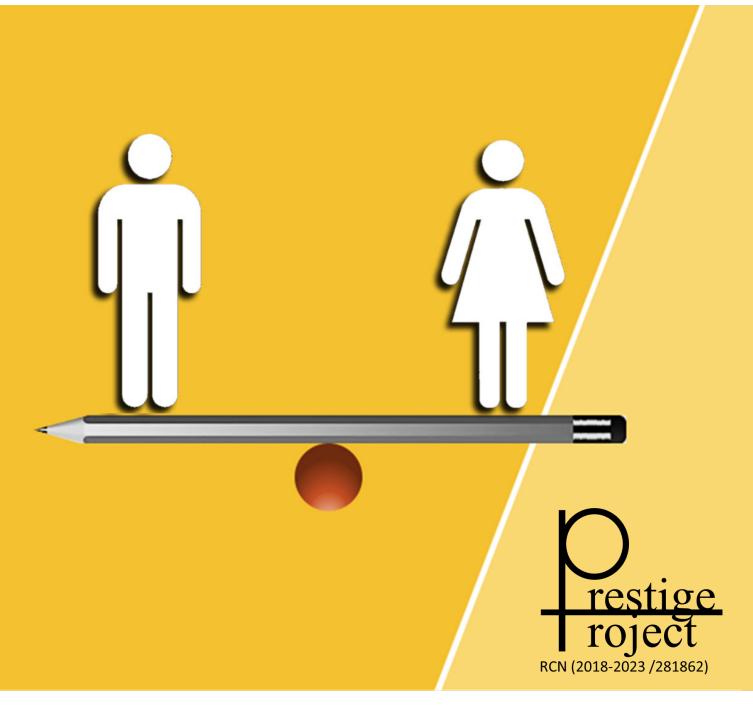
Applying for external funding of research:

Motivation, capacity, and institutional support as perceived by researchers at UiT The Arctic University of Norway

Lise Gulli Brokjøb, Adrianna Kochanska, Viktoriia Angelsnes Centre for Women's and Gender Research (SKK) Prestige Project: Gender Balance in Research Leadership at UiT Report 04/2022, https://doi.org/10.7557/7.6856



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Preface

Applying for external funding has become inevitable in almost every researcher's working life. External funding may provide new research and career development opportunities, often combined with new contacts, prestige, and economic benefits. In many ways, external funding may determine a researcher's success and status. On the other hand, the application process can be stressful and time-consuming, particularly when faced with inadequate institutional support or the lack of balance between teaching, research, and administrative obligations.

With this report, we aimed to explore the attitudes surrounding applying for external funding at UiT The Arctic University of Norway by investigating key factors relating to how UiT researchers perceive and experience the application process and their reasons for applying. Specifically, we investigated UiT researchers' motivation for/against applying for further research, their capacity to do so, their perceived institutional support, and how much of their work versus personal time was spent working on external funding applications. We have analysed 237 responses (138 women and 94 men). Of these, 53% were from the Health Faculty. Results indicate that UiT employees report moderate levels of capacity, institutional support, and motivation to (not) apply for external funding. Examining all statements separately, it appears that UiT employees are motivated to further expand their research field and scope with external funds, but there are notable capacity concerns. These concerns are specifically related to time constraints and prioritising other university-related activities. For institutional support, survey answers tended to be more neutral, with the median responses to most statements being Neither agree nor disagree. Perhaps most concerningly, however, employees reported that ~40% of the time spent writing an external funding application was done in their personal time. Without taking any other survey questions into account, this statistic indicates a considerable and problematic lack in employees' capacity to write external funding applications.

The current report, Applying for external funding of research: Motivation, capacity, and institutional support as perceived by researchers at UiT The Arctic University of Norway is one of several reports stemming from The Prestige Project: Gender Balance in Research Leadership at UiT. It is the fourth report from the Quantitative Work Package led by Adrianna Kochanska, a researcher at the Centre for Women's and Gender Research in connection to the Prestige Project and PhD Candidate at the Faculty of Biosciences, Fisheries and Economics.

The Prestige Project (RCN 281862/2018-2023) is financed by the BALANSE Program, which has a twofold goal: (1) to advance knowledge on how gender affects career opportunities and the distribution of power and resources in research at UiT; and (2) to inform and encourage the promotion of research-based organisational changes at UiT towards gender equality.

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The Prestige Project is being undertaken by the Centre for Women's and Gender Research at UiT in

close collaboration with UiT's Equality and Diversity Committee. Between 2018-2019, the project was

coordinated by Sigfrid Kjeldaas, a current postdoctoral fellow at Genøk. It is now (2020-2023)

coordinated by Melina Duarte, associate professor at the Department of Philosophy and researcher

at the Centre for Women's and Gender Research. In 2021, in a new call by the BALANSE Program, the

Prestige Project was granted extra funding from the Norwegian Research Council, which has extended

its support to February 2023.

Lise Gulli Brokjøb, Adrianna Kochanska, Viktoriia Angelsnes

Tromsø, November 2022

Acknowledgements

The authors want to thank all study participants. Their involvement in the study and willingness to share their thoughts and experiences enabled us to gain insight into the motivation, capacity, and institutional support at UiT The Arctic University of Norway and paved the way for further research. Thank you to **Melina Duarte**, who has supported the efforts in this report and provided guidance and advice every step of the way. Furthermore, we would like to thank **Ida Johannessen** for her help in distributing the survey and following up on data collection, as well as **Dina Abdel-Fattah** for providing consultation during the survey development phase. Thank you also to **Lilli Mittner** for general advice and ideas, as well as guidance for the design and graphical representation of data used both in this report and its related presentation. Finally, thank you to the PRESTIGE project participants, the pilot group and everyone who has provided support and advice during this period.

