)

	Foundation year	Students	PhDs	Academics	Researchers	Education expenditures	Research expenditures
Blekinge IT	1989	4,018	15	226	122	316,931	168,444
Borås UC	1977	6,214		342	169	450,266	147,420
Chalmers TU ^a	1829	8,364	138	1,088	803	890,588	2,147,989
Dalarna UC	1977	6,877		408	172	473,783	97,548
Gävle UC	1977	6,382		363	166	433,679	110,230
Gotland UC	1998	2,307		116	58	164,822	38,558
Halmstad UC	1983	5,475	1	290	155	376,851	115,430
Jönköping UC ^a	1977	8,288	14	355	182	557,806	205,450
Karlstad U	1977	8,602	23	612	332	670,658	320,534
Karolinska institute	1810	6,097	349	1,770	1,525	923,540	4,294,424
Kristianstad UC	1977	5,890		322	138	392,918	49,026
Linköping U	1970	17,914	145	1,524	1,112	1,391,036	1,789,493
Linneaus U	2010	15,372	41	889	471	1,106,000	395,327
Luleå TU	1971	7,726	69	557	396	624,283	782,258
Lund U	1666	28,586	339	2,737	2,363	2,349,571	4,208,251
Mälardalen UC	1977	7,921	17	438	194	609,204	178,499

Malmö UC	1998	12,529	10	740	398	979,453	226,728
Mid Sweden U	1993	7,929	24	512	280	543,058	377,835
Örebro U	1965	9,866	61	522	319	669,058	334,556
Royal IT	1826	12,441	235	1,460	1,026	1,205,901	2,398,591
Skövde UC	1977	4,492		266	159	330,230	85,814
SLU	1977	4,039	110	1,443	1,181	653,747	2,006,595
Södertörn UC	1995	7,362	3	372	268	408,675	267,150
Stockholm SE ^a	1909	1,659	19	94	92	187,715	146,849
Stockholm U	1904	30,003	225	2,437	1,698	1,826,688	2,404,455
U of Gothenburg	1891	26,467	265	2,405	1,869	2,078,248	3,194,156
Umeå U	1965	16,697	180	1,908	1,321	1,564,193	2,145,522
Uppsala U	1477	23,330	309	2,501	2,065	1,604,671	3,586,621
Väst UC	1990	5,042		315	138	358,401	87,757

^aPrivate HEI

the old large traditional universities, which conduct most of the research and also educate the bulk of students in Sweden. On the other hand, there are the (younger) regional small and education dependent HEIs. These are the younger regional universities and colleges, which are relatively weak in research and financially highly dependent on education, although they educate only a small share of students.

4.4 Mergers in the Swedish University Sector¹⁴

This section presents the three cases of mergers identified in the Swedish university sector. All of these three mergers were voluntary in the sense of being initiated by the merging HEIs. Moreover, all mergers have met with little opposition, and have entailed a process of consultation with several stakeholders, including student unions, municipalities, and trade unions.

4.4.1 *Mid Sweden University*

The first case is Mid Sweden University, which is the result of a merger between two regional university colleges in 1993. The merger was initiated by the two HEIs, and the process was driven together with, among others, the regional authorities. The two merging HEIs had similar but complementary profiles, as well as a history of collaborations. While, as we shall see later, the goal was to create a university that contributes nationally to research and education, the merger was partly driven in response to perceived needs of the region. At the time of the merger, the region had no university; the share of highly educated people was low in comparison to Sweden overall; and there existed few institutions conducting research outside the academic environment. One rationale for the merger was that the presence of a university would strengthen the region, in terms of research and higher education.

4.4.1.1 Rationales for Merging

Underlying the merger, leading to the foundation of Mid Sweden University College in 1993, was the explicit long-term goal of the two merging HEIs and regional authorities to create the region's first university by 2000. With this goal in

¹⁴ The cases are based on analysis of available documents for each case, such as letters of intent, evaluation reports, debate and newspaper articles, and annual reports. To analyze the strategic profiles, we complement each case with quantitative data, drawn from public administrative data on Swedish HEIs, see the [Appendix](#).

mind, the focus was on receiving fixed research funding,¹⁵ and to create a relatively large environment for higher education and research. As such, the explicit goal was to have 8–10,000 students enrolled annually and to employ 100 professors by 2000.

