



Graduate School of Finance

How Doctoral Graduates in Finance Working Outside of Academia Value Their Doctoral Education

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Main Findings

The current report describes how doctoral graduates in finance working outside of academia value their doctoral degree and the skills their doctoral education has provided them with. The questionnaire was sent out to 34 finance doctoral graduates who had graduated after 2005 and who were currently working in positions outside of academia. The survey aimed to find out about the graduates' perceptions on 1) how having a PhD degree in finance has affected their employment, role in working life in general and current position, 2) what kind of skills and knowledge they obtained during their PhD studies and how they value those skills, and 3) what kind of added value has a PhD degree in finance offered in their career.

The main findings can be summed up as follows.

1. Two thirds (68%) of the respondents felt that finance PhD studies had prepared them well or extremely well for professional work life.
2. The respondents had most often (39%) decided to pursue a career outside of academia already before starting their doctoral studies.
3. The most important motivating factors (61%) in pursuing a career outside of academia were personal interest and a wider variety of career paths and career development possibilities.
4. Although the respondents' current positions were often not research related, 83% of them still followed academic research in their current work either regularly or sometimes.
5. As expected, only very few positions outside of academia require a PhD degree and this was also the conclusion of our survey: 83% of the respondents said that their current position did not require a doctoral degree.
6. Nearly two-thirds (65%) of the graduates felt that they were able to apply the skills and knowledge learned/obtained during their PhD studies well or extremely well in their career.
7. The most valued skill sets the respondents mentioned were 1) analytical/problem-solving skills, 2) skills related to searching for, critically evaluating and adopting information, 3) broad understanding of finance and 4) critical reasoning. There was also a common consensus that the PhD studies had equipped the graduates with useful communication and presentation skills.
8. The respondents felt that a doctoral degree in finance has 1) helped them to work with more demanding or interesting tasks, 2) introduced more opportunities in terms of career development and promotions, 3) brought them more authority/influence and 4) introduced a wider range of job possibilities.

We would like to thank Niilo Luotonen (Aalto University) for his input in compiling the survey and the report.

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1. Introduction

The Graduate School of Finance (GSF), the national PhD program in finance in Finland, is a joint initiative of Aalto University, Hanken School of Economics, Lappeenranta University of Technology, University of Oulu, University of Turku and University of Vaasa.¹ The main objective of the GSF is to promote high-quality doctoral education in finance in Finland by offering a well-structured teaching program for obtaining a PhD degree in finance.

In 2018 we conducted a survey on the career paths of doctoral graduates in finance (who graduated between 1996 and 2018). We learned that 33% of doctoral graduates in finance were currently employed in the private sector.

As a considerable number of finance graduates choose a career outside of academia, we wanted to find out how these doctoral graduates value their doctoral degree and the skills their doctoral education has provided them with. The objective of the survey was to find out their experiences and perceptions as finance doctoral graduates working outside of academia.

The questionnaire was sent out via email and LinkedIn messages to 34 finance doctoral graduates who currently work in positions outside of academia. The response rate was 53 %. A clear majority of the respondents had graduated since the establishment of the GSF in 2005². The survey focused on learning about the doctoral graduates' perceptions on:

- 1) how having a PhD degree in finance has affected their employment, role in working life in general and current position
- 2) what kind of skills and knowledge they obtained during their PhD studies and how they value those skills in working life
- 3) what kind of added value has a PhD degree in finance offered in their career.

When preparing this survey, we consulted several similar reports. Reports by EUA-CDE (2020) and Academy of Finland (Törnroos 2017) both provide evidence that that a career path outside of academia has become more common for a growing number of doctorate holders. The same is also shown by the Aalto University School of Business's latest survey on doctoral graduates, where over half of the respondents were employed by a private or state-owned corporation (Aalto University 2020). In addition, the following two reports have also been used as references in compiling the survey questionnaire: Charikleia Tzanakou's article "The wider benefits of a PhD" (Tzanakou 2014) and the University of Turin's career tracking survey of PhD holders (Salto 2018).

¹ In June 2022 University of Jyväskylä joined the GSF as a new member university.

² The GSF is a continuation of the GSFFA Doctoral School, which received doctoral school status in 1994. In the beginning of 2005, the GSFFA was divided into the Graduate School of Accounting (GSA) and the Graduate School of Finance (GSF).

2. The effect of a PhD degree in finance on employment

2.1. The decision and reasons for choosing a career outside of academia

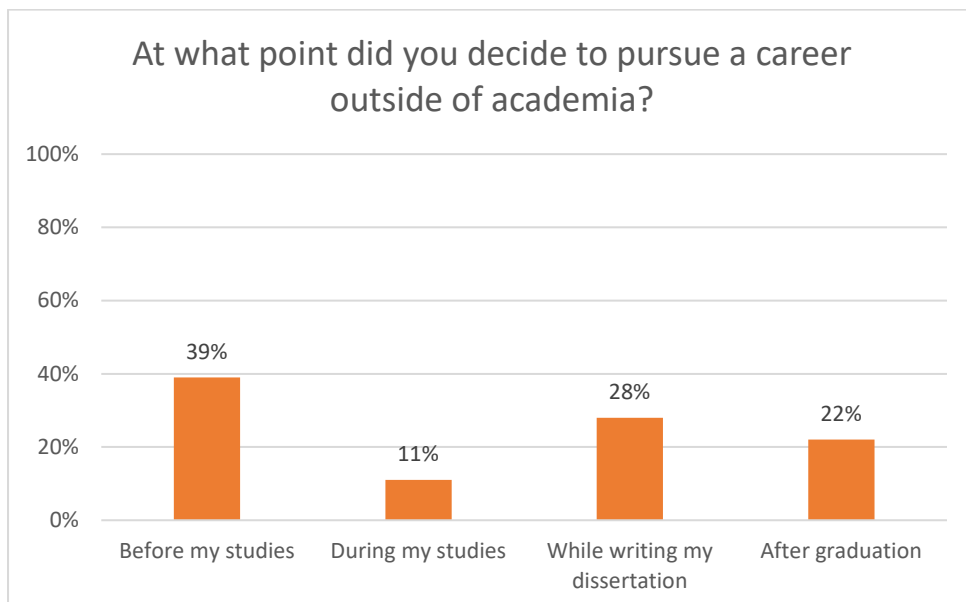


Figure 1: At what point did you decide to pursue a career outside of academia?

