

MASTEROPPGAVE

Emnekode:

BE323E

Navn på kandidater:

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Parasites or contributors? Do grant consultants contribute to value-adding activities within R&DI in Norway?

Dato: 06.12.2018

Totalt antall sider: 98

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1.0 Acknowledgements

We would like to thank our supervisor, professor Roger Sørheim at the Department of Industrial Economics and Technology Management of the Norwegian University of Science and Technology (NTNU) in Trondheim, for his patience and wise advice during our work on this thesis. The Research Council of Norway (RCN) and especially Anne Kjersti Fahlvik, Sander John Tufte, Espen Melleby, Svein Olav Nås and Øyvind Veddeng Salvesen are acknowledged for their help with obtaining and discussing the data on SkatteFUNN and DEMO2000 applications, which was essential for this study. Stian Backe, PhD student at the NTNU department of Industrial Economics and Technology Management, is acknowledged for his help with proof-reading and discussing this thesis as well as for creating Figure 2 and Figure 3. Finally, we would like to thank all applicants for SkatteFUNN and DEMO2000 funding in 2016 who took time and answered our survey – without their contribution this work would not have been possible.

2.0 Abbreviations

NCS	Norwegian Continental Shelf
IN	Innovation Norway
RCN	The Research Council of Norway
R&DI	Research & Development and Innovation

3.0 Abstract

This thesis explores utilization of grant consultant services for management and submission of applications for government grants in Norway. The goal is to investigate if this practice contributes to added value for research, development and innovation (RD&I) or not. Use of grant consultants to apply for government research & development funding has been in the media searchlight in Norway on multiple occasions during recent years. The attention has been negative most of the times. Grant consultants were accused of profiting on public funding from the Norwegian research grant system, money that originally come from taxpayers. Several examples where companies who had hired grant consultants ended up paying more in consultant fees than the grants they received were brought into light. Information on extremely high success-based consultant fees was used to calculate that a significant amount of grant funds ended up in the pockets of private grant consultant companies. One grant program in particular – SkatteFUNN - was suggested to be a particularly lucrative target for most grant consultants.

Representatives of the grant consultant companies defended their business models by claiming that they contribute to research, development and innovation in Norway by raising the quality of grant applications and increasing the competition. They also claimed that they did far more than simply writing applications; they assisted in structuring and improving the R&D projects they were involved in, letting their clients to concentrate on their core business.

Articles on this topic were published in the Norwegian industry and technology magazine *Teknisk Ukeblad*. These articles were based on journalistic work and no quantitative research had been conducted to confirm the role of grant consultants. This thesis is based on a survey distributed among the applicants for two Norwegian grant programs: DEMO2000 and SkatteFUNN, both run by The Research Council of Norway. These programs were chosen because they represent two application difficulty levels and an interesting comparison: less than 25% of the DEMO2000 applications are normally granted, while the corresponding number for SkatteFUNN is over 80%.

It was found that 25-26% of all applications for grants from SkatteFUNN and DEMO2000 programs in 2016 were made with assistance from grant consultants. Utilization of grant consultants had a small, but significant effect on the outcome of the grant applications towards SkatteFUNN funding (corresponding figure for DEMO2000 funding could not be determined due to bias in survey answers). The survey showed that grant consultant companies specifically targeted SkatteFUNN program when they offered their assistance.

They actively utilized marketing to find new SkatteFUNN clients, and in 26% of the studied SkatteFUNN applications, grant consultants pitched their services to previously unknown clients over the phone or e-mail. For the DEMO2000 program this number was zero. This has parallels to the strong marketing effort, promoting outsourcing in the early 1990s.

Most companies in this survey were well aware of the possibility to apply for grant funding. Nonetheless, many respondents in this thesis stated that their SkatteFUNN applications would not have been sent in if not for the help of a grant consultant. Perceived time and effort it took to write an application seemed to be the main factor that prevented companies from applying themselves. This called for utilization of an external knowledge reservoir (grant consultants). Most companies, who had utilized the services of grant consultants reported good experiences and stated that this was positive from a cost/benefit perspective and a better use of resources. At the same time, most companies who did not utilize the services of grant consultants were negative to such practice and stated that such services were not worth the money.

Results in this study suggest that exaggerated focus on SkatteFUNN grant program combined with success-based remuneration model contributed to lower added value for clients and authorities when grant consultant services were utilized. Success-based fees are disproportionally high, while the risk not to succeed is very low due to high approval percentage of SkatteFUNN. Situation is different for other grant programs, which in this thesis was exemplified by the DEMO2000 program. Significantly lower chance to secure a grant and high competition among applicants might warrant high grant consultant fees for these applications, but they do not seem to be the focus of grant consultant companies.

4.0 Introduction

Providing grants for Research, Development and Innovation (RD&I) to private companies is a method that governments utilize to boost and direct these activities. Such grants provide an opportunity to direct private research towards areas of national interest by shaping the various calls for applications towards chosen topics. They also stimulate private research activities, which in the long run are meant to create jobs and increase tax revenues for the government.

The Research Council of Norway (RCN) is the government agency targeted with allocating RD&I grants to those who apply for them. RCN received almost 5000 applications for funding in 2017, and the total amount of funding applied for was almost 39 billion NOK. A large portion of this funding is allocated to universities and research institutes, but some of it can be applied for by private companies through various program calls. Standard procedure is that RCN publishes a call for applications within a certain program and announces deadline for such applications (normally once a year). Companies can then submit their applications and compete for funding from RCN. The best applications, and the ones that comply with the rules in the call, win the funding from RCN in most of the cases. The application process has been simplified considerably over time, but still demands a certain administrative effort from companies that apply for funding.

Grant consultant companies offer assistance in writing applications for funding from RCN. Their goal is, according to themselves, to create value to companies applying for government funding. This is achieved by letting companies focus on their core business, while grant consultants efficiently take care of the funding applications. The grant consultants also claim they can improve the R&DI projects by providing more structure. The grant consultant business model, and the existence of grant consultants, came under media cross-fire some time ago. A magazine article, published by Norway's largest business news website E24, reported that Nofas, a grant consultant company, made a solid profit from offering services to companies applying for grants to Innovation Norway (Midtsjø, 2013a). In the article, it was pointed out that the salary for Nofas CEO was considerably higher than that of the Innovation Norway CEO. Turnover for Nofas in 2013 was approximately 60 million NOK, with two thirds coming from grant support business. The main argument against Nofas was that the company profited from the tax money that were supposed to support RD&I. The criticism was met by the CEO of Nofas, who wrote that the skepticism to their business model was unfair and based on lack of knowledge. He claimed that the grant consultant company he was heading contributed to value creation by securing funding, structuring the RD&I projects and

making sure the projects were carried out. Several articles with similar contents have been published by the Norwegian media since then (Midtsjø, 2013b; Midtsjø et al., 2014; Midtsjø et al., 2015; Svarstad, 2017; Taraldsen, 2017a, Taraldsen 2017b, Stensvold, 2018).

The tone in the media grew more and more accusing towards grant consultant companies with time. Trond Giske, the former Norwegian minister for trade and industry, called the phenomena a waste of resources. Based on the number of published articles, it can be concluded that the topic of using grant consultants to assist with applications towards government funding attracts public attention and creates controversy. At the same time, no quantitative study of the phenomena has been performed, and most of the information in the media is based on a few interviews with companies who have used help of grant consultants and the consultants themselves. This provides a polarized view of the situation and limited factual information is available.

This thesis is an attempt to study the above described phenomenon quantitatively. If grant consultants provide added value for companies and the state of Norway just as they claim in the interviews, the added value for the companies would be represented by higher application success rates as well as an increase in application cost- and time-efficiency. Added value for the state of Norway would be represented by increasing the quality of the grant funding applications and the competition between them. We explore this through answering seven research questions. In addition, we study the motivation behind engaging grant consultants in order to gain insights in possible improvements of grant administration by the authorities, which would make it easier for companies to apply for grants. The following research questions are studied in this thesis:

- What is the frequency of utilizing grant consultant services for grant applications?
- Does the use of grant consultants result in higher chance of approved application?
- What are the mechanisms behind engaging the grant consultant services?
- What is the motivation behind outsourcing of application process to grant consultants?
- How do companies experience the use of grant consultants?
- What is the attitude towards the use of grant consultants?
- Is there any correlation between company size and outsourcing of grant application management?

The contribution of this thesis is providing objective and quantitative information on the utilization of grant consultant services in Norway. We determine the frequency of grant

consultant utilization when applying for grants from RCN in 2016 and whether the success rate of the applications is correlated with the use of grant consultants. We explore the mechanisms of engagement between grant consultants and companies, applying for the grant funding. We survey the motivation behind engaging grant consultants as well as the experience with using grant consultants and the attitudes towards their services.

We have chosen two distinctly different government funding programs: DEMO2000 and SkatteFUNN. The investigation is based on the information, collected from the RCN and the applying companies. Our research method was based on collecting experiences and opinions from the applicants using an online questionnaire. The questionnaire was sent to companies who applied to government RD&I grants in 2016. The answers were then cross-matched with the application success data collected from RCN.

There is very little available scientific literature the topic of grant consultant utilization. However, the use of grant consultants can be compared to outsourcing of IT, finance, HR and other functions, which is a well-researched phenomenon that started to manifest in developed countries in the early 1990s. Outsourcing, as well as utilization of grant consultants, was triggered by the strive to focus on the core business to increase the efficiency and profitability of companies. Outsourcing was proclaimed to result in considerable savings, something that was shown to not always be correct later. Outsourcing is also believed to have been triggered by a massive marketing campaign from companies, who saw an opportunity to gain new market shares. The available literature on outsourcing is reviewed to find information that can be useful for this thesis.

In the following “Context and Literature” chapter, a review of the available information is carried out. The “Methods” chapter contains information on how and why the data was collected and analyzed. The “Results” chapter contains visual representation of the results. We elaborate on the results in the “Discussion” chapter, and the “Conclusions” chapter contains a summary of our analysis along with the key insights obtained.

5.0 Context and literature

There is a clear link between R&D spending and national productivity (Bouis et al., 2011). Thus, providing support to R&D initiatives is in national interest of any country. Public support of science is a long-standing tradition, originating from the post-Renaissance Europe, where a system of science patronage by rulers and nobles emerged (David, 2005). Government support to R&D culminated during World War II and continued throughout the Cold War, where access to advanced science and technology was detrimental (Salomon, 1994; Conceição et al., 2003; Conceição et al., 2004). The second half of the 20th century saw emergence of national policies where large public resources were devoted to supporting the R&D (OECD, 2003).

In Norway, government funding of R&D activities constituted approximately 45% of the total R&D expenditure in 1997, see Figure 1 (National Science Board, 2011). This number has remained stable and constituted approximately 46% of Norway’s overall R&D expenses in 2016 (NIFU, 2016). Proportion of government-financed research in Norway is high compared to other countries. One explanation for this might be that raw materials, i.e. products which require less advanced research to produce, constitute a large part of Norway’s export, which does not stimulate company research (Amundsen, 2017).

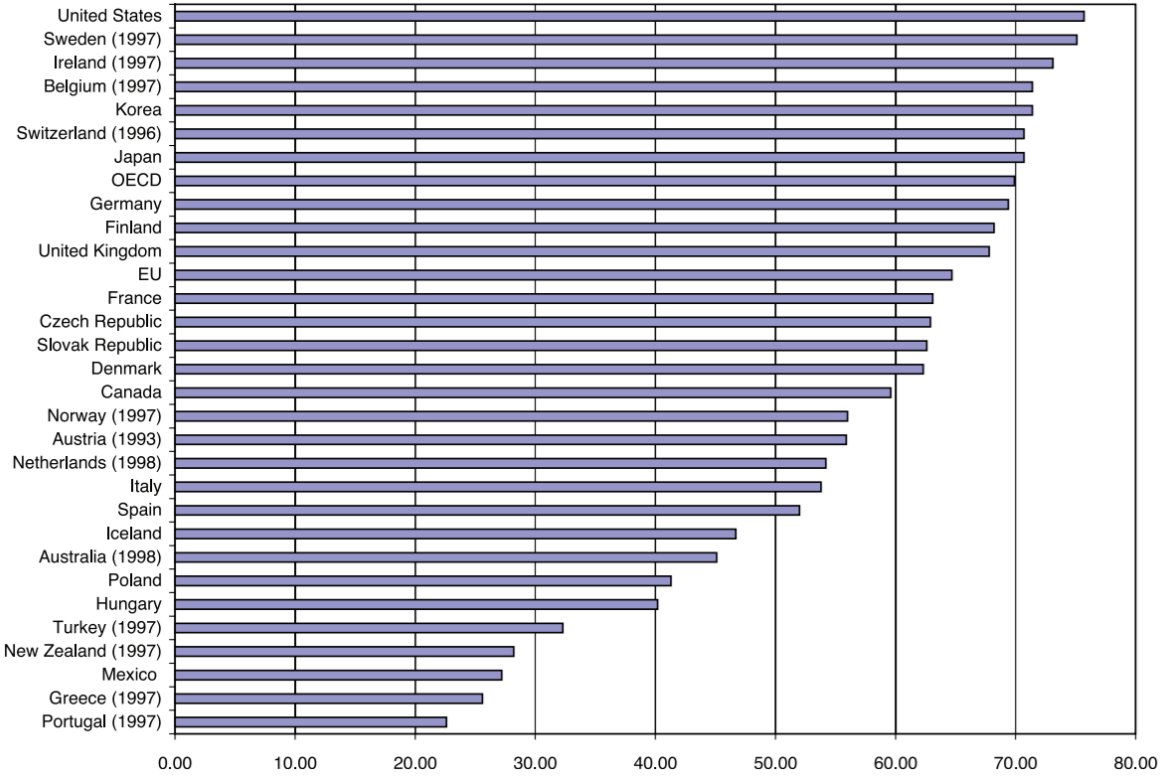


Figure 1 Business expenditure on the R&D as a percentage of the total expenditure (National Science Board, 2001)

There are three ways of providing public support to R&D: grants, procurement contracts and prizes (Conceição et al., 2001). Grants are results of proposals, judged based on their scientific, technical and/or financial merits. Funding is allocated with few strings attached as long as the scientific program of the proposal has been complied with. Procurement entails contracting an R&D performer. Prizes correspond to a practice common during the 18th and 19th century and are combinations of the grant and the procurement approaches.

Government grants are a way of providing public funding to R&D activities, while at the same time creating a competitive atmosphere between those, receiving public funding for R&D. Only government grants are considered in this thesis.

4.1 Government grants in Norway

Government grants to support RD&I in Norway are allocated by the Research Council of Norway (RCN). RCN is a government organization tasked with financing, boosting and marketing of Norwegian research. RCN grants are called out within many pre-defined programs. The calls follow program-specific guidelines, which also specify who is qualified to make an application. Some of the grants are available for universities and research institutes only, however, there are also grants open to private companies. Any private company registered in Norway can apply for such funding. Applications from private individuals are not accepted. Applications follow a process defined by RCN, where the applicants fill out an online form and attach several documents prepared according to pre-defined templates. Part of the required information is of financial character and describes the applicant company. Another part is project-specific and describes the research to be carried out. The decisions on grant awards are made by panels of experts in the field of each program. There are substantial differences in how these decisions are made for the various programs as well as what the goals of the various programs are.

Information on the two programs analyzed in this thesis, DEMO2000 and SkatteFUNN, is summarized in Figure 2 and Table 1. These two programs are somewhat of each other's opposites: it is rather difficult to secure funding from DEMO2000, where competition among applicants is very strong, and it is relatively easy to secure funding from SkatteFUNN, which is a right if a company fulfills certain pre-defined criteria. This distinction makes the two programs suitable for the comparative study in this thesis.

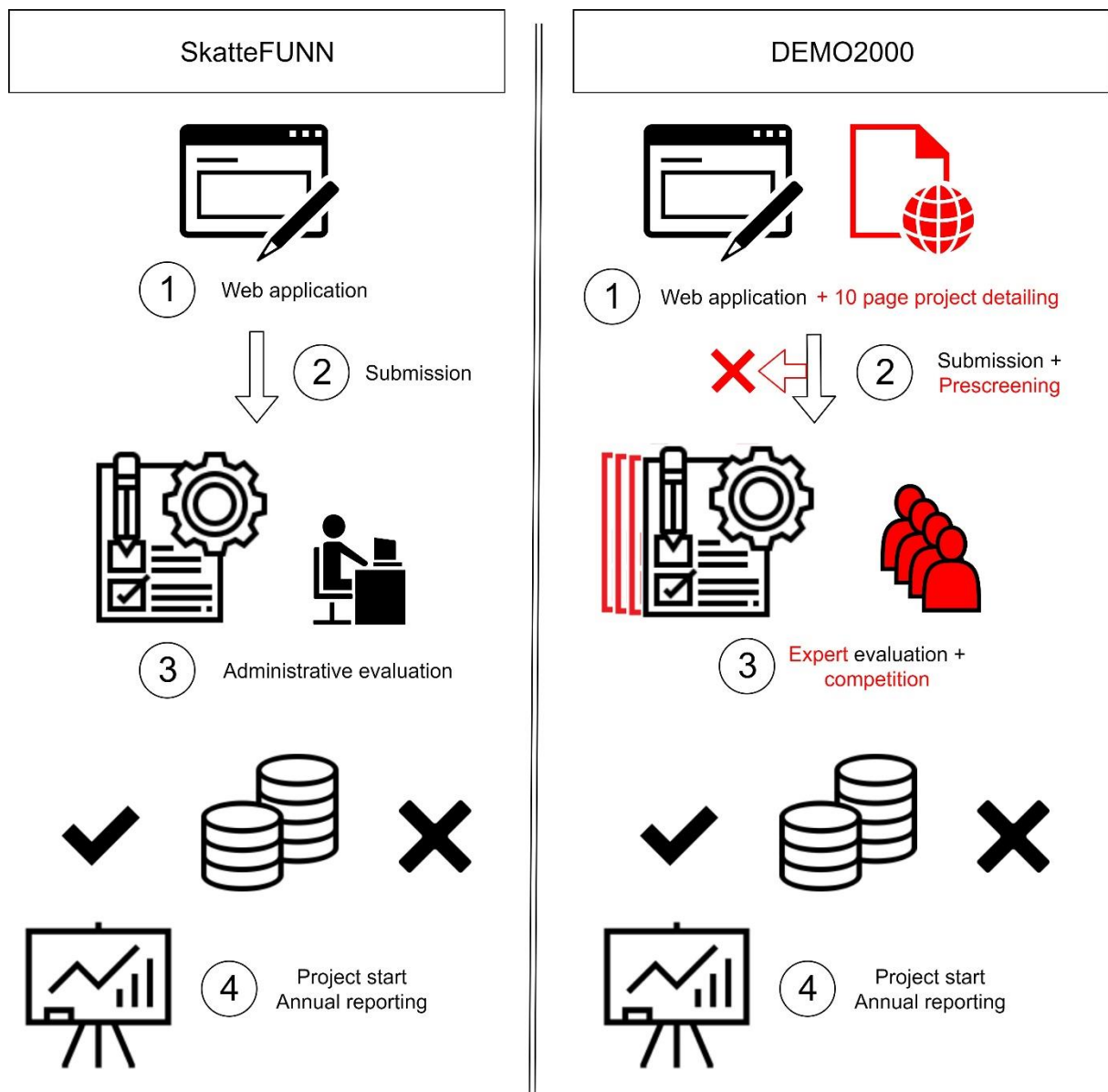


Figure 2 Application and selection process, SkatteFUNN and DEMO2000 programs (courtesy of Stian Backe)

It is natural to expect that utilization of grant consultants is far greater in applications for funding from the far more demanding DEMO2000 program than for SkatteFUNN, where it should be relatively easy for companies to manage applications on their own. It is also expected that assistance that grant consultants provide leads to significantly improved chances of securing funding. The general success rate of SkatteFUNN applications (~80%) warrants much lower consultant fee compared to the high-risk DEMO2000 applications, where only 30% are approved for funding.

Table 1 Key characteristics of the SkatteFUNN and DEMO2000 programs

	DEMO2000	SkatteFUNN
Goal	To qualify technologies that can contribute to reducing costs, improving efficiency and increasing value on the NCS.	Stimulate research, development and innovation in all types of industry in Norway through tax reductions on research activities.
Funding	Cash support.	Tax return.
Criteria	Projects with best ideas are awarded the grants in competition with each other. Judgement is made by a panel of experts.	Projects, meeting the pre-set criteria, are qualified for tax reductions through SkatteFUNN. Selection is made by RCN administrators.
Amount	Up to 25% of the project costs.	18% or 20% of the project costs.
Success rate	~30%	~80%

4.2 Grant consultant companies

The business model of grant consultants is based on assisting companies with writing applications for government grants for a fee, see Figure 3. This business model has become a controversial topic in Norway. The controversy originates from the fact that the grant consultant business has been extremely profitable, while the origin of this profit is directly linked to government funding which mostly constitutes of tax revenues. It is a common practice to reward a grant consultant with a share of the secured government funding (so-called “no cure, no pay” model). This share varies between 15% and 25%, although this information normally is classified due to competition. RCN does not allow payments to grant consultants to be included in the research project balance sheets. However, in the balance sheets of a company, such a cost would of course become a part of their budget for R&D activities.

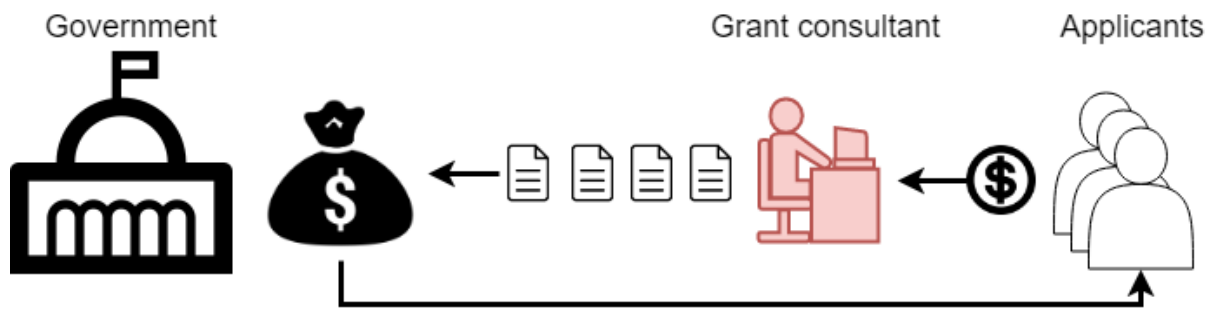


Figure 3 Grant consultant business model (courtesy of Stian Backe)

Lack of scientific publications covering the area of grant consultant services was identified early in this work. General outsourcing of work, as well as knowledge reservoir theory, bear some resemblance to the use of grant consultants, and thus have been used to form theoretical base for the current work. A certain amount of useful background information could also be extracted from various popular magazine and newspaper articles.

4.3 Information in the media

Turnover of Nofas, a Drammen-based company offering grant consultant services, was 60 million NOK in 2012 (Midtsjø, 2013a). Approximately two thirds were said to originate from assisting private companies with applications towards government funding. The company was reported to have approximately 900 active customer relationships. Nofas had helped Norwegian tech companies to secure over 1.2 billion NOK in government funding between 2005 and 2011. With a 20% success fee, this translates into 240 million NOK. Critics claimed this to be government grant money that ended up as revenue in a private company, instead of boosting research & development as intended. When confronted with criticism, Nofas responded that they seldom meet skepticism concerning their services. When they do, it could mostly be explained by lack of knowledge about their value proposition and way of working. Nofas claimed to work towards establishing strategic partnerships with their customers, structuring R&DI projects as well as enabling and financing them. Sales arguments that Nofas used in its marketing were, among other things, that they knew how to write the applications (which words and formulations to use) to trigger the funding.

The former Norwegian minister for trade and industry (2009-2013) Trond Giske expressed his concerns regarding grant consultant business (Midtsjø, 2013b). According to him, it was a waste of state resources. The minister was concerned that this development would lead to a situation where most expertly formulated applications would win the funding instead of the ones describing the best projects. According to E24, all companies who received assistance

from Nofas were obliged to apply for tax reductions through the SkatteFUNN program, which was the real target for Nofas due to the ease of securing funding from it.

Trond Giske's arguments were challenged by Nofas, who pointed out that all companies were encouraged to apply for SkatteFUNN, but this was not compulsory. The trade and industry minister pointed out that Nofas itself was doing nothing wrong, but that the system was flawed. His proposed solution to the problem was to simplify the application processes and encourage Innovation Norway and the Research Council of Norway to assist companies applying for funding in receiving the correct funding. Nofas' management met Trond Giske's criticism by saying that there was a political agenda behind it, and the minister would probably be just as displeased if the companies who employed Nofas' services had outsourced their cleaning or IT services to a third party.

Nofas claimed that the goal of the company was to increase the value creation in Norway. Nofas was later accused for unethical business practice by the E24 journalists (Midtsjø et al., 2014), who claimed that Nofas' pricing of their services did not match the value of the services and was based on lack of knowledge among their customers. The main driver behind this accusation was information collected by E24 about applications to the SkatteFUNN program. Approximately one fifth of all SkatteFUNN grants in 2012 (270 million NOK) were claimed to be applied for through Nofas. According to the E24 journalists, Nofas made it their core business to aid their customers in applying for SkatteFUNN funding. As much as 90-95% of Nofas turnover originated from SkatteFUNN according to several former employees. Nofas management claimed that this number was exaggerated and that SkatteFUNN applications accounted only for about two thirds of the total revenue. A former customer of Nofas described this strategy as "milking" of the SkatteFUNN program.

The fee to Nofas is based on "no cure, no pay" principle. It would thus seem that Nofas accepted a risk in their business model and charged a high premium for this risk. However, it was pointed out that this risk was in reality very low, since over 80% of SkatteFUNN applications were granted. This high percentage of granted SkatteFUNN applications was confirmed later both by journalists and by the Norwegian Tax Authority (Klevstrand & Randen, 2018). Nofas met the accusations with claims that they increase competitiveness of their customers by guiding them to seeking funding they are entitled to.

E24 spoke to several former clients of Nofas, who claimed that the bill they received from Nofas was sometimes bigger than the government grant itself. This was explained by the fact

that the fee to Nofas was based on the approved budget of the RD&I projects, while the payouts from the authorities were based on the actual spending. In many cases, the actual spending was much less than the budgeted spending, resulting in mismatch between the fee to Nofas and the payouts from government grant programs (Midtsjø et al., 2015). Clients ended up receiving a bill from Nofas that was higher than the government grant payout itself.

Representatives of the SkatteFUNN program stated in their interview to E24 that a SkatteFUNN application is something that the companies should do themselves and that it should take as little as three hours to write an application. When confronted with this, Nofas management defended their business model and stated that the company worked for free until the government support was actually paid out. This was a risk since the company was depending on the applications to be approved. A lot of time was spent evaluating the potential and realism in their clients' projects. Nofas described criticism from their customers as emotional and not based on facts.