Introduction

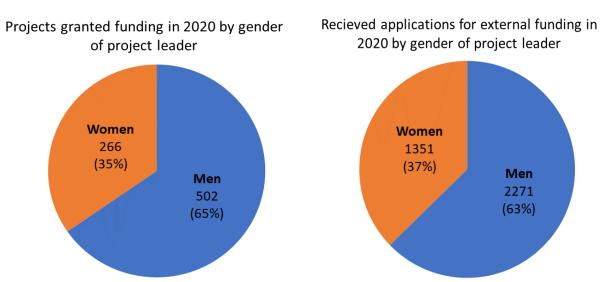
External funding may provide new research and career development opportunities, often combined with new contacts, prestige, and economic benefits. In many ways, external funding may determine a researcher's success and status. Furthermore, the application process has numerous benefits for researchers, often fostering new ideas, cooperation and experience (Ramberg, 2016). On the other hand, applying for external funding is a pervasive and time-consuming process affecting researchers' capacity and time distribution (Ramberg, 2016). In Norway, the success rate of external funding applications is low, with only 8-11% of applications being granted funding by the Research Council of Norway (RCN; RCN, 2021a).

Similarly, the success rate for Norwegian applicants to the European Research Council (ERC) is relatively low, with only 8% of applications being granted funding (RCN, 2019). Despite this, or arguably because of this, half of the researchers in higher education report experiencing higher institutional expectations and pressure to acquire external funds rather than generate high-quality research (Tellmann et al., 2019). Yet, it has been reported that these institutional expectations are often unmatched by the frequently insufficient level of support offered to researchers by their institutions to do so. This is notable, as institutional support and other key factors may influence researchers' intentions to apply for external funding. However, there is limited concrete knowledge regarding this in the current Norwegian context. Therefore, gaining further insight into researchers' attitudes about applying for external funding is important for both researchers and academic institutions. For example, insight into this topic may be used by academic institutions to address and appropriately respond to researchers' potential concerns and challenges regarding applying for external funding.

Further, it may be particularly important to explore attitudes relating to applying for external funding due to notable gender differences. For example, a 2016 report by RCN revealed that there were notable gender gaps in external funding. Specifically, 59% of the projects granted funding by RCN were led by men, compared to 41% of projects led by women. Importantly, this ratio was almost perfectly mirrored by the gender balance in submitted external funding applications, where 60% of the applications submitted were from research groups led by men, compared to 40% led by women. When using more recent numbers from the RCN databank

(RCN, 2021b), the pattern appears to have increased in 2020, with men submitting 63% of all external funding applications compared to women at 37%. Similarly, 65% of the projects funded are led by men and 35% by women (RCN, 2022), see Figure 1. In other words, projects led by women were as likely to be granted funding as those led by men, but women were less likely to apply for external funding overall. This highlights the importance of investigating factors impacting researchers' motivation for applying for external funding and their capacity to do so.

Figure 1Gender distribution of RCN funding applications and projects granted by RCN in 2020



Thus, we conducted a study to explore the attitudes around applying for external funding at UiT The Arctic University of Norway by investigating key factors relating to how UiT researchers perceive and experience the application process and their reasons for (not) applying. Specifically, we investigated UiT researchers' motivation for and against applying for further research, their capacity to do so, their perceived institutional support, and how much of their work versus personal time was spent working on external funding applications. These factors were chosen based on past research and were explored in the current study in both all participants and by gender group. As the study aim was to explore the experience of the external funding application process, the focus was on researchers experiences rather than on the success rates of these applications. Specifically, the study aimed to answer three main research questions.

Research questions

- What are the main factors motivating researchers to (not) apply for external funding?
 Does the motivation to (not) apply for external funding differ by gender
- 2. Are there gender differences in employees' prioritisation and capacity to apply for external funding?
- 3. Are there gender differences in employees' perceived institutional support for applying for external funding?

Factors relevant to applying for external funding

The time it takes to write an external funding application is often not measured or rewarded the same way as teaching and research is for academic staff. It is therefore assumed that the time and effort used on these applications depend to a greater extent on employees' own motivation and capacity, and/or their institutions' priorities (Tellmann et al., 2019). This makes these very relevant factors to examine, especially when trying to gain insight into the gender discrepancies in funding applications submitted to RCN (2021a; 2021b) as gender differences in any of these factors may contribute to gender differences in external funding application submissions overall.

When examining the motivation to (not) apply for external funding, it is crucial to consider both factors that may lead to increased motivation and factors that may lead to a decrease in motivation. For example, one might be motivated to apply for external funding by potential research development, career progression, status, and prestige. Reversely, one can be discouraged from applying by wanting to avoid additional work and by the low chance of being granted funding.

Capacity and applying for external funding

Capacity is essential for external funding applications as most external application processes are demanding and time-consuming. Motivation alone does not lead to a finished external funding application if there is a lack of time, skill, and resources. This is especially relevant for academic researchers, who already tend to balance a high and diverse workload. In general terms, the work activities that academic researchers balance can be divided into three categories: research, teaching, and other relevant and often external activities. The work activities in the latter group may include (in addition to funding applications,) administrative

work, communication, dissemination, board participation, peer reviewing, networking, and more. The value of such external activities on their own should not be dismissed, as participation in external activities can be essential for research, teaching, professional reputation and career development (Tellmann et al., 2019). However, such external activities are often not measured or regulated through work hours in the same way that teaching and research is, and can therefore add to an already full workload without being accounted for. This is especially relevant for the work done on external funding applications, as the median reported time spent on completing an RCN application is 5 work weeks (Ramberg, 2016), with the main range being 3-20 work weeks. Although the external funding application process may be incredibly valuable to the researcher, these numbers indicate the significant time and capacity needed. Such a commitment of personal time can negatively affect the researcher's capacity to perform their research-/teaching duties and their personal life and wellbeing. This could especially be the case if this additional work goes unaccounted for, and the remaining workload is not adapted to the researcher's capacity.

Institutional support and applying for external funding

Applying for external funding also highly depends on the institutional support applicants receive. As external funding applications are often time-consuming and demanding, many researchers, especially at earlier stages of their careers, highly depend on support from their research groups, department, and/or faculty. Such institutional support can consist of both formal and informal channels of information and include knowledge about the application process, like budgeting tips, feedback from colleagues, and other forms of support. Past research has indicated that the lack of training and participation of more experienced researchers and administrators in the application process may result in weak applications (Piro et al. 2020). Thus, institutional support is often essential to the quality of both the application process and the final application. Institutional support may also be especially significant to younger researchers (<30 years old), who spend a considerable amount of time on external funding applications (Ramberg, 2016) and have less access to administrative support than their more experienced colleagues (Ramberg, 2016).

