March 28, 2014

Thomas Hellmann
Academic Coordinator
NBER Entrepreneurship Research Boot Camp 2014

Subject: Application for NBER Entrepreneurship Research Boot Camp (ERBC) 2014.

Dear Professor Hellmann,

I am writing to express my keen interest to participate at this year's Entrepreneurship Research Boot Camp taking place at NBER, Massachusetts, USA from July 15, 2014. I am a PhD student at the Department of Economics, University of Warwick, UK, where I have already completed my required course work. Currently I am completing my first year of field work related to my dissertation, which in turn is about firm productivity issues in developing countries. I am submitting my application for the workshop along with all the materials required.

As part of the application package, please find attached with this letter my resume that also includes the list of course work I have completed, and a statement of purpose outlining my current and future research interests. My PhD supervisor Christopher Woodruff, Professor, Department of Economics, University of Warwick, has already sent a recommendation letter for me separately to maranjian@nber.org.

As explained in my statement of purpose, the theme of NBER ERBC aligns very strongly with my research interests, and the scholars scheduled to teach there have also been working on topics very closely fitting to my research. If allowed to participate, I believe I will be highly benefitted from their lectures, which I expect to be directly relevant to my own current and future research projects.

I will be thankful if you kindly consider my application for participation at NBER ERBC 2014.

Please do let me know if you have any questions or if there is anything more I shall submit. My contact details are provided below.

I look forward to hearing from you.

Thank you.

With Best Regards,

Anik Ashraf
PhD Student
Department of Economics
University of Warwick
Coventry, CV4 7AL, UK
Email: a.ashraf@warwick.ac.uk

Mr. Anik Ashraf

Student of PhD in Economics
Department of Economics, University of Warwick, Coventry, CV4 7AL, UK
Email: a.ashraf@warwick.ac.uk

Academic Qualifications

Candidate for PhD in Economics (Class of 2012)
University of Warwick, United Kingdom

MA in Economics (2009; 82.4% mark)
University of British Columbia, Canada

BS in Economics, with minor in Mathematics (2007)
Passed with a CGPA of 3.85 on a scale of 4, and the distinction of Summa Cum Laude
North South University, Bangladesh

PhD Courses Completed

- Microeconomics
- Macroeconomics
- Advanced Econometrics
- Topics in Advance Microeconomics
- Empirical Microeconomics

Work Experience

November 2010 – Sept 2012:	In-country Economist (Bangladesh) for International Growth Centre (IGC).
June 2010 – May 2011:	Lecturer (part-time) at the Department of Economics, United International University, Bangladesh.
December 2009 – Oct 2010:	Research/Policy Officer for International Growth Centre (IGC).
September 2008 – April, 2009:	Teaching Assistant for Professor Robert Gateman for the courses Principles of Microeconomics, and Law and Economics at the Department of Economics, University of British Columbia, Canada.
November 2007 – July 2008:	Research Associate at Economic Research Group (ERG), Bangladesh.
May 2006 – August 2006:	Teaching Assistant of Applied Mathematics to Mr. Kazi Sabbir Ahmed, Lecturer, Department of Economics, North South University, Bangladesh.

Working Papers and Publications

"Pilot Intervention of Improved Cook Stoves in Rural Areas: Assessment of Effects on Fuel Use, Smoke Emission and Health", Research Monograph Series 53, Brac Research and Evaluation Division, July 2012 (with Mushfiq Mobarak, Grant Miller, et al).

"Promotion of Improved Cookstove in Rural Bangladesh", Working Paper 22, Brac Research and Evaluation Division, May 2011 (with Mushfiq Mobarak, Grant Miller, et al).

"Aging in Bangladesh: The Socio-Economic Perspective", Perspectives of Future Economists in South Asia, ed. Athula Ranasinghe, University of Colombo, Colombo, 2008 (with Raihan Shafique).

"FDI in Bangladesh and Its Impact on the Employment Sector", Equilibrium Vol. 2, Young Economists' Forum, North South University, June 2006.

Other Unpublished Research Work

"Corruption and Political Competition", Masters Research Paper, Department of Economics, University of British Columbia, Canada, July 2009 [Supervisor: Prof. Thomas Lemieux].