A similar grant consultant company and business model was described more recently in *Teknisk Ukeblad* (Taraldsen; 2017). According to this article, the company in question (Esacon) calculated their fee based on the grant payout and not the budgeted sum. When confronted with accusations of abusing the system, Esacon responded that the accusations were not fair with an example of their larger competitor having negative revenues in 2014. The logic was as follows: If this business was so lucrative, why would a large competitor lose money? Esacon saw itself as an inspiration to innovation. Many companies they engaged with had reported that they would not apply for government funding without Esacon's assistance.

Teknisk Ukeblad later published an article with advice on how to write applications for government funding without using grant consultants (Taraldsen, 2017). Popularity of the SkatteFUNN program was growing; in 2016 alone, the SkatteFUNN payouts were approximately 4.8 billion NOK, of which 30% of the applications were handled by grant consultants (Stensvold, 2018). These numbers were confirmed by journalists from *Dagens Næringsliv* (Klevstrand & Randen, 2018).

Recently, a new pricing model were launched by a grant consultant company where consultants are paid by the hours instead of the criticized success fee (Stensvold, 2018). The newcomer criticized the system based on success fees, stating that it can lead to inappropriately large consultant fees. According to them, a typical SkatteFUNN application took only approximately 20 hours to write, which with a consultant fee of 2,000 NOK an hour

ended up as a cost of 40,000 NOK. With a system based on success fees, the same application could cost many hundreds of thousands. Some companies appeared in media to state the importance of writing applications for government grants themselves. The motivation is that you would get a different kind of ownership to schedules, budgets and other administrative sides of a project through writing a grant application.

At the same time, some companies were happy to pay success fee to a grant consultant. They were motivated by the fact that an application would not have been sent in at all without a consultant. The old business model, where success fee is based on budgeted project costs, seems also to have been largely changed to one where the fee is based on the actual costs as reported by Nofas (Stensvold, 2018). However, it is becoming more and more obvious that writing an application to SkatteFUNN is totally different from e.g. applying to funding from EU grant programs. In the case of SkatteFUNN, there is no competition and the funding is granted if the criteria are fulfilled, while there are many projects competing for EU funding.

4.4 Outsourcing of services

Involving a grant consultant in writing grant applications can be compared to outsourcing of a service. This comparison was made by grant consultants themselves (Midtsjø et al., 2014). Outsourcing is handover of an activity to a supplier. The idea behind outsourcing is to let companies concentrate on performing activities within their core competence and outsource all other activities (Oltman, 1990; Eby, 1990; Burgetz, 1991; Huff, 1991). The original aim was to lower costs (Gupta and Gupta 1992; Huff, 1991; Quinn and Hilmer, 1994). Several other reasons for outsourcing have been proposed since: technological flexibility, eliminating seasonal staffing problems and maximizing performance of the in-house resources by concentrating on core business (Chou, 2007). Minimizing risk by shifting it over to the service provider has been mentioned as another driver for outsourcing (Beregszaszi & Polay, 2012). This driver was said to be specially prevailing in times of uncertainties and unclear future (Cooke et al., 2005).

Out of these reasons to outsource several are applicable to outsourcing of grant application management to grant consultants. While R&D itself is most often defined as a company's core activity, writing of grant applications can be argued not to be one. Reason for that is that grant application writing is an administrative activity aiming at supporting R&D. On the other hand, as it was also pointed out in the literature (Stensvold, 2018), writing a grant application

leads to creation of a better cost and plan structure for R&D, directly influencing its quality. Thus, writing a grant application can also be considered to be part of the core R&D activity.

There are several drawbacks with outsourcing practice, which should be considered when making an outsourcing decision. Increased complexity of operating with some of the activities outsourced to external providers can become a drawback (Klaas et al, 2001). Reducing costs is a prevailing argument for outsourcing, but a number of studies failed to find any cost benefits associated with outsourcing cases and revealed higher costs than anticipated (Belcourt, 2006; Adler, 2003; Gurney et al, 2009). For example, only about half of all the IT-outsourcing cases in one study delivered the promised savings (Kessler et al., 1999). Another study revealed that over 70% of companies, who have undergone outsourcing, were not satisfied with the results (Lacity et al., 1995). Satisfaction with outsourcing seems to differ between various studies: in yet another survey, 57-58% of the respondees were predominantly satisfied with their outsourcing experience (Kakabadse & Kakabadse, 2002). Outsourcing can also be seen as a potential source of lost (Hamel & Prahalad, 1990) or weakened (Adler, 2003) competencies. The difficulty of knowledge transfer to an external vendor was emphasized specifically (Haines, 2009). Lost control over outsourced functions is mentioned as another possible drawback of outsourcing (Lepak & Snell, 1998). It was also shown that managing the outsourcing relationship requires considerable resources after the decision to outsource has been made (Kaipia & Turkulainen; 2017).

The above-mentioned drawbacks of outsourcing apply to a certain degree when evaluating the involvement of grant consultants. While there is probably no high risk of increased complexity (since the whole process of grant application is normally fully taken care of by grant consultants), the question of cost saving is more complex. According to representatives of the SkatteFUNN program, writing a SkatteFUNN application takes approximately 20 hours (Stensvold, 2018). 20 hours at the internal rate of 1.2 ‰ of the yearly salary in Norway (the figure used by RCN) is equal to approximately 15,000 NOK, which can constitute the basis for comparison for writing the application internally versus outsourcing the writing to a grant consultant. Several other factors will influence the cost comparison; availability of internal resources for application writing and competence in writing applications (which in its turn influences the outcome of the application) should also be taken into consideration. Much more time should probably be allowed for a DEMO2000 application due to its higher complexity, hence the basis of comparison for DEMO2000 program will be different. While no cost-related questions were a part of the survey in this study, questions about such aspects

as access to internal competence and resource availability were included in the survey. Question of cost-efficiency and reducing costs through utilization of grant consultants will thus be addressed later in this study, as will the question of satisfaction with grant consultant services. Lost or weakened competency can be considered a risk when outsourcing to grant consultants. As mentioned previously, cost and plan are two integral parts of any R&D project. Losing control and ownership over these parts might lead to overall weakening of R&D competence and addressing this risk should be a part of any outsourcing decision as it can contribute to losing control over the outsourced functions. The difficulty of knowledge transfer to the external provider of grant application management can be critical since a large body of information on every aspect of R&D projects needs to be transferred. This can take a considerable amount of time, since the grant consultants cannot be expected to be specialists in every field of R&D and thus will naturally require follow-up. This time, used by internal resources for knowledge transfer and follow-up, must be included in the budget when assessing the cost-efficiency of grant application outsourcing. This is also true for the time, required for follow-up of the outsourced relationship. When an application is approved extra resources will be required for follow-up during the compulsory reporting to the RCN.

Taking into consideration the possible advantages and drawbacks of outsourcing, it is reasonable to assume that outsourcing of grant application writing to an external grant consultant might be a valid solution. The need for outsourcing can arise due to different reasons:

- No internal experience in writing grant applications
- Unsure about the process and requirements
- Lack of time and resources to write and follow up an application

The last point should be especially valid for small companies with few staff. Diverting resources towards a new task, such as writing grant applications, might become a large burden for a small company and account for a large proportion of overall activities. This study will examine the split between big and small companies among those applying for grants and an attempt will be made to correlate the size of the company to the likelihood of employing grant consultant services.

Outsourcing is now a new phenomenon. The earliest forms of outsourcing can be traced back to the Roman Empire, where collection of taxes was contracted out to external personnel (Beregszaszi & Polay, 2012). Much later, the industrial revolution created a paradigm shift

from horizontal integration with extensive external partnerships to emergence of vertically integrated corporations, where everything was performed in-house (Kakabadse & Kakabadse, 2002). Vertical integration (having all functions in-house, the opposite to outsourcing) had then become a typical operational model in industrialized world for almost a century (Jennings, 1996). Industrial companies emerged as integrated multi-departmental enterprises. The vertical integration was mostly a response to lack of appropriate supply markets, which led to reliance on internal resources for most of upstream and downstream activities. Vertical integration has a number of advantages (Mahoney, 1992). It is possible to achieve cost reductions through economies of scale; transaction costs are relatively low and there is flexibility in changing product design and volume. Essential knowledge is well protected in a vertically integrated company. However, these advantages can also become disadvantages under certain circumstances. For example, a small company is not able to utilize economies of scale in a vertically integrated operational model due to the size of the company and absence of scale. In-house manufacturing can reduce flexibility by limiting access to multiple external suppliers and distributors.

Modern practice of outsourcing began in the 1960s and started to be wide-spread in 1990s. Most common practice has been to outsource various support functions, such as IT (Loh & Venkatraman, 1995), HR (Belcourt, 2006) and financial services (Jennings, 1996). Recently outsourcing also made its way to R&D and innovation functions (Chou & Chou, 2010; Kaipia & Turkulainen, 2017). Overview of outsourcing by type in Hungary as an example can be seen in Figure 4. While core functions such as R&D and workforce planning constitute small percentage of outsourced services, over half of such auxiliary functions as training and payroll are found to be outsourced in this specific study (Borda et al., 2010).



Figure 4 Outsourcing by type in Hungary (Borda et al., 2010).

Outsourcing revenues peaked around 2014 and have been declining world-wide ever since (The Outsourcing Institute, 2018). The initial major push for outsourcing of services was triggered by many factors. One large quantitative study based on survey responses from 226 CEOs and CIOs of Fortune 500 companies identifies seven different factors influencing outsourcing of IT services (Loh and Venkatraman, 1995):

Technological factors

In the Information Technology (IT) sector, outsourcing gained popularity due to steadily increasing complexity of IT systems. Rapid advances in technology made it increasingly difficult for companies to maintain and develop their in-house IT functions. Diversity and fluctuation of end-user IT requirements made it even more difficult to continually service user needs effectively. This highlights perspective of “technology as knowledge” and the need of knowledge resource (Deiaco et al., 1990). Since IT is a complex and dynamic knowledge resource, companies are often limited in their ability to stay on the leading edge of the technology frontier (Quinn, 1992). It is often costly and inefficient to acquire the appropriate level of knowledge in-house and thus external knowledge resource is a means of response to this need for technical knowledge and outsourcing becomes a method of accessing the external knowledge resource. Ten years later, the same situation could be observed in outsourcing of HR functions. Survey study revealed that by 2005 nearly all organizations (94 %)

outsourced some part of their HR functions (Gurchiek, 2005). Access to technology and specialized expertise that was required due to rapidly increasing level of sophistication of HR systems making it difficult for internal departments to keep up (Belcourt, 2006).

Business opportunities

A key business argument to outsource a service is the need for a corporation to focus on its core business operations (Loh and Venkatraman, 1995). This relates to core competencies that refer to capability of simultaneously handle and integrate multiple streams of technology development (Prahalad and Hamel, 1990). Management of complex infrastructure in the times of rapidly growing technological advancements in the field can easily distract companies from their fundamental business thrusts to operation of a certain support function. Combination of focusing on core business and outsourcing of all the other activities was suggest being able to leverage a company's skills and resources well above the competitors in four different ways (Quinn and Hilmer, 1994):

- By maximizing returns on internal resources by concentrating investments and energies on what the enterprise does best
- Through concentrated investment in core competencies providing a solid barrier against competitors, trying to expand into company's domain of interest
- By taking most advantage of suppliers' investments, innovations and specialized capabilities that would be prohibitively expensive or even impossible to duplicate internally
- In rapidly changing marketplaces and technological situations outsourcing provides flexibility, decreasing risks and cycle times.

The notion of concentrating on core activities is 200 years old. Already in 1817 Ricardo pointed out that "total output would increase if people and nations engage in those activities for which their advantages over others are significant or their disadvantages are the smallest" (Kalakota and Kurchina, 2005). Some argued that developing core competencies in a company gives it an edge over its competitors that is difficult to imitate and is thus crucial for a company's long-term survival and cannot be outsourced (Prahalad & Hamel, 1990).

Financial savings

Besides the core business argument, a common driver for outsourcing related to business is the drive to lower costs. Cost benefits can take the specific form of reduction of debt expenses or the more general form of efficiency of entire business (Loh and Venkatraman, 1995). Cost saving is most often a central driver behind any outsourcing agreement. Studies of outsourcing agreements showed possible cost savings in the range of 10-20% with an average of 15% (Adler, 2003; Hanneman, 2005; Oshima et al., 2005). However, there are also many reports showing cost increases and overrides due to outsourcing. About half of the companies reported that outsourcing turned out to be more expensive than anticipated (Albertson, 2000). Over 30% of outsourcing agreements were not renewed due to unrealized cost savings (Geary & Coffey-Lewis, 2002).

Control risks

A major inhibitor that tends to discourage companies from outsourcing is the control issue (Loh and Venkatraman, 1995). Through outsourcing of services, power over certain decision is placed in the hands of vendors and suppliers. The general concern is that the vendors might not share the same goals as the client organization. The problem of control is thus within the domain of agency theory (Eisenhardt, 1989) with agent relationship developing between the parties as soon as an outsourcing agreement is in place.

Risk of opportunism

While control risks are associated with lesser degree of control over vendor by the client and possible misalignment in goals and performance, the risk of opportunism refers to deliberate opportunistic behavior by the vendors (Loh and Venkatraman, 1995). In any business relationship there is no guarantee that the supplier would not indulge in self-serving behavior before and after signing the contract. This might be the most powerful consideration in any buyer-seller relationship. At the interorganizational level, this issue constitutes the transaction cost paradigm (Williamson; 1973; Williamson 1985). Transaction costs refer to the costs, associated with exchange of goods and services across the boundaries of a company. Opportunistic behavior, and breach of trust in the agent relationship, might include such instances as misrepresentation (biased portrayal) of the agent advantages, overdependence on specific vendors and even breach of contract.

Performance implications

Performance of a service is a critical indicator and should play a major role when comparing various options for organization of the service. It was shown that outsourcing of IT services is positively related to the performance (Loh and Venkatraman, 1992). On the other hand, there might be less effort from the consultants' side to succeed due to less ownership to the project (Quinn and Hilmer, 1994). The relation between outsourcing and performance is different for different kind of services, as their impact on the overall performance of the company is different. Slightly lower performance can be accepted for a service of less importance if there is an associated cost benefit. On the other hand, if the service is crucial for the company and has large impact on overall costs, even a small deterioration in performance might lead to large cost increase and is thus not tolerable even if this deterioration can lead to lower local costs.

Influence of marketing

Another factor that contributed to rapid spread of outsourcing in the 1990s was the aggressive marketing pitch by service providers, who saw new opportunity in an unexplored market (Loh and Venkatraman; 1995). The marketing campaign was fueled by clever advertisements. For example, Martin Marietta Information Systems Group put an ad in one of the largest IT magazines stating, "you do not own a power plant for your electricity... why own a data center for your information systems?" (Computerworld; 1990). In addition, media provided extensive and often sensational coverage of the phenomena.

While we are facing steadily increased technological complexity of various systems, powering our society (IT is one of them), administration tends to become less and less complex due to emergence of a multitude of user-friendly IT systems for all kinds of needs. Administration in conjunction with various grant applications is not an exception and grant application procedures and administration are being continuously simplified by RCN and Innovation Norway (Taraldsen, 2017). This is driven by the goal to increase the number of applicants (in order to increase the competition among them and thus also the quality of the winning applications) and decrease the threshold of applying. Technological factor can thus be considered not to be in favor of grant application outsourcing, as the technical side of writing and submitting an application involves little know-how and the trend is towards even higher simplicity.

When it comes to the business side and concentration on the core business activities the first argument to be made is whether writing and submitting a grant application should be defined as a core activity of a company or not. While R&D itself is most often a core activity, the administration in conjunction with a grant does not have to be. From that perspective, outsourcing grant administration to a grant consultant can be positive. On the other hand, there are several advantages for researchers in writing grant applications by themselves. Application criteria often includes submitting a thought-through R&D plan, a detailed budget and structured R&D set-up with work packages, milestones and goals. In addition, grant applications must often contain a description of why the research project is important and how the results are going to be utilized. While all that might take an effort to write, there is high probability that compiling this data will lead to increasing quality of a research project through better structure, cost control and plan for utilization. Thus, it is not completely clear if outsourcing of grant administration is positive or negative from business standpoint. The positive side of keeping the grant administration in-house has been pointed out in the media (Midtsjø, 2014).

Financial savings are a factor that has been traditionally influencing the outsourcing decision most of all. While there are many studies revealing disappointing results, there are also a lot of cases where significant financial savings were reported due to outsourcing. Reference must first be established when discussing the concept of financial savings. By employing a grant consultant, a company can certainly “save” money in the initial phase of application for a grant if the grant consultant employs the popular no-cure-no-pay remuneration model. This is because the services of grant consultant initially are free, while a number of man-hours has to be invested in a grant application internally. However, taking into consideration the whole life cycle and complete cost situation, the picture is different. The overall cost of keeping the whole process in-house consists of application costs and administration costs, originating from man-hours spent. The grant itself then represents the upside. When outsourcing is utilized, the application cost disappears, but there still is an initiation cost where company employees must brief the consultant about the contents of the project to form a basis of the application. The administration cost, however, does not disappear due to the fact that the company employees will still have a significant workload consisting of tasks like collecting and administrating timesheets and invoices that will be the basis of the annual report to the grant authorities. Also the contents of the report must come from the company employees who, and not the grant consultant, possess knowledge about the status of the R&D project. In

fact, the technical side of the annual reporting to RCN and Innovation Norway is rather simple. Such reporting most often only consists of a short summary of the status and findings and a short financial report containing posts like hours and invoices. Major part of the administrative load here still has to be done by company employees and thus the administration costs are rather similar for in-house grant applications compared to outsourced ones. The big financial difference for these two cases is within the upside which consists of the grant payout. In case of in-house application, the company receives the whole payout. The situation is different in case with outsourced application, where grant consultant receives around 20% of the payout. Depending on the size of the project, this can be a very significant negative post in the balance sheet of the project.

There are some considerations to be made when discussing the remuneration of the grant consultants and its impact on the project economy. With the most common model existing today, no-cure-no-pay, the grant consultant receives payment only a year after the application is sent in. This represents a delay in cash flow, which has a cost. For comparison, this cost can be estimated roughly by utilizing a simple term such as interest on a loan. By delaying the payment for services, a grant consultant effectively borrows money to the client company. For SkatteFUNN, where applications take approximately 20 hours to make, the cost of delayed cashflow is thus in the order of magnitude of 2000,- NOK for a project (hourly rate of 2000,- NOK and 5% annual interest were used in this estimate). Even if the interest is doubled to 10%, the delay in cash flow does not represent a significant value for SkatteFUNN projects due to the simplicity of applications. For DEMO2000 projects, with their higher complexity, the delay in cash flow will represent significantly higher number compared to the SkatteFUNN projects. Another element of the complete financial picture is the risk that the grant consultant undertakes by offering a no-cure-no-pay model. The risk is defined by the probability of two failures: failure of receiving the grant and failure to follow the project budget. The risks of grant application failure differ a lot for SkatteFUNN and DEMO2000 programs. In SkatteFUNN, over 80% of all applicants receive the grants. Hence, risk of SkatteFUNN application failure is low. The opposite can be said about the DEMO2000 program, where only approximately 30% of the applicants receive a grant. In both programs there is a risk that the project will not follow the proposed budget, which will influence a grant consultants earnings negatively since they are a percentage of the grant, which in its turn depends on the financial results of the project.

Based on the above, a conclusion can be made that the financial side of the outsourcing decision can be in favor of outsourcing for complex programs, such as DEMO2000, but it is not for SkatteFUNN, where financial argument is in favor of writing the application in-house. This specific trait of the no-cure-no-pay grant consultant fee model when applied to SkatteFUNN applications was also discussed in the literature (Stensvold, 2018). The conclusion was that with an average success fee of 20% (Midtsjø et al., 2014; Taraldsen, 2017; Stensvold, 2018), the cost of having a grant consultant to write SkatteFUNN applications becomes disproportionately high, see Figure 5 (Stensvold, 2018). The authors assumed that it took 50 hours to write and follow up a SkatteFUNN application, and the hourly rate was set to 2,000 NOK. According to information from SkatteFUNN, it takes between 20 and 100 hours to write and follow up a SkatteFUNN application and grant administration. The total cost for writing a SkatteFUNN application should thus be in the region of 40,000 to 200,000 NOK. With the commonly used success-fee model, the cost of this effort can, however, become more than a million NOK. Keeping in mind the fact that SkatteFUNN support is granted for around 80% of the applications, the outsourcing was described as not particularly cost-efficient for companies.

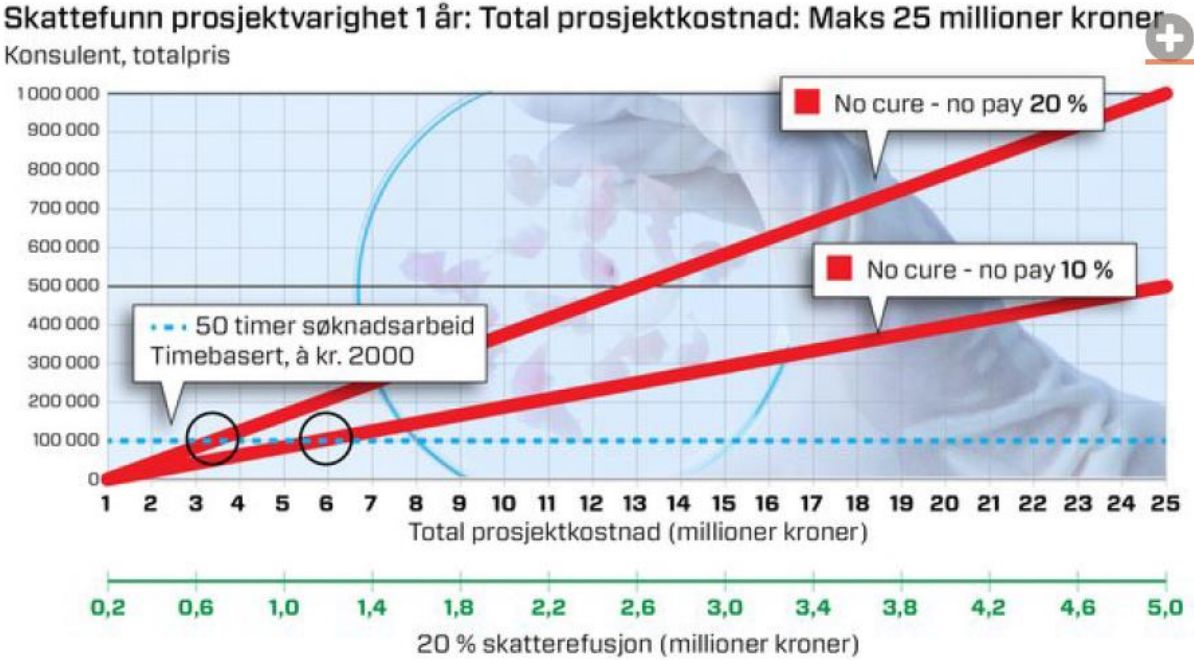


Figure 5 Costs of outsourcing SkatteFUNN applications to a grant consultant with success-fee model (common in Norway) and hour-based payment (Stensvold, 2018).

Control risk and risk of opportunism are both in favor of keeping the application process in-house, although none the risks can hardly be considered as very high. The reason is that there is no upside for vendors not share the same goals as the client organization.

When it comes to performance implications and influence of marketing there is not enough information to judge the influence of these factors on the outsourcing decision. Current study might offer some insight when analyzing the results of the survey which was carried out. If utilization of grants consultants leads to higher application success rate, the performance implications can be considered to be in favor of the outsourcing decision. If an extensive marketing campaign, aimed at promoting grant consultant services, is uncovered this might witness about provoked bias in the outsourcing decision, which would then be in favor of keeping the application process in-house.

4.5 When to outsource and when not.

When outsourcing becomes a valid option for an organization and when it should not be attempted is a central question. Literature offers advice and guidance for this decision backed up by surveys and investigations of various cases. Studies of outsourcing of HR functions found to free internal HR staff to focus on strategic rather than transactional activities, promote decentralized structures that could support higher rates of innovation and flexibility as well as lowering the bureaucratic burden of the organization (Greer et al., 1999). A study of 150 medium and large companies in 2000 revealed that biggest issues with outsourcing of HR were related to perceived high cost and low quality as well as fear of losing control (Adler, 2007). Another study of 150 companies found that most common problems with HR outsourcing were costs higher than promised, poor service and contractors with insufficient knowledge (Lowler and Mohrman, 2003). Six important factors influencing the decision whether to outsource or not were identified (Adler, 2007):

Dependency risks.

If a company has to adapt its operations to do business with a supplier, it might find itself dependent on that vendor. On the other hand, if a supplier needs to alter its operations to do business with a particular customer, it risks becoming dependent on that customer. Dependency risks increase (thus discouraging outsourcing) when the outsourced function requires co-location, specialized equipment or training.

Spillover risks.

Outsourcing an operation to an external supplier exposes company for risks, associated with leaking of confidential information, maybe even to a competitor. The risk is heightened when the outsourced activity involves novel technology.

Trust

It is possible to employ detailed contracts with vendors as a form of protection against the first two factors mentioned above. But such documents are time-consuming and expensive to develop and negotiate. Enforcement is also uncertain and costly, thus discouraging outsourcing. Mutual trust, on the other hand, greatly encourages outsourcing.

Relative proficiency

Outsourcing takes advantage of economies of scale, aggregating the needs of several clients. This makes it possible to offer variety and quality at low cost. Specialized tasks, requiring niche knowledge, are particularly well suited for outsourcing. For large companies, however, this is less of an advantage due to sufficient internal resources.

Strategic capabilities

A company should not outsource any activity that directly contributes to its strategic, competitive advantage. In addition to such core capabilities, companies should think twice about outsourcing any critical activities. Critical activities provide no competitive advantage but are highly interdependent with those that do.

Commitment verses flexibility

Irreversible commitment to core activities is a powerful tool in achieving the goals of the company. But flexibility also has a value. If there is for example an uncertainty about the future of this activity's output, it might be wise to outsource it.

The relative importance of the six factors above varies across situations. With respect to HR, such activity as payroll processing is often outsourced since dependency and spillover risks are low, there are plenty of trustworthy suppliers, they have accumulated a lot of experience and there is little competitive advantage. HR planning on the other hand is rarely outsourced because of the high dependency risk, considerable strategic importance and great interdependency with core processes.

While the dependency risk is probably not that great in a relationship with a grant consultant, the risk of spillover is definitely present. Information about a company's R&D activities is often sensitive as those activities represent the very edge of what a company is engaged in and very often also are connected to strategy. To be able to write a grant application, a grant consultant must gain access to every aspect of the proposed R&D project and thus receive sensitive and often classified information that is of strategic importance to the company. Since there is a risk that the same consultant also offers services to competitors, the risk of spillover is not in favor of utilizing grant consultant services for R&D grant applications. Trust, gained through long cooperation, might decrease this risk.

Utilization of economies of scale is in favor of grant consultant utilization. By having grant application writing as main profession, a grant consultant should be able to offer superior services when it comes to understanding the application system as well as the efficiency of writing applications. However, for this to be true the superior understand must translate into higher success rate in receiving grant application approvals and high efficiency should be translated into financial saving for the client. While the later was earlier shown to be less certain, the success rate of the applications made with and without grant consultants is a topic of this study and will be investigated using survey results.