Institutional Support at UiT

When examining the formal institutional support for writing external funding applications at UiT, it is clear that there are concrete measures in place at the university level. Support relating to external funding is mainly represented at UiT by specific departments for international cooperation and applications (e.g., Prosjektstøtteportalen; International Cooperation Section). In addition, there are several programmes and resources targeted towards younger researchers. For example, UiT prioritises CV building and offers start-up project support, national reference groups, and workshops for PhD candidates (Wold & Husebekk, 2021). However, it is unclear whether there are significant differences between the institutional support between faculties, as there are clear discrepancies in the number of external funding applications between academic fields. For example, the science, mathematics, and technology fields at UiT are overrepresented in terms of both submitted and funded project proposals (RCN, 2022), see Figure 2. However, as this pattern is wellaligned with other Norwegian universities and institutions (RCN, 2022), discrepancies in external funding applications alone are not enough to indicate uneven institutional support between academic fields at UiT. Nevertheless, this highlights a knowledge gap in the perceived institutional support within UiT, which further highlights the value of investigating this topic further.

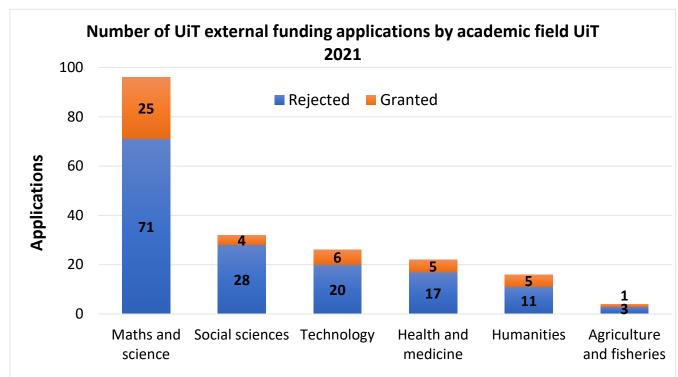


Figure 2Number of external funding applications by academic field at UiT in 2021

Method

Survey Design

An anonymous online survey was used to investigate UiT employees' attitudes about applying for extended funding. This survey included multiple questions and statements regarding UiT employees' motivation, capacity, and institutional support relating to applying for external funding. These were based on several previous studies and articles (see Gasser & Shaffer, 2014; Gunnes et al., 2020; Tellmann et al. 2019; Gunnes & Børning, 2015; Rørstad and Aksnes, 2015; Ramberg, 2016; Reiling et al., 2019; Piro et al., 2020) focusing on a wide range of perspectives and challenges faced by people in academia. Tellmann et al. (2019) was particularly influential when constructing the survey questions, providing a valuable contribution to all three survey sections: motivation, capacity, and institutional support. In addition, several survey questions were developed from interdisciplinary expert knowledge among the PRESTIGE project group members and feedback received from a pilot survey. Most survey questions took the form of statements that participants indicated agreement on, on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). For all survey questions, see the results section.

Measuring motivation

The overall framework for measuring motivation in the survey was inspired by several elements forming career motivations, as defined by Gasser & Shaffer (2014). These included career aspirations, expectations, and maturity, which may also relate to researchers' motivations to apply for external funding. The final survey included ninteen motivation questions. eleven of these measured different motivators for applying for external funding, and 8 measured motivators for not applying for external funding. The questions included statements about employees' interests in their academic field, career development, project resources, prestige, financial gain, expectations from UiT, and fairness as well as application evaluation, perceived chance of application approval, and involvement in other research projects. Some examples of these are "I apply for extended funding because I want to progress in my career", and "I do not apply for external funding because the chances of getting funded are too small compared to the amount of effort."

Measuring capacity

Inspired by past research such as Ramberg (2016) and Tellmann (2019), seven questions relating to employees' capacity to apply for external funding were developed. These included statements about employees' other commitments, available time, prioritisations, and work-life balance. For example, one of the statements included was "I can easily dedicate my time to writing external funding applications." In addition, employees were asked to estimate in percentage how much of an external funding application was written in their personal time in order to measure institutional support.

Inspired by past research such as (Gasser & Shaffer, 2014; Gunnes et al., 2020; Tellmann et al. 2019; Piro et al., 2020), ten questions relating to employees' perceived institutional support were developed. These included statements about both formal and informal support from UiT during and after an external funding application process. For example, a statement included was "My institution provides adequate information and training that helps strengthen my ability to apply for external funding." In addition, two of the statements related to employees' familiarity with Prosjektstøtteportalen, a formal portal for project funding support developed by UiT for UiT employees.

Participants

The survey was sent to everyone on the employee mailing list, which consisted of all faculty and faculty-level research administration. Furthermore, a promotional video was shared on Facebook. In total, 245 responses from UiT employees were collected. Three of these had to be excluded from the analysis due to not completing the questionnaire. In addition, five participants were removed from the analysis due to privacy concerns connected to having a minority gender identity (transgender and non-binary). The remaining 237 participants consisted of 138 women and 94 men (See Figure 3). Of these, 53% were from the Health Faculty (See Figure 4).

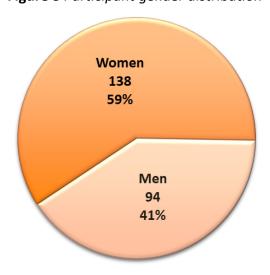
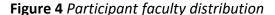
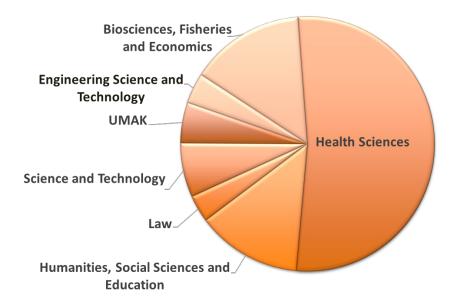


Figure 3 Participant gender distribution





Results

What are the main factors motivating researchers to (not) apply for external funding?