The slogan behind the merger process was “Sweden needs a new university”. This did not mean that Sweden needed a new university per se, but rather a new type of university: a so-called collegiate university, meaning a multi-campus university without strong centralized governance and in which the campuses have different focus and high independence. The inspiration for this came from international experiences of this university type, mainly from Australia. Thus, after the merger, Mid Sweden University College (which later became a university) was founded. It has three largely independent campuses, on the pre-existing locations of the merging HEIs. In line with the collegiate university model, Mid Sweden UC from the very start had a strong focus on networks as well as on what they called “geographically independent” education. The latter entailed a focus on distance education in general as well as on “local” solutions, meaning that students living and studying in one campus are given opportunities to take courses at one of the other campuses without having to relocate and commute.

Moreover, the merger was initiated with some explicitly stated rationales:

- Pool and efficiently use resources for research and higher education.
- Contribute nationally and not only regionally in terms of higher education and research.
- Better meet society’s demands and need for continuing professional training.
- Internationalize research and education in the region.

4.4.1.2 Outcomes of Merger

The long-term goal of the merger was that the resulting HEI would become a university by 2000. This goal, however, took considerably longer time than was predicted during the merger process. University status was applied for and denied twice. The reason for the rejected applications was that Mid Sweden UC was considered to be lacking in terms of research capacity, scientific productivity and “critical mass” of researchers. One step towards the university status was taken in 2001, when Mid Sweden UC was granted the right to examine PhD students in natural sciences. Finally, university status was granted for the HEI from 2005.

The stated goal of a volume of 8–10,000 students was reached before 2000. For instance, when higher education was increased in Sweden in the 1990s, Mid Sweden University was granted the highest number of new students of all HEIs. Moreover the university has become rather “efficient” in terms of student “performance” relative to education expenditure in relation to most other universities in

¹⁵ As mentioned in Sect. 4.2, university colleges did not receive fixed research funding prior to 1997.

Sweden (see Fig. A.3 in the Appendix).¹⁶ Partly, this might be explained by the strong focus on distance education, which generally incurs lower costs than on-campus education.

Over time, one can distinguish an emergent focus on distance education at Mid Sweden University, increasing from around 830 full-time students (17 % of all students) in 1994 to over 6,000 students (71 %) in 2011. This is in line with the idea behind the adopted collegiate university model and, consequently, the university has become one of the largest actors in distance education in Sweden.¹⁷

In terms of achieving its goals for improving research capacity, the university has faced more problems. It was however granted fixed research funding in 1997, together with several other regional HEIs. Moreover, in relation to similar HEIs, Mid Sweden currently is relatively well balanced between research and education in terms of expenditures (approximately 40 % of the expenditures is research) (see Table 4.1). However, it is significantly lagging behind other universities in terms of research output (e.g. publications and PhD students), the ability to attract external competitive funding and achieving critical mass in research (See Table 4.1, Figs. A.1 and A.2 in the Appendix). In line with this, Mid Sweden has not yet reached the goal of employing 100 professors. In 2000, the university had 19 professors among its staff, increasing to 71 in 2011.

4.4.2 *Linnæus University*

The second case relates to the merger between two regional HEIs: Växjö University and Kalmar University College. The merger was initiated in 2007, following a strategic alliance between the two HEIs.¹⁸ The merger was initiated by the two HEIs, and the government supported the initiative and also financially aided the merger process.¹⁹ The result of the merger was the foundation of Linnæus University in 2010, a new university with two (independent) campuses on the locations of the two merging HEIs.

The merging universities were both regional small and education dependent HEIs, with high orientation towards education, low research productivity and low shares of external research funding (see Fig. A.4 in the Appendix; Ljungberg

¹⁶ A full time school year, where the student completes all courses, comprises 60 ECTS credits. Thus, the student “Annual Performance Equivalent” (APE) is the aggregated amount of credits completed in a year at a university divided by 60. Thus it can be said to measure the educational output of universities.

¹⁷ In terms of the number of students enrolled in distance education, the HEI is the second largest actor after Linnæus University. Moreover, Mid Sweden U has the second highest share of students enrolled in distance education (SCB 2012).

¹⁸ The strategic alliance originally had a third partner, Blekinge Institution of Technology, which decided to end the collaboration prior to the merger initiation.