The question of strategic capability was discussed earlier. The balance of commitment verses flexibility suggests that difficult applications with low success rate should be outsourced due to their uncertain outcome, while SkatteFUNN applications should be made in-house.

The Outsourcing Institute stated in its 1998-survey results that there are ten reasons for outsourcing (The Outsourcing Institute, 1998):

Reduce or control operating costs

Access to vendors lower cost structure is one of the most compelling reasons for outsourcing. The 1998-survey indicates that the organizations taking part in the survey had on average seen a 9% cost reduction through outsourcing.

Make capital funds available

Outsourcing reduces the need of investing in in-house infrastructure and capabilities within non-core area functions, making funds available for investment in core areas. Outsourcing can also improve certain financial measurements by eliminating the need to show return on equity from capital investments in non-core areas.

Cash infusion

Outsourcing can involve transfer of assets from clients to providers in case the outsourced function involves operation of such assets. They are, in effect, sold to the service provider, resulting in a cash payment.

Resources not available internally

Outsourcing a service to a provider can often mean that the company gets access to resources, not available internally. This can be research infrastructure, software, human capital or manufacturing capacity.

Function difficult to manage or out of control

Outsourcing may be one of the ways to manage such a situation in case the service provider has competence in dealing with the situation in question.

Improve business focus

Improving focus on the strategic business issues is an outcome of less operational focus, which can be achieved by outsourcing operational functions.

Access to world-class capabilities

Outsourcing providers bring extensive specialized resources to their clients. Partnerships can offer access to new technology, tools and techniques, more structured methodologies, procedures and documentation and competitive advantage through expanded skills.

Accelerated re-engineering benefits

Having access to organizations that have been engineered and tuned into optimal delivery of a certain service gives an opportunity to utilize this opportunity fast, instead of re-engineering internal organization.

Shared risks

Outsourced services mean more flexibility and sharing risk with the service provider.

Free resources for other purposes

Since every organization has limited resources, outsourcing a task provides an opportunity to focus internal resources on core tasks and activities that have greater return.

Impact of grant consultants on reducing costs was discussed before. Grant application outsourcing can indeed free up funds, since smaller initial investment in the form of man-hours is required to submit a grant when utilizing a grant consultant. Although a cash infusion is not likely, the fact that necessary resources may not be available internally may also be applicable to grant application outsourcing. Utilizing grant consultant may also free internal resources, required elsewhere. Survey in this study might shed more light on this through investigating the reasons behind the outsourcing decision. The survey will also help understanding if outsourcing to grant consultants provides access to a superior service through investigating the success rate of applications made with and without grant consultants. It is questionable if outsourcing to grant consultants helps achieving better business focus since writing an application in-house often helps focusing the R&D effort making it more structured and streamlined. Shared risk might be relevant in grant application outsourcing; however, the initial overall level of risk should be considered. For SkatteFUNN applications, where the overall risk is low, the risk consideration is probably in favor of applying using in-house resources. For DEMO2000 applications, with higher overall risk of failure, outsourcing makes more sense.

A model of outsourcing level for IT activities, consisting of four hypotheses, was formulated and tested on 335 firms (Aubert et al., 2004). The model was based on the transaction theory.

Asset specificity

The first hypothesis stated that the degree of asset specificity would have a negative effect on the level of outsourcing of IT operation activities. The proposed reason was that the uncertainty would be a deterrent for organization to outsource due to the difficulties with writing contracts or with measurement.

Uncertainty

The second hypothesis was closely connected to the first and stated that the level of uncertainty would have a negative effect on the level of outsourcing of IT operation activities.

Business skills

The third hypothesis stated that the amount of business skills required to perform IT operation activities would have a negative effect on their level of outsourcing.

Technical skills

The fourth hypothesis stated that the amount of business skills required to perform IT operation activities would have a positive effect on their level of outsourcing.

Activities presenting a high level of business content were earlier proposed to be kept inhouse, because the members of the organization are more likely to master this content. Conversely, highly technical activities were proposed to be outsourced, since suppliers can nurture the critical technical skills (Grossman and Hart, 1986). The study concluded that asset specificity and uncertainty play an important role in the outsourcing decision and confirmed the proposed hypotheses. Higher technical skills were positive for the outsourcing decision, but the level of business skills did not have any significant influence on it. The proposed explanation for this was that performing IT operations required a rather low level of business skills.

Asset specificity and uncertainty considerations probably point in favor of grant application outsourcing due to relatively simple contracts and measurement of success. Since writing grant applications can be viewed as a task that is more complicated from business and technical standpoint compared to IT services, the relevance of findings concerning business and technical skills in this specific study are probably not very relevant for evaluation of grant consultant outsourcing.

The Cranfield survey identified fourteen reasons for external sourcing and weighted their importance in USA and Europe, see Figure 6. As expected, the survey puts the cost saving consideration at the top, but competence-related reasons were also found equally important. The survey confirms earlier suggestion that cost consideration is of paramount importance when considering outsourcing of grant application process. If the cost saving is not obvious, such outsourcing runs much higher risk of being the wrong choice for a company.

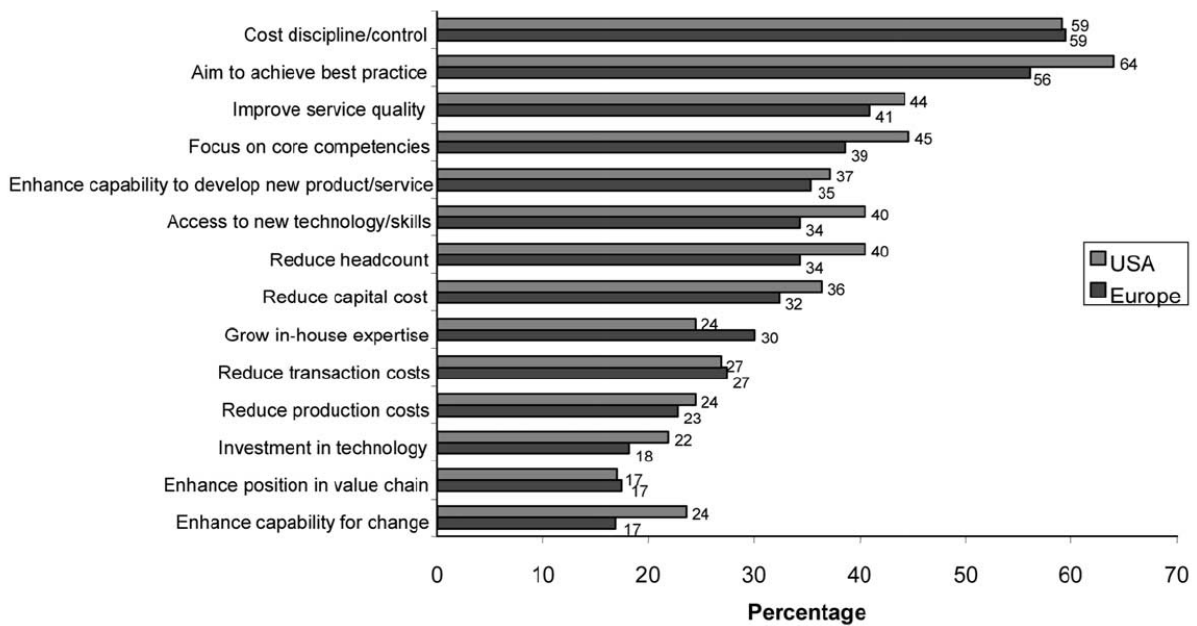


Figure 6 Reasons for external sourcing in Europe and USA (Kakabadse & Kakabadse, 2002).

R&D activities became a subject for outsourcing as well and this trend was described as increasing in several studies (Howells, 1999; Hsuan & Mankee, 2011). For most companies R&D is associated with the leading edge of their technical development and is thus problematic to outsource with respect to such aspects as protection of intellectual property and retaining a core business function in-house. However, such benefits of outsourcing as lower costs as well as access to research infrastructure and wider network have been driving outsourcing of R&D (Chou & Chou, 2010). Somewhat surprisingly, big corporations led the way in R&D outsourcing with such cases as Dell, Motorola, Phillips, Boeing, GlaxoSmithKline and Procter & Gamble actively engaging with external R&D providers (Engardio & Einhorn, 2005). According to the reasoning in the earlier presented work on outsourcing, large corporations should have the resources and economies of scale to perform the R&D work in-house. The previously mentioned dangers of intellectual property protection and core business outsourcing have become well-known as companies encountered these side-effects pushing R&D outsourcing too far. One example was when Motorola hired Taiwan's BenQ Corp to design and manufacture millions of mobile phones, only to later find BenQ selling mobile phones under its own brand in the lucrative Chinese market. Outsourcing of a core business function can in itself be problematic; Boston Consulting Group Senior Vice President Jim Andrew says that "if the innovation starts residing in the suppliers, you could incrementalize yourself to a point where there isn't much left (Engardio & Einhorn, 2005). The main reason for outsourcing R&D is thus to lower the costs, associated with it (Engardio & Einhorn, 2005).

Whether the outcome of outsourcing is positive or negative is debatable. For instance, positive effect of outsourcing R&D was said to originate from opportunity to gain knowledge created by other firms (Frank et al., 2016; Kamuriwo & Baden-Fuller, 2016; Nieto and Rodríguez, 2011). Negative effect was argued to originate from the fact that the firm does not learn how to create knowledge once it relies on others for R&D (Bettis et al., 1992; Weigelt, 2009; Grimpe and Kaiser, 2010; Becker & Zirpoli, 2017). Several studies reported that outsourcing innovation led to less innovative outcomes (Kessler et al., 2000; Beneito, 2006; Huan et al., 2009; Stanko & Olleros, 2012). Relying on external contractors can lead to decay of internal innovation capacity since more and more knowledge reside outside of the company (Henard & McFadyen, 2006). This negative effect was also mentioned in a discussion of grant consultant services in the media (Stensvold, 2018). It was suggested that a better control and ownership of R&D projects can be gained by performing typical grant consultant activities such as budgeting and planning in-house instead of outsourcing them to grant consultants.

Whether outsourcing R&D can be compared directly to grant application outsourcing or not is debatable. This goes also hand in hand with a discussion about whether grant applications can be defined as core activities of a company or not. While R&D represents the leading edge of a company's development, aligned with its strategy, it can be argued that grant application is a relatively simple administrative function. Following this line of argument, it is more appropriate to compare grant application writing with such auxiliary functions as handling payroll or IT service. If this comparison is valid it points in favor of outsourcing grant applications. However, it is obvious that grant consultants require high level of insight into company R&D to perform their tasks. This strengthens the earlier described consideration of spillover risk when considering services of a grant consultant.

4.6 Transaction cost theory and outsourcing

The theory of transaction cost is more than a hundred years old (Coase, 1937). It was further refined and developed in the 70s (Williamson, 1975). The theory states that there are a lot of activities in an economic system that occur outside of the price system. Such variables as the time and expense of negotiation or writing and enforcing contracts between buyers and suppliers are defined as transaction costs. Transaction costs refer to the cost of organizing information, coordinating behavior, safeguarding the interests of the transacting parties, monitoring the transactions, inducing the appropriate behavior adjustments, etc. Transaction cost theory proposes direct comparison of the costs, incurred by internal production or service and the same production or service, procured externally from the market. Outsourcing is

easier when the transaction costs are low enough (Chou, 2007) and when the uncertainty is low (Aubert, 1996). The essence of the transaction cost argument is that using a market is not frictionless. If these costs, incurred in an outsourcing agreement, become too high it is more appropriate to rely on performing activity in-house (Coase, 1937). An argument was made that innovation outsourcing should involve a higher transaction cost due to more risks and uncertainties (Aubert et al. 2004). Transaction cost theory has two underlying assumptions: bounded rationality and opportunism. Bounded rationality describes the inability of human mind to grasp all aspects of a transaction, which leads to uncertainty. The more complex the transaction is, the higher is the uncertainty and thus also the transaction cost. The second assumption is the opportunistic nature of the market players, which drives various costly verification activities for both parties (Aubert et al. 2004).

Evaluation of transaction costs for grant application outsourcing can suggest a way of improving the understanding of cost savings, available due to the outsourcing. Firstly, the transaction itself is not particularly complicated. Grant consultant business model is relatively simple and there is relatively little room for opportunism, which might drive costly verification. The existing opportunism opportunities are closely related to the risk of spillover and are mitigated through establishing a trust-based relationship. However, there are some hidden costs to consider in the grant consultant model. When considering the application and administration process for a grant it is easy to assume that vast majority of the work is connected to writing and sending in the grant application. However, experience shows that there is a lot of work connected to the annual reporting, which is not immediately obvious for less experienced applicants. The annual reporting itself is simple enough, but the activities that have to be conducted prior to it might take more time than expected. Such activities are for instance collecting and reviewing time sheets from everyone involved and getting them signed. Also, all the invoices that are a part of the project need to be reviewed and reviewed. This is the kind of activities that must be performed internally in a company and cannot be a part of grant consultant services. Thus, there is a potential for hidden transaction costs that are not reflected in the understanding of the agreement by the parties from the start. In other words, the outsourcing company might become more involved in the administration of the grant than it initially envisioned. This might lead to unfulfilled expectations.

4.7 Company size and outsourcing

There are clear differences in the outsourcing practice in relation to the company size. When studying HR outsourcing in UK in 2009 it was found that outsourcing is significantly more

common at smaller companies than in larger companies, see Figure 7. Practice of outsourcing HR activities was also found to be different in big and small companies (Adler, 2007). Small and midsize companies were found to be considerably more likely to outsource payroll, since they lack the economies of scale to perform that function efficiently. Conversely, larger companies are more likely to outsource benefits since they offer a larger variety of benefits which reduces the economies of scale for performing this activity in-house. Outsourcing of complete HR functions was found to be more common in SMEs (small and medium-sized companies), where also critical activities were found to be commonly outsourced (Belcourt, 2006; Gurney et al, 2009). Outsourcing practice in smaller companies has been linked to its occasional nature. With no continuous workload the unit price becomes too high and outsourcing becomes an attractive option (Abraham & Taylor, 1996; Klaas et al, 2001; Gurney et al, 2009). “Just-in-time” or “ad-hoc” nature of external specialists can be utilized for procurement of a service when required as opposite to paying for in-house employees on a regular basis (Lepak & Snell, 1998). Another factor that makes small companies more prone to outsourcing is the amount of risk, associated with uncertainties. A small company is not able to maintain a fully informed team and is consequently more prone to risk (Greer et al., 1999). It should be here noted that risk is always calculated into the costs of the provider services and ultimately the organization pays for it also when it is outsourced (Grossman, 2004).

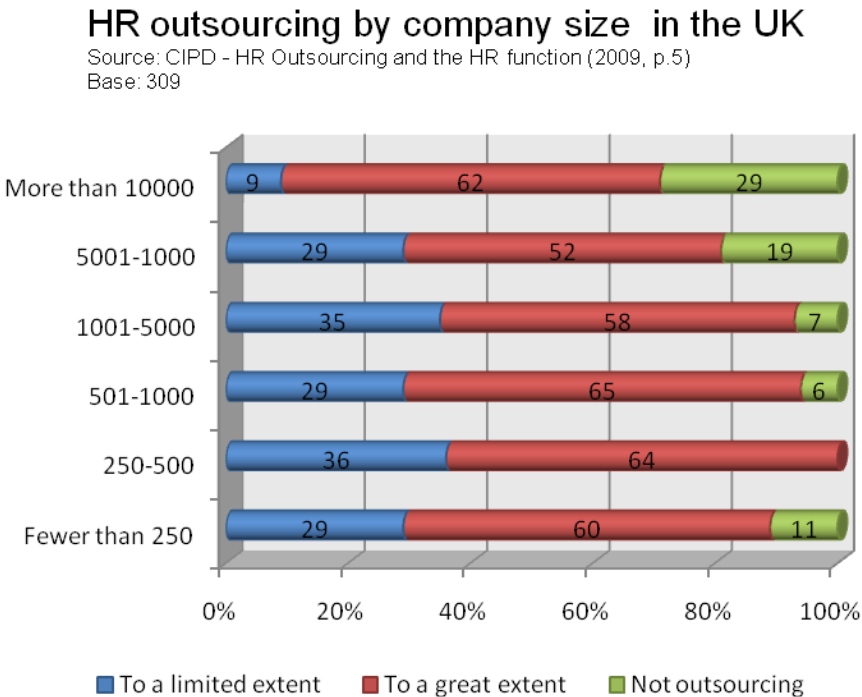


Figure 7 HR outsourcing by company size in UK (Beregszaszi & Polay, 2012)

Outsourcing of grant applications might follow different pattern in small and big companies. Small companies lack internal specialist resources and should thus be more likely to find outsourcing option attractive. In addition, manpower is limited in small companies and thus the amount of hours, required for making a grant application in-house, can become a considerable burden for a small company. On the other hand, monetary resources usually is a more critical variable in a small company and thus what seems to be significantly higher costs that employing a grant consultant might be in favor of keeping grant application in-house. Survey results in this study will be cross-correlated with the publicly available information on company size in order to draw conclusions on how the company size is correlated to the tendency to outsource grant applications.

4.8 Knowledge acquisition through outsourcing

One of the strong benefits of outsourcing is possibility for acquisition of knowledge created by other firms and otherwise not available to a company (Nieto & Rodríguez, 2011; Frank et al., 2016; Kamuriwo & Baden-Fuller, 2016). Acquiring new knowledge has direct impact on a firm's competitiveness (Inkpen, 1998) and thus is essential for its development. Applying for government grant funding requires unique insights and knowledge from the applicant. It is safe to assume that not all companies have internal resources and knowledge that are sufficient for this task. This is especially true for small companies with limited resources. A cost-effective way of acquiring new knowledge is by creating a knowledge reservoir (Widding, 2005). A knowledge reservoir is where an entrepreneur accesses knowledge beyond that knowledge that they themselves possess. Three types of knowledge reservoirs are identified:

- Internal knowledge reservoir
- Semi-internal knowledge reservoir
- External knowledge reservoir

The internal knowledge reservoir is made up of the employees. Outsourcing is thus not necessary if the required knowledge can be found within this reservoir. Board members and owners form the semi-internal knowledge reservoir. Outsourcing is not required to access the knowledge they possess either. The external knowledge reservoir, on the other hand, is built up of actors from outside the company. Several studies point out that utilization of the external knowledge reservoir is essential for success (Duchesneau & Gartner, 1990; Johannisson, 2000). Thus, acquiring knowledge by outsourcing grant writing applications to a

third party may be a viable option, especially for a small firm. The same studies mention a number of risks, related to acquiring knowledge from an external knowledge reservoir. These risks are similar to those, found in the literature on outsourcing with leaking of knowledge named as one of the greatest risks (Zander & Kogut, 1995; Argote & Ingram, 2000).

More and more companies are engaging in various forms of collaboration aimed at building knowledge reservoirs or strategic alliances. It was argued that that entrepreneurship to a high degree is about getting access to resources one does not have, as opposed to managing a set of given resources (Widding, 2005). Grant consultant companies themselves see their relationship with customers as strategic cooperation than a simple procured service agreement (Midtsjø et al., 2015; Taraldsen, 2017). When it comes to small companies, this standpoint is supported both from the point of view of the Knowledge Reservoir Theory and Resource Based Theory. Lacking the internal resources, small companies must turn to external providers to tap into external knowledge reservoirs. Following this line of argument, outsourcing of grant application writing to external consultants should be more common in smaller companies compared to larger companies.

In the following chapters we will attempt answering the research questions in this thesis using the results of the survey and the background information, presented in this chapter. We will analyze the survey answers for the clues to the background for decisions to engage grant consultant services for applications towards DEMO2000 and SkatteFUNN funding from the RCN. We will then utilize the insights, gained from the past research on outsourcing, to compare outsourcing practices to utilization of grant consultants. We will describe the outsourcing decision in the view of Resource Based Theory and knowledge acquisition in organizations. The goal will be to draw parallels to the reasons for outsourcing, described in the literature, and investigate if they are valid also for utilization of grant consultants. Using this information, we will attempt to shed light on the main goal of this work, to gain insights in contribution of grant consultants to adding value to research, development and innovation (RD&I) activities in Norway.

5.0 Methods

This chapter elaborates on the data used in the quantitative analysis, as well as the processing of these data. The thesis is based on information, collected from two sources. One is the database of the Research Council of Norway. The grant application details (applicant contact details, names of the projects and the outcomes of the applications) were provided by the RCN based on the official request to get access to this information. All data received from the Research Council of Norway was treated according to the Norwegian Personal Data Act §8. No details on the contents of the projects were provided by RCN, only the administrative data.

The second source of collected information is a survey, carried out among the applicants for RCN funding with the help of a questionnaire, distributed using Google Forms. Information on frequency of grant consultant utilization, mechanisms and motivation behind engaging grant consultant services as well as attitudes and experience of grant consultant utilization was collected from the survey questionnaire. This information was later cross-referenced with information from the RCN database to determine the application success rates. Project title and applicant name were used as the base for cross-referencing.

5.1 Survey and questionnaire

Primary objective of the survey in this thesis was to help answering the six research questions (see “Introduction”). Questionnaire thus consisted of a series of written questions for which the respondents had to provide the answers (Bell, 1999).

When planning a survey, imprecise or ambiguous terms in the objectives must be identified (Fink, 2004). This refers to terms that are not precise and can be misinterpreted. For example, in the objectives of this survey one of the imprecise terms was “grant consultants”, which is a role that can be interpreted in different ways. We thus defined the term “grant consultants” in the second question of the survey as: “external company or individual, who received compensation for assisting with writing and administrating the application”. Several Norwegian grant consultant companies (Esacon, Nofas and Front Innovation) were given as examples.

The survey questionnaire was distributed to applicants for funding from two RCN programs in 2016: DEMO2000 and SkatteFUNN (see “Context and literature”). SkatteFUNN is open for applications from all companies in Norway, while DEMO2000 is targeted specifically at

the oil & gas sector. Only SkatteFUNN applications from companies in oil & gas sector were thus considered in this thesis for a fair comparison to the DEMO2000 program.

It is significantly more difficult to secure funding from the DEMO2000 program with only about 30% of applications being granted funding. The situation is the opposite for the SkatteFUNN program, where more than 80% of all applications are granted. The choice of these two programs was made to analyze how successful grant consultants had been in assisting with challenging applications for funding in advanced projects (DEMO2000) compared to less challenging ones (SkatteFUNN).

5.2 Data collection

We have chosen to perform a positivistic quantitative data collection by using online survey with predetermined close-ended questions allowing us to measure attitudes (Creswell, 2009). Element of qualitative study was included in the survey by letting everyone add their comments at the end of the questionnaire. The survey was distributed electronically using Google Survey tool and the results were exported to Microsoft Excel. After receiving the survey, grant applicants also received two reminders to fill it out with two weeks in between.

Questions in the survey were formulated to clarify the role of grant consultants in securing funding from RCN. A full list of the interview questions can be found in Attachment 1. Answers to most of the questions were given on a scale from 1 to 5, where 1 was equal to “I do not agree at all” and 5 to “I completely agree”. Only question two in the survey was categorical, i.e. had two defined categories (yes and no). The rest of the questions were ordinal, i.e. the respondents chose between five levels of agreement. Two sets of questions were prepared: one for those who used the services of grant consultants and one for those who did not. The survey was structured based on the research questions in this thesis, see Table 2.

The main strength of a survey with close-ended questions is that the received answers are easy to quantify, categorize, plot and compare (Fink, 2010). Closed-ended questions are also easy to answer and are thus less time-consuming for the respondents (a factor that favors high rate of response). The open-ended questions at the end of each section were useful for eliciting unanticipated answers. The questions were formulated to be short, precise and straight-forward to minimize errors when answering them (Sudman and Bradburn, 1982; Fink, 2004).

Table 2 Correlation between research questions and survey questions

Survey questions*	Research questions (see introduction)					
	1	2	3	4	5	6
1				√		
2	√					
3			√			
4				√		
5					√	
6						√
7				√		
8						√
9						√

* English translation of the survey questions (see Attachment 1 – Questionnaire (in Norwegian) for complete survey in Norwegian):

1. What is your competence level of applying for RNC funding (1-5)?
2. Have you used grant consultant when applying for RCN funding in this project (YES/NO)?
3. YES - Were you contacted by grant consultant company or did you contact them (multiple-choice question with 9 modes of interaction available to choose from)?
4. YES - Why did you utilize services of an external grant consultant instead of applying yourself (three choices of answers available)?
5. YES - Rate the following six claims about grant consultant services.
6. YES - What is your opinion regarding the use of grant consultant services (free text)?
7. NO - Why did you choose to apply yourself instead of utilizing services of a grant consultant (five choices of answers available)?
8. NO - Rate the following three claims about grant consultant services.
9. NO - What is your opinion regarding the use of grant consultant services (free text)?

5.3 Population and sample size

The questionnaire was sent to 109 applicants for funding from DEMO2000 and 468 applicants for funding from SkatteFUNN. These survey recipients constituted the complete list of applicants for these grants in 2016. Volunteer sample consisted of 28 answers, received for the survey sent to applicants for DEMO2000 funding. This constitutes 26% of the total number of program applicants in 2016. 89 answers were received for the questionnaire sent to applicants for SkatteFUNN funding. This constitutes 19% of the total number of program applicants in 2016.

5.4 Quality of the received data

Questionnaire data quality is essential to the results of this work. Reply rate can be considered acceptable, since the share of survey answers is seldom higher than 30%. However, a bias in the data can be seen when analyzing and comparing the percentage of applications where the support was granted to what is normal for the DEMO2000 and SkatteFUNN program. Results showed that 43% of all DEMO2000 applications written with the help of grant consultants were approved. The corresponding number for DEMO2000 applications written without the help of grant consultants were 81%. Analysis of the data received from RCN showed that only 34% of all the applications were approved. Similar results were observed for the SkatteFUNN program, where 100% of applications made with the help of grant consultants, and 91% of applications made without the help of grant consultants, were approved. This number was only 86% for the whole population.

It can be concluded that companies with approved applications were over-represented among the questionnaire respondents. This can be explained by the assumption that the companies with approved project funding probably were more eager to contribute to a study of their funding compared to companies with denied applications. In fact, it is highly probable that many of the companies with denied applications never carried out the projects in question at all. Thus, they were probably not motivated to discuss them. Maybe the project managers did not remember enough details since they would have moved on to other projects. This is more probable for DEMO2000 applications than for SkatteFUNN applications, since the public grants are more often the enabling financing in case of DEMO2000. Rejected projects not being carried out, as well as the fact that much fewer data points were collected for the DEMO2000 program (where much fewer applications were received), supports a certain caution while interpreting the DEMO2000 data from this study. Survey data on the SkatteFUNN program can be concluded to have higher validity.

5.5 Limitations

Survey is a tool that makes it possible to collect data from a large number of individuals in an efficient manner. But a survey is only as good as the quality of the sample. A sample plan must be developed prior to a survey (Levy & Lemeshow, 1999). The people, selected to participate in the sample, must ideally be selected at random; they must have an equal (or known) chance of being selected (Salant & Dillman, 1994). Since the whole population (all the applicants to the SkatteFUNN and DEMO 2000 programs) was used as a sample, the quality was rather determined by the choice of the respondees to answer or not.

