Andreas Menzel 25.03.2013

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Application for NBER Entrepreneurship Research Boot Camp 2013

Dear Sir or Madam

Herewith, I would like to apply for the NBER Entrepreneurship Research Boot Camp 2013. I am in the third year of my Ph.D. in economics at University of Warwick, UK, where I am writing my dissertation under the supervision of Christopher Woodruff and Rocco Macchiavello. I am expecting to be on the job market in Winter 2014/15.

My research focuses on management, HR practices and communication within firms. I am currently involved in two research projects in the Bangladeshi garment industry, one of them joint with my two supervisors. Both projects are described in more detail in the essay and my CV, which are attached to this application.

I am particularly interested in industrial development in developing countries. Successful industrial development in many emerging economics like Bangladesh is often driven by local entrepreneurs, who pursue their idea of establishing a business despite often very adverse circumstances, poor infrastructure and poor institutions. Understanding their motives and the way they deal with the challenges they face is essential for understanding the factors that drive successful growth stories.

Participating in the Research Boot Camp would enable me to meet some of the most relevant scholars for my work, especially several scholars that study entrepreneurship in the context of developing countries. The work of John Haltiwanger, John Van Reenen or Antoinette Schoar, among others, has already provided me with much of the basis for my current research. Spending several days in close contact with these scholars and other researchers in the field of entrepreneurship would significantly increase the quality of my research.

Christopher Woodruff kindly provided a recommendation letter for my application.

I am looking forward to hearing from you,

Sincerely,

Andreas Menzel

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Christopher Woodruff, Professor

24 March 2013

Professor Thomas Hellman
Coordinator, NBER / Kauffman Foundation Entrepreneurship Bootcamp

Dear Thomas:

I write to recommend Andreas Menzel for the 2013 version of the NBER Entrepreneurship Bootcamp. I have worked closely with Andreas over the past two years, both on his dissertation an in a field project in the ready-made garment sector in Bangladesh. Andreas is both very smart and very creative. I believe both our joint work and the project he has identified will be significant advances in the way we think about management of large organisations in developing countries.

I forwarded the announcement for the Bootcamp to Andreas as soon as I received it, because I am convinced he is really an ideal candidate for the program. For the past two years, together with Rocco Macchiavello and Robby Akerlof, I have organised a reading group on firms at Warwick. Andreas has been an active participant in the reading group. At this point, he clearly has the best insight of any of the dozen or so PhD students participating in the group. This gives me confidence in saying that Andreas would contribute to the discussions at the Bootcamp. I will also point out that we organised the reading group in part because the PhD program Andreas is in does not include field courses The lack of field courses is part of the reason that Andreas would also benefit greatly from the exposure to the broader literature the Bootcamp would provide to him. Hence, he is really an ideal candidate from the perspective of both his contribution and your value added.

I hope that perhaps by this point in the letter, you will skip down to my summary recommendation and admit Andreas, because he really is a perfect candidate for the program. But let me describe briefly the work that Andreas, Rocco and I are doing jointly, and then the project that Andreas has identified to work on himself. Rocco and I began a project two years ago looking at management decision-making in the ready made garment (RMG) sector in Bangladesh. Working with the German overseas aid agency GIZ, we are offering a training program to transition sewing machine operators into line supervisors in almost 100 RMG factories. Around 80 percent of machine operators in the sector are female, but only about 5 percent of supervisors are female. Four in five of our trainees are female. This, we are interested not only in the effect of training on firm performance, but also the effect of females in management. Rocco and I needed someone to go to the field to implement the project, and Andreas seemed like an ideal candidate. With about 20 months of experience

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working with him on the project, I am convinced that the decision to involve Andreas was the right one. He has been a valuable contributor to the project, especially in managing the production data we obtain from the factories.