¹⁹ The government allocated 60 million SEK to aid the merger process.

et al. 2009). At the time of the merger, the two HEIs were similar in size and had similar, and complementary, profiles (see Table A.2 in the Appendix). Moreover, both were ranked low in national rankings.²⁰

4.4.2.1 Rationales for Merging

The vision underlying the merger was, in line with the recent policy focus presented in Sect. 4.2, to become a stronger and larger university with focus on quality and competitiveness. As part of this vision the goal was to pool and efficiently use resources for research and higher education, which in this case meant to consolidate the existing research and teaching fields, while increasing the potential to develop new ones. The underlying rationale for this goal was that pooling and efficiently using resources would lead to increased quality and competitiveness, not the least in terms of increasing visibility for both students as well as researchers and teachers, and to enhance research. This can be seen for instance in the explicitly stated aim of the new university to attract an increased number of students.

4.4.2.2 Outcomes of Merger

The new university, resulting from the merger between Växjö and Kalmar, has been active for 3 years at the time of writing. While this might be a too short time frame to see all potential outcomes of the merger, it is sufficient to make some observations.

First of all, the overall position of the new university largely resembles that of the two merging HEIs (see Table A.4 in the Appendix): it is highly dependent upon education in terms of funding, relatively weak in research, and so far, no significant improvement in rankings has been achieved.

Turning to education, one can first observe that the merger led to the new HEI becoming the second largest regional university in terms of the number of students.²¹ They also managed to attract an increased number of new students after the merger, indeed the university had higher increase in student enrolment than any other HEI in Sweden (8 %) between 2009 and 2012. It is, however, notable that this expansion of the education can almost entirely be attributed to an increase in the number of students in distance education. In fact, due to the merger and this increase in enrolment, the university currently has the highest number of students in distance education in Sweden, with around 4,900 full-time students.

²⁰ In 2009, Växjö was ranked at place 17 of 30 HEIs in the Urank ranking. Kalmar UC was ranked at place 25 in the same year. See <http://www.urank.se>

²¹ In 2012, the university had approximately 15,000 full-time students, which also makes it larger than several older universities.

Moreover, the university also became more “efficient” in education, in terms of lower cost per full-time student (see Figs. A.3 and A.4 in the Appendix). It also has a significant broader scope in terms of the number of education subjects offered to students (see Table A.2 in the Appendix).

It is, however, more difficult to discern any significant changes in terms of research capacity after the merger, apart from the fact that the new university employs more researchers after the merger, and it has a broader scope in terms of research subjects. In relation to this, one can also observe an increase in the “density” of research subjects, meaning the average number of researchers per subject (cf. Ljungberg et al. 2009). However, the HEI has almost the same number of research subjects as significantly larger universities, indicating that it might still suffer from a lack of “critical mass” of researchers in several of the research subjects. Moreover, there is no significant difference in the university’s ability to attract external research funding, where it is still lagging behind other universities of similar size (see Table 4.1). Interestingly, after the merger the HEI has had a decrease in terms of its research productivity (in terms of publications).

4.4.3 Uppsala University with Campus Gotland

The third case is the recent merger between Uppsala University and Gotland University College. The merger process was initiated by the two HEIs in 2011, following up on existing collaboration. A proposal for merging, including the rationales and envisioned benefits, was presented in 2012, and the government decided to approve the merger in December of the same year.

The merger was finalized in July 2013. In contrast to the two previously presented cases, this was not a horizontal merger leading to the foundation of a new university. Instead, it can be understood as a vertical merger, with Gotland incorporated as a campus within Uppsala University.

Uppsala is one of the largest and most research-intensive comprehensive universities in Sweden (see Table 4.1 and Figs. A.1 and A.2 in the Appendix). Gotland on the other hand was the smallest HEI with research funding, and it was highly education dependent (see Table 4.1). Moreover, Uppsala has commonly ranked highest among the comprehensive universities in national rankings while Gotland has ranked the lowest overall.²²

²² In the national ranking Urank (University Ranking), Uppsala was ranked number five in 2011, after four universities specialized in technology, medicine and agriculture. In the same ranking, Gotland UC was ranked lowest. See <http://www.urank.se>

4.4.3.1 Rationales for Merging

The stated objectives of this recent merger were to create:

1. a unique profile within Uppsala; and
2. a sustainable and competitive academic environment at Gotland.