The main limitation of the survey in this thesis is the sample validity. This is especially evident when analyzing the answers from respondents who utilized assistance of grant consultants when applying for grants from DEMO2000 program. Only seven out of 25 respondents utilized such assistance, and one of the seven had an obvious very bad experience. Data collected from applicants to the SkatteFUNN program contains larger number of answers and thus the trends are more secure.

The main weakness of using close-ended questions is the risk that important information can be lost. This happens if a reply option, preferred by the respondents, is not available in the survey. Close-ended questions may also put ideas in the minds of the respondents. In addition, there is an ever-present risk of misinterpretation.

We only questioned companies applying for grants, not grant consulting companies. There is a limited number of grant consultant companies in Norway. Face-to-face or telephone interviews with them might have improved understanding of their business models and operations. However, a lot of this information was already available in media articles on this topic, where a lot of interviews were conducted by journalists.

Most of the information describing the use of grant consultants in Norway is contained in media articles published by E24 and Teknisk Ukeblad. These articles have been published by journalists, not scientists. The main objective of such articles is to create debate and shed light on an issue, not to carry out a quantitative investigation. Thus, more caution must be used when interpreting findings in referenced media articles compared to scientific peer-reviewed journal papers. There are no research articles published on the specific topic of grant consultants, although several papers describing related phenomena, such as outsourcing, are cited in this thesis.

6.0 Results

This section presents the results from the survey. We present results relevant for each of the research questions in their order (see “Introduction” and Table 2).

6.1 Frequency of utilizing grant consultant services for grant applications

Approximately one fourth of all applications were written using help from grant consultants. The number is roughly the same for DEMO2000 and SkatteFUNN programs, see Figure 8.

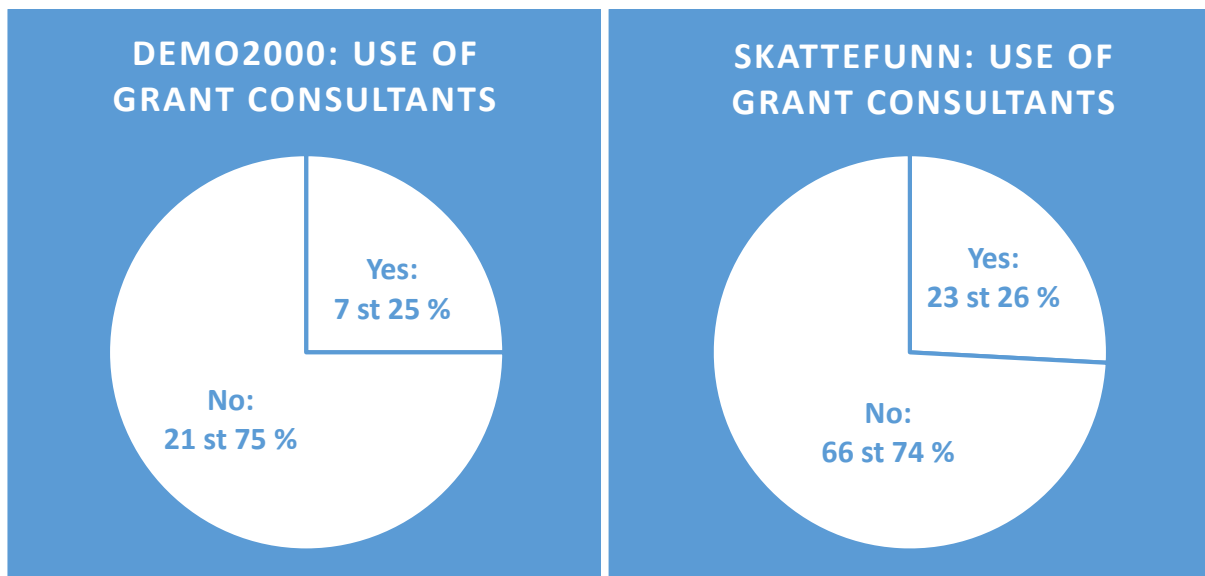


Figure 8 Grant consultant use frequency

6.2 Influence of grant consultant utilization on the outcome of the applications

For DEMO2000, the survey results show that 43% of the applications were approved in cases where grant consultants were used, see Figure 9. In contrast, 81% of applications written without the help of consultants were granted. There is significant uncertainty in this data since the number of answers received to the DEMO2000 questionnaire was relatively small. All SkatteFUNN applications (100%) were approved in cases where grant consultants were used, see Figure 10. Corresponding figure for applications written without the help of grant consultants was 91%.

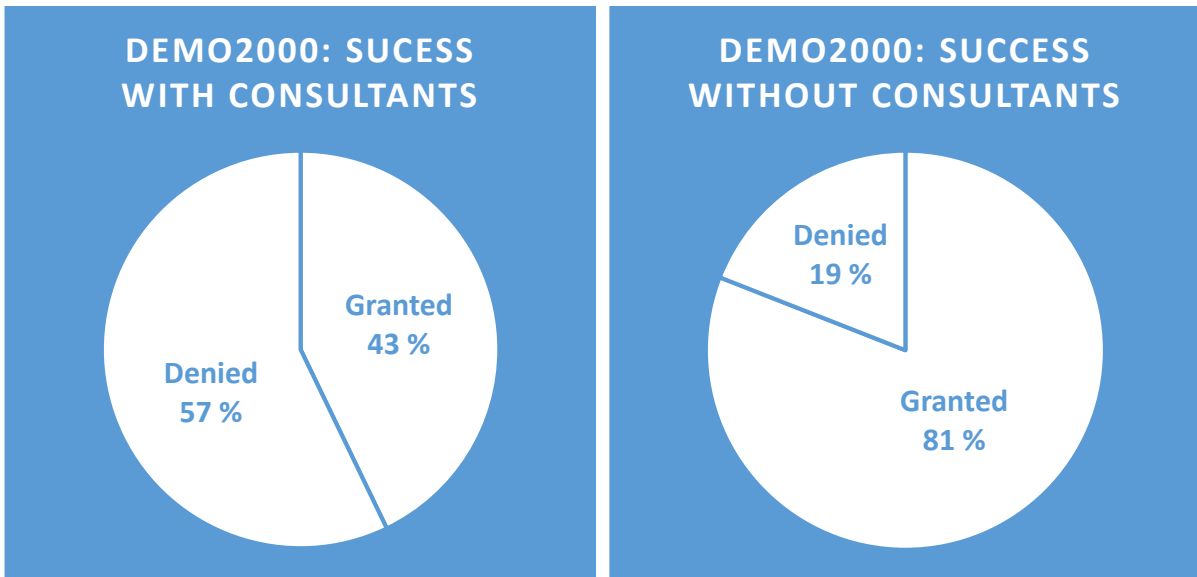


Figure 9 Success rate of DEMO2000 applications

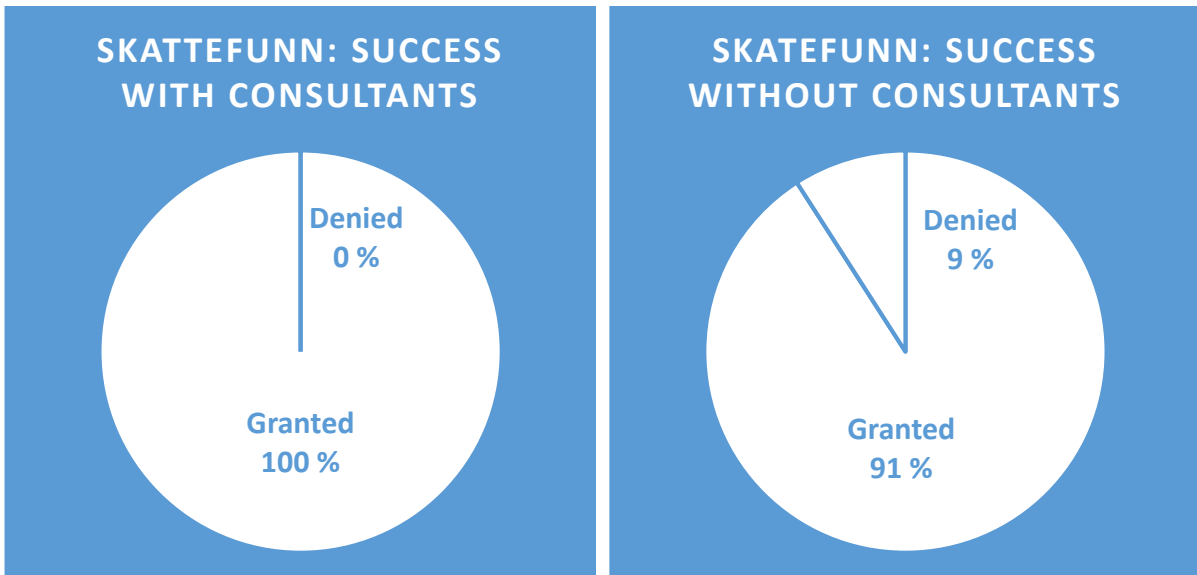


Figure 10 Success rate of SkatteFUNN applications

6.3 Modes of first engagement between companies and grant consultants

Investigation of how grant consultants and companies made their first contact showed that companies contacted a consultant in 57% of the cases for DEMO2000 applications, see Figure 11. For SkatteFUNN applications, the number was 39%. Grant consultants contacted companies based on earlier cooperation in only 9% of the SkatteFUNN cases, while corresponding number for DEMO2000 was 29%. In 26% of SkatteFUNN cases, grant consultants pitched their services to companies through phone or e-mail without prior notice, while this number was 0% for the DEMO2000 program.

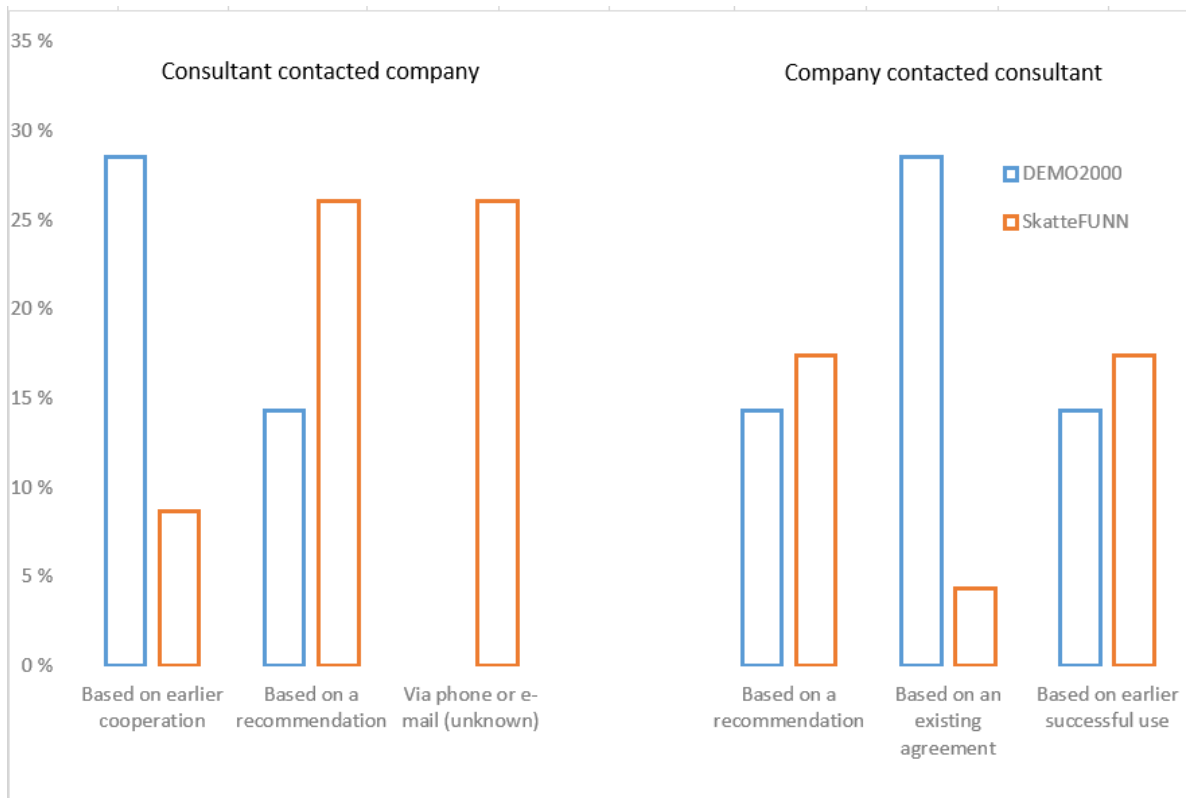


Figure 11 Modes of first contact between companies and grant consultants.

6.4 Motivation to use grant consultants

Companies that used grant consultants judged their ability to write DEMO2000 grant applications as somewhat lower compared to those who had not used grant consultants, see Figure 33. Data from SkatteFUNN applications shows similar trends: those who used grant consultants judged their ability to write grant applications as somewhat lower compared to those who did not use grant consultants, see Figure 34. Most of the companies who did not use grant consultants strongly agreed to the statement that they were competent enough to write the application themselves, see Figure 35.

Most of the companies who used services of grant consultants for their applications indicated that they were aware of the possibility to apply for grant funding before the consultants made them aware of it, see Figure 12. Answers from the companies who did not utilize the services of grant consultants reveal the same trends, see Figure 13. Knowledge about grant consultant services is somewhat higher for SkatteFUNN applicants.

Most of the companies that applied for DEMO2000 grants using grant consultant services indicated that they had the knowledge to make the applications themselves. This was less true for companies who applied for SkatteFUNN grants. Here, the answers indicated that many of the companies did not have sufficient knowledge to apply themselves, see Figure 14. Both the

DEMO2000 and the SkatteFUNN applicants indicated that they did not have enough time to make the application themselves, see Figure 15.

Using grant consultants for applications was not a company policy for most companies in our study. However, 29% of DEMO2000 applicants answered that it was their company policy, while the corresponding number for SkatteFUNN applicants was only 4%, see Figure 36.

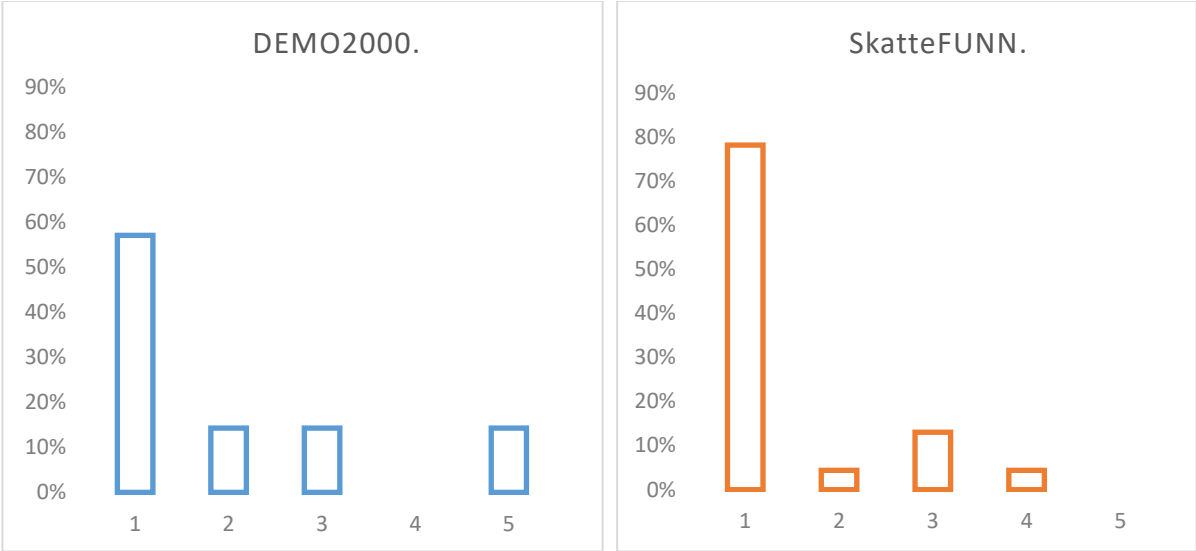


Figure 12 Did not know about the possibility to apply before the consultant made me aware of it (1-completely disagree, 5-completely agree).

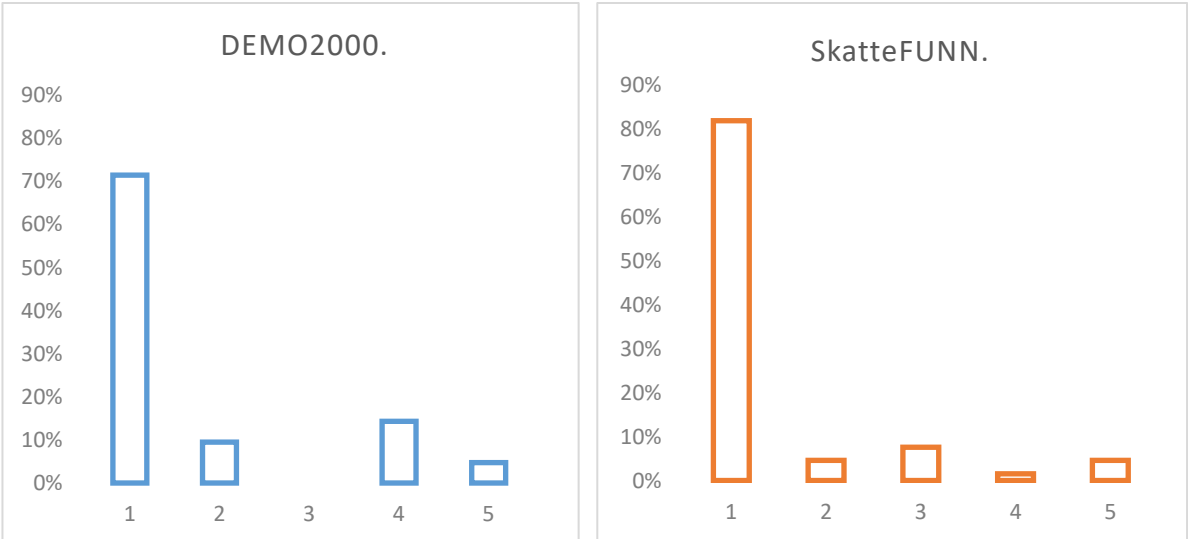


Figure 13 We did not know that it was possible to get external help (1-completely disagree, 5-completely agree).

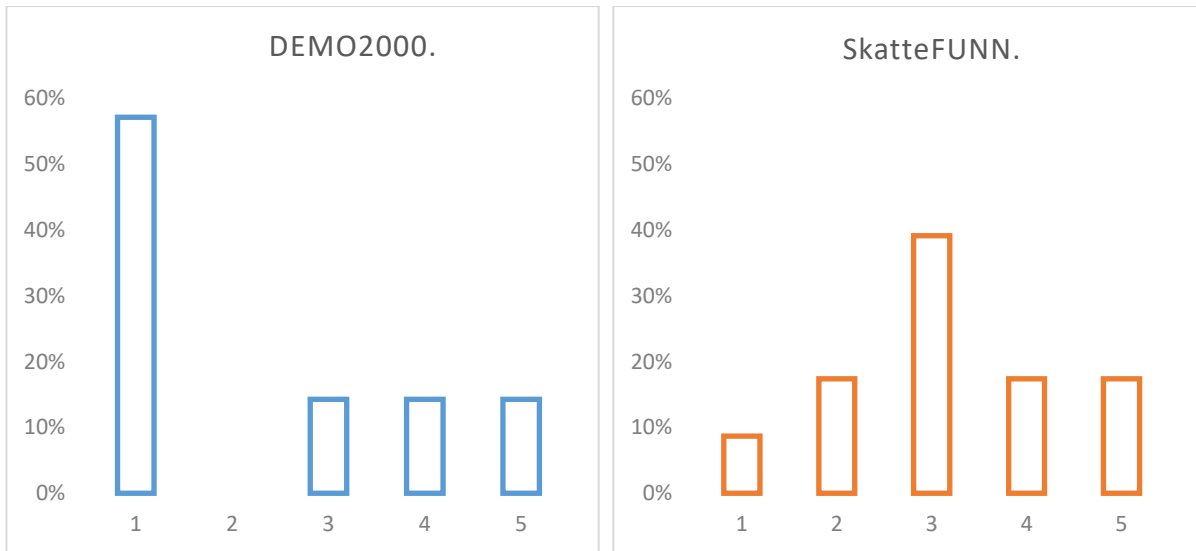


Figure 14 Did not have the knowledge to apply (1-completely disagree, 5-completely agree).

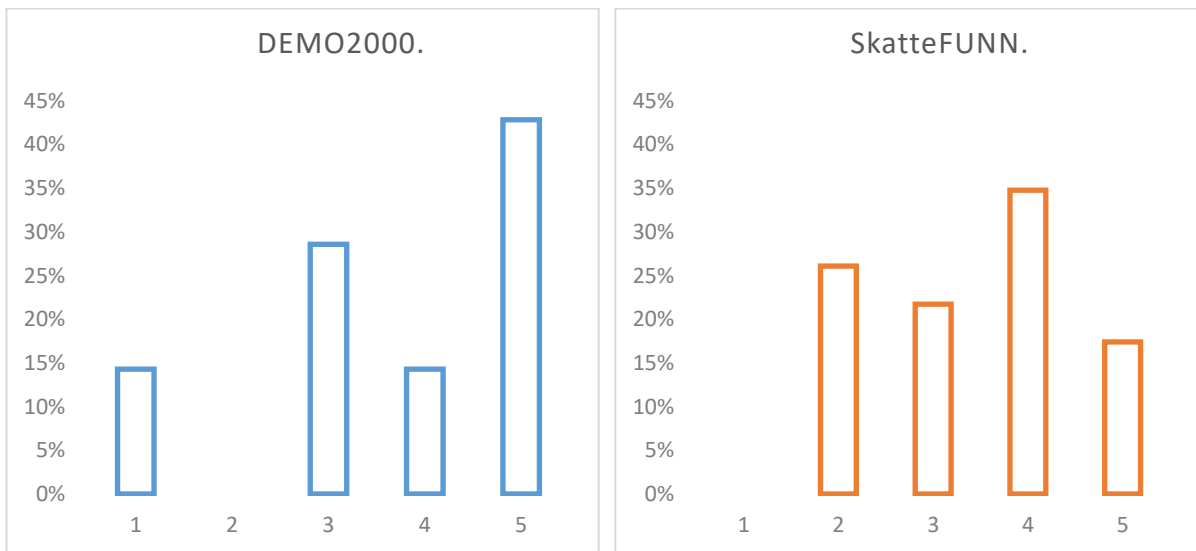


Figure 15 Did not have time to apply (1-completely disagree, 5-completely agree).

6.5 Experiences from using grant consultant services

29% of the DEMO2000 applicants strongly disagreed with the statement that they had previous good experience with grant consultants. Corresponding number for SkatteFUNN applicants was only 9%. Most companies agreed to the statement that their prior experience with grant consultants was good, see Figure 16.

Most companies indicated that they had good involvement in their application process, see Figure 17. Most SkatteFUNN applicants also answered that the grant consultant did a very good job during the entire application process and that everything was taken care of.

However, 29% of the DEMO2000 applicants strongly disagreed with this statement, see Figure 18. Most of the companies that did not utilize the help of grant consultants also

strongly disagreed with the statement that they had bad experience with grant consultants in the past, see Figure 19.

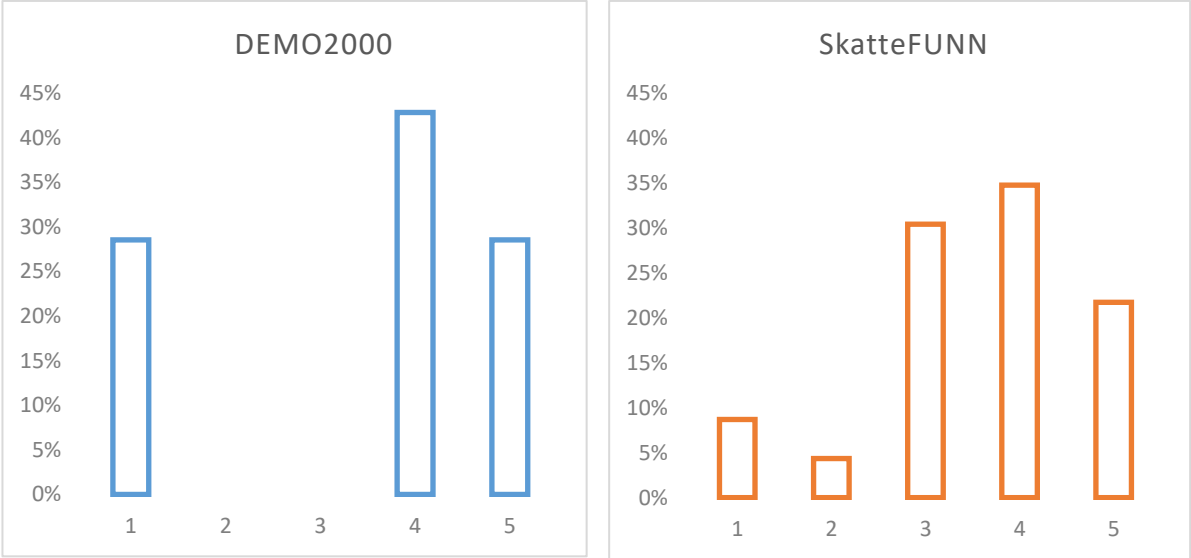


Figure 16 Had good prior experience with grant consultants (1-completely disagree, 5-completely agree).

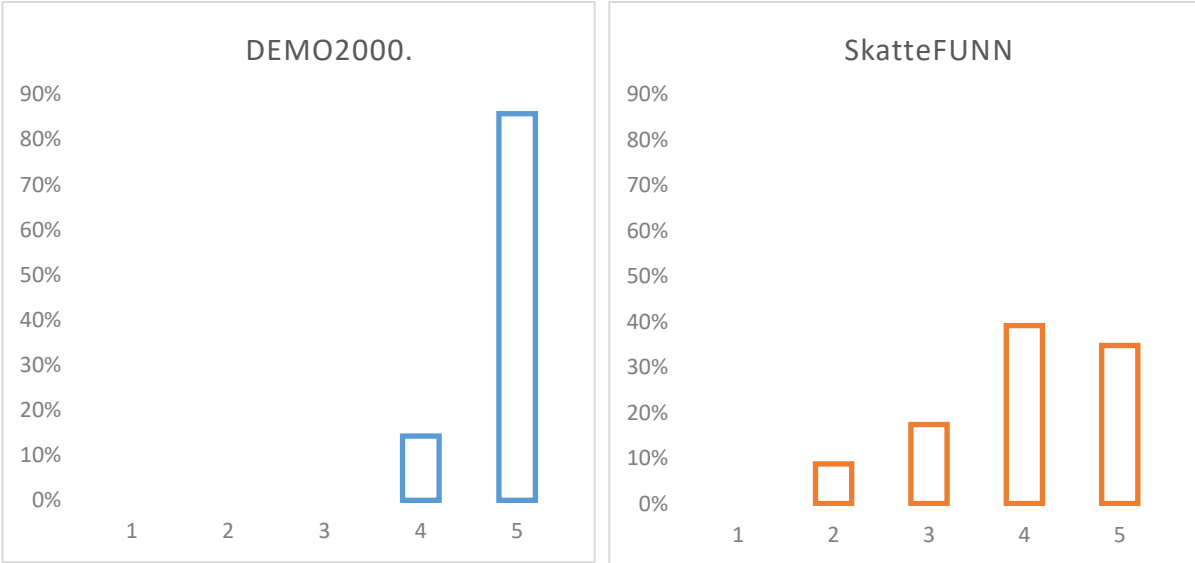


Figure 17 Company had good involvement in the application throughout the whole process (1-completely disagree, 5-completely agree).