"The Effect of Political Risk on Black Market Premium", Undergraduate Thesis Paper, Department of Economics, North South University, October 2007 [Supervisor: Prof. Gour Gobinda Goswami].

"Jute Export: The Future Prospect for Bangladesh", Paper presented at 4th Annual Economic Conference, organized by Young Economists' Forum (YEF), North South University, June 20, 2006.

Referee For

Economic Development and Cultural Change

References

1. Christopher Woodruff
   Professor of Economics
   Department of Economics, University of Warwick
   United Kingdom
   Email: c.woodruff@warwick.ac.uk

2. Dr. Rocco MacChiavello
   Associate Professor
   Department of Economics, University of Warwick
   United Kingdom
   Email: r.macchiavello@warwick.ac.uk

Statement of Purpose for NBER ERBC 2014

Anik Ashraf

I am a student in the PhD in Economics program at University of Warwick, UK. Currently, I am completing the first year of field work related to my dissertation, which examines firm productivity issues in the readymade garment (RMG) sector in Bangladesh. I am primarily interested in incentives and social networks within organizations, and how these relate to efficiency. I am also interested in how firms adapt under various exogenously imposed constraints, including different kinds of shocks. My interests are thus closely tied to economics of entrepreneurship, a central topic at the NBER Entrepreneurship Research Boot Camp (ERBC) 2014. Hence, I am very keen to participate in this workshop and learn first-hand from some of the leading researchers in this field.

I am currently working on two different projects with my supervisors, Prof. Christopher Woodruff and Dr. Rocco MacChiavello. The first of the two projects is a collaboration with a sweater factory in Bangladesh. We are presently focusing on work in the manual knitting section, where machine operators are all paid on piece rate basis. Administrative data shows that there are significant productivity differences among these operators. We are trying to understand a number of questions related to these persistent productivity differences across individual workers. What kind of individual and group level incentives lead to higher productivity? Why and how do innovations happen? How does the productivity of workers vary with their level of cooperation and defection in terms of work practices or disciplines established by the management? How and why does the management fail to motivate the pursuit for higher productivity through innovations, knowledge sharing, etc. (if we find that is the case)? Bloom et al (2013) provides evidence that management practices/decisions make a difference on productivity, while Hellmann and Thiele (2011) develop a theoretical model to shed light on when a management provides incentives to workers for innovation.

We are taking a very detailed, intensive and an unconventional approach towards answering our research questions. For the past three months, I have spent full days at the sweater factory to understand the production processes in tiny details, and also the whole hierarchy from operators and supervisors to quality checkers and floor-in-charge. Our continuous and intense presence on the floor will lead to rich observational data on behaviours and characteristics and social networks over a long period of time. Along with administrative records on individual level production data, we hope to dissect productivity into components that are much more detailed than usually possible. For example, we will be able to record the time taken to produce the sweaters at such disaggregate levels that we will be able to locate productivity differences even within the very core machine operation process. The kind of insight that we will be able to provide through our observation based approach in this project would not be possible without extensive direct observation. We have already observed instances of operators coming up with innovations to increase their productivity, with the supervisors/management deciding whether each is a ‘good’ innovation to be encouraged or a ‘bad’ one to discourage. In yet other cases, we observe some ‘bad’ work practices stopped by some supervisors while quietly supported by others. We believe these kinds of observation based data will be very interesting and relevant in providing much insightful answers to the questions posed. In yet another direction, based on the observational data, we may also be able to test how the model on knowledge and communication in Garicano (2000) performs in a real factory.

The second project I am currently working on attempts to identify the impact of two different kinds of shocks on productivity. This, again, is based on production data from garment factories in

Bangladesh. In this study, we analyse and compare the effect of two specific kinds of shocks – national political strikes, and industry/firm specific unrests, both of which can potentially have an immediate and persistent effect on various aspects of production, such as labour absenteeism, efficiency, product quality and output. We use daily production data at production line levels from about 25 readymade garment (RMG) factories in Bangladesh, covering a time period when the above mentioned shocks are significantly frequent, and hope to be able draw a detailed picture of how firms are affected and how they adapt, before and after the shocks. Past papers such as Krueger and Mas (2004) and Mas (2008) have found that labour disputes reduce the quality of production, while Kleiner, Leonard and Pilarski (2002) found a big fall in productivity from similar labour disputes. Our data will allow us to offer deeper insight by looking at many other variables that are likely to be affected, and check how these variables change over a period before and after shocks. Finally because we have a large sample of factories, we also offer some external validity. Very preliminary analysis suggests that these shocks have significant impact (in different directions) on variables like worker absenteeism, efficiency, product quality and operation time, and that the impacts are contrasting for the two different kinds of shocks, persisting for about a week on average after a shock takes place.