Indeed, a primary motivation for undertaking the project is that it gives us access to very detailed administrative data from a large number of factories, combined with access to conduct surveys, management exercises and other activities in the factories. We expect that this will result a unique data set which will allow us to write many papers on management and productivity in a developing country context. Working completely on his own, Andreas has identified one such paper. Working with data from one very large factory, Andreas noticed that the when a production line begins to produce a new style, a period of four to six days is required to reach full output on the line. However, if another line in the factory has produced the same product at an earlier point in time, then the learning period is shortened. How much more quickly the line reaches maximum output depends on the proximity of the other line with production experience, and also on the complexity of the product being produced. These observations are the starting point for a project on learning within the organisation. Andreas is currently in Bangladesh in part to identify another factory or two where he might pursue this issues with much more detailed information, including network maps of the line supervisors, information on decision making and allocation of products to lines with in the factory, etc. There is a long way to go here, but I am encouraged that he has been able to identify an interest issue, relate it to the literature, and think about how to design the full project to understand the issue.

The issues Andreas is focused on are at the core of entrepreneurship in the RMG sector. The ability to learn across lines is a function of communication within the factory. And communication is critical for delegation of decision making, expansion of scale, and so forth. Andreas has spent a large amount of time in the factories, and even more time working with detailed, line-level production data. This gives him an ability to absorb literature through the lens of these data, and makes a program like the Bootcamp especially valuable at this point in his research.

In sum, I recommend Andreas to you most enthusiastically. He is the best candidate I have recommended for the program to date. I believe Andreas would both benefit from and contribute to your program. If I can be of further assistance, please don’t hesitate to contact me at c.woodruff@warwick.ac.uk.

Sincerely,

Chris Woodruff

Essay

I would like to attend the NBER Entrepreneurship Research Boot Camp 2013, as it is highly relevant to my Ph.D. dissertation, which is on the effects of HR practices and communication within firms. Currently, I am working on two projects, which are both conducted using data and studies from the Bangladeshi garment industry. In the first project (joint with Christopher Woodruff and Rocco Macchiavello), we randomly allocate vocational training to workers in more than 50 garment factories. In addition to studying whether training increases the productivity of the factories which employ the workers and improves the career prospects of the recipients of the training, the project also addresses a few subtler questions. The first of these is to what extent do workers stay with the factories that invested in their human capital? This question is central to much of the literature on on-the-job training and general human capital provision (i.e. Acemoglu and Pischke, 1999). The second question is why hardly any women are employed in the ranks from the lowest supervisory ranks upwards, despite the large majority of workers in the garment industry being female. By exogenously increasing the likelihood of promotion of female workers into supervisory ranks, we study whether the differential employment of sexes in different levels of the firm hierarchy is due to cultural norms, which hold back the productivity of the firm, or whether this is consistent with profit maximization. Finally, we can study whether the promotion of women into supervisory positions increases the aspiration of other women to further their own careers or the careers of their daughters.

The second research project I am working on looks at communication patterns within organizations, again using data from large garment factories in Bangladesh. I exploit the design of these garment factories, which are split into many production lines, which produce orders independently and in parallel for different buyers. In this project, I am interested to what extent knowledge gained in the production for a certain order at one production line is transferred to other production lines when they start production for the same order as well. I proxy knowledge (or experience) gained in the production for a certain order by the cumulative output of the ordered product on a line. Essentially, the study tries to determine whether there is a positive effect on the productivity of a certain production line if other production lines have already produced the same product. Exploiting variation in the technical complexity of the order and the "value" of its buyer, I try to find out more about the mechanisms that explain differing levels of knowledge transfer within factories. On the one hand, transfer, or sharing, of knowledge within factories could be driven by a need to economize on the acquisition of costly knowledge, as described for example in Garicano (2000). This would imply that knowledge transfers are especially strong with technically complex products. On the other hand, workers in the factory could face differing incentives to share their knowledge about production processes. Here, I would like to test the hypothesis that workers in principle do not have incentives to share knowledge, and they only do so if the factory management provides countervailing incentives, i.e. to ensure the efficient production of an order for an especially important buyer.