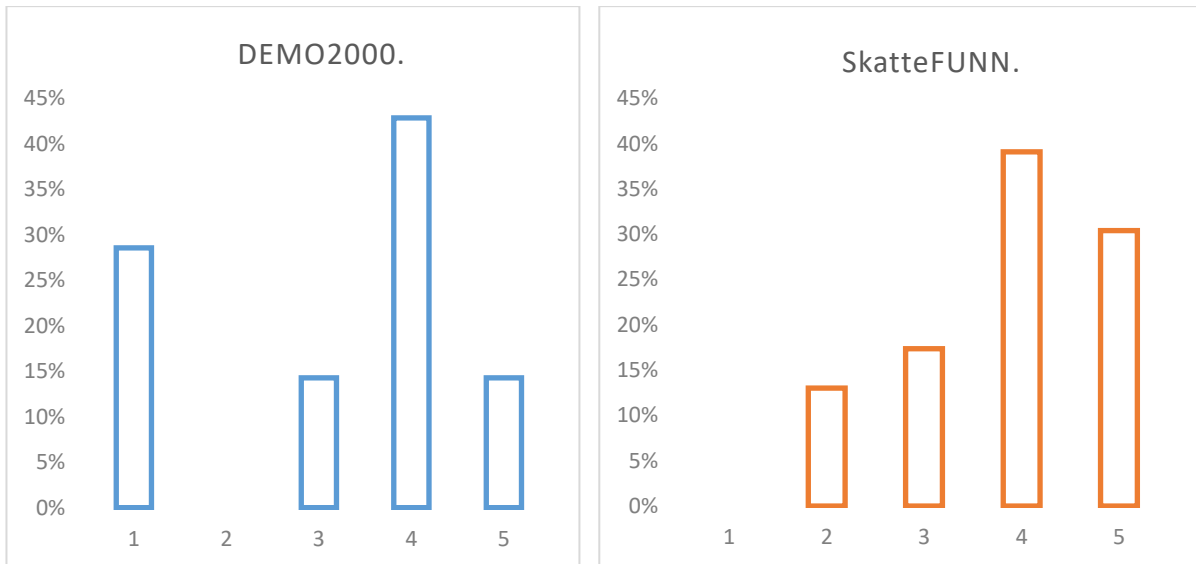


Figure 18 Grant consultant did a very good job during the entire application process and everything was taken care of (1-completely disagree, 5-completely agree).

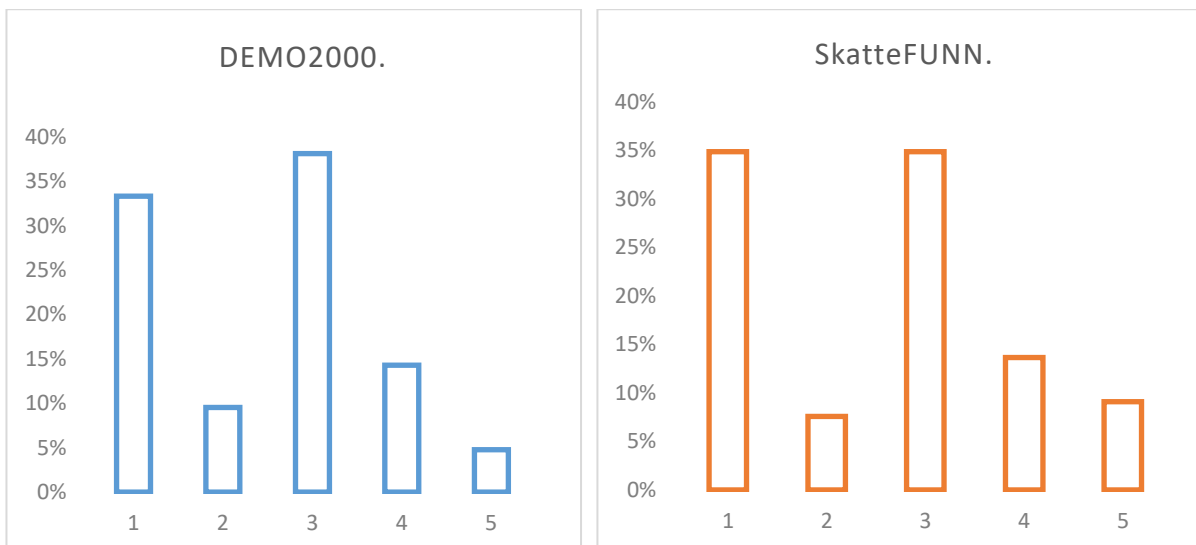


Figure 19 We had bad experiences with grant consultants in the past (1-completely disagree, 5-completely agree).

Most SkatteFUNN applicants answered that the application would never have been sent if not for the help of grant consultants. More of the DEMO2000 applicants are not as sure about that, see Figure 20. Most of the companies who used services of grant consultants completely disagreed with the statement that the grant consultant oversold his knowledge and experience and was not as big of a help as the company hoped for, see Figure 21. Most companies that used the services of grant consultants agreed that this practice was successful from a cost/benefit perspective, see Figure 22.

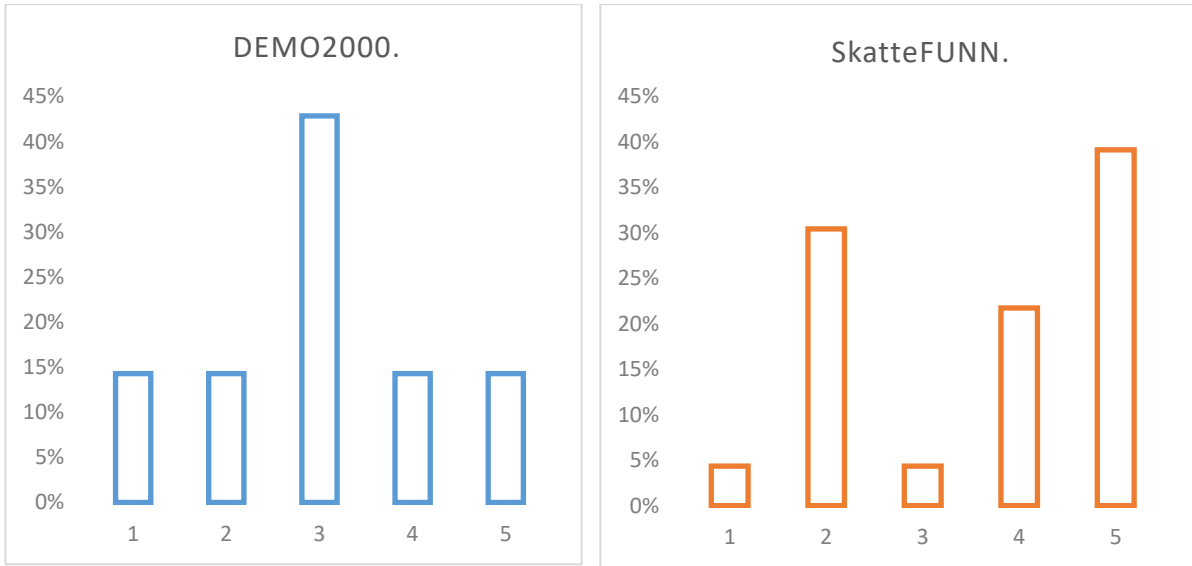


Figure 20 This application would not have been sent in, if not for the grant consultants help (1-completely disagree, 5-completely agree).

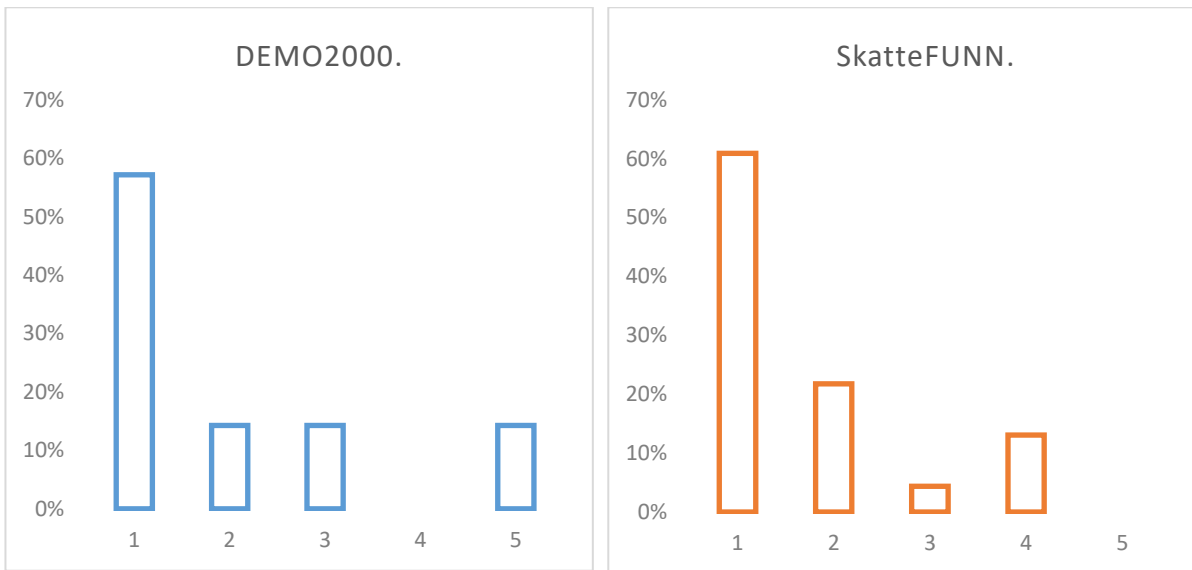


Figure 21 The grant consultant had oversold his knowledge and experience and was not as big of a help as we/company had hoped for (1-completely disagree, 5-completely agree).

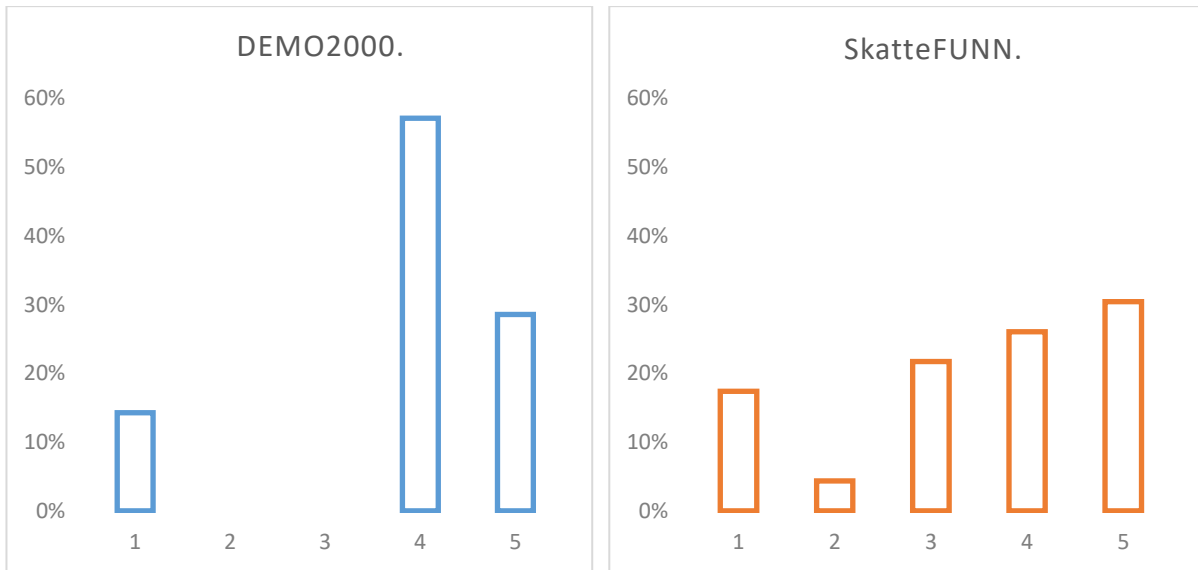


Figure 22 Use of grant consultant was successful seen from a cost/benefit perspective (1-completely disagree, 5-completely agree).

Most companies agreed to the statement that grant consultants had the relevant experience to write the application, although 14% of the DEMO2000 applicants strongly disagreed with the statement, see Figure 23. The same trend can be observed in the answer to the question whether the grant consultant had a very good knowledge of the grant in question. Here, most of the answers indicated complete agreement except for the 14% of the DEMO2000 applicants who strongly disagreed, see Figure 24.

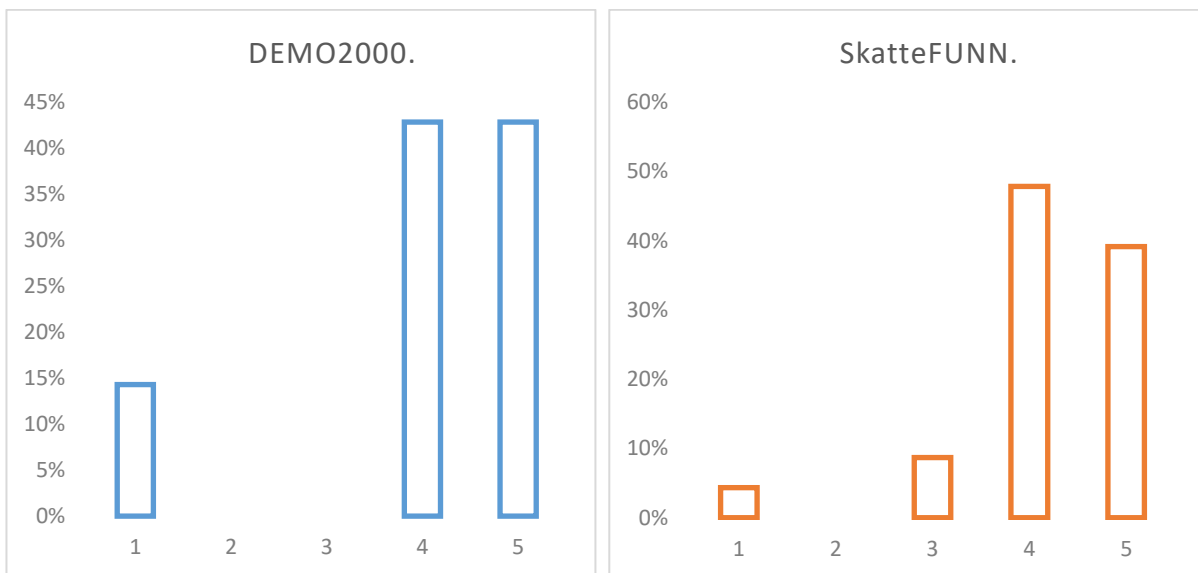


Figure 23 Grant consultant had relevant experience (1-completely disagree, 5-completely agree).

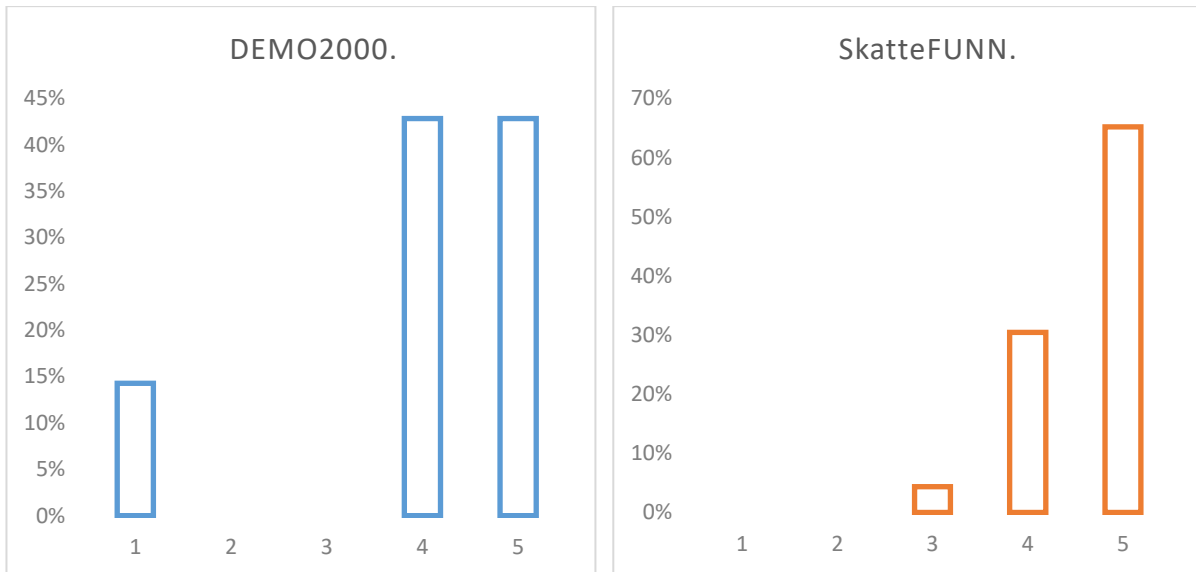


Figure 24 Grant consultant had very good knowledge about the grant in question (1-completely disagree, 5-completely agree).

Many grant consultants seemed to have good network of relevant partners, although 29% of the DEMO2000 applicants strongly disagreed with this statement. Corresponding findings for SkatteFUNN applicants was 13%, see Figure 37. Many of the DEMO2000 applicants (43%) strongly disagreed with the statement that grant consultant had good network of research partners, while only 13% of the SkatteFUNN applicants expressed the same strong disagreement, see Figure 38.

Many companies that did not use grant consultants disagreed with the fact that they had internal resources available to assist with writing grant applications, see Figure 39. Most of the companies also disagreed with the statement that they get assistance with grant applications from their research partners, see Figure 40.

Most of the SkatteFUNN applicants that utilized the assistance of grant consultants considered this practice to be a better use of resources. The situation is slightly different for DEMO2000 applicants where 25% answered that this was not a better use of resources, see Figure 25.

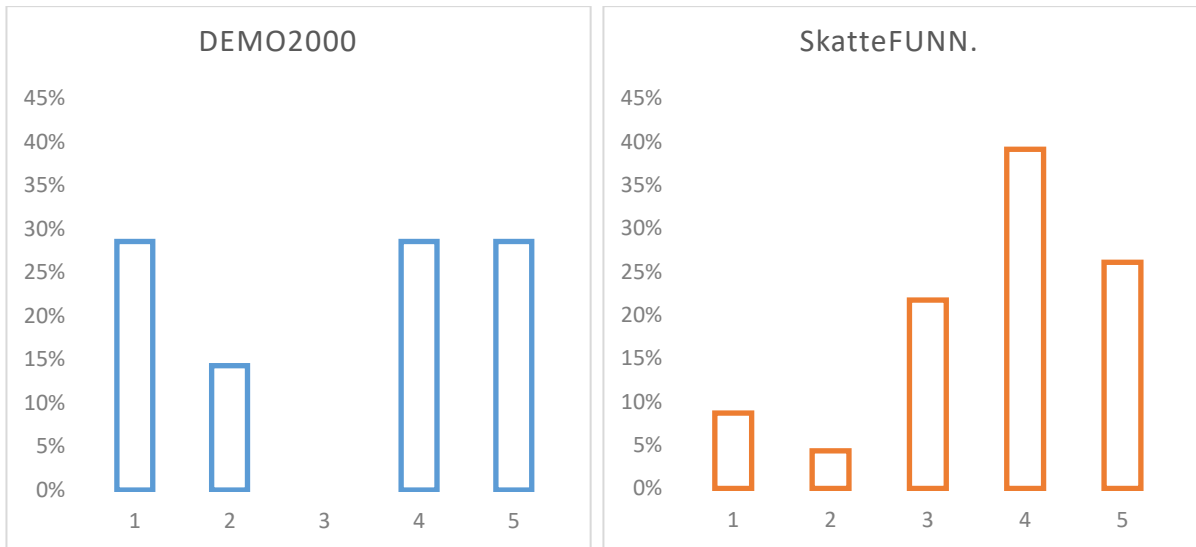


Figure 25 Using grant consultants for this task leads to better utilization of resources (1-completely disagree, 5-completely agree).

6.6 Attitudes towards using grant consultant services

Most of the companies that did not use grant consultants agreed that such service was not worth the money, see Figure 26.

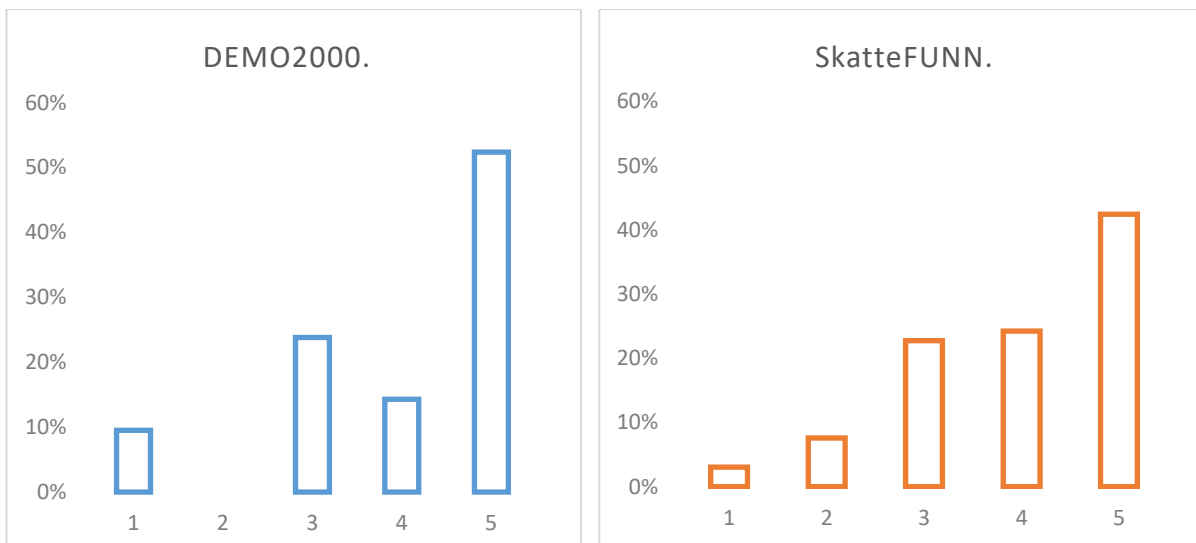


Figure 26 Grant consultants are not worth the money (1-completely disagree, 5-completely agree).

Most of the applicants did not regret that they did not utilize grant consultant services, see Figure 27. Most of the companies who did not utilize the assistance of grant consultants, agreed or strongly agreed with the statement that they would never be going to use a grant consultant for application writing. This is more the case for DEMO2000 applicants than for SkatteFUNN applicants, see Figure 28.

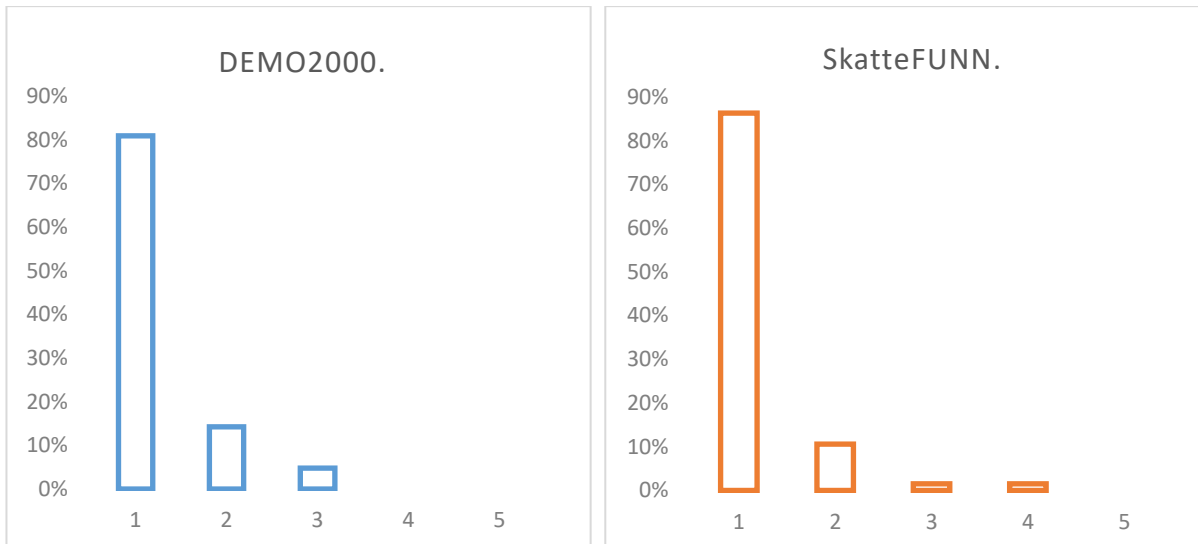


Figure 27 I wish that I would have used a grant consultant to assist us (1-completely disagree, 5-completely agree).

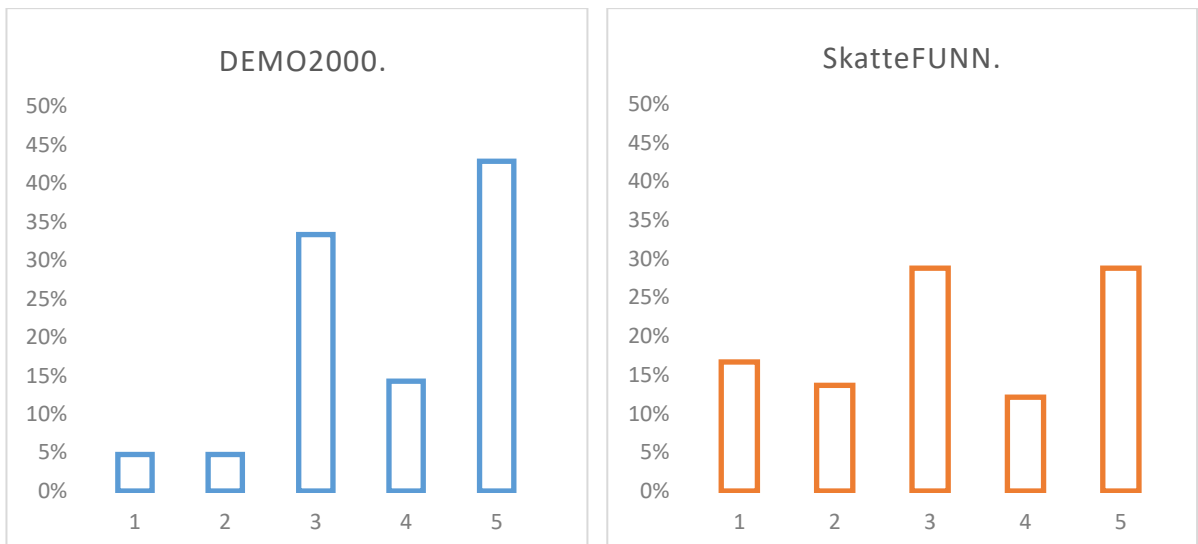


Figure 28 I am never going to use a grant consultant, when writing my applications (1-completely disagree, 5-completely agree).