Two approaches were used to investigate the main factors motivating UiT employees to (not) apply for external funding. Firstly, employees' motivation answers to all statements were gathered in a descriptive stacked bar chart sorted by level of agreement and gender, see Figures 5 and 6. This was done to gain a more holistic and detailed understanding of employee motivation. As the motivation statements examined diverse topics, only analysing mean scores of all statements would not sufficiently investigate the nuances in employee motivations.

I apply for external funding because... ■ Strongly agree ■ Agree ■ Somewhat agree ■ Neither agree nor disagree ■ Somewhat disagree ■ Disagree ■ Strongly disagree 6% I want to further Men 46% 35% develop my field of research Women 46% 34% 7% 1<mark>%4% 3%</mark> 7% 35% 11% Men 24% 9% 3% 4% 13% I want to hire PhDs and Postdocs Women 40% 28% 5% 13% 1<mark>% 8%</mark> 4% Men 38% 19% 18% 12% **2% 5%** 5% I want to progress in my career Women 32% 32% 14% 11% **5%** 4% 3% Men 39% 18% 14% 8% **7**% 4% 9% I want to increase my work budget 13% 29% 30% 4% Women 16% 6% 11% 16% 19% **7**% 5% 33% 8% Men I want to expand my network Women 16% 30% 18% 4% 6% 4% 22% 15% 18% 27% **7**% Men 18% 9% I am expected to do so by the university Women 22% 27% 16% 17% 5% 10% 6% Men 16% 19% 20% 19% 12% I want recognition by the university Women 7% 29% 6% 14% 10% 13% 20% 6% Men 14% 18% 13% 12% 20% 15% I want recognition from my peers Women 5% 20% 22% 8% **12**% 21% 11% I want(ed) to 1% Men 22% 5% 5% 16% 11% 39% increase my chances of getting a permanent position Women 16% **7**% 7% 25% 2% 13% 30% at the university Men 8% 4% 6% 14% 5% 16% 46% I want to increase my income 4% <mark>1</mark>% **7**% Women 25% 5% 25% 33% 1% 5% **7**% 12% 49% Men 15% 10% I enjoy the competition and I think it is fun Women 4% 5% 9% **7**% 22% 34% 19%

Figure 5 Employee answer distributions – Motivation to apply for external funding

I do not apply for external funding because... ■ Strongly agree ■ Agree ■ Somewhat agree ■ Neither agree nor disagree ■ Somewhat disagree ■ Disagree ■ Strongly disagree Men 25% 16% 26% 8% 5% 9% 9% I do not have the time to write an application Women 21% **27**% 24% 6% **7**% 7% The chances of 24% 16% 21% 13% 9% 6% 11% Men getting funded are too small compared to the 20% 28% 19% 15% 3% **7**% 8% Women amount of effort 11% 11% Men 8% 11% 26% 17% 17% I am often involved in other people's projects Women 10% 19% 18% 18% 9% 16% 11% Men 13% 16% 15% 11% 20% 9% 17% I do not have the time to lead a project 15% **13**% 10% 14% Women 13% 22% 13% **Funding distribution** 13% 16% 22% 20% 6% **13**% 11% Men is biased towards prestigious scholars and Women 13% 18% 13% 27% 8% 11% 10% organizations This means that I **12**% 19% 10% **17**% 16% Men 11% 15% will have more administrative work and less 9% 16% 18% 19% 8% **15%** Women 16% time for research I do not need Men 11% 8% 14% 11% 5% 15% **37%** external funding to conduct my work 4% 9% 27% Women 11% 19% 12% 18% The administrative Men 7% **7**% 14% 18% **13**% 26% **15%** support is not good enough after recieving funding 8% Women 10% 10% 11% 34% 14% 13%

Figure 6 Employee answer distributions – Motivation to not apply for external funding

The stacked bar charts (Figures 5 and 6) indicated a good spread in employee responses to the different motivation statements. For example, among statements measuring motivation to apply for external funding, the statement that had the highest overall percentage of employee agreement was "I apply for external funding because I want to further my field of research." Conversely, the statement with the highest overall percentage of employee disagreement was "I apply for external funding because I enjoy the competition and think it is fun." See Table 1 for all statements with descriptive statistics sorted in descending order by mean.

For the statements relating to motivation to not apply for external funding, the statement with the overall highest rate of employee agreement was "I do not apply for external funding because I do not have the time to write an application." Conversely, the statement with the overall highest percentage of employee disagreement was "I do not apply for external funding because I do not need external funding to complete my work." See Table 2 for all statements with descriptive statistics sorted in descending order by mean.

Table 1Median, mean, and standard deviation for all motivation statements in descending order by mean score

Statement	Median	Mean
(I apply for external funding because)	(≈ Survey answer)	(SD)
I want to further develop my field of research	6	5.97
i want to further developing field of research	(Agree)	(1.43)
I want to progress in my career	6	5.58
i want to progress in my career	(Agree)	(1.67)
I want to hire PhD students and postdocs	6	5.30
I want to fine Find students and postdocs	(Agree)	(1.97)
Possuse Lucant to increase my work budget	6	5.30
Because I want to increase my work budget	(Agree)	(1.79)
Lucent to expand my naturals	5	4.88
I want to expand my network	(Somewhat agree)	(1.64)
I am expected to do so by the university	5	4.82
rain expected to do so by the university	(Somewhat agree)	(1.83)
I want recognition from the university	4	4.02
i want recognition from the university	(Neither agree nor disagree)	(1.79)
I want recognition from my peers	4	3.70
i want recognition from my peers	(Neither agree nor disagree)	(1.82)
I want to increase my chance of getting a permanent	4	3.43
position	(Neither agree nor disagree)	(2.29)
I enjoy the competition and think it is fun	2	2.67
renjoy the competition and tillik it is full	(Disagree)	(1.79)
I want to increase my income	2	2.64
I want to increase my income	(Disagree)	(1.80)

Table 2 *Median, mean, and standard deviation for all demotivation statements in descending order by mean score*