The envisioned unique profile within Uppsala concerns a focus on distance education and liberal arts education, both of which were a strong feature at Gotland. Before the merger, Gotland had a major focus on distance education, with around 1,770 full-time students, which corresponds to approximately 85 % of all students. At the same time, distance education has been seen as a weak spot of Uppsala, both in terms of competencies and number of enrolled students. However, if the recent merger is successful, Uppsala will become the traditional comprehensive university with the highest number of students in distance education in Sweden.²³

Another rationale for the merger is for Uppsala to take advantage of Gotland's experiences and practical competencies in distance education solutions. This rationale can be seen in the following quote, taken from a debate article by the previous vice-chancellors of the two HEIs: "Together we can combine practical experience with scientific theories and methods regarding state-of-the-art pedagogics and didactics" (Åkesson and Tholin 2012).²⁴

Gotland UC had strong focus on Liberal Arts education, which was the model used for all on-campus education. This educational model, in this setting, is centred on students choosing a major, which is combined with elective courses in other disciplines. In other words, the model is envisioned to combine depth with breadth, in terms of multidisciplinary. Part of the unique profile envisioned through the merger is to become an international centre for Liberal Arts education at Campus Gotland. The objective here is that Uppsala will gain a Liberal Arts program, and Gotland will be able to broaden its courses provided in the program, drawing on the existing education at Uppsala.

The second objective of the merger is to create a sustainable and competitive academic environment at Gotland. The merger is seen as a means to ensure the continuation of research and higher education in the region. Gotland can take advantage of the strong Uppsala brand, as well as its competencies in research and education (as seen in the quote above). Also, the merger will lead to pooling resources, which is seen as especially important for sustaining small research and education subjects: "By merging, environments are created where some small subjects can become nationally and internationally leading" (Åkesson and Tholin

²³ However, Uppsala will, after a merger, still be substantially smaller in distance education, with potentially around 3,500 full-time students, than some regional universities such as Linnæus U or Mid Sweden U, which both have around 4,500–5,000 full-time students.

²⁴ Authors' translation. Original quote in Swedish: "Tillsammans kan vi kombinera praktisk erfarenhet med vetenskapliga teorier och metoder om nyskapande högskolepedagogik och didaktik."

2012).²⁵ One such subject that is explicitly mentioned is archaeology, which is present at both HEIs, but with relatively few students and researchers.²⁶

4.5 Lessons Learned

In this section, we will outline some lessons learned from the Swedish experiences of university mergers, from the perspective of strategic positioning.

The main external pressures facing Swedish universities can be summarized as:

1. increased competition among HEIs;
2. shifting policy focus from quantity towards (increased) quality;
3. forthcoming contraction of education; and
4. governmental encouragement of mergers between small HEIs and larger universities.

The Swedish university sector has faced increased competition for resources during the last decades, largely due to expansion of research (and education) in terms of actors and redistribution of research funding. Firstly, the university sector has been expanded through the setting up of several regional HEIs from the 1970s onwards. This was followed by the expansion of research in terms of actors when fixed research funding was awarded to non-university HEIs starting from 1997, without significantly increasing the funding. Secondly, research funding was redistributed toward more competitive research funding, with the share of direct government funding decreasing and the share of external research funding increasing.

Mid Sweden University was founded with the goal that the merger would provide the critical mass and resources needed in the already competitive environment to be able to receive fixed research funding and ultimately university status. When competition was enhanced further, this proved more difficult than envisioned, and the new HEI was denied university status several times before finally succeeding. Even 30 years after its foundation, Mid Sweden University has still not met some of its original goals and is to some extent lagging behind in terms of research.

In recent years, public policy has increasingly focused on “quality” of research (and education), underpinned by the assumptions that Sweden needs elite universities that can compete internationally. This emphasis on quality has led, among other things, to the introduction of research and education evaluations and performance-based allocation of research funding, which has further increased the competition in the university sector. In line with this policy focus, Linnæus

²⁵ Authors’ translation. Original quote in Swedish: “Genom sammangåendet skapas miljöer där vissa små ämnen kan bli nationellt och internationellt ledande.”

²⁶ Authors’ translation. Original quote in Swedish: “Genom sammangåendet skapas miljöer där vissa små ämnen kan bli nationellt och internationellt ledande.”

University was founded with the explicit aim of consolidating resources to increase quality, in order to become a more competitive university.

Following expansion (massification) of education for many decades, there now seems to be a forthcoming contraction of education facing Swedish universities, due to changes in demographics and the introduction of fees for non-EU/EES residents in 2011. Given that education is the major source of fixed funding in the Swedish system, this poses a threat not in the least to the smaller regional universities that already are resource constrained as well as highly dependent on education. The dramatic increase in distance education during the last decade might, however, provide one way to overcome the contraction. After the merger, Linnæus University managed to significantly increase its enrolment solely by attracting more students in distance education.