All respondents had an opportunity to add a comment to their survey answers. Many used the opportunity, and the comments can be seen in Table 3 to Table 6. The comments have been categorized based on their character.

Table 3 Comments from companies who applied for DEMO2000 funding using grant consultants (the character is set based on the content in the comment with 1 being strongly negative and 5 – strongly positive).

Character	Comment
Negative comments (1-2)	
1	We were advised to use grant consultant internally, since the RCN application process was supposed to be complicated and time-consuming. What we experienced when we engaged the consultant were lack of knowledge and rarely seen greediness. I almost lack words to describe how disappointed, and really simply shocked, I was over the fact that it is legal to operate in this manner. Based on my own experience, the RCN is very helpful when it comes to the application process and assists in all possible ways with both the application and the follow-up. It should be mandatory for grant consultants to be approved by the authorities to get a license to operate. I would go as far as to call grant consultants a miss use of research funding, which should not be legally allowed.
Neutral comments (3)	
3	We normally do not use grant consultants, especially not the ones, specializing only on writing applications. In this case, however, we used a consultant after a recommendation. He did not charge us in case the application was not approved and the percentage for his services was also much lower compared to the bigger companies in this business. Our project was not approved, but this was not the consultants fault.
3	Using grant consultants is a good practice for companies with large workload and little available time. However, we prefer to have own resources for this kind of tasks in order to have more control.
3	Using grant consultants should not be necessary, but I am not sure if our application would have been approved if we did not use one.
Positive comments (4-5)	
5	Very positive and time-saving.
4	Saves internal resources. Our application was not granted because of a lack of industry support.
5	Very good.

Table 4 Comments from companies who applied for SkatteFUNN funding using grant consultant services (the character is set based on the content in the comment with 1 being strongly negative and 5 – strongly positive).

Character	Comment
Negative comments (1-2)	
1	Help from RCN and more accessible information about how to write the application should be enough to be able to apply. Contribution from the consultants is not in proportion to the payment they ask for. Some of them also want to get paid when the application is approved, and this can be costly for the company.
2	Grant consultants charge a lot for their services. We do this ourselves, although we used a consultant the first time.

1	I would rather see the application process to be so simple that there is no need for a consultant. They remind me a lot of real estate agents; they do not contribute to creating value, just take their share. There would be more money left for development if the authorities would do the administration themselves. A lot disappears into the pockets of the consultants as it is now. It would be good if there was a law, limiting how much grant consultants can charge for their services. And not in %, but for each application. Grant consultant fees become completely unreasonable when a large grant is secured. It does not take much more work to write an application for a 150-million project, compared with a 4-million project.
Neutral comments (3)	
3	Companies should apply themselves, but for me it was about lack of time and knowledge.
Positive comments (4-5)	
4	Can be of advantage in cases where application would not have been sent due to lack of time.
5	It is efficient to hire someone, who will focus on the application.
4	We used a grant consultant not because of the Skattefunn, but because we could add on other grant applications. Grant consultants should be unnecessary, but this is not the case in reality. There is a lot of information available about the various grants, but this information is limited to the fact that they exist. We have participated in numerous seminars on this topic, but there is little help to get in writing of the application itself and combining the various grants to achieve full potential
5	Good!
5	Application would not have been sent without a consultant's help since we are a small company and it is a complex process.
5	Good!
5	This is a good opportunity and I recommend it to smaller companies with limited time resources and experience.
5	Using a consultant for an application like this was both important and right!
4	It was positive for us in our situation, but it should be simpler for small companies to write such applications.
5	Good for us, since we do not have knowledge/time to write applications.
5	Good with respect to filling out forms and meeting deadlines.
4	It is ok to use external help, especially when writing more complicated applications than Skattefunn. It is always a balance between cost and benefit. Services of a grant consultant can be costly on many occasions, but this is always easy to say when the support is granted.
5	Very good!
5	We used a grant consultant we are well familiar with and who knows us well. This is why it was an efficient use of external assistance. We had very close cooperation in order to send it best possible application.
5	Grant consultant's knowledge of the application process saves a lot of time and our own employees can focus on what they are good at.
5	This is efficient seen from a cost/benefit perspective. But it does require that the company follows up application and reporting closely to stay in control.
5	Good service!
5	Positive.

Table 5 Comments from companies who applied for DEMO2000 funding without using grant consultant (the character is set based on the content in the comment with 1 being strongly negative and 5 – strongly positive).

Character	Comment
Negative comments (1-2)	
1	Grant consultants are not necessary. The application does not require anything, that should not already have been there to start the project.
2	It depends. But typical price models (30% success fee) are hopeless! The money should be used for R&D, not for application writing.
1	Waste of resources, should be illegal.
2	We used grant consultants once, but they did not help out much. It took long time to explain all the details in our project to them. RCN is very helpful with applications and it is easier to get help straight from them. They are good at explaining what kind of information they need in the application to be able to evaluate it in a correct way.
1	I think that using grant consultants should be illegal since they take to much of the money that should be spent on development of patents etc.
1	They are stealing research money.
2	You could use grant consultants first time you apply. But it is much easier to apply yourself next time, when you have some experience and know the application works.
1	Using grant consultants is a bad habit. Support for R&D is limited and this money should be used for technology development. RCN application processes should be simplified, so that anyone can write a good enough application. This way there will be no need for companies, who only possess knowledge in application writing.
Neutral comments (3)	
3	We use grant consultants sometimes, but always lead the process ourselves.
3	We never considered using grant consultants for our DEMO2000 projects, since they were too small and specialized. But we used consultants for SkatteFUNN. Here, we had a number of parallel projects and the consultant helped us with all the administration and coordination.
3	This depends on knowledge base within the company. We have internal resources for this and do not have any need of grant consultants.
3	We used grant consultants earlier, but stopped doing it. We rather use our research partners and stay in control ourselves. Budget cuts in the last 2-3 years forced us to apply for more external grants and we have built up our own knowledge and processes around these applications.
3	I have no experience with this, so it is difficult to say. The application process is relatively well-defined, so there should not be any need for such services.
3	Only if the company does not possess in-house experience and knowledge.
3	A colleague of mine wrote the application.
3	No special comments on this. We did not require such services.
Positive comments (4-5)	

4	I understand that it might be a good idea to use some money on layout and illustrations in the application. In this case grant consultants might be useful.
4	Must be based on evaluation of in-house knowledge and probable use of resources, weighted against the cost of a grant consultant.
4	It can be a good idea, depending on the type of project/application and available resources. We have experience with grant consultants, but prefer to write “simpler” applications, such as SkatteFUNN, ourselves. Grant consultants could be more useful when writing more complex applications, such as Horizon 2020. Especially if you are a small company!
5	I am sure that using experts to help out with applications is a good idea.
4	Can be a good idea if there is no in-house experience.

Table 6 Comments from companies who applied for SkatteFUNN funding without using grant consultant services (the character is set based on the content in the comment with 1 being strongly negative and 5 – strongly positive).

Character	Comment
Negative comments (1-2)	
2	Had dialogue with two grant consultants, who charged too much and would not be able to do the job better than us.
1	Grant consultants steal research money. The application process should be made simpler to eliminate the need of grant consultants.
1	It is not economical to involve grant consultants in Skattefunn applications. They normally charge 12-18% of the 18% we are reimbursed from tax authorities. Since we need to use a lot of time to explain our projects and problems to the consultants, there is no money left. I wonder how this type of services can survive in the market. When it comes to more complicated applications, we use help from our research partners (but never grant consultants).
1	Waste of public funding and good competence.
1	Application processes should be simplified so that the limited research money is not used to pay consultants for writing applications, instead of R&D. The fact that application writing has become such a big business is a failure, this is not what this money was meant for.
2	Many of the grant consultants are very eager to write the simple applications, but not so interested in writing the more demanding ones. It has become a standard, with a few honest exceptions, to charge around 20% success fee. Considering the size of our projects, with several hundred million in budgets, using grant consultant services can ruin project economy. We have found a company we have agreed on an hourly rate with, but this took a lot of time since there are many greedy consultant companies out there.
2	Unnecessary, unless the company is in a situation where there is not enough resources to write a good application.
1	We use both SkatteFUNN and DEMO2000. Application processes are simple and using expensive external consultants for this is wrong. For us it seems a sign that a company does not want to make even a small effort in writing an application. Grant consultants are waste of public funding.
1	Expensive and the conditions are unreasonable. The price does not correspond to the effort and the company takes too much risk.

1	Why use time and money to let others formulate your own ideas?
1	Many of the consultants charge too much, especially for the easy SkatteFUNN applications.
1	A SkatteFUNN application is simple and no external help is required!
1	RCN should not pay anything to the projects, where external grant consultants are used.
1	Bad habit!
2	Companies should be able to cope with this on their own.
2	Companies know their own projects and therefore should write applications themselves.
1	Grant consultants cost so much that in many cases it is just as good not to apply for funding at all.
2	With a little experience in application writing it is not an issue to do this on your own.
1	Grant consultants should not be necessary for simple applications, such as SkatteFUNN. If you have a good project, the application is very straightforward. We also have bad experience with sales people from grant consultant companies. They are not very clear on their conditions and do not care too much about the facts in the application.
1	The time it takes to teach an external grant consults all the details about an R&D project is probably more than it takes to write the application on your own. An external consultant often does not have enough knowledge about the R&D project to be able to communicate the concept and novelty completely. My view is that an application of better quality can be written by the company itself, using some good guidance and application form, compared to letting a grant consultant write the application. Costs, related to the use of grant consultants, are thus not necessary. The consultants' arguments about more higher efficiency fail, since the follow-up of an external party, trying to communicate someone else's idea, takes so much time.
1	I consider this a bad habit. The fact that they exist, and appear to have a lot of customers, should rise a question mark for RCN. This tells something about the complexity of the application process. This process should be continuously simplified and all unnecessary fields in the application form should be removed. It must be made very important to stress the main points in an application. Good guidelines are important – preferably in video format. They should be marketed straight from the application form. Chat function is also something that could help.
1	Waste of public funds. RCN should assist more in achieving correct form for all applications that are sent in.
2	Can be useful for bigger, more complex, applications. But for small applications this is not a good use of funds.
1	Foolishness! Use some time of your own.
1	This is an unnecessary third party in a process, where the whole grant is meant for R&D.
2	Maybe of use for someone, but it is easy to become very expensive.
1	For us this would just be an expensive third party. It is tragic that research funding is used to pay grant consultants. Some say that this is a sign of complexity in the applications. But those who have seen such an application know that it is not very complex.
1	Should not be used.

2	We have experience that RCN are negative to the use of consultants. We have now gained some knowledge about the application process internally and have been able to deliver good applications which RCN approves.
1	I am strongly against it. My opinion is that a company should be able to formulate it's needs and describe innovation without the help of a consultant, who is most often more concerned about matching the application to the text of the call and ticking the correct boxes. I do not like it.
1	Waste of money. You have to know your own company and project well enough not to require external assistance.
2	It is time-consuming to explain a new field to someone. We had a lot of information that could be re-used in an application.
1	It takes 6-8 hours to write a SkatteFUNN application. Therefore it does not make sense to hire a grant consultants; more hours than this would have to be used for meetings. When it comes to DEMO2000 applications, which take 40-60 hours to write, my opinion is that there is still no need for a grant consultant. I doubt that a grant consultant has the necessary network and competence to write such an application.
2	A company should be able to describe their own activities well enough without any external assistance.
2	Unnecessary.
2	We used grant consultants once several years ago. We had relatively bad experience with this. RCN has always been very helpful when it comes to grant applications.
2	The application process is very simple. Grant consultants also charge a lot and want to be paid before the grant is paid out.
2	Not necessary.
1	Foolishness, we still have to do the job of providing them with all the information they need.
1	Generally, this should be completely unnecessary. Grant consultants take money from the system, which is meant for R&D activities.
2	Application processes towards grants from SkatteFUNN, DEMO2000, IFU and similar are so simple that those applications should be written without any external assistance. It might be a bigger challenge for someone who has never written an application before and not not understand how RCN and IN think. But this can be overcome by talking to one of their advisors. Even if a grant consultant is hired, a company still has to use a considerable amount of time to explain the project to the consultant. The consultants role is then to translate this description into a form that RCN and IN are used to. When it comes to more complicated grant applications, such as for EU projects, hiring a consultant might be a good idea since the processes are much more formal and lengthy.
1	It is a pity that it is possible to make money on writing applications for others' ideas. My application was denied at first, but after some reformulations I got it approved.
2	Grant consultants do charge too much. But sometimes they have a network that makes it simpler to apply.
Neutral comments (3)	
3	Do not require such services, since we have our own resources.
3	Not necessary for SkatteFUNN, but might be necessary for Horizon2020.
3	We have used help from our research partners and this worked out fine.

3	There is nothing wrong with using an external consultant if a company lacks time or competence in writing such applications themselves. Unfortunately, many consultants use this to establish unfair agreements with companies.
3	We do this ourselves.
3	Not sure what their contribution would be.
3	We have never considered using grant consultant services, since we believe that we have enough internal competence in this area.
3	Staff at SkatteFUNN are very good at helping out and answering questions.
3	RCN does not like this practice.
3	We are competent enough and for us it is more cost-efficient to apply ourselves.
3	Only when there is a need. It is best to do this on your own.
Positive comments (4-5)	
4	Using external consultants can reduce the workload, especially when the application follows defined form, such as with SkatteFUNN.
4	Such services can be of value if the company does not have knowledge and experience with writing the applications or the different grants that exist.
4	This probably has a value for someone with little prior knowledge about such applications. Without previous experience it takes a lot of time to apply, and a small company does not have time. Or they do not feel competent enough to write applications like that.

6.7 Correlation between company size and outsourcing decision

Higher percentage of micro and small companies (29% and 43%) compared to medium and large companies (25% and 13%) utilized services of a grant consultant. EU classification of company sizes was used (European Commission, 2018). There seems to be a negative correlation between company size and outsourcing decision for the DEMO2000 program.

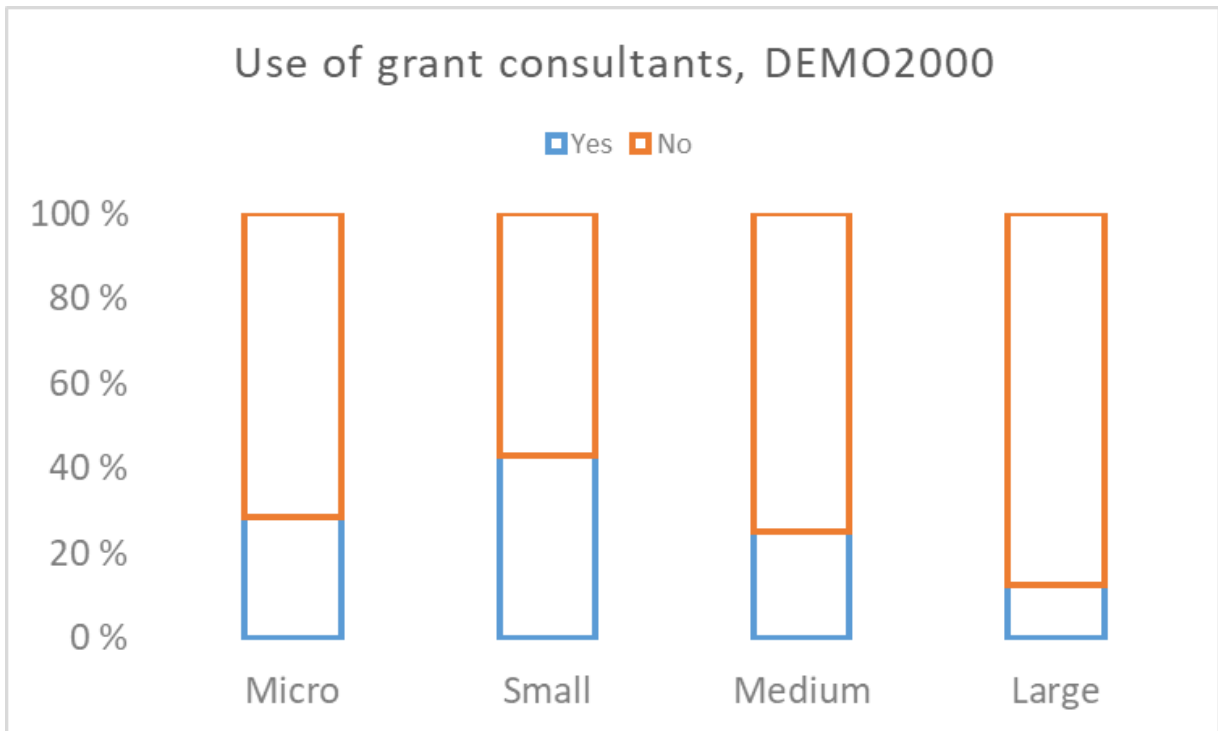


Figure 29 Correlation between company size and outsourcing decision, DEMO2000

For the SkatteFUNN program the situation is the opposite and there seems to be a positive correlation between company size and outsourcing decision. 15% and 27% of micro and small companies chose outsourcing, while for medium and large companies corresponding numbers were 38% and 29%.

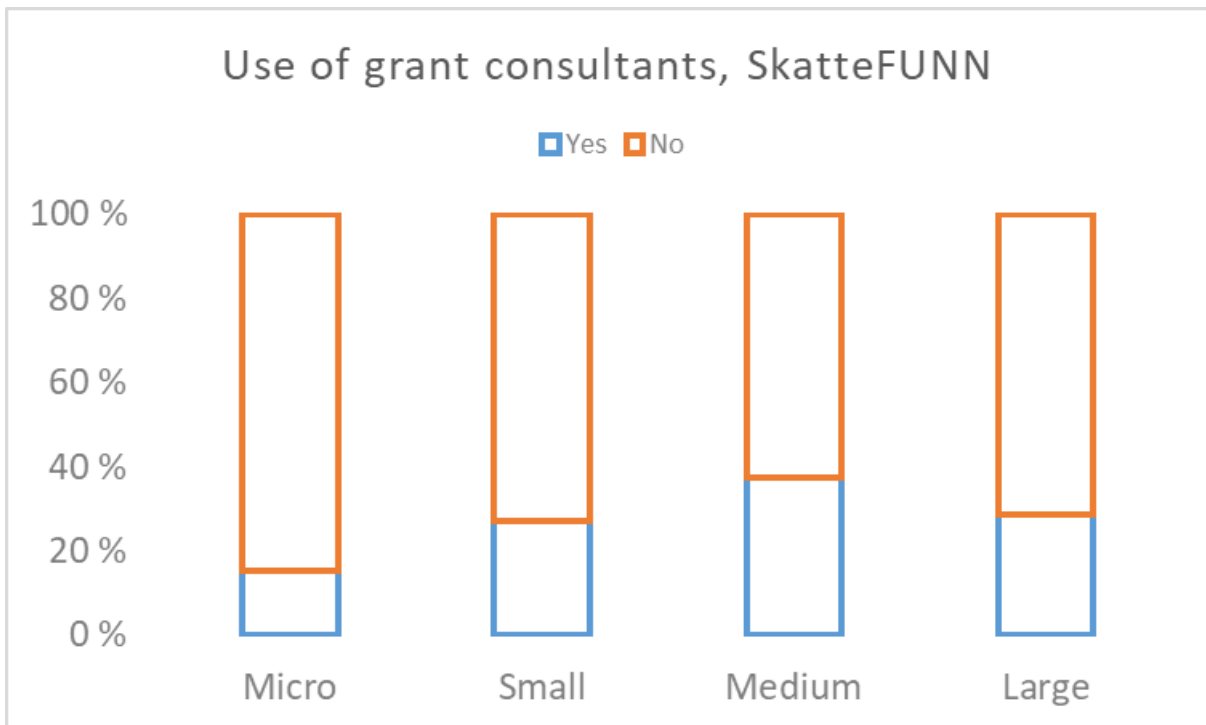


Figure 30 Correlation between company size and outsourcing decision, SkatteFUNN

7.0 Discussion

The goal of this thesis is to contribute to defining the impact of grant consultants in adding value for research, development and innovation in Norway. Putting it in simple terms, this impact can be negative or positive.

A positive impact can be for example made through:

- Taking the burden off applying companies, letting them concentrate on the core business
- Making the application process more cost-efficient
- Contributing to increased competition so that the quality of approved projects increases

A negative impact could be for example that:

- Grant consultants profit on public grant schemes through exploiting lack of knowledge about various aspects of the application and approval processes
- Grant consultants receive too much profit for too little work without communicating this to the clients

RCN grant program rules do not allow grant money to be used for payment for grant consultant services. However, provided that grant consultant payments are a part of the same budget as the R&D effort, it is logical to assume that a higher payment to grant consultants leads to less funds available for R&D. The statement that some of the grant money end up in the pockets of grant consultants is thus fair, even if technically not correct. Results from the survey in this thesis will be used to gain background facts which can help deciding if this is a waste of resources or not. It does not have to be considered a waste if utilization of grant consultants leads to improved chance of securing a grant, if payment is reasonable and if this practice frees internal company resources to work on the R&D. On the other hand, if utilization of grant consultant services has little or no influence on the outcome of the applications or if the consultants overcharge companies, using their ignorance about the work load, related to the application process, such practice can indeed be considered a waste of resources.

If grant consultants specifically target SkatteFUNN applications, preferring them over other application types, they cannot claim that they increase competition among the applicants. This is because there is no competition for the SkatteFUNN grants. In addition, SkatteFUNN

applications have very high success rate (approximately 80%) and thus the grant consultants cannot argue that they must claim high reward for their services, since they work according to no-cure-no-pay model and thus operate with high risk. However, they can argue that their premium must be higher to compensate for the delay in the cash flow (SkatteFUNN grant is normally paid out in the autumn the year after the application and thus there can be more than a year of waiting from the performed service to the received payment).

This thesis is based on answers to the questionnaire sent out to the companies who applied for funding from DEMO2000 and SkatteFUNN programs (Research Council of Norway). In the above statements, grant consultants imply that they take care of the application writing in a more efficient manner which saves time and costs. This statement bares close resemblance to the reasons in favor of outsourcing (Porter & Millar, 1985; Adler, 2003; Belcourt, 2006).

They also state that they increase the competition among the projects by boosting the most promising ones and increasing the quality of applications. They claim that many applications would never have been sent in without their assistance. Reviewing the answers to this study's questionnaire in the light of the above statements given by grant consultants, their clients and journalists as well as the research questions leads to improved understanding of their correctness.

7.1 Frequency of utilizing grant consultant services for grant applications

Grant consultant services were utilized approximately 25% of the time for writing of both SkatteFUNN and DEMO2000 applications. It was earlier reported that around 30% of all SkatteFUNN applications are written by grant consultants (Stensvold, 2018). The finding that utilization of grant consultants is the same for DEMO2000 and SkatteFUNN is somewhat surprising though, since DEMO2000 applications are significantly more complex and demanding, compared to SkatteFUNN applications. Thus, a tendency towards more frequent utilization of grant consultant services for writing DEMO2000 applications would be expected. One explanation for the observed phenomena might be that an external force is driving up the utilization of grant consultants for writing of SkatteFUNN applications. Such an external force might be a marketing effort by the grant consultants themselves, not unlike the one observed in the 1990s to promote outsourcing of IT services (Loh & Venkatraman, 1995). Such a marketing effort would make sense from financial point of view; a SkatteFUNN application is considerably easier to write and thus costs much less compared to a DEMO2000 application. At the same time, the risk of rejection is also considerably lower for a SkatteFUNN application (~20%) compared to DEMO2000 application (~70%). Since

success-based fee model is widespread, increasing the share of SkatteFUNN applications in the portfolio represents considerable savings and reduction of risk for a grant consultant. For the client company, on the other hand, it makes much more sense to utilize grant consultants for writing of complex applications such as DEMO2000, while keeping the administration of simple SkatteFUNN applications in-house. The results in this study are thus in line with information provided by journalists: grant consultants were reported to specifically target SkatteFUNN program since the chance of getting grant applications approved is high (ca. 80%), while the effort it takes to write a SkatteFUNN application is relatively low (Taraldsen, 2017). It was suggested in the literature that a large portion of grant money from government agencies, such as Innovation Norway and Research Council of Norway, ends up in the pockets of grant consultants (Midtsjø, 2013a; Midtsjø, 2013b; Klevstrand & Randen, 2018). The fact that a portion of grant funding ends up in the pockets of grant consultants was called a waste of resources (Midtsjø, 2013b). Results in this study seem to support these statements to a certain degree.

7.2 Influence of grant consultant utilization on the outcome of the applications

Much higher share of DEMO2000 applications, studied in this survey, (81%) were approved in cases where no grant consultant assistance was utilized compared to cases where grant consultant assistance was utilized (43%). Keeping in mind that the real share of approved DEMO2000 applications was only 34% (according to data from RCN), this survey outcome is clearly biased. Possible bias is that respondees with approved projects are much more prone to take part in the survey compared to respondees with projects which were not approved. It must also be pointed out that very few answers (only seven in total) were collected from companies who utilized grant consultants when applying for DEMO2000 funding. No definitive conclusion can thus be made about the outcome of DEMO2000 applications as a function of grant consultant utilization.

Data collected in this survey about the SkatteFUNN program appears to be more trustworthy due to higher number of collected answers. Correlation with the data collected from RCN is also better. According to the literature (Stensvold, 2018), approximately 30% of all SkatteFUNN applications are written with assistance of grant consultants. In this study, the number of SkatteFUNN applications written by grant consultants was approximately 26%, see Figure 9. The percentage of approved SkatteFUNN applications is the same with or without the use of grant consultants (Taraldsen, 2017). This was also confirmed by results in this

study. Thus, there is a good correlation between earlier reported results and results collected using survey in this study when it comes to the SkatteFUNN program.

The answers suggest that utilization of grant consultants has a small, but significant, positive effect on the outcome of SkatteFUNN applications. All the SkatteFUNN applications, written with the help of grant consultants, were approved while 9% of SkatteFUNN applications written without the help of grant consultants were rejected, see Figure 10. This can be explained by better quality of applications, written by grant consultants, or because grant consultants reject applications that are not likely to receive SkatteFUNN funding. No detailed study of the application contents was performed in this thesis and thus no conclusions can be drawn about their quality. However, keeping in mind that application process towards SkatteFUNN funding is adjusted to simplicity to capture broad applicant base, it can be suggested that the second mechanism (grant consultants rejecting clearly unsuccessful applications) could be dominating. Survey data suggests that tapping into an external knowledge reservoir by engaging a grant consultant might offer small chance of increasing the success of SkatteFUNN application. Technological factors (specialized knowledge) can probably explain the slightly higher grant approval success rate of grant consultants.