Majority of the doctorate graduates have decided on a career outside of academia either already before they have started their studies (39%) or while writing their dissertation (28%).

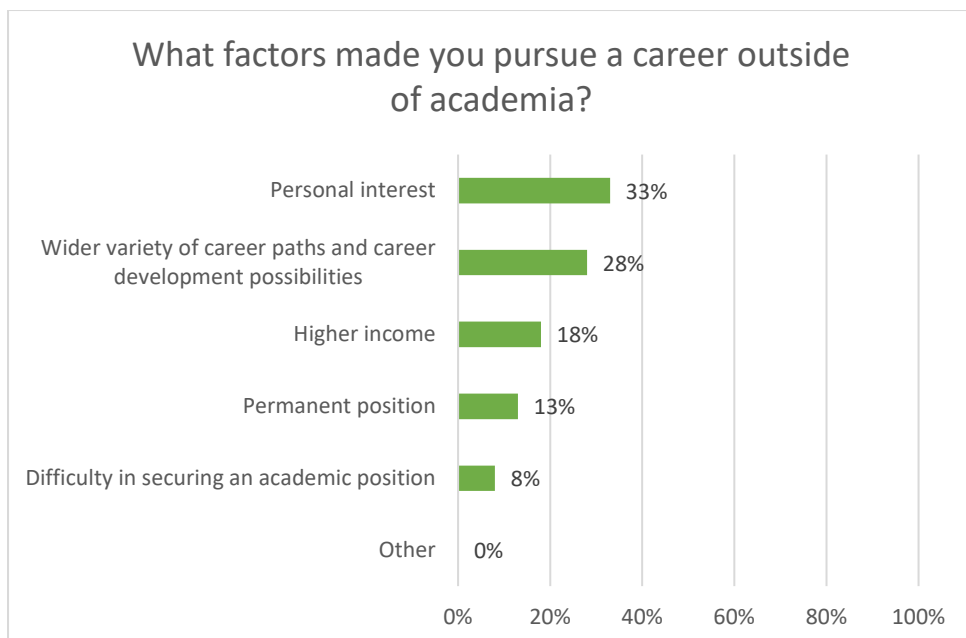


Figure 2: What factors made you pursue a career outside of academia?

The most important factors in the decision to pursue a career outside of academia were personal interest and a wider variety of career paths and career development possibilities (61%).

2.2. Having a PhD degree in working life

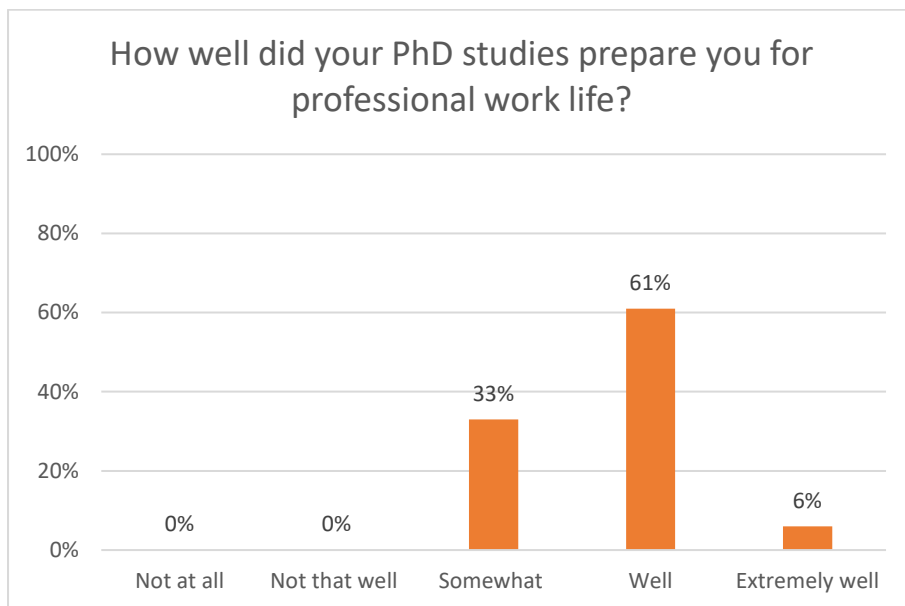


Figure 3: How well did your PhD studies prepare you for professional work life?

A clear majority of the respondents (67%) felt that their PhD studies had prepared them well or extremely well for professional working life.