Finally, policy makers and the government have actively encouraged voluntary mergers, especially between smaller regional HEIs and larger universities, in order to pool resources and increase quality of research. While so far there have been no governmental demands for such mergers, the influence of this drive can be seen indirectly in the two more recent mergers in terms of explicitly stated rationales such as pooling resources and increasing quality. Moreover, this expressed “wish” for mergers makes the future uncertain for other HEIs: Will mergers sooner or later be forced by the government, rather than voluntary?

The external pressures mentioned here, together with the accompanied increased autonomy of Swedish universities, suggest a need, at least for smaller regional and resource constrained HEIs, to react in different ways in order to compete. A merger can, to some extent, be seen as a strategic response to these pressures, as indicated by the focus on resource pooling, for example, as one explicitly stated rationale for the mergers presented in this chapter.

The three mergers in the Swedish university sector presented in this chapter to a large extent show similar rationales underlying the mergers. The main rationales for merging identified in the studied cases are:

1. to achieve scale and scope by pooling resources;
2. increase quality; and
3. differentiate into or change position in existing market or profile (see Table 4.2).

When it comes to the outcomes of mergers, the reviewed cases suggest that it may be easier for HEIs to strategically position themselves through mergers in education than in research. The two cases relevant to discuss in terms of outcomes – Mid Sweden and Linnæus universities – both show a post-merger increase in the volume of students as well as (increased) efficiency in education relative to expenditure. However, these merged universities still show a deficiency in terms of research capacity and critical mass of researchers. The question then is if mergers are less conducive to improve research performance in (regional) small and resource constrained HEIs?

On a final note, distance education is, in these cases, one of the most obvious “successful” outcomes of (post) mergers in terms of positioning, which is visible in all three cases. In the case of Mid Sweden University, the adopted collegiate

Table 4.2 Main rationales for merging as found in the cases

Main rationales	Sub-rationales	Relation to studied cases
Achieve scale and scope by pooling resources	Critical mass of researchers	Mid Sweden U was merged in order to achieve critical mass.
	Scale in education	In order to sustain in the long term, Gotland initiated the merger with Uppsala in order to overcome its resource constrains
Increase quality	Pooling and efficiently using resources	Linnæus U and Gotland were merged for reasons of increasing quality and consolidating disciplines.
	Consolidating disciplines	
	Accessing competencies and/or brands	Uppsala U lacked competencies regarding distance education, but by merging with Gotland gained theirs.
Differentiate into, or change position in new markets or profiles	Vertical merger	Uppsala U radically changes position in distance education by incorporating Gotland as a campus, as well as moves into the Liberal art education market.
	Pooling resources	Through the merger, Linnæus U became the largest actor within distance education in Sweden.
		The merger of Mid Sweden U as a collegiate university led to an emergent focus on distance education, making them an early entrant into that market and over time one of the largest actors in Sweden in this area

university model, with its accompanied focus on networks, led to an emergent focus on distance education, making it over time one of the largest actors in Sweden in this area. In the case of Linnaeus U the merger led to the foundation of the largest actor in Sweden within distance education, which is also the area where they managed to attract a surplus of new students in the post-merger period. In the recent merger between Uppsala U and Gotland U, distance education was lifted up as one of the main rationales of the merger.

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Appendix: Strategic Positioning in the Swedish University Sector²⁷

Table A.1 Mid Sweden university's profile (2011/12)

Education	Number of education subjects	Research	Number of research subjects	Profile
HumSoc, (Med), Tech, Nat,	49	Tech, Nat,	46	Specialist (education), generalist (research)

Education subjects: The lowest level of teaching subject classification used in Sweden, 180 education subjects in total. Research subjects: The lowest level of research subject classification used in Sweden, 250 education subjects in total. The university profile is based on a concentration index, constructed to make a basic distinction between “generalist” and “specialist” universities. We calculate the index for both education and research. This was done by calculating the distribution of students and researchers respectively over the four main disciplines. Following earlier research (Bonaccorsi and Daraio 2007a), we define a university as being a specialist if $c1 > 70\%$, meaning that the largest discipline concentrate more than 70 % of students/researchers, or $c2 > 90\%$, meaning that the two largest disciplines concentrate more than 90 %. In all other cases, universities are considered as generalists