7.3 Modes of first engagement between companies and grant consultants

Figure 11 shows that “pitching” of consultant services (that is, when an unknown consultant contacts a company by e-mail or telephone to offer services) was over-represented for SkatteFUNN applications, while this was not reported at all for DEMO2000 applications. It seems that the assumption made based on equal utilization of grant consultants both for the simpler SkatteFUNN applications and the significantly more complex DEMO2000 applications was true and grant consultants specifically target SkatteFUNN applications when they attempt to expand their business. Possible explanation to this comes from the following facts:

Significantly less effort is required to write a SkatteFUNN application compared to applications to other grant programs. Thus, internal cost of writing a SkatteFUNN application is significantly lower than for other application types. Keeping in mind that a lot of grant consults work according to success fee model with a significant shift in cash flow as the result, this might be a strategy to minimize costs.

SkatteFUNN has by far the highest percentage of granted applications (~80%) among all other grant programs. This makes the risks associated with the success fee model very low.

Thus, maximizing the share of SkatteFUNN applications in the portfolio would allow a grant consultant company to minimize the overall risks, associated with success fee model.

The success of the marketing effort, resulting in ~25% share of SkatteFUNN applications being made by grant consultants, suggests that the companies themselves might not be aware of the above characteristics of the SkatteFUNN program to the same degree the grant consultant companies are. In the case with DEMO2000 applications, consultants most often contacted companies based on earlier cooperation, and it was much more common for a company to contact consultants based on an existing agreement. This suggests that DEMO2000 was not as attractive to the consultants as SkatteFUNN.

Grant consultant companies claimed that they made a positive impact by providing assistance which helped making complicated R&D projects more structured and professional (Midtsjø, 2013b). This would imply that grant consultants target large complicated projects where the potential for improvement is largest. However, findings in this study do not support this statement. Questionnaire results revealed that grant consultants preferred to target the simple SkatteFUNN applications and not the complicated DEMO2000 applications. The survey findings suggest that a marketing effort by grant consultants is the reason for the high rate of outsourcing by the companies, not unlike it was with the IT outsourcing in the 1990s (Loh & Venkatraman, 1995). Back then, it was pointed out that marketing was in many cases misleading and the outsourcing did not result in the expected savings. Grant consultants also claimed that their services were contributing to increased competition for the grant programs by triggering more grant applications from more companies (Midtsjø, 2014). Since there is by definition no competition among SkatteFUNN applications, which the grant consultants mostly targeted, this statement is somewhat misleading.

7.4 Motivation to use grant consultants

An interesting topic is what motivates companies to seek services of grant consultants in the first place. Most companies answered that they were aware of the possibility to apply for grants themselves, see Figure 12. Obviously, some 25% did not utilize this possibility but instead chose to engage a grant consultant. The reason for this could be lack of time or lack of knowledge about the application process.

Most companies (almost 60%) of those who applied for DEMO2000 stated that they had the knowledge about how to write the applications themselves, see Figure 14. This is different for companies who applied for SkatteFUNN funding, where the answers are not as polarized, and

many applicants indicated that their knowledge was lacking. This is somewhat surprising, since much more knowledge can be assumed to be required to write a DEMO2000 application compared to a SkatteFUNN application based on the complexity of the programs. The explanation is most probably in the background of the DEMO2000 and SkatteFUNN applicants. It is safe to assume that an average DEMO2000 applicant possesses higher overall knowledge and qualifications compared to an average SkatteFUNN applicant based on the background and application criteria. While SkatteFUNN is open for applications from any company in Norway, DEMO2000 is a program that specifically targets applications from companies offering advanced technologies ready for implementation and with backing from end-users (most often oil companies).

The decision to outsource grant application writing was seldom a company policy, see Figure 36. This indicates that the decision is made at the discretion of the individual project manager, who is most probably making a decision based on some of the pros and cons associated with outsourcing decision or, alternatively, lack of knowledge about the outsourcing process. Lack of time and lack of knowledge as possible reasons for outsourcing are discussed below.

Lack of time seemed to be the reason for using grant consultants in many of the cases, see Figure 15. This is more so for DEMO2000 applicants, where more than 40% completely agreed that they did not have the time to apply. Among the SkatteFUNN applicants, some stated that they did not have the time to apply but many also disagreed with this statement. Based on these results it is possible to draw a conclusion that time is the main factor in favor of grant consultant utilization for the DEMO2000 program applicants, while application knowledge is the main factor for the SkatteFUNN program applicants. DEMO2000 applicants, while having the knowledge required to write a grant application, stated that they often lacked time to do so. Indeed, a DEMO2000 application is rather complicated and projects, receiving DEMO2000 funding, are large and complex. However, an application is just concentrated project information, which should already be available to any DEMO2000 applicants. Each DEMO2000 application must contain description of a number of various project aspects such as market information, detailed budget and plan, environmental aspects and potential. All of these topics are not directly related to the technology, but rather to its future use and project administration. While necessary for the DEMO2000 steering committee to make a decision, these topics might seem uninteresting to a technology project manager whose focus is on the technical side. However, as previously pointed out (Stensvold, 2018), strengthening the financial and market side would benefit any technology project and thus

writing a grant application could be viewed as an opportunity for structuring the already available information and strengthening the project execution. In fact, this is exactly what many grant consultants have claimed that they are doing (Midtsjø, 2013a). Thus, it can be argued that by hiring a grant consultant to write a DEMO2000 application, company creates a dependency risk and jeopardizes its strategic capabilities (Adler, 2007). Content of a DEMO2000 application can be considered to be within core competency of a company and thus should not be outsourced (Prahalad & Hamel, 1991; Loh & Venkatraman, 1995; Adler, 2007).

On the contrary, SkatteFUNN applicants lack the knowledge to write grant applications, while the lack of time is not that acute. SkatteFUNN applicants use grant consultants as an external knowledge reservoir due to apparent lack of this knowledge internally. It is a well-established fact that SkatteFUNN applications are relatively simple to write and thus the knowledge to do so should be relatively easy to acquire. The initiative to acquire this knowledge can come from the applicants themselves, but there is apparently a threshold for this. When inspecting the information on SkatteFUNN, which is available on the program webpage, it becomes clear that the application process is indeed uncomplicated. However, the market effort by the grant consultant companies, who offer their services in writing SkatteFUNN applications, is far greater than the marketing effort of the SkatteFUNN program itself. Even upon a simple Google search, the first three hits are paid ads by the grant consultant companies Nofas, Esacon and Front Innovations. Information from the SkatteFUNN program itself comes only as number four. It is thus clear that the massive marketing effort by the grant consultant companies influences the outsourcing decision, just as it did in case of IT outsourcing in the 1990s (Loh & Venkatraman, 1995). This creates an illusion of a large external knowledge reservoir, necessary for submitting a SkatteFUNN application.

Many of the companies who used grant consultants for SkatteFUNN also stated that applications would not have been sent in if not for the help of a grant consultant, see Figure 20. This is consistent with claims, made by grant consultant companies in the literature (Taraldsen, 2017). SkatteFUNN applications are designed to be rather simple and not time-consuming. In fact, much more time is probably spent on internal administration and accounting to have the grant money paid out (verifying and preparing timesheets, getting approval from auditors etc.) than on the application itself. This suggests that the companies are either unaware of how simple a SkatteFUNN application is or consider the upside (grant money) not enough to justify spending internal resources on it. Literature shows very good

return on investment for writing SkatteFUNN applications (Stensvold, 2018). It is thus unlikely that the decision to outsource these to grant consultants is based on financial analysis. It could be suggested that this decision for SkatteFUNN is most probably a combination of an existing threshold to start writing an application (a task most are probably not so familiar with) and overestimation of the complexity of this task.

7.5 Using grant consultant services: attitudes and experiences

Grant consultant companies claimed that they very seldom experienced negative attitude towards them in the market (Midtsjø, 2013a). Nonetheless, very clear negative attitudes have been identified in some of the free-text answers, implicating grant consultants in misuse of R&D funding and questioning legal aspect of their business, see Figure 16 and Table 3-Table 6. The attitudes were particularly negative among those who applied for SkatteFUNN funding without using assistance of a grant consultant.

Grant consultant companies also claimed that the skepticism, when it was encountered, was most often based on lack of knowledge about methods and delivered value. This statement was, to certain degree, supported by the findings in this study. Most of the negative attitudes in the free-text answers came from companies, who did not utilize the services of grant consultants. However, the respondents often provided good reasons for their negative attitudes and did not seem ignorant about the methods of grant consultants but rather the opposite.

The negative comments were most often directed at the disproportionate payment that the grant consultants charged for their services. This supports the conclusion, made earlier in this work, that outsourcing to grant consultants is not a financially driven decision. Some applicants suggest that there should be a law, limiting the amount that the grant consultants can charge per application, since the fee becomes even more disproportionate for larger projects.

Positive comments were also expressed by the respondents. These comments were mostly focused on the fact that lack of time and complexity made it hard to send in the applications using internal resources. Use of grant consultants also made it possible for some companies to focus more on their core activities. The arguments in favor of using grant consultants were thus rather similar to the ones that could be found in the literature on outsourcing.

Surprisingly, no comments were received regarding the spillover risk and IP issues. This topic was not included in the survey and would probably be interesting to focus on in the future work since it was identified as one of the major risks during outsourcing (Adler, 2007).

Summary of positive and negative sides of outsourcing to grant consultants as mentioned by the respondees can be found in Table 7. The answers support the previous conclusions: use of consultants saves time and reduces internal workload, but the services are overpriced and there are a lot of hidden internal transaction costs in the form of explaining the projects to consultants and follow-up of the administration. The answers also confirm the existing difference between the outsourcing decision process for DEMO2000 and SkatteFUNN applicants. DEMO2000 applicants utilized grant consultant services due to time savings and opportunity to avoid administration but perceive consultants as lacking knowledge and the cost as too high. SkatteFUNN applicants, on the other hand, utilized grant consultant services also due to good external knowledge, but reported a high hidden transaction cost.

Table 7 Positive and negative sides of outsourcing to grant consultants

	Positive	Negative
DEMO2000	<ul style="list-style-type: none"> - Saves time - Easy administration 	<ul style="list-style-type: none"> - Lack of knowledge - Very high cost
SkatteFUNN	<ul style="list-style-type: none"> - Saves time - Reduced workload - Good external knowledge 	<ul style="list-style-type: none"> - Very high cost - No value creation - A lot of time is required to explain the projects to consultants - A lot of time is required for follow-up

A mixed-method design data collection (interview follow-up of the questionnaire answers) would probably have improved the understanding of this phenomenon as survey answers can be misleading. It is not clear how many of the SkatteFUNN applicants used a grant consultant in the past and stopped this practice due to bad experience. It is also possible that these applicants did not have any negative experiences with grant consultants, but still experienced strong negative emotions associated with this practice since they consider it a waste of resources and profiting on the government R&DI funds (a common attitude in the tabloid press). The same trend, although not as extreme, can also be seen among the DEMO2000 applicants, see Figure 32.

Most of the companies who used grant consultants left positive comments about their experiences. The share of positive comments is higher among the SkatteFUNN applicants, compared to the DEMO2000 applicants, see Figure 31. This could be explained by the fact that SkatteFUNN applications are generally much more successful than DEMO2000 applications and customers can be assumed to be more satisfied with services of a grant consultant if they lead to an approved application.

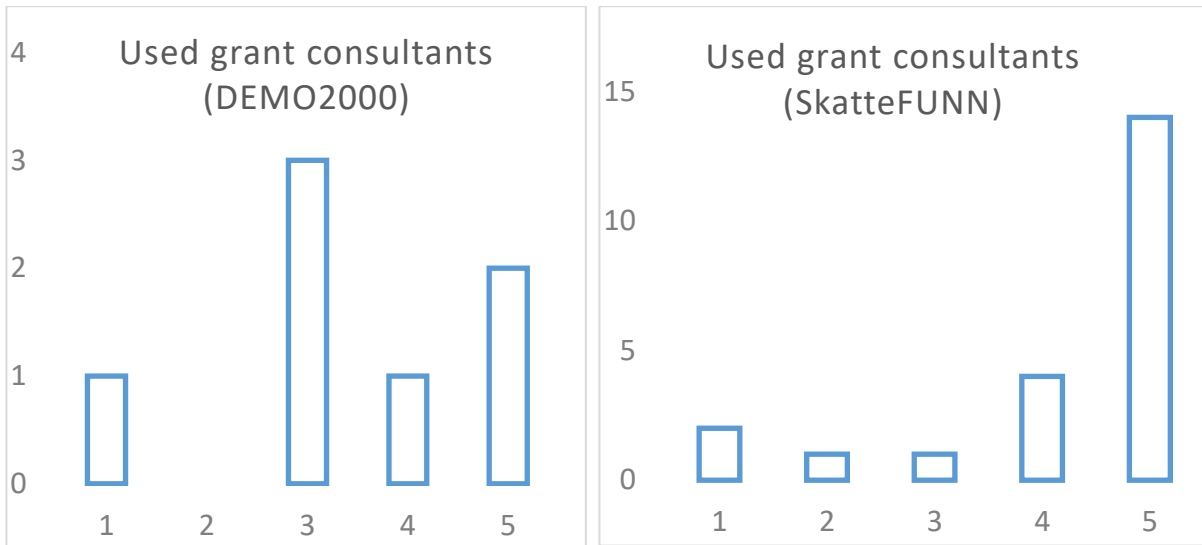


Figure 31 Responses from companies who used grant consultants to apply for DEMO2000 and SkatteFUNN funding. The responses are rated based on their character with “1” being very negative and “5” – very positive.

Almost 45% of the DEMO2000 applicants who did not use assistance of grant consultants answered that they would never use such assistance. The corresponding number for the SkatteFUNN program was somewhat lower, around 30%. DEMO2000 projects generally have higher complexity than SkatteFUNN projects and it can be suggested that DEMO2000 applicants have higher R&D competence, compared to SkatteFUNN applicants. It can be assumed that higher R&D competence leads to less need of using grant consultants.

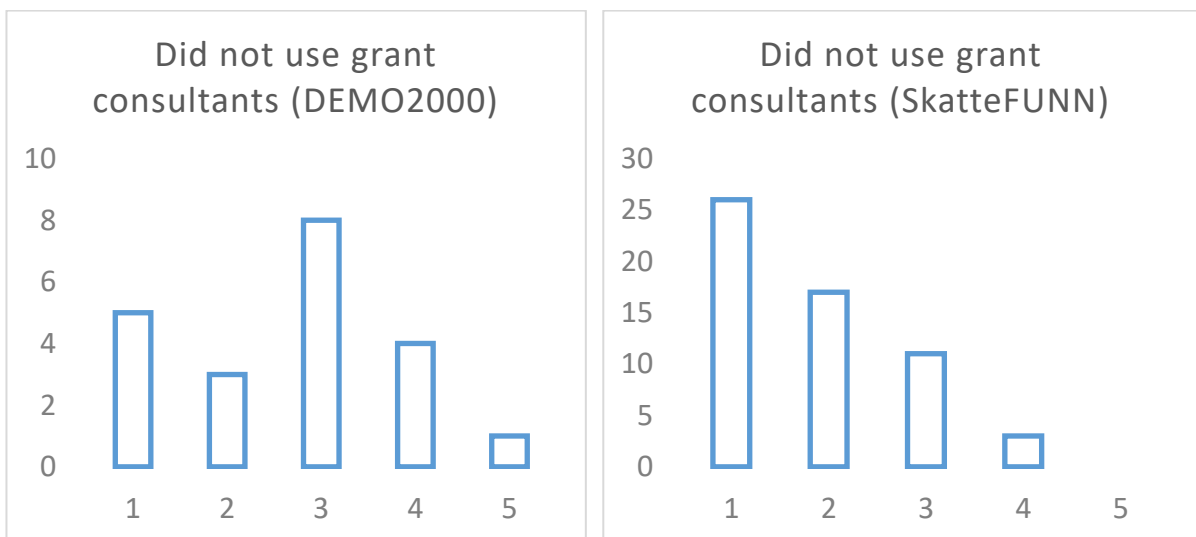


Figure 32 Responses from companies who did not use grant consultants to apply for DEMO2000 and SkatteFUNN funding. The responses are rated based on their character with “1” being very negative and “5” – very positive.

7.6 Correlation between company size and the outsourcing decision

Survey results showed that there was a negative correlation between company size and outsourcing decision for DEMO2000 program applications. Small companies were more prone to outsource the application compared to bigger companies. This is in good correlation with the literature data presented earlier in section 4.7. DEMO2000 applications are complex and time-consuming; thus, smaller companies tended to use an external knowledge reservoir for application writing more often than larger companies. Doing so allowed them to save time and concentrate on other activities as well as to avoid administration burden.

The results of the survey also showed a positive correlation between company size and outsourcing decision for SkatteFUNN program applications. Bigger companies were more prone to outsource the application compared to smaller companies. Here, the results are not consistent with the previous findings in the literature described in section 4.7. Advantage of scale should have enabled larger companies to handle the simple SkatteFUNN applications by themselves, since they have more in-house resources to perform such a task, as was pointed out in the literature (Adler, 2007). This discrepancy could have originated from the marketing effort by grant consultants which was discovered earlier in this study.

7.7 Cost-savings by outsourcing to grant consultants

Grant consultant assistance has been compared to outsourcing of IT services, a relatively common practice (Stensvold, 2018). To defend the grant consultant business model, it is compared with outsourcing of IT services, which has gained a lot of popularity during the last 20 years (Midtsjø et al., 2014). It must be pointed out that outsourcing is distinctly different from using services of a consultant (Belcourt, 2006). Outsourcing is a holistic term, implying much more than assistance with writing of an application. A frame agreement, where all aspects of a service are included, must be in place in an outsourcing situation.

However, there are several similarities between outsourcing and the use of consultants. These similarities might help to analyze the added value through utilization of grant consultants, which is central in this study.

When studying the pricing of grant consultant services in Norway, keeping in mind that most of these services are targeted at SkatteFUNN applications and that the success-fee model is common, it is obvious that cost savings cannot be the main trigger.

Thus, a conclusion can be made that outsourcing of grant writing does not lead to any considerable cost savings. Cost savings in the range of 10-20% with an average of 15%, are

reported in the literature as appropriate to consider an outsourcing of a service (Adler, 2003; Hanneman, 2005; Oshima et al., 2005). Transaction Cost Theory (section 4.6) enables us to consider also the costs that are not reflected in the payment for the grant consultant services. Total costs of managing a grant application can be divided into application costs, related to writing and submitting the application itself, and the costs related to project reporting and follow-up when the application has been granted. While grant consultants are able to eliminate the internal costs for the first part, the second part will still need to be handled internally to a large degree. This covers audit of the project, collecting timesheets and expenses and creating progress reports and financial reports. All this takes considerable amount of time and must be included in the total cost of applying for project funding.

However, it must be taken into consideration that direct cost saving is not the only reason for outsourcing. Focus on the core business was shown to increase due to outsourcing, and companies who outsource reported reduction in administrative tasks by half and increase of the strategic focus by 40% (Oshima et al., 2005).

While a SkatteFUNN application can hardly be too much deviation from the core business focus for large companies (due to the small effort it takes to write and administrate one), this reduction in administrative tasks can indeed be more critical for small companies with limited resources.

This was also confirmed in the survey, where many indicated that:

- They did not have time to work with the application, see Figure 15
- The use of grant consultant was a better utilization of resources, see Figure 25
- The application would not have been sent without a grant consultant, see Figure 20

If a grant application would indeed not have been sent without the assistance of a grant consultant, such assistance may be beneficial after all, even taking into consideration the fact that it may not lead to a direct cost saving. If the choice is between not receiving any funding at all (not sending in an application) and receiving some funding (sending in an application but paying a high fee to a grant consultant), the second option would be most beneficial option for most companies.

Lack of knowledge about the application process is what seems to be driving the outsourcing of grant application management. By engaging a grant consultant, companies are able to tap into an external knowledge reservoir that is not available internally (Nieto & Rodriguez,

2011; Frank et al. 2016; Kamuriwo & Baden-Fuller, 2016). However, since applying for SkatteFUNN funding requires neither a lot of effort or a lot of knowledge, as has been shown earlier in this thesis, the knowledge reservoir in the SkatteFUNN case seems to be rather thin. At the same time, there is an obvious marketing effort in the form of “pitching” of grant consultant services over telephone and e-mail associated specifically with the SkatteFUNN program. Grant consultants promote their services, but they do not necessarily contribute to adding value since it seems to be targeting the program where outsourcing is associated with least socio-economic benefit (SkatteFUNN), as shown earlier in this thesis. This external knowledge reservoir does not seem to be very substantial and it is suggested that lack of knowledge about the simplicity of the SkatteFUNN program applications is what triggers outsourcing, rather than the lack of knowledge, required to apply.

7.8 Added value and allocation of grant funding

Some argue that a large portion of grant money from government agencies, such as Innovation Norway, end up in the pockets of grant consultants (Midtsjø, 2013a; Midtsjø, 2013b). Here, it must be pointed out that, according to RCN rules, it is not allowed to include grant application assistance in R&D budgets. Nevertheless, funding of the grant consultant assistance comes from the same internal budgets, and thus it would be naïve to believe that the money paid to a grant consultant are not indirectly linked to the grant support from RCN. The claim that grant consultants do not profit on the government grant money because the biggest market players do not show high profits (Taraldsen, 2017) is questionable. Company profits can be shown in many ways. If the payout to grant consultants for writing RCN applications constitute a substantial portion of the grant consultant companies’ turnover, this money could have been used for R&D instead. If a grant consultant company triggers more applications to government grant programs, thereby increasing competition for grants, it could be contributing to added value by increasing the quality of projects approved for grants.

But this is only true for programs where there is competition for grant money, such as DEMO2000. For SkatteFUNN, where the money is granted based on criteria which must be fulfilled (rather than the best application), the increased number of applicants does not lead to added value in the same way. It is established in the literature that grant consultant companies target SkatteFUNN specifically, and that as much as 90% of their income can originate from the SkatteFUNN program (Midtsjø et al, 2017; Taraldsen, 2017). This targeting of SkatteFUNN was also confirmed in this thesis. Pitching of services to a company was very commonly experienced among the SkatteFUNN applicants, but not registered at all for

DEMO2000 program. It appears that consulting companies indeed target the SkatteFUNN program. This is not surprising, since writing SkatteFUNN applications and using success fee pricing model is a combination that gives low risk (since 80% of all SkatteFUNN applications are approved) and high return on investment (since common no-cure no-pay schemes employ 15-25% success fee rates).

Grant consultants' effort can still be positive if the SkatteFUNN-supported projects would otherwise not have been carried out. However, very few would consider SkatteFUNN grant as enabling for a project to start (which is the case for DEMO2000).

Another conclusion that can be made based on the survey answers is that grant consultants would probably not be necessary if writing the applications would have been simplified considerably. Even though there are seminars and guidelines from RCN that companies can use, it is obvious that the application process still takes a lot of resources in the eyes of many companies. However, it is also clearly stated in many of the articles in Teknisk Ukeblad that a SkatteFUNN application does not take a lot of time to write. Thus, it can be proposed that this information should be made even more clear to anyone visiting the SkatteFUNN webpage. There could also be a benefit with reaching out to companies and informing them of their rights to have taxes reimbursed if they have projects qualifying for SkatteFUNN.

Among the questionnaire comments, many companies call for regulation of grant consultant services and the fees that grant consultants should be allowed to take. It is even suggested that this kind of services should be made illegal. Such regulation would be against the principles of a free market, and its possible consequences should be subject to an in-depth analysis.

8.0 Conclusions

Table 8 summarizes the research questions, explored in this thesis, and the findings, corresponding to these research questions.

Table 8 Summary of research questions and corresponding findings

Research question	Findings
What is the frequency of utilizing grant consultant services for grant applications?	26% and 25% of all applications for grants from SkatteFUNN and DEMO2000 programs in 2016 were made utilizing assistance from grant consultants.
Does the use of grant consultants result in higher chance of approved application?	Utilization of grant consultants had a small, but significant effect on the outcome of the grant applications towards SkatteFUNN. Data for DEMO2000 program was biased.
What are the mechanisms behind engaging the grant consultant services?	Targeted marketing effort by grant consultants towards SkatteFUNN funding was discovered, but there was no such effort towards DEMO2000 funding.
What is the motivation behind outsourcing of application process to grant consultants?	Lack of time (DEMO2000) and lack of knowledge in how to apply (SkatteFUNN).
How do companies experience the use of grant consultants?	Companies that utilized grant consultants were mostly satisfied with their services.
What is the attitude towards the use of grant consultants?	Attitude towards the use of grant consultants from those who did not utilize their services was mostly negative. Main reason for that was the high price for the services.
Is there any correlation between company size and outsourcing of grant application management?	Negative correlation between company size and outsourcing decision for DEMO2000. Positive correlation between company size and outsourcing decision for SkatteFUNN.

Utilization of grant consultant services was discovered in approximately 25% of all applications, which is in line with previous findings reported in the literature. Applications for SkatteFUNN grants made with assistance from grant consultants had approximately 10% higher approval rate compared to applications made without such assistance. Corresponding data from the DEMO2000 program had too much bias and uncertainty to draw any statistically secure conclusions. The difference might originate from improved application quality or early-stage screening of projects by grant consultants.

The survey showed that grant consultant companies specifically targeted SkatteFUNN program when they offered their assistance. They actively utilized marketing to find new SkatteFUNN clients, and in 26% of the studied SkatteFUNN applications, grant consultants pitched their services to previously unknown clients over the phone or e-mail. Media reports state that up to 2/3 of a typical grant consultant company turnover can originate from

SkatteFUNN. At the same time, it is a fact that there is no competition for SkatteFUNN funding. The claims of grant consultants stating that they improve the quality of incoming applications and increase the competition among them are thus unfounded. This has parallels to the strong marketing effort, promoting outsourcing in the early 1990s. Outsourcing is also the business model most of the grant consultants compare their services to. In more recent times, the marketing effort that promoted outsourcing was criticized for being motivated mostly by capturing share in a new market, while the promise of cost reductions was often not realized. A cost reduction of 10-15% is normally expected from an outsourcing agreement, while success-fee grant consultant services can be much more expensive compared to utilizing in-house resources.

Most companies (60%-80%) are well aware of the possibility to apply for grant funding. The fact that it is relatively simple to write and submit a SkatteFUNN grant application has been pointed out both by journalists and the authorities. Nonetheless, many respondees in this thesis stated that their SkatteFUNN applications would not have been sent in if not for the help of a grant consultant. Perceived effort it takes to write an application seemed to be the main factor that prevented companies from applying for SkatteFUNN funding unassisted. For DEMO2000 funding, the main factor was time it took to write an application. Most companies who utilized services of grant consultants reported that they have had good experiences (60-70%), good involvement in the application process (80-100%) and that the grant consultant had done an overall good job throughout the engagement (50-70%). Companies, that had utilized the services of grant consultants reported that this was positive from a cost/benefit perspective and that it was a better use of resources. At the same time, companies who did not utilize the services of grant consultants reported that such services were not worth the money. Over 80% of the companies who did not utilize the services of grant consultants stated that they do not regret their decision. 40-60% of them agreed strongly with the statement that they would never utilize help from a grant consultant for writing a grant application. Overall, grant consultants seem to be doing good job and providing good service when contracted to provide grant application services. The downside is the disproportionally high price for success-fee based services. Grant consultants state that the high price of their services can be explained by the remuneration model, where the services are paid for only if the grant money is paid out. The high price is thus a compensation for the risk and the uncertainty associated with the payment. While this might be the case for most grant programs, SkatteFUNN is an exception. This is because application for SkatteFUNN is

associated with very low risk. Around 80% of all SkatteFUNN applications are normally approved. In this study, 100% of all SkatteFUNN applications made utilizing assistance of a grant consultant company were approved. Thus, the element of risk is very small, and the only factor to consider is that the payment for the services is delayed until the following year when the SkatteFUNN grant is paid out. In this study, it was confirmed that the grant consultant companies specifically and actively targeted the SkatteFUNN program when engaging with new clients. This was earlier dismissed by grant consultant companies in the media.