The research questions outlined above directly relate to the topic of entrepreneurship. The question raised in the first project, whether cultural norms that we observe entrepreneurs sticking to are actually impeding productivity, is important in understanding the motivation of entrepreneurs. The question raised in the second project, whether communication within a factory is explained by incentives or by cost considerations, is important in understanding how organizations function internally. Not only must entrepreneurs deal on product and factor markets, but they are also faced with organizing their "enterprise", minimizing the production costs in it. The efficient exploitation of knowledge gained in the production process, as studied in the second research project, is an important element to be considered when making these organizational decisions.

I am particularly interested in attending the Boot Camp as several of the scholars mentioned in the preliminary line-up are of direct relevance to my research. Antoinette Schoar (2011) studied the effects of a compliance course attended by lower- and mid-level managers of garment factories in Cambodia. While being complementary to our training intervention in terms of the hierarchical level of the targeted workers, this study was instrumental in motivating our study of the randomized provision of training to garment workers. William Kerr's recent paper (with co-authors Ghani et al., 2012) showing how initially higher rates of female entrepreneurship in India encourages the subsequent entry of further female entrepreneurs is also closely related to our research. It documents how female role-models affect the career choice of other women. John van Reenen's extensive work with co-authors on the effect of cultural and institutional factors on delegation, communication and management within firms (i.e. Bloom et al., 2012) is of direct relevance to my work on Bangladeshi garment factories. Furthermore, his expertise on conducting surveys of organizations (Bloom & van Reenen, 2010) is at least as valuable for my future work as the aforementioned study. Finally, Thomas Hellmann's work on the theory of innovation generation processes within the firm (Hellmann and Perotti, 2011; Hellmann and Thiele, 2011), which stresses that ideas need to circulate within firms to be completed successfully, provides important ideas for modelling the process of communicating knowledge gained in the production process within firms. Meeting these authors would be very conducive for successfully finishing the work on the projects that I am involved in.

Regarding future work on my dissertation, I would especially like to extend my work on the second project mentioned above in two directions. I am planning to collect detailed, survey based information on social and communication networks within the factories that I study in order to find out to what extent they predict knowledge transfers within each factory. Furthermore, I would like to develop a model nesting the mechanisms that I have in mind regarding intra-firm communication, which could be driven either by the fact that acquiring knowledge is costly, or by differing incentives to communicate amongst workers. Looking further ahead into the future, I wish to keep doing research on industrialization in developing countries, with a particular emphasis on studying development within the garment sector. The garment sector is often the first export oriented industrial sector to develop in non-industrialized countries. Many of the development "success stories" in the last few decades have started with the successful growth of a local, export led garment sector. Given that this sector has developed in environments with very differing institutions and cultures, I find it highly interesting to study how culture, norms and institutions affect the success of this crucial sector.

References:

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Bloom, Nicholas, Raffaella Sadun and John Van Reenen (2012): "The Organization of Firms across Countries", *The Quarterly Journal of Economics* 127 (4): pp. 1663-1075

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Garicano, Luis (2000): "Hierarchies and the Organization of Knowledge in Production", *Journal of Political Economy* 108 (5), pp. 874-904

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Hellmann, Thomas and Enrico Perotti (2011): "The Circulation of Ideas in Firms and Markets", *Management Science* 57 (10), pp. 1813 – 1826

Hellmann, Thomas and Veikko Thiele (2011), "Incentives and Innovation: A Multi-tasking Approach", *American Economic Journal: Microeconomics* 3, pp. 78–128

Schoar, Antoinette (2011) "The Importance of Being Nice: Evidence from a Supervisory Training Program in Cambodia," mimeo, MIT

CV: Andreas Menzel **March 2013**

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Personal:

Date of Birth: 22/04/1984

Nationality: German

Education:

Since 10/2010: University of Warwick, United Kingdom

Ph.D. Economics

Expected Date of Graduation: Summer 2014

Supervision: Prof. C. Woodruff, Dr. R. Macchiavello

09/2009 – 09/2010: Tilburg University, Netherlands

Master of Science, International Economics and Finance

"cum laude"