Table A.2 Profile of Linnæus University (2011/12) and the two merging HEIs (2008/09)

HEI	Education	Number of education subjects	Research	Number of research subjects	Profile
Linnæus University	HumSoc, (Med), Nat, Tech	78	HumSoc, Nat, Tech, Med	52	Specialist (educ), generalist (res)
Kalmar UC	HumSoc, Med, Nat, Tech	55	HumSoc, Nat, Med, (Tech)	43	Generalist
Växjö University	HumSoc, Nat, Tech (Med)	68	HumSoc, Tech, Nat	41	Specialist

²⁷ Data comes from a public database, comprising administrative data on Swedish universities (the NU-database), run by the Swedish National Agency for Higher Education. (<http://www.hsv.se>). Publications were gathered from Web of Knowledge, by searching for different variants of each HEI's name in the organisation field.

Table A.3 Profile of Uppsala U and Gotland UC (2011/12)

HEI	Education	Number of education subjects	Research	Number of research subjects	Profile
Uppsala University	Hum, Nat, Tech, (Med)	110	HumSoc, Nat, Med, Tech	63	Generalist
Gotland UC	HumSoc, Tech	29	HumSoc, Tech (Nat)	18	Specialist (educ), Research

Table A.4 Description of the variables for analyzing strategic positioning of Swedish HEIs

Indicator	Measure	Comment
Orientation		
PhD recipients per student	The number of recipients of PhD degrees over the total population of students. Normalised over the population of HEIs.	Indicator of research orientation, i.e. the share of PhD recipients in relation to students (see Geuna 2001; Bonaccorsi and Daraio 2007a)
Share of research expenditure	The share of research expenditure of all expenditures. Normalised over the population of HEIs.	Indicates the general orientation towards research, in relation to the population of HEIs.
Intensity of the three academic roles		
Research intensity	The average number of publications per researcher	
Education intensity	The student “annual performance equivalent” (APE), which could be comparable to labour market “full time equivalent”, per academic employee.	
Third mission intensity	Industry funding per researcher	Can also be seen as a rough measure of the ability to attract external funding.
Cost of research and education input and output		
Student APE cost	Education expenditure over aggregated student APE	
Publication cost	Research expenditure over aggregated number of publications	
Research expenditure per researcher		How much the universities, in relation to each other, spend on research in relation to their size.
Education expenditure per academic		How much the universities, in relation to each other, spend on education in relation to their size.

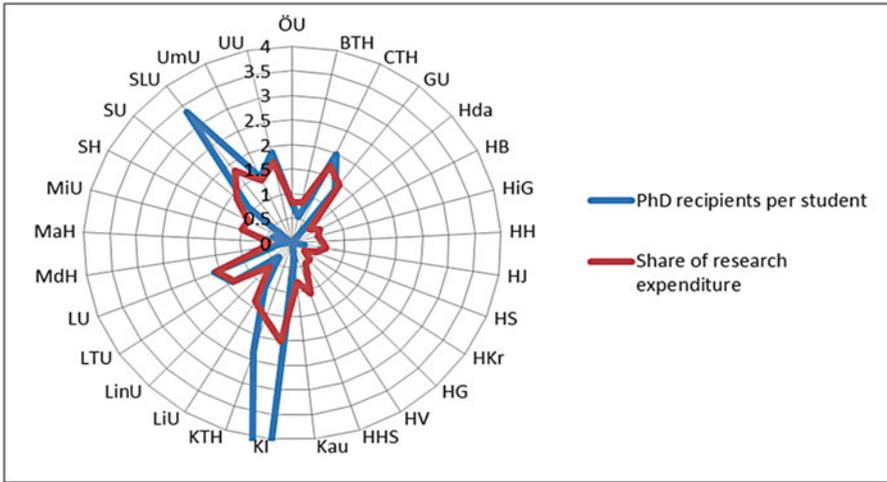


Fig. A.1 Research orientation (2011)