The main goal of this thesis was to investigate how grant consultants contribute to added value in Norwegian research, development and innovation. Results suggest that the exaggerated focus on SkatteFUNN grant program, proven by survey data, combined with success-based remuneration model, which most of the grant consultant companies seem to prefer, contribute to decreased value for clients and authorities. The success-based fees are disproportionally high, while the risk not to succeed is very low due to high approval percentage of SkatteFUNN. Situation is different for other grant programs, which in this thesis was exemplified by the DEMO2000 program. Significantly lower chance to secure a grant and high competition among applicants might warrant high grant consultant fees for these applications, but they do not seem to be the focus of grant consultant companies.

A way of increasing the value that grant consultants bring to R&DI in Norway would be to channel their efforts towards the more demanding grant programs, where they really are required. This can be done either by making these programs more lucrative for grant consultants to target, or by making targeting of the SkatteFUNN program less lucrative or not possible at all. Some respondees in this survey stated that grant consultant services should be made illegal. While this would certainly be challenging from the legal point of view, the authorities could promote the simplicity of making a grant application towards the SkatteFUNN program more among companies in Norway. There are several ways of doing this. Marketing, and especially marketing on corporate social media platforms such as LinkedIn, is an efficient way. Another way is to arrange local courses and seminars in how to apply for SkatteFUNN funding and promote those in local corporate community. Positive example of other government agencies, for instance the Patent Authority, can be followed. A more drastic way of limiting opportunities for overpriced third-party services is empowering a distinct group of actors with exclusive rights to manage SkatteFUNN applications at a fixed hourly rate. One group that would be able to carry out this task in an efficient manner are certified accountants. Adding SkatteFUNN applications to an accountant's tasks would

contribute to eliminating the expensive “no cure, no pay” business model, since most private companies in Norway already work with certified accountants for book keeping purposes with hourly based pay. Accountants have access to the books and time sheets and can administrate the applications in an efficient manner. This measure might also have a positive effect on the amount of SkatteFUNN applications, since all companies have an accountant and all accountants would be incentivized to point out the opportunity of receiving a SkatteFUNN grant to their customers. Opportunity for company representatives to apply for SkatteFUNN grants directly should, of course, not be removed.

9.0 Suggestions for future work

Improved understanding of the grant consultant role would be gained if this survey is repeated for a different year. This would also give better data quality, since one of the shortcomings of this study was too few answers collected for the DEMO2000 program. Increasing the number of open-ended questions and possibly a follow-up round of interviews would improve the qualitative aspects of the survey, although it would also make the analysis more time-consuming.

An alternative program to compare to SkatteFUNN could be PETROMAKS2. Just like DEMO2000, this program has many applicants and there is a competition for the grants. However, more applications are received for PETROMAKS2 funding compared to DEMO2000 funding and this would probably increase the amount of responses and quality of the conclusions.

Questions describing the use of grant consultants could be included in the annual survey performed by the RCN and IN for all their programs.

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11.0 Attachment 1 – Questionnaire (in Norwegian)

Bruk av eksterne konsulenter ved søknader om støtte fra NFR SkatteFUNN og DEMO2000

Hei!

Vi er to MBA-studenter i teknologiledelse ved NORD Universitet. I vår masteroppgave ønsker vi å undersøke positive og negative konsekvenser ved bruk av eksterne konsulenter for å søke om midler fra Norges Forskningsråd (NFR).

Du har søkt om støtte fra NFR SkatteFUNN/DEMO2000 i 2016. Vi har søkt og fått utlevert følgende data om din søknad:

- Navn på bedriften og tittel på prosjektet
- Om søknaden din ble godkjent eller avslått
- Kontaktinfo til administrativ leder og prosjektleder

Vi understreker at all informasjon blir behandlet konfidensielt. Vi håper at du har 5 minutter for å besvare denne spørreundersøkelsen!

Med vennlig hilsen,
Daniel Mattsson & Dmitri Gorski
Norduniversitetet

* Required

1. Email address *

2. Hvilken NFR støtteordning søkte du midler fra? *

Mark only one oval.

- SkatteFUNN
- DEMO2000

3. 1. Fortell oss om din kompetanse i å søke midler fra Norges Forskningsråd (skale 1-5). *

Mark only one oval.

1 2 3 4 5

Kan ikke noe om det Kan alt om det

4. 2. Har du brukt eksterne konsulenter for å søke om midler fra Norges Forskningsråd i det aktuelle prosjektet? Som ekstern konsulent definerer vi en ekstern bedrift (f.eks. Front Innovation, Esacon, Nofas) som tar betalt for å assistere bedriften med søknaden. *

Mark only one oval.

- Ja Skip to question 4.
- Nei Skip to question 22.

SPØRSMÅL 3 av 6 ved «JA» svar på spørsmål om konsulentbruk.

5. 3. Ble du/bedriften kontaktet av Konsulenten/konsulentselskapet med tilbud om hjelp eller har du tatt kontakt selv? *

Mark only one oval.

- Bedriften ble kontaktet av ukjent konsulent på messe/konferanse
- Bedriften ble kontaktet av ukjent konsulent på telefon/mail
- Bedriften ble kontaktet av konsulenten via en anbefaling
- Bedriften ble kontaktet av konsulenten da vi har hatt samarbeid tidligere eller har samarbeidsavtale
- Bedriften tok kontakt med konsulenten etter et Google-søk
- Bedriften tok kontakt med konsulenten på messe/konferanse
- Bedriften tok kontakt med konsulenten etter anbefaling
- Bedriften tok kontakt med konsulenten da samme konsulent/konsulentselskap ble brukt tidligere
- Bedriften tok kontakt med konsulenten kontakt da det foreligger fast samarbeid/samarbeidsavtale

SPØRSMÅL 4 av 6. Hvorfor har du/bedriften brukt ekstern konsulent og ikke søkte selv?

6. Visste ikke om muligheten å søke før en konsulent gjort meg oppmerksom på den *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

7. Hadde ikke nok kunnskap om hvordan jeg søker *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

8. Hadde ikke tid til å søke *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

9. Det gir bedre ressursbruk å benytte eksterne konsulenter til slike oppgaver *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

10. Bra erfaring med eksterne konsulenter fra før **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

11. Det er bedriftens policy å bruke eksterne konsulenter ved slike søknader **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

SPØRSMÅL 5 av 6. Ta stilling til følgende påstander:**12. Bedriften hadde bra involvering i denne søknaden hele tiden ****Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

13. Konsulenten gjorde en meget god jobb under søknadsprosessen og har tatt hånd om alt **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

14. Oppfølging fra konsulentens side etter at søknaden ble godkjent var bra **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

15. Denne søknaden ville ikke bli sendt uten konsulentens hjelp **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

16. Konsulenten har oversolgt sin kompetanse og erfaring og var ikke til så stor hjelp som vi/bedriften trodde **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

17. Brukt av ekstern konsulent var vellykket utfra kost/nytte perspektiv **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

18. Konsulenten hadde relevant erfaring **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

19. Konsulenten hadde veldig godt kjennskap til den aktuelle ordningen **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

20. Konsulenten hadde gode nettverk til relevante samarbeidspartnere **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

21. Konsulenten hadde gode nettverk til relevante forskningspartnere **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

SPØRSMÅL 6 av 6. Hva er dine synspunkter på bruk av konsulenter ved søknad om midler fra NFR? (Fri tekst)

22. *

Stop filling out this form.

SPØRSMÅL 3 av 5. Hvorfor valgte du å søke selv istedenfor å bruke ekstern konsulent?

23. Jeg er kompetent nok å skrive søknad selv *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

24. Ekstern konsulent er ikke verd pengene *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

25. Dårlig erfaring med eksterne konsulenter fra før *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

26. Visste ikke om at man kunne få ekstern hjelp *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

27. Vi har intern bistand til å skrive søknader i bedriften *

Mark only one oval.

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

28. Vi har bistand fra forskningspartnere når vi skriver søknader **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

SPØRSMÅL 4 av 5. Ta stilling til følgende påstander**29. Jeg ønsker at jeg hadde brukt ekstern konsulent ****Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

30. Jeg kommer aldri til å bruke en ekstern konsulent når jeg skriver mine søknader **Mark only one oval.*

	1	2	3	4	5	
Ikke enig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Helt enig

SPØRSMÅL 5 av 5. Hva er dine synspunkter på bruk av konsulenter ved søknad om midler fra NFR?**31. (Fri tekst) ***

 Send me a copy of my responses.

12.0 Attachment 2 – Additional figures

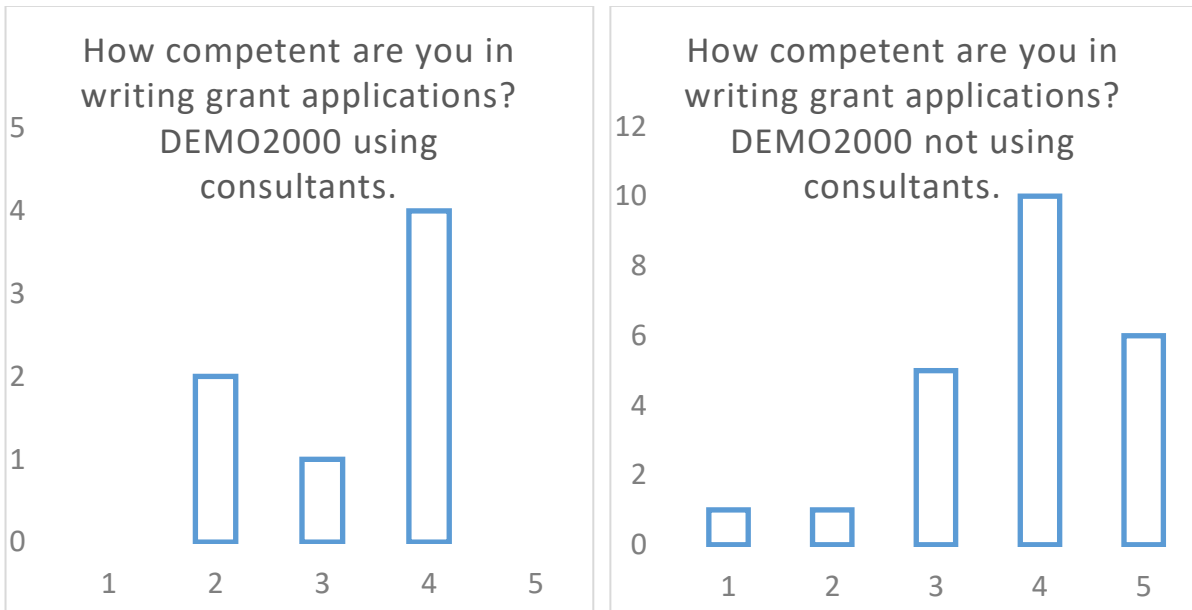


Figure 33 Ability to write DEMO2000 grant applications.

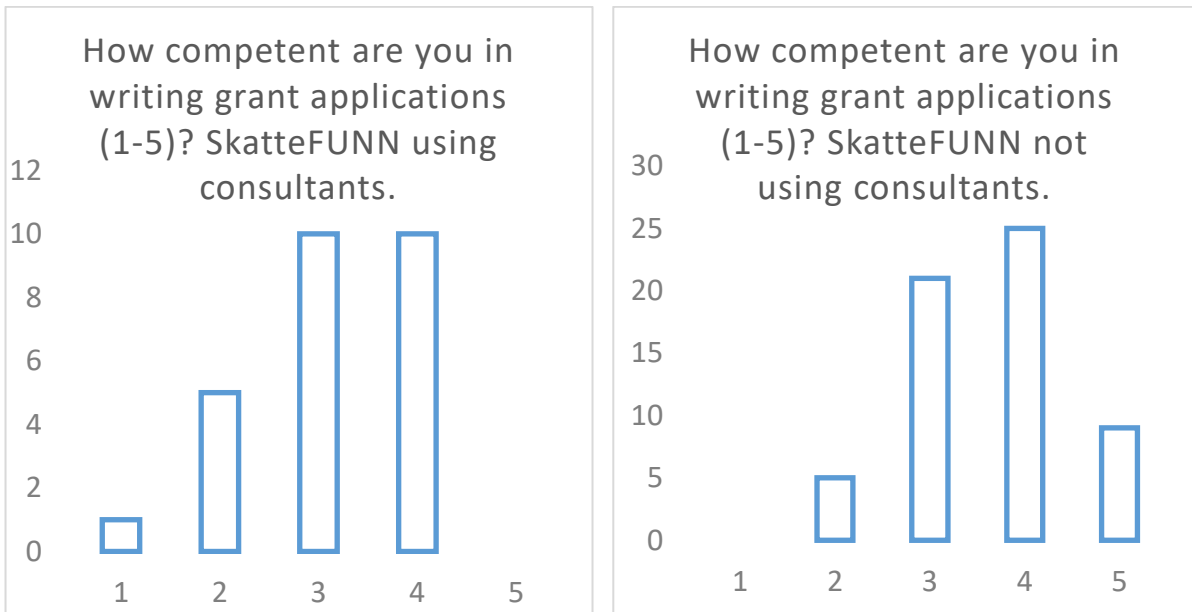


Figure 34 Ability to write SkatteFUNN grant applications.

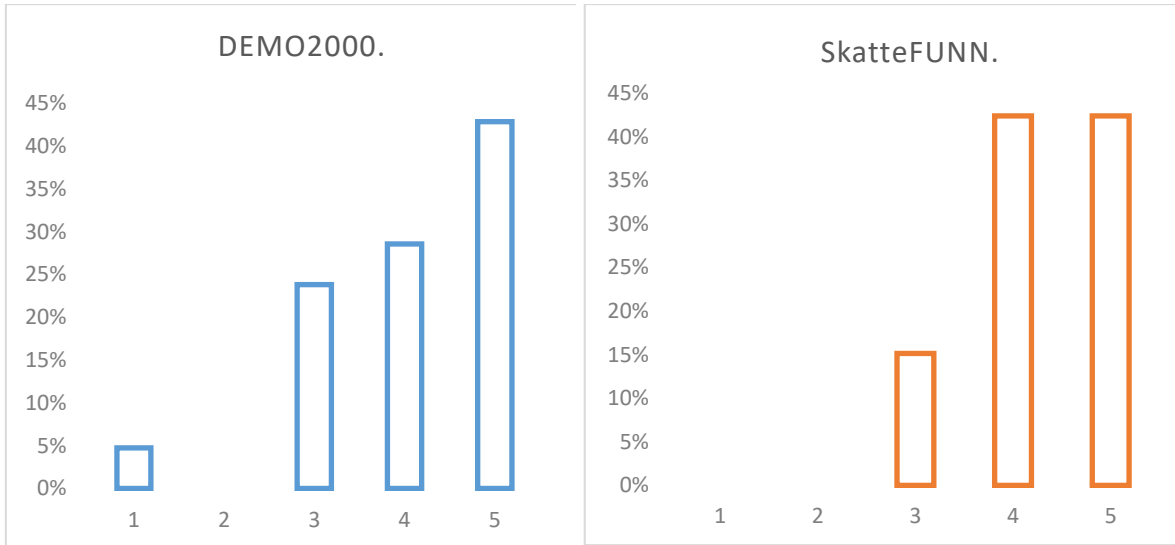


Figure 35 I am competent enough to write the application myself (1-completely disagree, 5-completely agree).

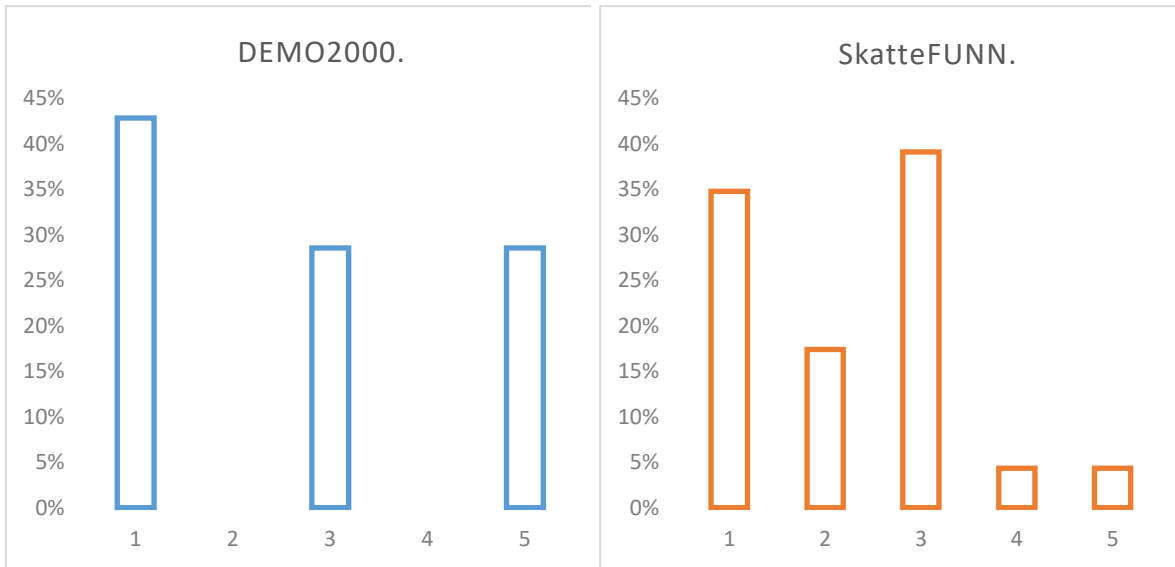


Figure 36 It is a company policy to use grant consultants for this kind of applications (1-completely disagree, 5-completely agree).

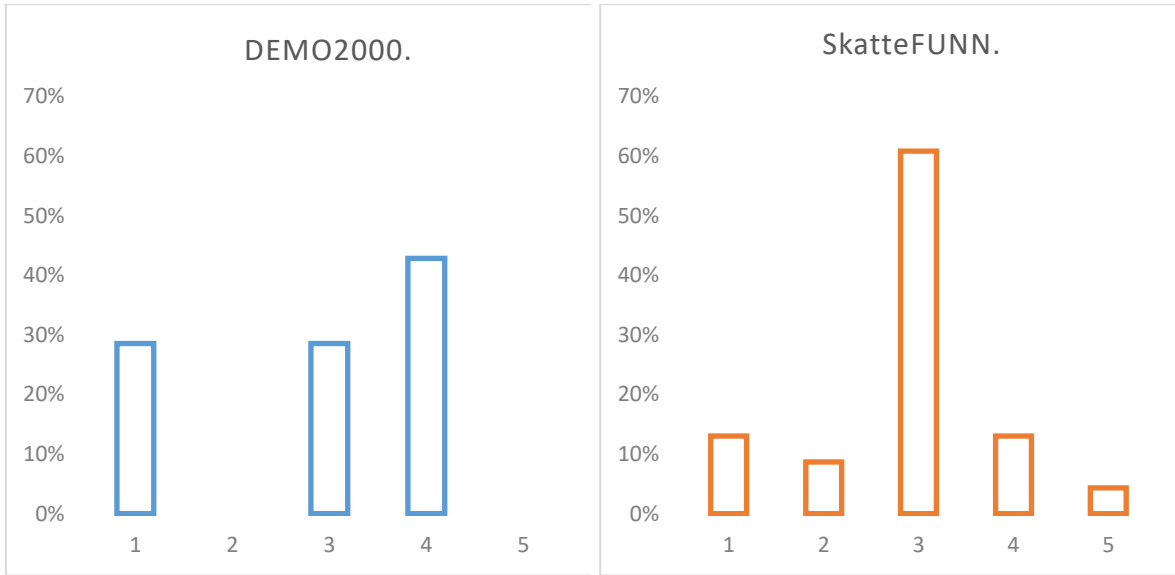


Figure 37 Grant consultant had good network to relevant partners (1-completely disagree, 5-completely agree).

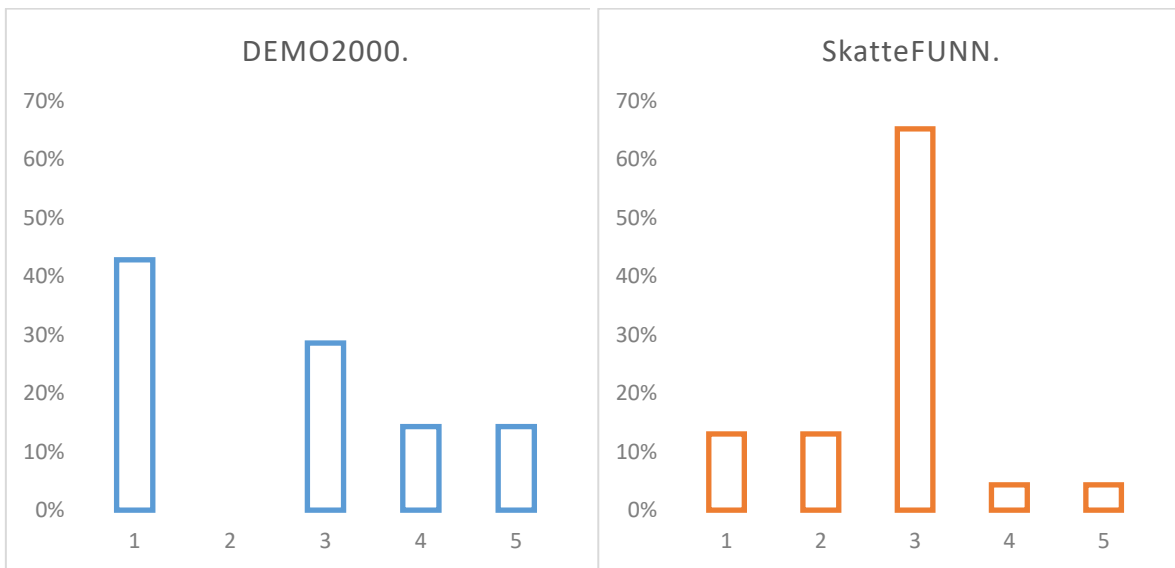


Figure 38 Grant consultant had good network to relevant research partners (1-completely disagree, 5-completely agree).

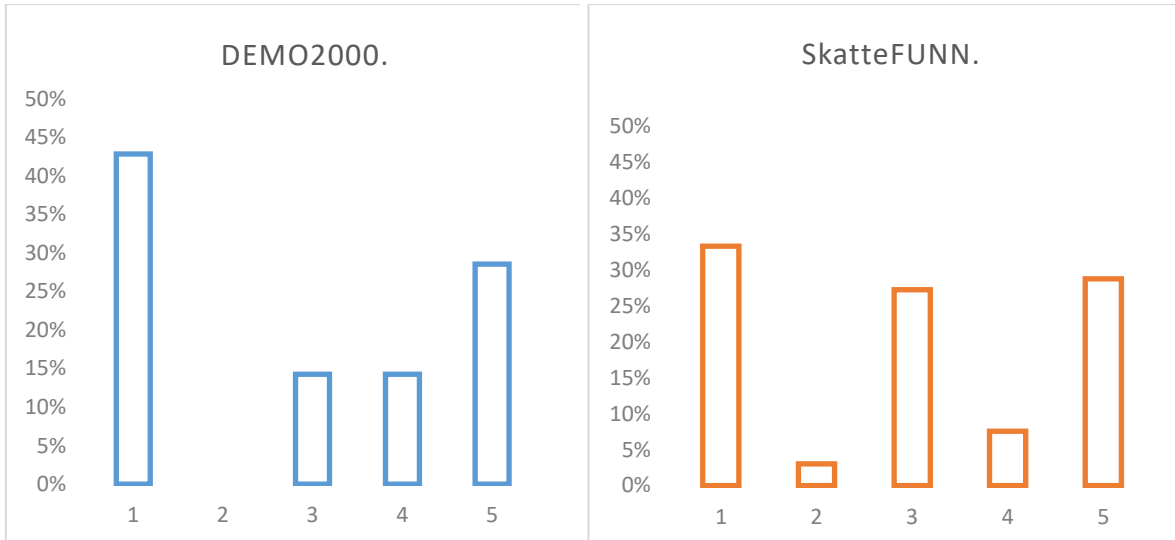


Figure 39 We have internal resources available to assist with applications (1-completely disagree, 5-completely agree).

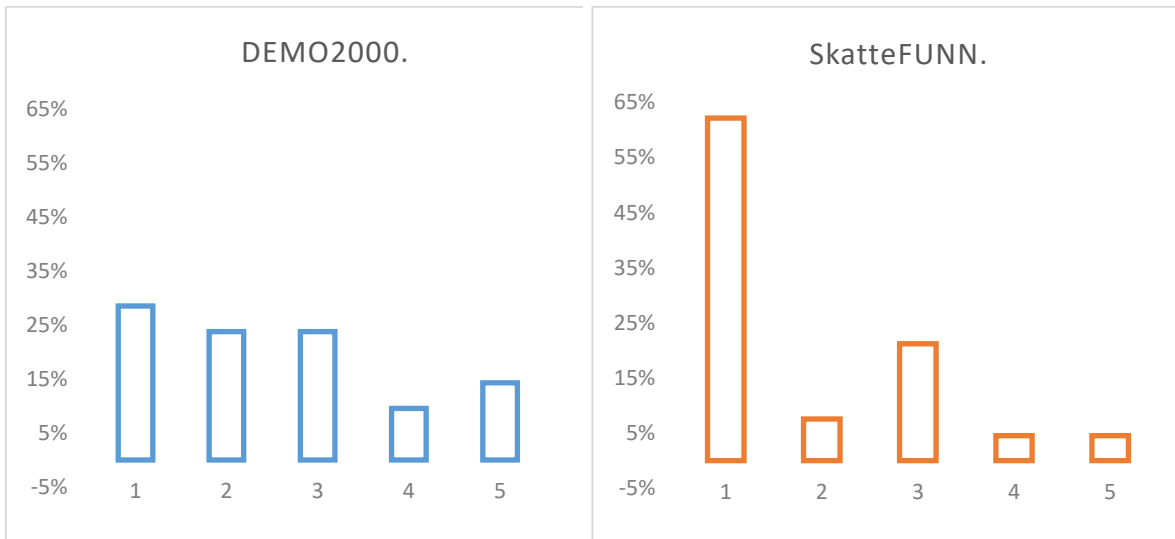


Figure 40 We get assistance from our research partners in writing applications (1-completely disagree, 5-completely agree).