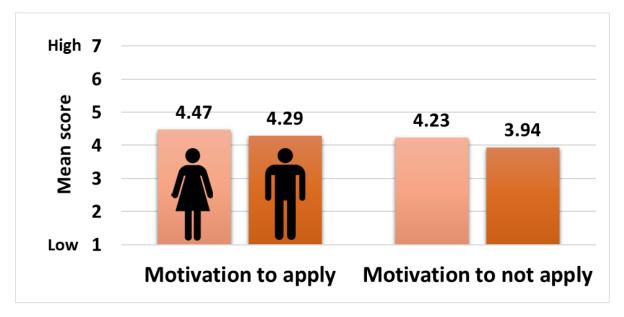
Statement	Median	Mean
(I do not apply for external funding because)	(≈ Survey answer)	(SD)
I do not have the time to write an application	5	4.91
Tao not have the time to write an application	(Somewhat agree)	(1.87)
The chances of getting funding are too small	5	4.87
compared to the amount of effort	(Somewhat agree)	(1.88)
Funding distribution is biased towards prestigious	4	4.27
scholars and institutions	(Neither agree nor disagree)	(1.85)
I do not have the time to lead a project	4	4.01
r do not have the time to lead a project	(Neither agree nor disagree)	(2.00)
I am often involved in other people's projects	4	3.97
r am often involved in other people's projects	(Neither agree nor disagree)	(1.90)
This means I will have to do more administrative	4	3.91
work and will have less time for research	(Neither agree nor disagree)	(1.95)
The administrative support is not good enough after	4	3.69
funding	(Neither agree nor disagree)	(1.82)
I do not need external funding to conduct my work	3	3.24
The first need external funding to conduct my work	(Somewhat disagree)	(2.01)

Does the motivation to (not) apply for external funding differ by gender at UiT?

To examine if there were gender differences in the motivation to (not) apply for external funding among UiT employees an Analysis of Variance (ANOVA) was used to examine the effect of gender on the mean reported scores of motivation. This included both total motivation for and against applying for external funding. The analyses revealed that employees generally reported moderate motivation to apply for external funding. There was no significant effect of gender on the motivation to apply for external funding, with women (M = 4.47, SD = .95) having a similar score to men (M = 4.29, SD = 1.11). Similarly, employees reported moderate motivation to not apply for external funding. There was also no significant effect by gender here, with women (M = 4.23, SD = 1.26) having a similar score to men (M = 4.23, SD = 1.26) having a similar score to men (M = 4.23, SD = 1.26) having a similar score to men (M = 4.23, SD = 1.26)

3.94, SD = 1.15), see Figure 7. The total number of employees in the survey was too low to be appropriately grouped by career stage, thus career-level was not included in the analyses.

Figure 7Mean scores of employee motivation to apply, and to not apply for external funding by gender

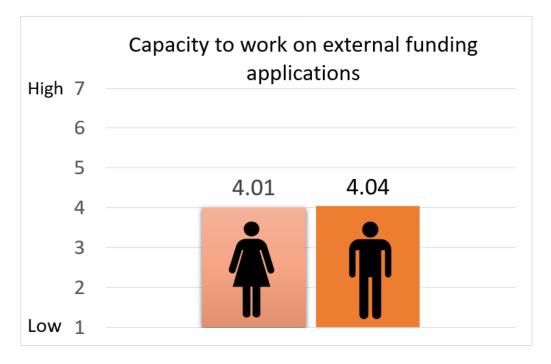


In short, the findings indicate that, on average, employees reported moderate motivation to both apply and to not apply for external funding, that there was found no significant gender differences.

Are there gender differences in employees' prioritisation and capacity to apply for external funding?

To examine if there were gender differences in employees' prioritisation and capacity to apply for external funding, ANOVAs were used to examine the effect of gender on the mean reported scores of prioritising external funding. The analyses revealed that, in general, all employees reported moderate rates of prioritisation and capacity for external funding applications (M = 4.03, SD = .85). There was no significant effect of gender on capacity and prioritisation, with women (M = 4.01, SD = .60) having a similar mean score to men (M = 4.04, SD = .85), see Figure 8. The statement with the overall highest rate of employee agreement was "I tend to use my personal time when writing external funding applications." In comparison, the statement with the overall highest percentage of employee disagreement was "I can easily dedicate my research time to writing external funding applications." See Table 3 for all statements with descriptive statistics sorted in descending order by mean.

Figure 8 Mean scores of employees' reported capacity and prioritisation of to apply for external funding by gender



Capacity ■ Strongly agree ■ Agree ■ Somewhat agree ■ Neither agree nor disagree ■ Somewhat disagree ■ Disagree ■ Strongly disagree I tend to use my Men 30% **22**% 22% <mark>1</mark>% 8% 9% **7**% personal time when writing external funding applications Women 14% 13% 6% **7**% 6% 27% **27**% I tend to prioritize Men 15% 21% 26% 17% 6% 7% 7% research activities over writing external funding applications Women 8% 23% 20% 9% **4% 3%** 33% I tend to prioritize Men 15% 14% 21% 27% 6% 11% 5% teaching activities over writing external 6% Women 14% 20% **17**% 30% 10% 3% funding application I tend to prioritize Men 4% 11% 16% 24% **13**% 20% 11% other activities over writing external funding applications Women 7% **13**% 18% 30% 14% 14% 4% I tend to prioritize 10% **17**% 15% Men 9% 16% 11% 21% my personal time over writing external funding applications Women 8% **15% 15**% 21% **13**% 11% **17**% I have a good balance Men 5% 11% 16% 25% 11% 16% 15% between my teaching, research, and administrative Women 2% 19% 10% 19% 13% 18% 19% responsibilities I can easily dedicate Men **2% 7%** 11% **7**% 19% 28% 25% my research time to writing external 11% **37**% 32% Women 13% 4% funding applications

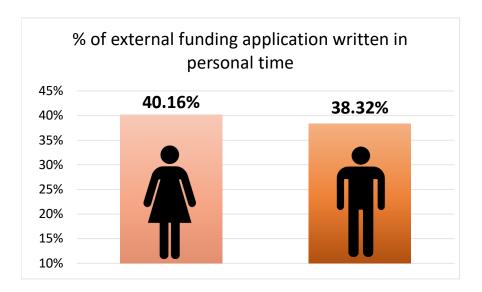
Figure 9 Employee answer distributions – Capacity