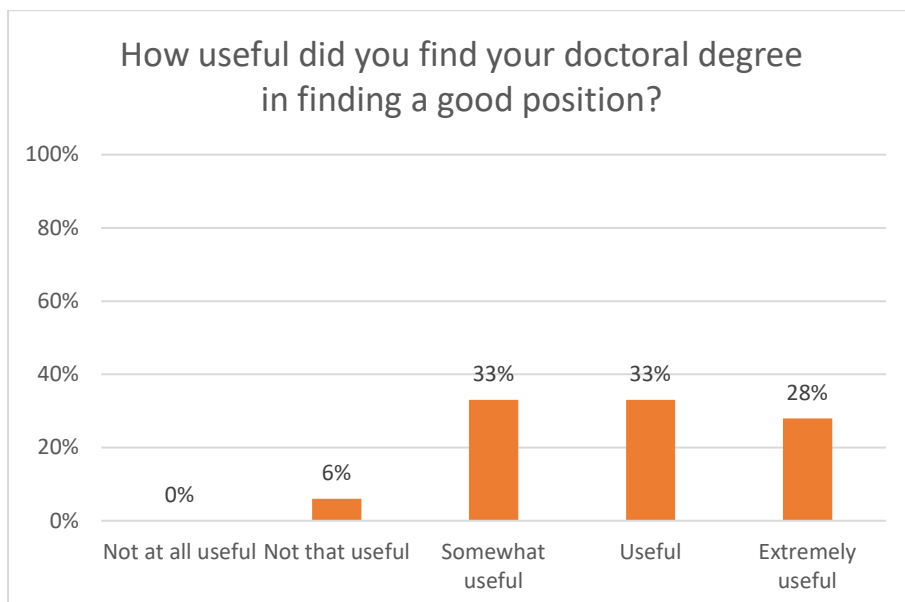


Figure 4: How useful did you find your doctoral degree in finding a good position?

Over half of the respondents (61%) considered their doctoral degree useful or extremely useful in finding a good position.

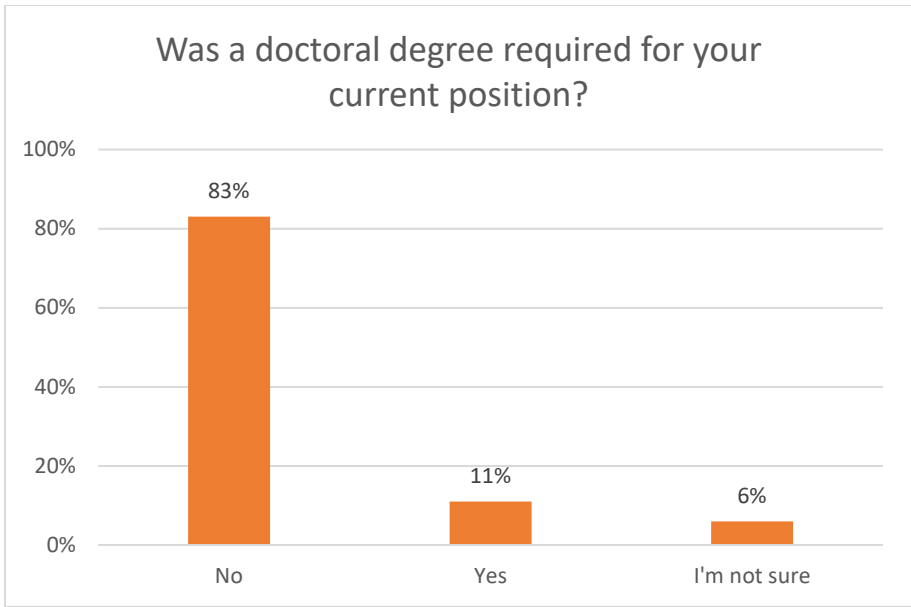


Figure 5: Was a doctoral degree required for your current position?

83% reported that their current position did not require a doctoral degree.

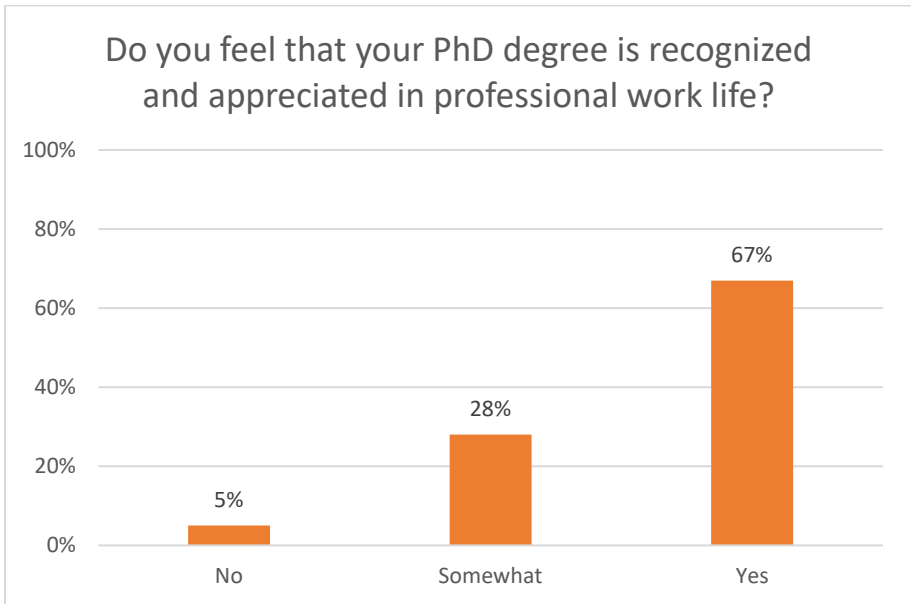


Figure 6: Do you feel that your PhD degree is recognized and appreciated in professional work life?

A clear majority (67%) of the respondents found that their PhD degree is recognized and appreciated in professional work life.

What kind of added value have you gained in your career by having a PhD degree?

