Anne Marte Lunde Tobro

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Cover letter

I hereby apply to attend the NBER Entrepreneurship Research Boot Camp 2022, by the invitation I received through the IGL Research Network.

This document contains:

- Cover letter
- CV with completed PhD-courses
- Essay

The name of one recommendation letter writer is: Karen Helene Ulltveit-Moe

Most of my work in research is concerning entrepreneurship, and this boot camp would be a great opportunity to further develop my understanding of the field as well as discuss ideas with both lectures and peers.

If you require additional documents, I will be happy to provide them upon request. I appreciate your consideration and look forward to hearing from you.

Sincerely

Marte Tobro



Marte Tobro

(Full name as in passport: Anne Marte Lunde Tobro)
Address: Suhms Gate 20B, 0362 Oslo,
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E-mail: a.m.l.tobro@econ.uio.no
Date of birth: 31. July 1988

Research fields

Innovation, firm growth, entrepreneurship, firm development, RCTs,

Education

PhD student, Department of Economics, University of Oslo 2018-
- Advisors: Karen Helene Ulltveit-Moe, Andreas Moxnes
- Expected duration to 2023

MS in Economics, University of Bergen 2008-2015
- *Master thesis with focus on labor, econometrics and empirical work*[1]

Exchange program, University of Ottawa Spring 2013
UN-Academy, Arbeiderbevegelsens folkehøgskole 2007-2008
International, Fagerlia videregåendeskole 2004-2007

Work in progress

- *The effect of mentoring on start-ups, a randomized control trial,* with Andreas Moxnes and Karen Helene Ulltveit-Moe (trial protocol: https://doi.org/10.1257/rct.3874-2.0)
- *Innovation and firm performance, a natural experiment,* with Kjetil Haukås
- *The value of a team: founding teams in start-ups*

Work experience

Senior advisor, Innovation Norway 2018-
- Research on the effect of the Norwegian governmental agency for business development
- Strategic development of interventions and programs
- Costumer surveys

Analyst, Oxford Research AS 2015-2018
- Working with analysis and evaluations for both private and public sector
- Assistant project manager in a large-scale RCT about mental health in scho

Trainee at Innovation Norway, New Delhi Spring 2014
- *Working on a sector market report in solar power*
- *Managing a CSR workshop for Norwegian businesses in India*
- *Participating in conferences and seminars relevant to the office*
    - *Most recently; Delhi Sustainable Development Summit*

Teaching assistant, Department of Economics, University of Bergen 2013-2014
- *Responsible for holding seminars additional to the lectures*
- *Help the students interpret the course*

[1] URL Master thesis: http://bora.uib.no/handle/1956/9609

- *Give students further explanation and teaching on problems*
  A selection of summer and part-time jobs (Waitress, receptionist, assistant) 2001-2013

Phd-Courses

University of Oslo: ECON9300 Advanced macroeconomic theory	Aug-Dec 2019
University of Oslo: ECON9200 Advanced microeconomics	Aug-Dec 2019
University of Stavanger: PHD416 Randomized controlled trials in the social sciences.	Sept 2019
Tinbergen institute: Research on productivity, trade, and Growth: Theory and Practice	July 2019
University of Oslo: ECON9106 Advanced applied econometrics	Aug-Dec 2018
University of Oslo: UV9257U – Multilevel and Longitudinal Modeling	May 2018
Structural Equation Modelling (SEM), Stata Nordic	Feb 2017

Language skills

Norwegian	Native
English	Excellent skills (Band 8 of 9 in IELTS test in 2013)
Italian	Elementary skills

Software

STATA, LATEX, R, Microsoft Office package

Essay

Marte Tobro

My research has a twofold focus: The growth and development of firms and the interventions government do to promote such development. I am particularly interested in startups and young firms, the constraints they face and what sort fo policy interventions can be done to facilitate survival continued growth for these firms. I approach this work using different empirical methods, including traditional econometric approaches and in one paper I have a randomized control trial (RCT) to identify causal effects of one particular intervention. In my thesis I work with a partner organization, Innovation Norway, who is the Norwegian governmental agency for supporting startups and innovation in firms. Working with this organization have peaked my interest in entrepreneurship and statups, and in my third project I want to learn more about their criteria for success, particular about the importance of entrepreneurial teams.

The bootcamp is relevant for all my projects, both for understanding the needs and decisions made by a businesses in the early stages of development. When I try to identify the causal effect of interventions, it is important to understand the mechanisms of the intervention and how it effects the entrepreneurs. To understand these mechanisms I need to understand the decision process for the entrepreneurs, and the challenges they face.

In this essay I will first describe my projects so far in my thesis, then discuss my future research.

The effect of mentoring

The randomized controlled trial (RCT) is a study on the effects of mentoring on small and medium start-ups in Norway. We aim to get a better understanding of firm development and dynamics in the presence of public interventions. Does mentoring affect firm performance and firm-survival? Does it matter what type of state aid a firm is granted; mentoring versus the financial equivalent of the service? The trial is a three-armed parallel randomized control trial. The first group will receive mentoring; the second group will receive the financial equivalent to the cost of the mentoring, and the third group is a control. The population consists of small and medium-sized enterprises who have applied for and been granted financial support from the Norwegian governmental agency Innovation Norway, who is our partner in this project. The total sample size is 300 firms established less than 5 years before trial start. Exploiting rich data based on a set of matched register data, we will analyze both firm performance and external effects using a wide set of outcomes and measures. We will have information both about the firms and the people connected to the firms by employment, ownership or board members and information about the mentors.To address the impact of the interventions on firm performance we shall analyze a range of outcomes such as new investors (increase in equity), revenue growth, growth in the number of employees, survival, productivity, and patents. We will assess outcomes twice after the intervention to study both short-term results and long-term results. The randomization was completed in October 2019, and we are now waiting on data to analyze the results. The trial is registered at the American Economic Association, with trial number AEARCTR-0003874.