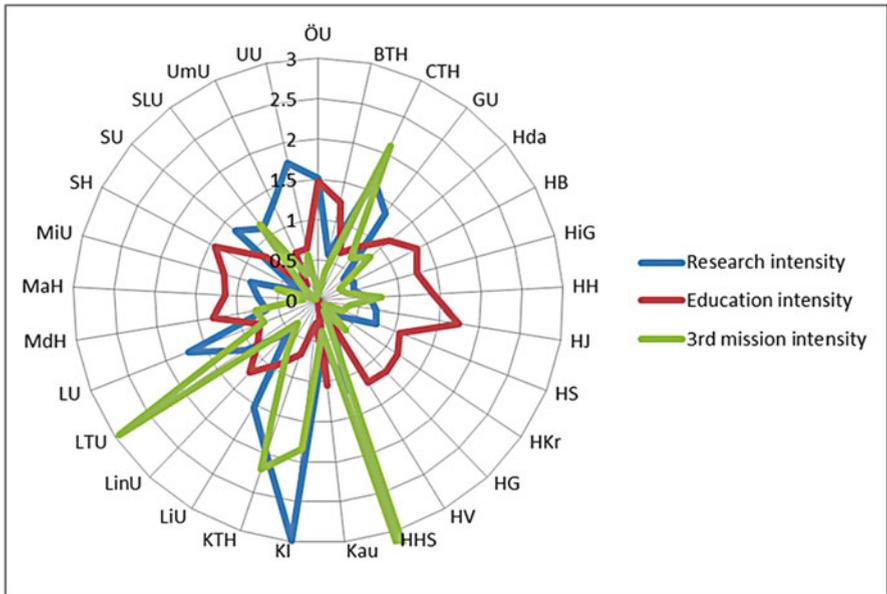


Fig. A.2 Research, education and third-mission intensity (2011)

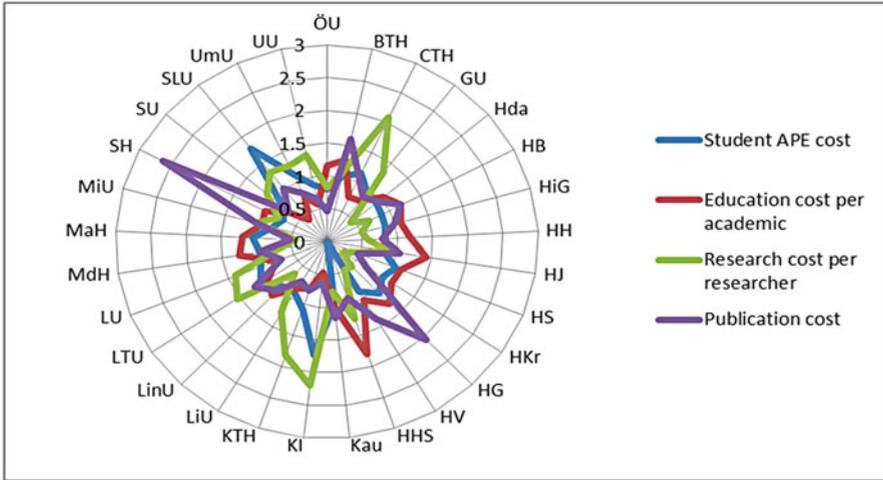


Fig. A.3 Cost per research and education outputs and inputs (2011)

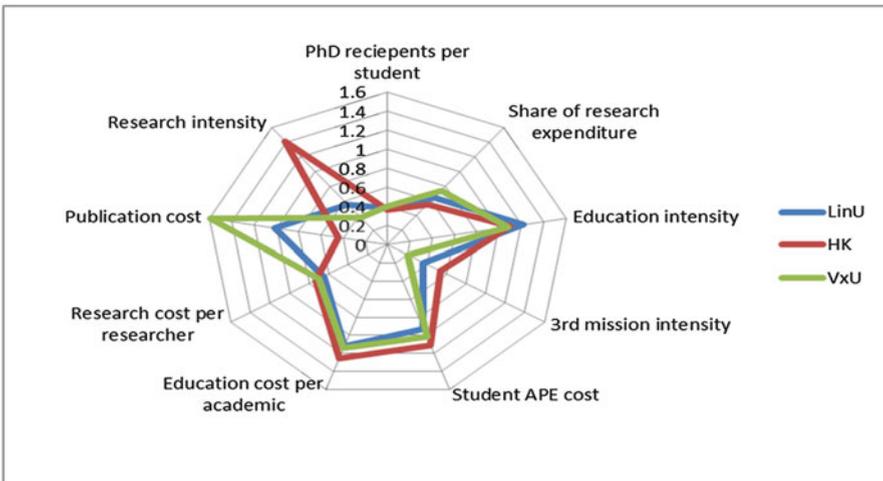


Fig. A.4 Strategic positioning indicators for Kalmar UC and Växjö U (2009) and Linnæus U (2011)

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