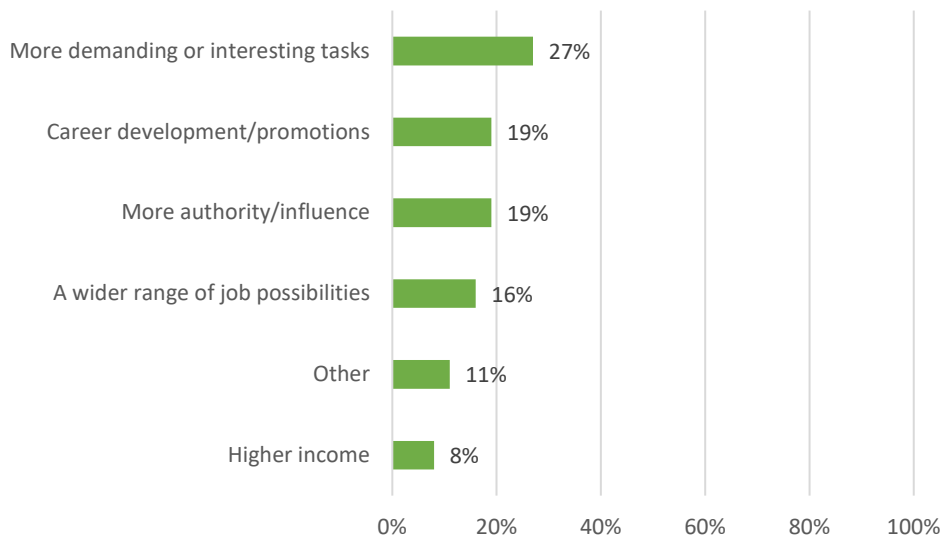


Figure 7: What kind of added value have you gained in your career by having a PhD degree?

The most important added value gained in one's career by having a PhD degree were more demanding and interesting tasks (27%), career development and promotions (19%), more authority and influence (19%) and a wider range of job possibilities (16%)

3. Skills acquired during PhD studies

How well are you able to apply the skills and knowledge learned/obtained during doctoral studies in your career?

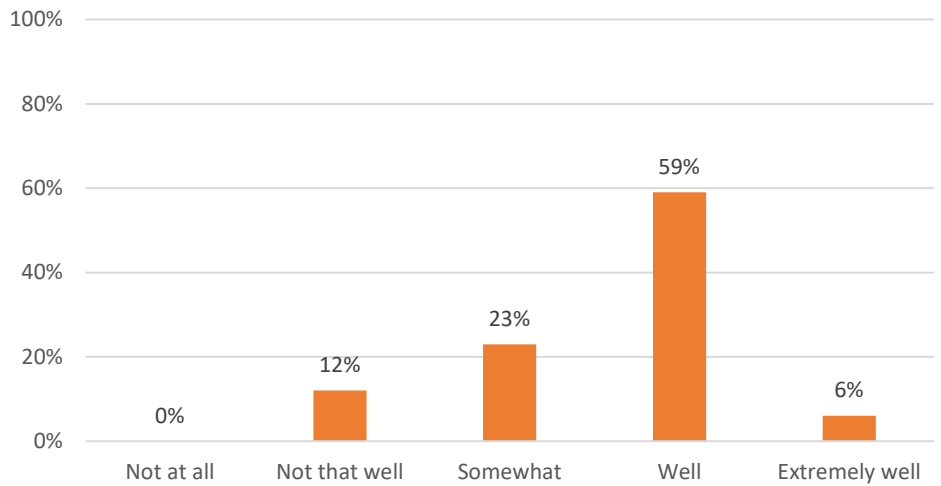


Figure 8: How well are you able to apply the skills and knowledge learned/obtained during doctoral studies in your career?

Nearly two-thirds (65%) of the respondents said that they were able to apply the skills and knowledge learned/obtained during doctoral studies well or extremely well in their career.