Causal effect of financial interventions on firm performance

Innovation Norway has a broad portfolio of services, supporting start-ups, investments in risky projects and promoting export activities. Innovation Norway also support political objectives, such as regional development and green investments. To facilitate the best use of taxpayers money, it is important to learn which interventions have an effect, and where Innovation Norway should prioritize their funds in the future.

It is not always convenient to run a RCT, so in a joint effort with my fellow Ph.D. student Kjetil Haukås, we explore other identifications to find causal effects of these interventions.

In this paper, we focus on activities targeting high-risk innovation projects with capital and the effect this has on firm performance. Since the programs are available to firms by application, there follow some endogenity issues. Both the decision to apply for funds, and the decision to grant funds are non-random. Every firm chooses whether or not to apply for capital from Innovation Norway and is therefor self-selected into our sample. We do not know why these firms chose to apply for funding while others did not. Among those who did choose not to apply, some may have received funding elsewhere and thus didn't need governmental support for their innovation project, other firms may not have the same motivation for investing in innovation and thus choose not to apply. The selection bias is therefore connected to an omitted unobservable variable, which is the motivation for applying for funds provided by Innovation Norway. To manage this selection bias we use the geographical border of regional aid, in which area firms are eligible to apply for more funding. We argue that the instrument passes the exclusion restriction after controlling for observables using administrative data on both the firm and the individuals connected to the firms.

Entrepreneurship and teams

The interest for attending this bootcamp is primarily driven by the third project I have in progress. In this project I want to investigate the entrepreneurial team and the founding teams of the startup. In economics we frequently discuss either the firm or one individual when talking about entrepreneurship, but most often there is a larger team behind the successful firm. In discussions with the advisers at Innovation Norway, they always underline the importance of the team when deciding on weather to approve a project for funding, and the same discussions are held by other investors and other stakeholders. If a startup lack the necessary skills to commercialize an idea, they will likely not succeed.

Entrepreneurship is a complex area to research, and it would be great to get some insight to disentangle this complexity. Just trying to define who the entrepreneurial team is, has proven to be a challenge. The world of the entrepreneur have many dimensions and stakeholders that should be considered. For different sectors, entrepreneurship can be a quite heterogeneous group which can introduce additional concerns in research. I am especially interested in increasing my theoretical knowledge about how entrepreneurship develop in early years. I want to get a better understanding of how previous and current works deals with these issues, and how these works can strengthen my own research. The bootcamp will give me a great oppurtunity to discuss my ideas with both the lectures and my peers.

My final research question is not yet formulated, but I've always been curious about this topic and would love the opportunity to learn more.

Karen Helene Ulltveit-Moe
Department of Economics, University of Oslo
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Brett Maranjian
maranjian@nber.org

January 19, 2022

To whom it may concern

I would like to recommend my PhD student Marte Tobro to the NBER Entrepreneurship Research Boot Camp.

I got to know Marte before she started the Ph.D. program at the Department of Economics at the University of Oslo in 2018. At this time she was working for a consultancy firm and had been involved in evaluations of the business support programs run by Innovation Norway. Innovation Norway is the government agency responsible for the majority of business support from the state with the objective to foster innovation and entrepreneurship. At this point she was already eager to use randomized controlled trials for evaluation, and had developed a research idea for a randomized control trial which she presented at the Innovation Growth Lab conference in Barcelona.

Andreas Moxnes and I had at the same time started a cooperation with Innovation Norway in order to be able to research on stated aid directed towards firms. Realizing that we would gain a lot from cooperation with Marte, we ensured funding for a phd scholarship.

We are currently running our first RCT with a structure that is based on the one Marte presented in Barcelona. In the trial, we test the impact of a mentor program for startups. Marte is in charge of overlooking the work with the trial, and research papers focusing on the outcomes of the RCT will be the central part of Marte's PhD thesis. It goes without saying that running a trial is demanding and requires careful management and follow-up of stakeholders and participants. Marte has done a great job on this. She has also handled issues of practical, financial, ethical, and legal nature before the start of randomization. Marte has handled these issues with great proficiency. Another important part of running a randomized control trial is the communication between the researchers and the organization being researched, and to facilitate understanding of the key elements of a RCT. Marte has played a key role here.

Marte came to the Ph.D. program with a very specific research question in mind and have through her curiosity and work with the trial and mentor program delved deeper into the entrepreneurship literature. She wants to continue her research on the determinants of success for startups, and in particular to investigate how the startup team and composition of the team and network affect performance.

I believe Marte will gain a lot from being allowed to participate at the bootcamp. Her "hands-on" background from working with evaluations of business support has given her insights that are essential for the development and design of RCTs. I therefore believe that with her background and interests she will interact well and make valuable contributions to the discussions at the bootcamp.

Best regards

Karen Helene Ulltveit-Moe

Professor