Master Thesis: "On the Effect of Natural Resource Abundance on Corruption and Institutional Quality, a Within-country Data Approach",

Supervision: Dr. B. Goderis

10/2006 – 08/2009: Humboldt University Berlin, Germany
Bachelor of Science, Economics

Final grade: "Very Good"/ "A"

Grants and Stipends:

Since 10/2011: ESRC DTC Doctoral Students Stipend

(until 10/2014)

Courses taken:

Ph.D. Courses:	- Advanced Microeconomic Theory	(B. Dutta/ H. Polemarchakis)
(all completed)	- Advanced Macroeconomic Theory	(P. Monteiro/ F. Di Pace/ C. Woodruff)
	- Advanced Econometric Theory	(V. Corradi/ M. Pitt)
	- Empirical Microeconomics	(F. Waldinger/ G. Crawford)
	- Development Economics	(C. Woodruff)

Work Experience and Internships:

Since 03/2011: Research Assistant

Prof. C. Woodruff, University of Warwick

Tasks: - Field work in Bangladesh for setting up a randomized control trial in the garment industry

- Data Administration

14/06 – 03/09/2010: Internship, full time

"KfW – Kreditanstalt für Wiederaufbau Entwicklungsbank"

(German Bank for Development Cooperation)

Task: Conducting an in-house study on the application of the Log-Frame approach in the project monitoring at the KfW - Entwicklungsbank

25/08 – 03/10/2008: Internship, full time

"Senatsverwaltung für Wirtschaft, Technologie und Frauen, Berlin"

(Department for Economic Affairs and Technology of the State Berlin)

Tasks: - Collecting economic data, evaluating scientific studies

- Formulating memos for supervisors

- Preparing documents for meetings

12/2007 – 12/2008: Student assistant, 40 h/month

Chair of Statistics, Humboldt University Berlin

Tasks: - Preparing academic events (Lectures, Evaluations)

- Int. correspondence with researchers, clients, and staff

09/2004 – 05/2005: Civil Service: Senior Residence „Haus am Weinberg", Stuttgart

Supplemental Information:

04/2006 – 09/2006:	World Travel incl. combined Spanish course and voluntary work for 8 weeks
Memberships:	since 1995: DLRG (German Rescue Swimming Association)
	Voluntary Rescue Swimmer, Swimming Teacher for children (till 2005)
Interests:	Economics, Politics & Society
	Travelling
IT:	MS-Office
	STATA, LaTex
Languages:	German (Native speaker)
	English (TOEFL IBT: 108)
	Spanish (Basics)

Research:

- **Evaluation of a female garment worker training program in Bangladesh (joint with C. Woodruff and R. Macchiavello)**

We evaluate a six week long training program, offered by a governmental development cooperation agency to female garment workers in the Bangladeshi Ready Made Garment (RMG) Industry, which is intended to provide the trainees with all necessary knowledge to be promoted to supervisory positions in the garment factories upon completion of the course. The training project's goals are twofold: To generally increase the supply of trained workers for supervisor positions, and to increase the number of female supervisors in the garment industry (the current situation being that ca. 80% of the workers are female but almost none of the supervisors). We evaluate the program within ca. 60 factories. Each factory nominated ca. 10 female and 4 male workers to receive the training program, from which we randomly chose four female and one male worker for the training program. We study effects on factory productivity, on the career path of the training participants, and on decisions taken in the households of the training participants.

- **Communication in Organisations: Evidence from Bangladeshi Garment Factories**

We study how knowledge about production processes acquired on the job is communicated within garment factories. Garment factories are commonly organized into several production lines, each designed to independently produce orders for different buyers. We study the effect on daily efficiency of a production line in the production of a certain order, if other production lines have already produced for the same order. We proxy knowledge (or experience) acquired in the production for a certain order by the cumulative output for that order. Exploiting variation in the technical complexity of the order and the "value" its buyer, we investigate possible mechanisms that could explain differing amounts of production knowledge communicated for different orders within factories.