3.1 The importance of research-based skills and knowledge

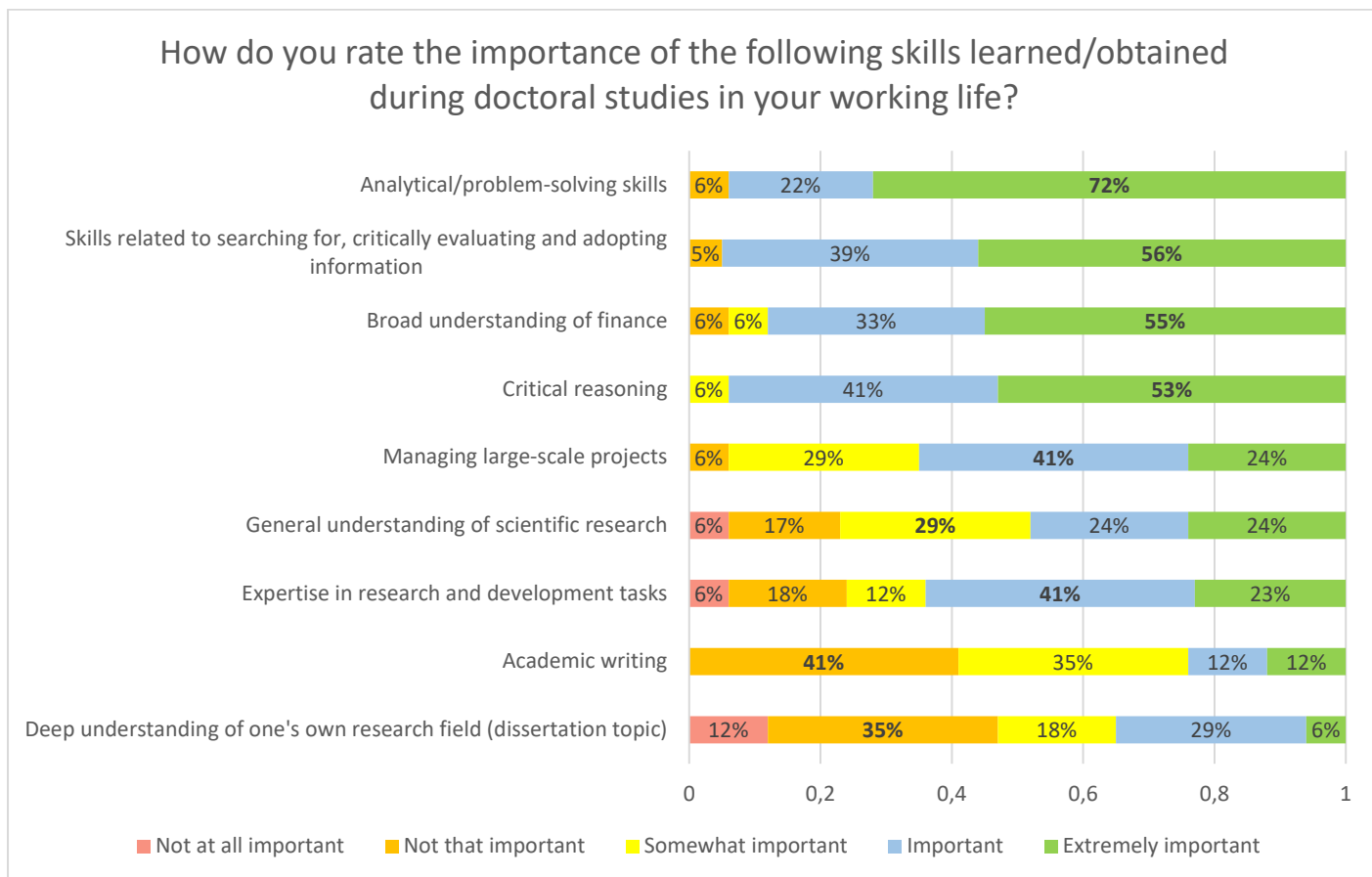


Figure 9: How do you rate the importance of the following skills learned/obtained during doctoral studies in your working life?

The research-based abilities learned/obtained during PhD studies that the majority of the respondents considered as extremely important in their working life were 1) analytical/problem-solving skills (72%), 2) skills related to searching for, critically evaluating and adopting information (56%), 3) broad understanding of finance (55%) and 4) critical reasoning (53%).

3.2. The importance of skills related to personal development

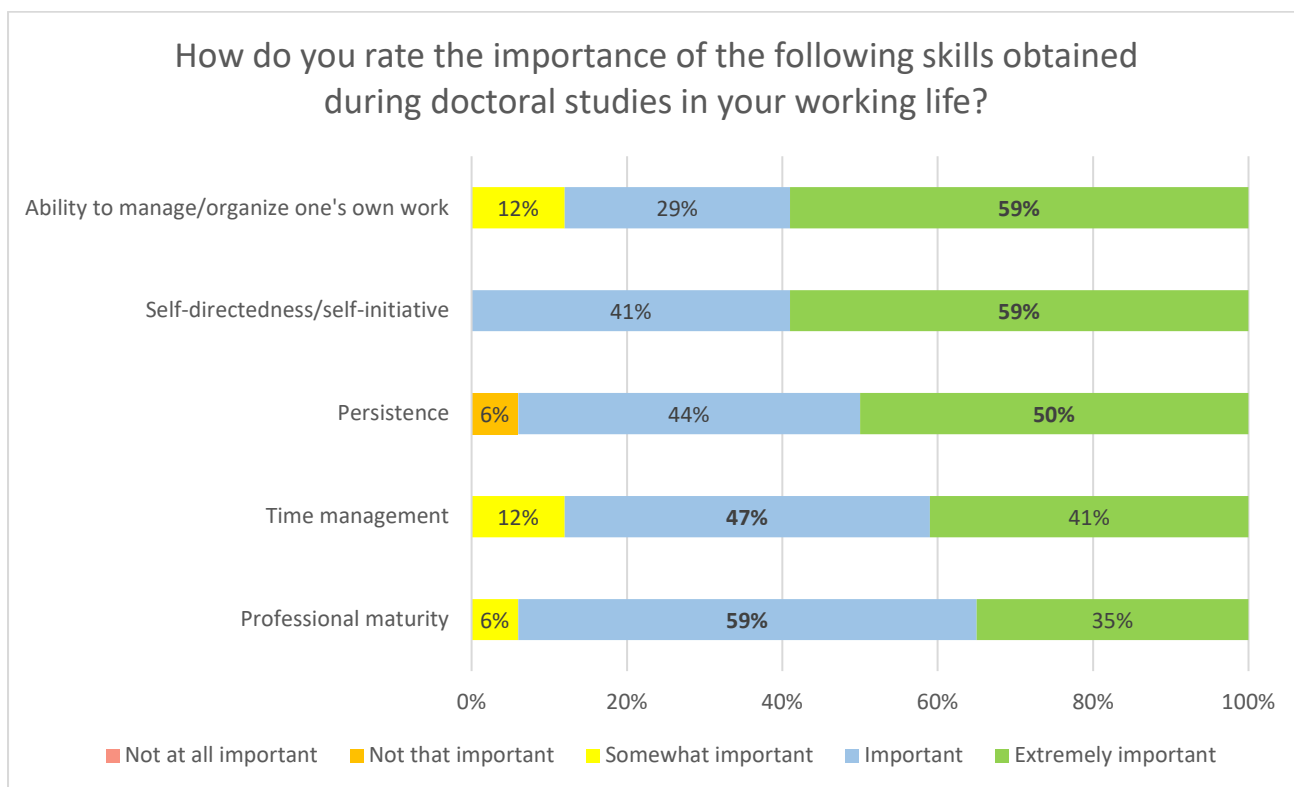


Figure 10: How do you rate the importance of the following skills obtained during doctoral studies in your working life?