Table 3 *Median, mean, and standard deviation for all capacity statements in descending order by mean score*

Chahamant	Median	Mean
Statement	(≈ Survey answer)	(SD)
I tend to use my personal time when writing external	6	5.12
funding applications	(Agree)	(1.87)
I tend to prioritise research activities over writing external	5	4.68
funding applications	(Somewhat agree)	(1.54)
I tend to prioritise teaching activities over writing external	5	4.64
funding applications	(Somewhat agree)	(1.61)
I tend to prioritise other activities over writing external	4	3.88
funding applications (e.g., administrative work)	(Neither agree nor	(1.60)
runuing applications (e.g., autilinistrative work)	disagree)	
I tend to prioritise my personal time over writing external	4	3.75
funding applications	(Neither agree nor	(1.90)
runding applications	disagree)	
I have a good balance between my teaching, research, and	3	3.60
	(Somewhat	(1.88)
administrative responsibilities	disagree)	
I can easily dedicate my research time to writing external	2	2.55
funding applications	(Disagree)	(1.54)

To examine if there were gender differences in employees' distribution of work/personal time spent on external funding applications, an ANOVA was used to examine the effect of gender on participants' reported distribution. The analyses revealed that employees generally reported that 39.24% (SD = 28.42) of their work relating to external funding applications was done in their personal time. No significant effects of gender on the percentage of personal time used were found, with women, on average (M = 40.16%, SD = 28.47), reporting a similar percentage of their external funding application work done in their personal time as men (M = 38.32%, SD = 28.47), see Figure 10.

Figure 10Mean percentage of external funding application work done in employees' personal time by gender



In short, the findings indicate that, on average, employees report a moderate prioritisation and capacity to apply for external funding applications, and that ~40% of their work on external funding applications is done in their personal time. There were found no significant gender differences in employees' reported capacity and prioritisation, or percentage of external application work done in their personal time.

Are there gender differences in employees' perceived institutional support for applying for external funding?

The analyses revealed that, in general, employees reported moderate rates of perceived institutional support (M = 4.20, SD = .96). There was found a significant gender difference in mean institutional support, with men (M = 4.32, SD = .96) reporting slightly higher institutional support than women (M = 4.08, SD = .95), see Figure 11. The institutional support statement with the highest rate of overall employee agreement was "The informal support and feedback I receive from my peers make the application process easier." The statement with the highest percentage of overall employee disagreement was "My institution was not involved in the application process, and I did not receive any helpful advice." See Table 4 for all statements with descriptive statistics sorted in descending order by mean scores, and see Figure 12 for the answer distribution on all institutional items.

In short, the findings indicate that, on average, employees report moderate rates of institutional support, with men reporting slightly higher institutional support than women.

Figure 11 *Mean scores of reported institutional support by gender*

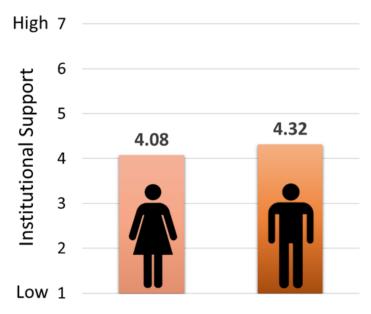
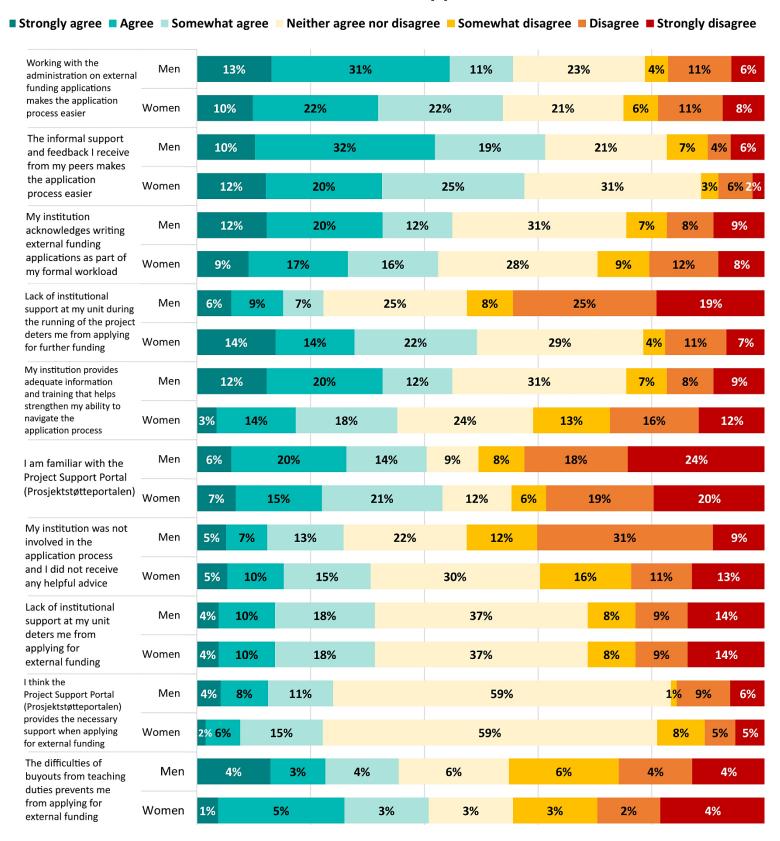


Table 4 *Median, mean, and standard deviation for all institutional support statements in descending order by mean score*