In terms of future direction of my research, I expect to continue working on the current projects. The first project may be expanded to other factories, and we may also be able to conduct experiments within the factories, introducing new knowledge and various incentives to randomly selected factories and groups of workers within the factories. The extensions will build organically from what we learn in the current project and will be able to provide further quantitative analysis from a bigger sample. Apart from this, I also intend to work more rigorously with incentives within organizations that can potentially lead to higher productivity.

Most of the published preliminary list of scholars likely to teach at the workshop have been working on issues strongly relevant to my interests and the above projects. For instance, both of Nicholas Bloom and John Van Reenen, with various other co-authors have a number of papers on management practices within firms; to name a few, Bloom and Van Reenen (2007), Bloom, Sadun and Van Reenen (2012) and Bloom et al (2013) are directly relevant for our first project, which in part looks at management practices. Their work go on to prove management matters in increasing productivity and thus serve as a foundation and partial motivation for us. Thomas Hellman's theoretical works on incentives and innovations (Hellmann and Thiele, 2011; Hellmann and Perotti, 2011) are also specifically relevant in the context of our first project where, as already discussed, workers are generating new ideas to be more productive and earn more. I believe that I have a lot to learn from the scholars at the workshop and these lessons will be very useful for my own work, both current and future. The innovative ways that these researchers conduct surveys, approach the concept of organizations at large, or measure management for instance, are inspiring to say the least, and do push one to think beyond conventional approaches. These lessons will not only be useful in conducting my on-going research in a comprehensive manner, but will also help in generating and shaping new ideas in the first place.

I look forward to an opportunity to participate at the NBER Entrepreneurship Research Boot Camp (ERBC) 2014.

REFERENCES

KLEINER, M.M., J.S. LEONARD, and A.M. PILARSKI (2002): "How Industrial Relations Affects Plant Performance: The Case of Commercial Aircraft Manufacturing," *Industrial and Labor Relations Review*, 55, 195-218

KRUEGER, A.B. and A. MAS (2004): "Strikes, Scabs and Treat Separations: Labor Strife and the Production of Defective Bridgestone/Firestone Tires," *The Journal of Political Economy*, 112, 253-289

MAS, A. (2008): "Labor Unrest and the Quality of Production: Evidence from the Construction Equipment Resale Market," *The Review of Economic Studies*, 75, 229-258

BLOOM, N., B. EIFERT, A. MAHAJAN, D. MCKENZIE, and J. ROBERTS (2013) "Does Management Matter? Evidence from India", *Quarterly Journal of Economics*, 128, 1-51

BLOOM, N., R. SADUN, and J. VAN REENEN (2012) "Does Management Really Work? How Three Essential Practices Can Address Even the Most Complex Global Problems", *Harvard Business Review*.

BLOOM, N., and J. VAN REENEN (2007) "Measuring and Explaining Management Practices across Firms and Countries", *Quarterly Journal of Economics*, 122, 1351-1408

GARICANO, L. (2000) "Hierarchies and the Organization of Knowledge in Production", *Journal of Political Economy*, 108, 874-904

HELLMANN, T. and E. PEROTTI (2011) "The Circulation of Ideas in Firms and Markets", *Management Science*, 57, 1813-1826

HELLMANN, T. and V. THIELE (2011) "Incentives and Innovation: A Multitasking Approach", *American Economic Journal: Microeconomics*, 3, 78-128

THE UNIVERSITY OF
WARWICK

Department of Economics
Coventry CV4 7AL United Kingdom
www.http://www2.warwick.ac.uk/fac/soc/economics/
Email: c.woodruff@warwick.ac.uk

Christopher Woodruff, Professor

27 March 2014

Professor Thomas Hellman
Coordinator, NBER / Kauffman Foundation Entrepreneurship Bootcamp

Dear Thomas:

I write with an enthusiastic recommendation of Anik Ashraf for the 2014 version of the NBER Entrepreneurship Bootcamp. I first met Anik about four years ago when he was a Bangladesh Country Economist for the International Growth Centre. He impressed me so much t hen that I allocated a fellowship from an ESRC grant that I have to him, to attract him to the PhD program at Warwick. He has now completed the coursework here, and shown himself to be clearly one of the very best of his cohort. He immediately began working on the Bangladesh garment sector project that Rocco Macchivello and I have developed over the last few years. He has already amply demonstrated a keen eye for detail and a clear understanding of issues. He has the ability to be a first rate scholar, and has a skill set that will allow him to make very unique contributions to our knowledge.

Looking at the faculty list for this year, I really can't think of a better group for Anik to be exposed to. I started to list some of the individual faculty names from the group but, really, from top to bottom these are people who have done important work on issues closely related to those Anik is working on. He would benefit tremendously from the program. In one sense, Anik entered the PhD program at Warwick a year too early. He is in the last cohort of students here who will not have field courses as a part of his program. Several faculty run a reading group on firms, in which Anik is an active participant. That substitutes for some part of the missing field courses, but he would benefit greatly from the more structured approach to the literature the bootcamp provides.

For the past three months, Anik has been 'embedded' in a very large sweater factory in Bangladesh, spending 8-10 hours per day there, on average around 4 days a week. He has been mapping at a very detailed level the processes in the manual knitting section of the factory. We have (obviously) excellent cooperation from the factory. Administrative data we have obtained from them indicates that the productivity of the 90th percentile weaver is about 1.6 times that of the 10th percentile weaver. Even though workers are paid piece rates, this matters because each worker uses a machine and floor space, which is particularly value during the peak season. Through a combination of direct observation and structured but informal conversations with supervisors and operators, Anik is trying to unpack the causes of the differences in productivity. The work Anik is doing now will provide a baseline measure before we conduct an extensive management intervention in the factory. The idea is to be able to understand

Department of Economics
The University of Warwick
Coventry CV4 7AL United Kingdom
Tel: [Enter telephone no here]
Fax: 024 7652 3032
Email: [Enter email address here]

how the management training affects productivity at a very fine grain level – arguably at a level which has never been done before, at least in a developing country context.

Anik is also working on a project related to the effect of political and labour disruptions on the efficiency of factories. One characteristic of manufacturing in low-income countries is that factories operate in a very volatile environment. Supply disruptions, electricity shortages, labour absenteeism, and other shocks are much more prevalent than in higher-income countries. Last year was a particularly volatile period in Bangladesh, because of elections in early 2014, criminal trials related to the 1971 war with Pakistan, and labour unrest related both to the Rana Plaza disaster and a struggle to increase wages (which were in fact increased by around 65% in December). Anik as collected detailed data on the political and labour disruptions that affected the sector last year. He will match these to very detailed, harmonised, daily line-level production data from a set of factories in the industry to understand how factories adapt to these disruptions, and how much impact they have on the productivity of the factories.

I have worked closely with Anik on both of these projects, Through both of them, he has demonstrated a very sharp intellect, and a very keen eye for relevant details. The combination of the contacts Rocco and I have developed in the sector over the past few years and Anik's understanding of the language and culture of Bangladesh provide a tremendous opportunity for us all to learn a lot about these issues. Anik's very high level of energy and the grasp of the issues that he already has are enough to assure that he will make a contribution to our knowledge, but the Bootcamp training could really take him to a different level with regard to hsi understanding of the issues.

Last year you selected Andreas Menzel from our program for the Bootcamp. I would put Anik on the same level as Andreas. He is perhaps not quite as creative, but he is much more disciplined in his approach to things. Rocco and I have been fortunate to attract some of the best PhD students at Warwick to this project, and Anik is certainly in that group. As with Andreas last year, Anik has spent a large amount of time in garment factories. This gives him an ability to absorb literature through the lens of this experience, and makes a program like the Bootcamp especially valuable at this point in his research. It also gives him a perspective which few of the participants are likely to have, and hence positions him to be a valuable contributor to the group.

In sum, I recommend Anik to you most enthusiastically. He is equal to any candidate I have recommended for the program to date. I believe Anik 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