The skills related to personal development obtained during one's doctoral studies that were considered extremely important by the majority of the respondents were 1) the ability to manage/organize one's own work (59%), 2) self-directedness/self-initiative (59%) and 3) persistence (50%).

3.3. Networking and communication skills learned during PhD studies

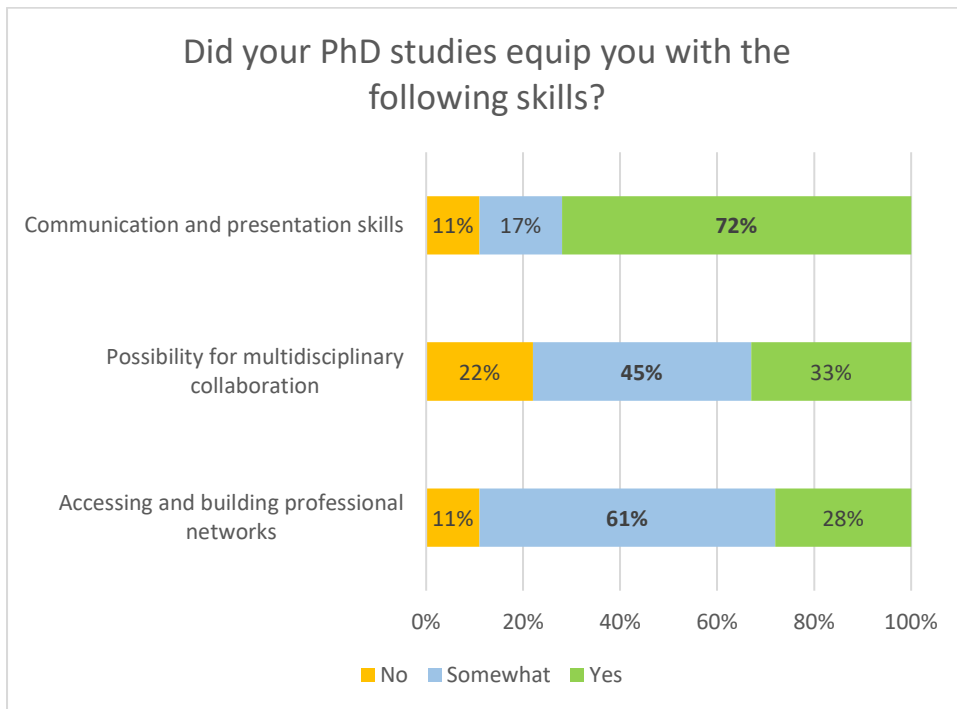


Figure 11: Did your PhD studies equip you with the following skills?

A clear majority of the graduates (72 %) felt that their PhD studies had equipped them with communication and presentation skills. 61% felt that they had somewhat learned to access and build professional networks. The answers regarding the possibility for multidisciplinary collaboration were more varied, 45% felt they were somewhat equipped with these skills.

4. Implications of a PhD degree to one’s current position

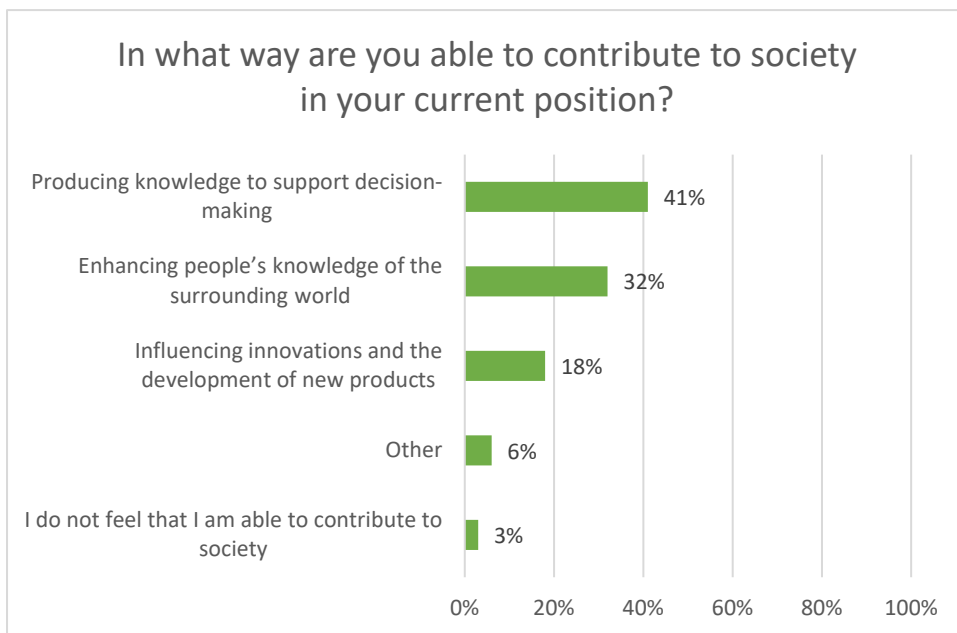


Figure 12: In what way are you able to contribute to society in your current position?

The most important ways that the graduates felt that they were able to contribute to society in their current position were producing knowledge to support decision-making (41%) and enhancing people’s knowledge of the surrounding world (32%).