6 1.1	Median	Mean
Statement	(≈ Survey answer)	(SD)
The informal support and feedback I receive from my peers	5	4.80
makes the application process easier	(Somewhat agree)	(1.50)
Working with the administration on external funding	5	4.56
applications makes the application process easier	(Somewhat agree)	(1.76)
The difficulties of buyouts from teaching duties prevents me	4	4.32
from applying for external funding	(Neither agree nor	(1.73)
mem approved external tenang	disagree)	
My institution acknowledges writing external funding	4	4.29
applications as part of my formal workload	(Neither agree nor	(1.74)
approach as part of my formal normal	disagree)	
I think the Project Support Portal (Prosjektstøtteportalen)	4	3.98
provides the necessary support when applying for external	(Neither agree nor	(1.25)
funding	disagree)	
My institution provides adequate information and training	4	3.73
that helps strengthen my ability to navigate the application	(Neither agree nor	(1.69)
process	disagree)	
Lack of institutional support at my unit during the running of	4	3.72
the project deters me from applying for further funding	(Neither agree nor	(1.70)
the project deters me nom applying for farther familia	disagree)	
I am familiar with the Project Support Portal	4	3.71
(Prosjektstøtteportalen)	(Neither agree nor	(2.01)
(1 Tosjekestytteportalen)	disagree)	
Lack of institutional support at my unit deters me from	4	3.60
applying for external funding	(Neither agree nor	(1.72)
app., tor external randing	disagree)	
My institution was not involved in the application process,	4	3.57
and I did not receive any helpful advice	(Neither agree nor	(1.65)
and I ald not receive any helpful davice	disagree)	

Figure 12 Employee answer distributions – Institutional support

Institutional Support



Tentative gendered pattern across all survey responses

When examining all statements from the survey separately, a tentative pattern emerged. However, it should be strongly emphasised that such an examination results in a very high risk of finding false positives. Still, these were included in the report due to the total gendered pattern they made up as a whole: On average, women appeared to report a significantly higher agreement to statements about facing greater adversity and lower capacity and institutional support for external funding applications than men. Moreover, men appear to indicate a significantly higher agreement to statements relating to a higher capacity to apply for external funding than women.

Discussion

Summary

- The current report investigated UiT employees' attitudes surrounding applying for external funding. The main focus was on employees' motivation to (not) apply, their capacity, and institutional support to do so.
- The survey questions were designed based on past research on the topics and with the help of a multidisciplinary reference group.
- In total, 237 employees' survey responses were analysed: 138 women and 94 men. Of these, 53% were from The Faculty of Health Sciences.
- Overall, we found no gender differences in total motivation or capacity to apply for external funding.
- There was a slight gender difference in perceived institutional support, with men reporting slightly higher institutional support than women.
- When examining the distributions of survey responses for all individual survey statements, a possible gender pattern was revealed. This pattern tentatively suggested that women reported slightly more adversity and lower institutional support when applying for external funding.

Motivation

- On average, both men and women reported moderate rates of motivation to both apply and not apply for external funding.
- There was found no significant gender difference in mean motivation to (not) apply for external funding.

- Out of the survey statements relating to the motivation to apply for external funding, the statement with the overall highest employee <u>agreement</u> was "I apply for external funding because I want to further my field of research."
- Out of the survey statements relating to the motivation to apply for external funding,
 the statement with the overall highest employee <u>disagreement</u> was "I apply for external funding because I enjoy the competition and think it is fun."
- Men indicated a slightly higher agreement to the statement "I have a good balance between my teaching, research, and administrative responsibilities."
- However, such tentative statement-specific gender differences should only be considered in relation to the rest of the findings in the survey.
- For all motivation Figures and Tables, see Figures 5, 6 & 7, and Tables 1 & 2.

Capacity

- On average, both men and women reported a moderate prioritisation and capacity to apply for external funding.
- There was found no significant gender difference in total mean prioritisation and capacity to apply for external funding.
- Out of the survey statements relating to the capacity to apply for external funding, the statement with the highest employee <u>agreement</u> overall was "I tend to use my personal time when writing external funding applications."
- Out of the survey statements relating to the capacity to apply for external funding, the statement with the highest employee <u>disagreement</u> overall was "I can easily dedicate my research time to writing external funding applications."
- On average, both women and men reported that ~40% of their external funding application writing is done in their personal time.
- There may be slight gendered pattern in employee responses regarding specific capacity. These are very tentative, but indicate that men reported higher agreement to the following statements:
 - "I have a good balance between my teaching, research, and administrative responsibilities."
 - "I can easily dedicate my research time to writing external funding applications."

- However, such tentative statement-specific gender differences should only be considered in relation to the rest of the findings in the survey.
- For all capacity Figures and Tables, see Figures 8, 9, 10, and Table 4.

Institutional Support

- On average, both men and women reported moderate institutional support for external funding applications.
- Women reported slightly lower institutional support than men.
- Of the survey statements relating to the capacity to apply for external funding, the statement with the highest employee <u>agreement</u> overall was "The informal support and feedback I receive from my peers makes the application process easier."
- Of the survey statements relating to the capacity to apply for external funding, the statement with the highest employee <u>disagreement</u> overall was "My institution was not involved in the application process, and I did not receive any helpful advice."
- There may be particular gender differences in survey responses to specific institutional support statements. These are very tentative, but indicate that women reported higher agreement to the following statements:
 - "Lack of institutional support at my unit deters me from applying for external funding".
 - "Lack of institutional support at my unit during the running of the project deters me from applying for further funding."
- However, such tentative statement-specific gender differences should only be considered in relation to the rest of the findings in the survey.
- For all capacity Figures and Tables, see Figures 11 & 12, and Table 4.

Implications

Overall, results indicate that UiT employees report moderate levels of prioritisation and capacity, institutional support, and motivation to (not) apply for external funding. Examining all statements separately, it appears that employees are motivated to further expand their research field and scope with external funds, but that there are notable capacity concerns. These concerns are specifically related to time constraints and prioritising other university-related activities. For institutional support, survey answers tended to be more neutral, with

the median responses to most statements being *Neither agree nor disagree*. Perhaps most concerningly, employees reported that ~40% of the time spent working on external funding applications was done in their personal time. Without taking any other survey questions into account, this finding alone indicates a considerable and problematic lack in employees' capacity to work on external funding applications.

