Approved by the Regents
May 14, 2009

PROMOTION RECOMMENDATION
The University of Michigan
Stephen M. Ross School of Business

Hyun-Soo Ahn, assistant professor of operation management science, Stephen M. Ross School of Business, is recommended for promotion to associate professor of operations and management science, with tenure, Stephen M. Ross School of Business.

Academic Degrees

PhD	2001	Industrial and Operations Engineering, University of Michigan
MSE	1996	Industrial and Operations Engineering, University of Michigan
BS	1993	Industrial Engineering, KAIST Korea

Professional Record:

2003-Present	University of Michigan, Stephen M. Ross School of Business Assistant Professor of Operation Management Science
2001-2003	University of California, Berkeley, Assistant Professor of Industrial Engineering and Operations Research

Summary of Evaluation:

Teaching: Professor Ahn has taught a number of classes on management science and statistics in our BBA, MBA, and PhD programs. He is an excellent instructor who clearly invests in his courses. His teaching evaluations have averaged 4.79 on a 5-point scale. In addition, he has supervised MBA and BBA student projects, and has mentored doctoral students for their development in teaching skills. In 2006 Professor Ahn was awarded the BBA Teaching Excellence Award. He was also selected in *Business Week's* "Best in Class" list of great professors in 2007. In 2008, he started teaching the statistics core course for global MBA students. Professor Ahn has also participated in two outreach programs: Mreach (targeted toward high school students) and Mastery Project (targeted toward freshmen), with the goal of raising students' interest in management science.

Research: Professor Ahn's early research focused on tactical and operational uses of flexible resources. Specifically he focused on the optimal deployment and management of flexible resources. His focus was on characterizing optimal policies in scheduling queuing networks with flexible resources and understanding when simple policies typically used in practice are likely to work well or when more sophisticated policies are needed. While this work is primarily theoretical and methodological, the increased importance of flexibility in many manufacturing/service environments also increases its practical importance. Presently, Professor Ahn's work emphasizes problems at the interface of operations and marketing. Many papers in operations consider joint pricing and production policies for a firm but do this by using relatively simple demand assumptions (such as assuming demand to be independent from one period to the next). Marketing and economics researchers have studied more realistic demand structures such as inter-temporal demand but in the absence of operational considerations. Professor Ahn's work is among the first to look at how a firm should price a product and produce it over time when inter-temporal demand effects are taken into account. Similarly, Professor Ahn has looked at the practice of advance selling and has considered the effect that a firm's capacity level has on optimal advance selling strategies. He has an excellent publication record with 16 publications of which eight are in the leading journals in his field.

Recent and Significant Publications:

Ahn, H-S, Gumus, M., Kaminsky, P. Inventory, discounts, and the timing effect. *M&SOM,* In Press 2008.
Ahn, H-S, Gumus, M., Kaminsky, P. Pricing and manufacturing decisions when demand is a function of prices in multiple periods. *Operations Research*, Vol. 55 (No.6), pp 1039-1057, 2007.
Ahn, H-S, Dynamic load balancing with flexible workers. *Advances of Applied Probability*, 38, pp 621-642, 2006.
Ahn, H-S, Righter, R. Multi-actor markov decision processes. *J. Applied Probability*, 42, pp 15-26, 2005.
Ahn, H-S, Duenyas, I, Zhang, R.Q. Optimal control of a flexible server. *Advances of Applied Probability*, 36, pp 139-170, 2004.

Service: Professor Ahn has been an active member of the operations area adding to the intellectual life of the group. For example, he currently chairs the area's doctoral committee and oversees the recruitment, training and evaluation of the doctoral program which currently has 10 students. He is actively involved with Ross School faculty recruitment and has organized departmental research seminars. He has been an invited interviewer for NSF grants and invited participant in several conferences. He is currently an associate editor for the journal *Probability in Engineering and Informational Sciences.* He has been a referee for a number of journals including *Management Science, Operations Research, Journal of Applied Probability and Naval Research.*

External Reviewers:

Reviewer (A): "Professor Ahn's contributions are highlighted by parsimonious and relevant models coupled with careful technical analysis and management implications. In general, he focuses on stochastic models of operational systems that involve some form of heterogeneity such as in customer or server types or both. Overall, Professor Ahn has accumulated a substantial record of achievement. I would certainly consider Professor Ahn's work at crossing the bar for promotion to associate professor at my institution."