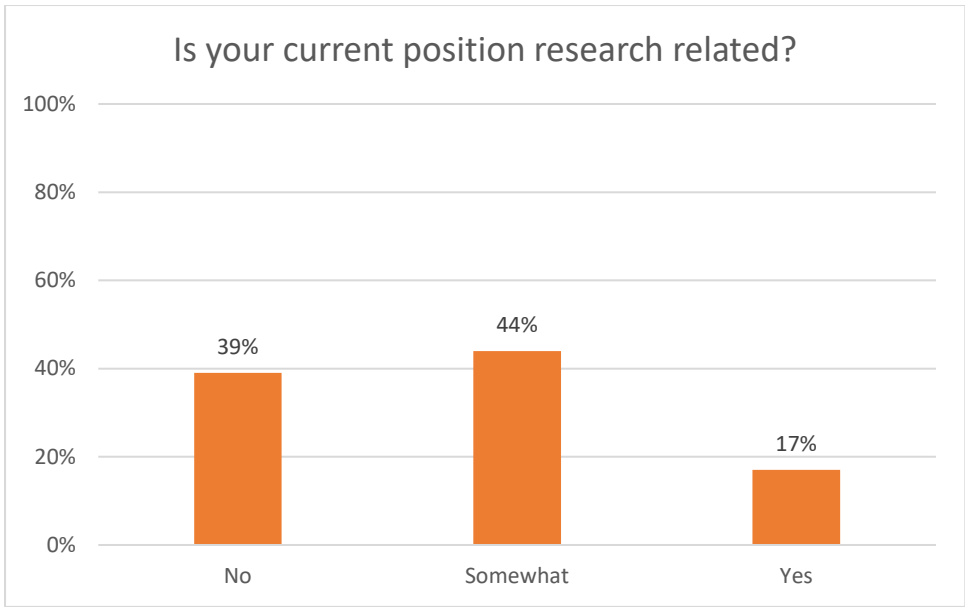


Figure 13: Is your current position research related?

Most of the respondents' current positions were either somewhat (44%) or not at all (39%) research related.

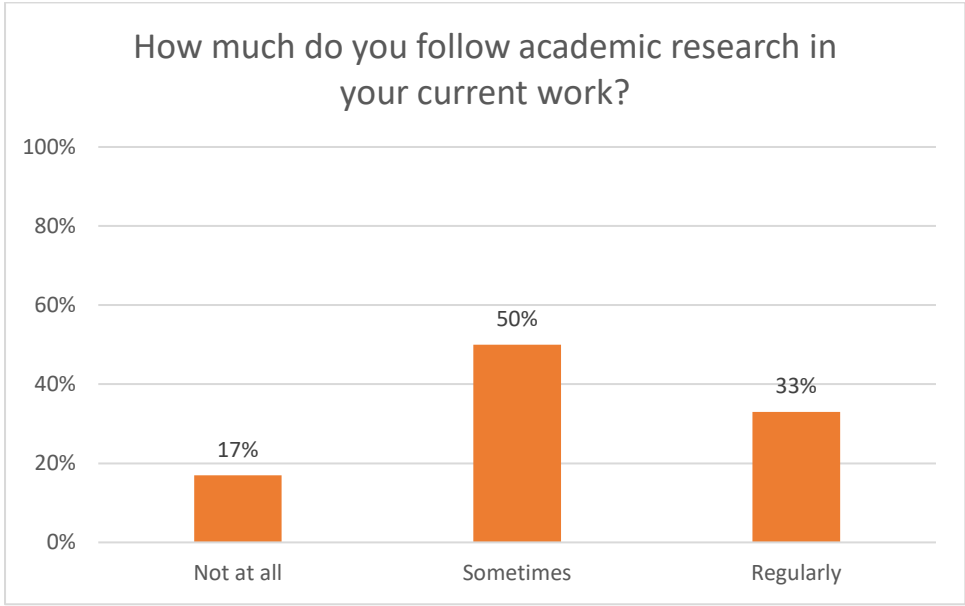


Figure 14: How much do you follow academic research in your current work?

Overwhelming majority (83%) of the respondents followed academic research in their current work either regularly or sometimes.

5. Respondents' open comments on knowledge and skills supporting non-academic careers after PhD studies

Two main themes could be found among the responses to the questions regarding what kind of knowledge or skills could/should be included in doctoral education to support non-academic career options.

Firstly, the graduates brought up the usefulness of including more IT, math and data management skills in doctoral education. Here are some of the open answers to the question about what should/could be included in doctoral education:

"Math skills, IT skills."

"Introduction to industry IT systems."

"Data management skills e.g. handling large data sets in data bases or data warehouses"

Secondly, presentation and communication skills were also mentioned in several answers as skills that could/should be included more in doctoral education. Here are some of the respondents' comments:

"I'd say presentation skills, both written and verbal, how to communicate complex messages to non-professional audience."

"Communication, being able to "sell" your idea. In short, the skill of having an elevator speech and explaining complexities in easy-to-understand ways would be very useful."

"Presentation skills, argumentation skills etc."

In Appendix 1 you can find more open comments.

References

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Appendix 1: Examples of Open Comments

17. Please feel free to write your own thoughts about the experiences of your doctoral studies from the point of view of working in a non-academic position and the importance of your degree in working life.