Limitations

The survey has a few notable limitations that should be highlighted. One limitation was that we did not control for parental leave, as this was not a factor identified in Randberg (2016). This may have been a notable limitation, as parental leave could affect the motivation and capacity to apply for external funding. This is due to both the extensive workload involved in writing the external application, as well as the motivation to engage in what are often long-term projects, which may affect family planning. Thus, further exploration of this topic may greatly benefit from examining, or at least accounting for, the impact of parental leave and pregnancy on the motivation to apply for external funds and larger research project participation.

Further, as the survey did not use any validated scales, it is not certain if mean scale scores adequately measure employee's general motivation, capacity, and institutional support. Employees were not asked to rate their motivation, capacity, and institutional support in general, but rather asked to indicate their agreement to common statements relating to these topics. Although all survey statements were based on past research, a reference group, and the aim of this report, there were nevertheless types and variations in motivation, capacity, and institutional support that was not captured by the survey.

Related to this, it can be argued that the measure used to examine motivation to (not) apply for external funding might instead/in addition have measured employees' capacity to (not) apply for external funding. Employees with a higher capacity to apply for external funding would arguably have a higher chance of being motivated to do so. If this is the case, there is arguably an even stronger argument for the essential role of institutional support in encouraging employees to apply for external funding.

There were also some notable limitations of the employee sample included in the survey. Due to privacy concerns from smaller sample sizes of gender minorities, only men and women could be included in the final analyses. This is a shortcoming as there is a general lack of gender research that includes gender minorities. However, as the majority of our sample were men and women, we believe the findings are still captures some of the general attitudes around external funding applications among employees.

We were also not able to analyse the results by faculty due to a too low sample size. This is a limitation, as there may be notable differences in faculties' work culture, the support offered, and the need for external funding applications. For example, a faculty with fewer funds to grant their employees may be more incentivised to encourage employees to apply for research funds externally, be it through pressure and/or institutional support. Thus, there may be great utility, especially for institute and faculty leaders, to further explore the attitudes and support surrounding external funding applications within their faculties.

A final notable limitation was that 53% of the employees included in the survey were from the Faculty of Health Sciences. This was in spite of survey recruitment being university wide, and the research group being multidisciplinary. Generalising results to all UiT employees on a wide scale is therefore difficult, although past research in this area indicates that the survey may not be unique to members of this faculty. Nevertheless, future research on this topic could greatly benefit from targeted recruitment efforts to ensure a more balanced sample.

Conclusion

In conclusion, we propose that the finding most relevant to UiT and other institutes is employees' reported distribution of personal- and work time when spent working on their external funding applications. On average, employees reported doing 40% of their external funding application work in their personal time. This is especially concerning when combined with RCN numbers (Randberg, 2016) stating that, as reported by scientific staff, most external funding applications take between 3-20 work weeks to complete. This may also account for all employees, on average, reporting only a moderate capacity and motivation to apply for external funding.

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Appendix

Survey design

MOTIVATION, Part I

In this part of the survey we would like to ask about your motivation to apply for external funding.

To what extent do you agree with the following statements

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I apply for external funding because I want to further develop my field of research *	0	0	0	0	0	0	0
I apply for external funding because I want recognition from my peers *	0	0	0	0	0	0	0
I apply for external funding because I want recognition from the university *	0	0	0	0	0	0	0
I apply for external funding because I want to progress in my career *	0	0	0	0	0	0	0
I apply for external funding because I want to expand my network *	0	0	0	0	0	0	0
I apply for external funding because I want to hire PhDs and Postdocs *	0	0	0	0	0	0	0
I apply for external funding because I want to increase my work budget *	0	0	0	0	0	0	0
I apply for external funding because I want to increase my income *	0	0	0	0	0	0	0
I apply/applied for external funding because I want/wanted to increase my chances of getting a permanent position *	0	0	0	0	0	0	0
I apply for external funding because I enjoy the competition and I think it is fun *	0	0	0	0	0	0	0
I apply for external funding because I am expected to do so by the university *	0	0	0	0	0	0	0

CAPACITY

In this part of the survey we would like to learn more about your time and workload and how it changes while writing applications for external funding.

To what extent do you agree with the following statements

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I have a good balance between my teaching, research and administra- tive responsibilities *	0	0	0	0	0	0	0
I can easily dedicate my research time to writing external funding applications *	0	0	0	0	0	0	0
I tend to use my personal time, when writing external funding applications *	0	0	0	0	0	0	0
I tend to prioritize teaching activities over writing external funding applications *	0	0	0	0	0	0	0
I tend to prioritize research activities over writing external funding applications *	0	0	0	0	0	0	0
I tend to prioritize other activities over writing external funding appli- cations (Examples of other activi- ties: administration, dissemination, participations in boards, etc) *	0	0	0	0	0	0	0
I tend to prioritize my personal time over writing external funding applications *	0	0	0	0	0	0	0

Estimate what percentage of the application is written during working time and what percentage is written during personal time.

During working time *

During working time *	
Percent input, number only, no symbol	
During personal time *	
Percent input, number only, no symbol	

INSTITUTIONAL SUPPORT

In this part of the survey we would like to ask about your experience and perception of the institutional support you receive in connection to applying for external funding.

To what extent do you agree with the following statements

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Working with the administration on external funding applications makes the application process easier *	0	0	0	0	0	0	0
I am familiar with the Project Support Portal (Prosjektstøtteportalen) *	0	0	0	0	0	0	0
I think the Project Support Portal (Prosjektstøtteportalen) provides the necessary support when apply- ing for external funding	0	0	0	0	0	0	0
The informal support and feedback I receive from my peers makes the application process easier *	0	0	0	0	0	0	0
My institution provides adequate in- formation and training that helps strengthen my ability to navigate the external funding application process *	0	0	0	0	0	0	0
My institution acknowledges writing external funding applications as part of my formal workload *	0	0	0	0	0	0	0
My institution was not involved in the application process and I did not receive any helpful advice *	0	0	0	0	0	0	0
Lack of institutional support at my unit deters me from applying for ex- ternal funding *	0	0	0	0	0	0	0
Lack of institutional support at my unit during the running of the project deters me from applying for further funding *	0	0	0	0	0	0	0
The difficulties of buyouts from teaching duties prevents me from applying for external funding.	0	0	0	0	0	0	0