Reviewer (B): "When it comes to evaluating research at tenure time, my approach is to look at what has been delivered. I think that Professor Ahn has delivered on quantity particularly within the applied probability line for work, and has a nice shift with proven output and a good pipeline toward more direct managerial relevance. This work is of solid quality. I therefore think that he has delivered to the research requirements for tenure at Ann Arbor."

Reviewer (C): "The overall quality and quantity of Hyun-Soo's output is high. Since completing his PhD in 2001, he has had 8 articles accepted to *Applied Probability, Operations Research, QUESTA, and M&SOM,* three to *Probability in the Engineering and Information Sciences,* and 5 to other journals. He has an ongoing research program – and a very rich pipeline of working papers – devoted to production-distribution systems, assortment planning, and joint inventory-pricing problems. On the numbers, he is clearly above the line for tenure at top business schools. The depth and range of his work show that Professor Ahn has been able to develop and maintain more than one interesting research program, and I have no reason to believe that he will slow down in the future."

Reviewer (D): "With 16 accepted papers in excellent journals, and several more under review, there is no doubt about Hyun-Soo's productivity. I really like the trajectory that Hyun-Soo's research has taken. It is hard to take a person who does not have proper technical training and turn him or her into a solid researcher in OM theory. The opposite trajectory is much easier... This is exactly how I see Hyun-Soo's career – he has gone from being a very good OR (Operations Research) researcher to an excellent OM

(Operations Management) researcher, making my recommendation easy. It gives me great pleasure to unreservedly recommend Hyun-Soo Ahn for promotion to Associate Professor with tenure."

Reviewer (E): "I have the highest regard for Professor Ahn's research abilities. Indeed that was the reason I asked him to serve as one of the twelve members of the Advisory Board of the journal *Probability in the Engineering and Informational Sciences* that I edit. I strongly recommend his promotion to tenure."

Reviewer (F): "Professor Ahn has been very productive. In the 7.5 years since his PhD, he has 16 papers published or accepted, 4 under review and another 7 in the pipeline. This quantity is on the high side of his cohort. His publications are in either top journals or more focused but well respected journals. His work covers a wide range of submits. Most of it concerns optimal control of stochastic models of various sorts. Clearly, this is a [junior] scholar of strong technical ability and broad interests. Based on these achievements and qualities as well as his outstanding teaching contributions to the school, I full support his promotion to tenured associate professor."

Reviewer (G): "I do not know Hyun-Soo well, but his record reveals that he has been productive. I have been told that he is a tremendous teacher (as recognized by Business Week)..."

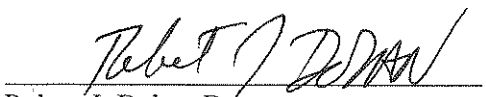
Reviewer (H): "As you can infer from my comments above, I think the quality of Hyun-Soo's research is excellent. The volume of research is also well above average for someone who received his PhD only seven years ago. Furthermore, he has a very good number of papers in the pipeline, which suggests that he will continue to be productive."

Summary of Recommendation:

The outside reviewers' comments and the placement of his work in the top journals in the field attest to the fact that Professor Ahn is a leader in his field. His research and teaching are of excellent quality. Professor Ahn is able to exploit the strength of his work in order to maximize its impact. With the mentoring of the senior faculty in the OMS area, he has greatly increased the managerial impact of his work. He adds considerable value to the Operations and Management Science area's research portfolio, to the area of business marketing, and overall to the reputation of the Ross School of Business and the University of Michigan.

Professor Ahn's case for promotion is really made by the quality of his research contributions, his extraordinary teaching, and his service to the Ross community and the field of operations and management science education.

With this in mind, the Executive Committee and I strongly recommend Professor Ahn's promotion to associate professor of operations and management science, with tenure, Stephen M. Ross School of Business.



Robert J. Dolan, Dean
Stephen M. Ross School of Business

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