- “Do not know if the PhD studies has helped, expect indirectly - as I grew as an expert in my field during the studies. Large project which outcome was only dependent on myself.”
- “We have an overflow of financial data and an overflow of market research. The ability to scrutinise and evaluate external research often requires theoretical and methodological knowledge beyond M.Sc.-level. The same holds for the ability to do quality in-house market research, and the ability to critically evaluate academic research of interest. Customers are also becoming increasingly knowledgeable, where M.Sc.-level skills might fall short. Finally, financial markets and products are becoming increasingly complex, and to have some solid ground under your feet I believe financial theory and empirical research are more important than ever to understand the world around us. In my team of around 20 investment professionals, not everyone needs a Ph.D. but 2-3 is useful to have.”
- “Analytical thinking and ability to critical thinking are the key general skills learnt via PhD studies. Technical as well as deep and wide understanding of the finance theory has also been useful. I have been working with multiple PhDs in my non-academic jobs and that also shows that if not a prerequisite, at least higher academic education is not uncommon in leading positions in business world.”
- “Having a degree does not either mean immediate "value" for the employer. Especially straight out of graduate school your tasks would not been any different than a person of similar age. However, as you build on the perception, you engage in much deeper dialogue and critical thinking, that voice starts to get heard. I have personally had a vast amount of use of these skills and had the courage (important!!!) to question old ways of working.”
- “1. Analytical thinking
2. Time management
3. Presentation skills”
- “The most useful transferable skills have related to overall critical and analytical thinking and communication (writing and presentation) skills. The transition is nonetheless difficult as most non-academic organisations are not used to evaluating academic CV's. Makes a PhD recruitment often appear as a 'riskier choice'. Very few possibilities to build relevant network and bridge the gap during PhD studies (for fully understandable reasons).”
- “A good starting point for self-development that needs to continue throughout your entire life.”
- “Although PhD degree is not required in the position where I am currently working, I feel that the degree has made me more attractive employee and boosted my work opportunities.”

18. In your opinion what type of knowledge or skills could/should be included in the doctoral education to support non-academic career options?

- "Math skills, IT skills."
- "Difficult question, as it can be debated if these skills should be included in the degree or not in the first place. But I'd say presentation skills, both written and verbal, how to communicate complex messages to non-professional audience."
- "Since I did my PhD studies alongside a non-academic career, I was able to gain merits and knowledge of more practical work experience whilst also completing my academic studies. The combination has been beneficial for sure and to avoid a reputation of a possibly too theoretical person. I have also kept teaching at university since graduation and that way been able to keep my connections also to academia."
- "Communication, being able to "sell" your idea. Nobody cares about details, you need to be able crystallize and summarize, while giving attention to detail; in short, the skill of having an elevator speech and explain complexities in easy-to-understand ways would be very useful. These tend to be personal traits but should be a key learning as well."
- "1. Industry regulations and present challenges
2. Practical risk management
3. Introduction to industry IT systems
4. In general, I think that both academia and industry would win in exchanging experience. It can be done by putting people from academia to industry (and vice versa) for short terms to participate in some projects."
- "Doctoral education prepares (and should prepare) for an academic career. I.e., program should be optimized for academic needs. However, strengthening ties between industry and academia at a departmental level brings positive effects, including the enhancement of non-academic career options for PhDs."
- "Project management education. During the studies, the student learns to handle large amount of information - it is kind of a "project". There could be common project management course included in the education to learn the practices of project management. It is an asset in business life."
- "Presentation skills, argumentation skills etc."
- " Data management skills e.g. handling large data sets in data bases or data warehouses."

GSF **The Graduate School of Finance**
Questionnaire to Graduates Working in Non-Academic Positions

1. Year of doctoral graduation

Effect of PhD on employment

2. How well did your PhD studies prepare you for professional work life?

- Not at all
- Not that well
- Somewhat
- Well
- Extremely well

3. How useful did you find your doctoral degree in finding a good position?

- Not at all useful
- Not that useful
- Somewhat useful
- Useful
- Extremely useful

4. Do you feel that your PhD degree is recognized and appreciated in professional work life?

- No
- Somewhat
- Yes

5. At what point did you decide on a career outside of academia?

- Before my studies
- During my studies
- While writing my dissertation
- After graduation
- Other

6. What factors made you pursue a career outside of academia?

- Difficulty in securing an academic position
- Wider variety of career paths and career development possibilities
- Higher income
- Permanent position
- Personal interest
- Other

7. What kind of added value have you gained in your career by having a PhD degree?

- Career development/promotions
- More demanding or interesting tasks
- More authority/influence
- Higher income
- A wider range of job possibilities
- Other

8. Was a doctoral degree required for your current position?

- No
- Yes
- I'm not sure

9. To what extent is your current job description related to your PhD dissertation?

- Completely related
- Somewhat related
- Not at all related
- I'm not sure

10. Is your current position research-related?



- No
- Somewhat
- Yes

Skills acquired during PhD studies



11. How well are you able to apply the skills and knowledge learned/obtained during doctoral studies in your career? (1 = not at all, 5 = extremely well)

	1 	2	3	4	5 
	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How do you rate the importance of the following skills learned/obtained during doctoral studies in your working life? (1 = not at all important, 5 = extremely important)

	1 	2	3	4	5 
Skills related to searching for, critically evaluating and adopting information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analytical/problem-solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broad understanding of finance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deep understanding of your own field of research (dissertation topic)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical reasoning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expertise in research and development tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General understanding of scientific research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing large-scale projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. How do you rate the importance of the following skills obtained during doctoral studies in your working life? (1 = not at all important, 5 = extremely important)

	1 	2	3	4	5 
Ability to manage/organize your own work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persistence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional maturity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-directedness/self-initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Did your PhD studies equip you with the following skills?

	No	Somewhat	Yes
Accessing and building professional networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possibility for multidisciplinary collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication and presentation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Current position

15. In what way are you able to contribute to society in your current position?

- Producing knowledge to support decision-making
- Influencing innovations and the development of new products
- Enhancing people's knowledge of the surrounding world
- Other
- I do not feel that I am able to contribute to society

16. How much do you follow academic research in your current work?

- Not at all
- Sometimes
- Regularly

17. Please feel free to write your own thoughts about the experiences of your doctoral studies from the point of view of working in a non-academic position and the importance of your degree in working life.

18. In your opinion what type of knowledge or skills could/should be included in the doctoral education to support non-academic career options?

19. Would you occasionally like to hear from the GSF (e.g. an annual newsletter) and to receive a report of the findings of this survey?

Your answers to the survey will remain anonymous. Your email address will not be connected to your answers.

Yes

No