Research Profile - Saleem Shaik

Saleem Shaik  
Department: Agribusiness and Applied Economics  
Campus Location: 504 Barry Hall

Brief Background:

Dr. Saleem Shaik received his BS in agriculture, and MS in agricultural economics from Andhra Pradesh Agricultural University, India; and his PhD in agricultural economics from the University of Nebraska, Lincoln, with a specialization in externalities (risk included) in agricultural production economics/econometrics. Before joining NDSU, Dr. Shaik worked on Risk Management Agency crop insurance projects and on feasibility of potential aquaculture insurance policies at Montana and Mississippi. He is married to Hema Pillai, and they have two children, Sunny and Bobby.

Tell us about the goals of your research program -

Dr. Shaik’s current research is built on the concept of risk - evaluating the causes of production, financial and institutional risks in the agriculture environment of North Dakota and the Northern Great Plains states.

His current research looks at the importance of the following.

1) Production risks – applied risk analysis of output (revenue) and input (cost).
2) Financial risks – determining the role of solvency ratio risk, liquidity ratio risk and efficiency ratio risk on efficiency and productivity at the state and farm level.
3) Institutional risks – evaluating the effects of federal farm policies (farm programs, and crop insurance programs; public R&D investments and private patents innovations; and political party system) on agricultural risks.

Dr. Shaik also interacts with educational instructors from the North Dakota Farm and Ranch Business Management Association (NDFRBM) in developing efficiency benchmarks using enterprise and farm data.

What do you want to accomplish in the short-term, and then, in the long-term?

Dr. Shaik’s short term goal is to develop farm, county, state, and regional output, input and total factor productivity indexes by collecting and constructing farm inputs, outputs, federal program, crop insurance, public investment (research and extension expenditures) and private innovation patent databases for North Dakota and six Northern Great Plains states from 1886-2010. This effort will allow Dr. Shaik to evaluate how past institutional risk, financial risk, and production risk affected or altered the risk environment of North Dakota and five Northern Great Plains states agriculture.
Dr. Shaik’s long term goal is to establish a bi-directional interaction with research-farm management organizations, firms, and/or farmers. Another goal is to develop a website with data regarding the changing risk environment in North Dakota and the Northern Great Plains states agriculture sector. The NDSU-hosted website will be titled “Risk Management and Technology Assessment.”

**Importance, impact of Research?**

Changes in agriculture (fewer farms, larger acreages/farm, and fewer wheat acres) in North Dakota and the Northern Great Plains region might be due to the changing nature of production, financial conditions, and institutional policies. In the next five years, Dr. Shaik’s research will quantify the effects of technological improvements, farm programs, farm crop insurance programs, and public investments for the fourteen major farm bills (including the 2008 farm bill) since 1933.

**When finished, what will your work mean? What will it mean to the state of ND and beyond?**

The outcome of Dr. Shaik’s research will have implications for the following.

1) Farmers or producers - For example, availability of actuarially sound premium rates will lead to reduced cost for low-risk farmers and taxpayers, and benchmarking of efficiency scores.

2) Farm sector and industry - This research could result in changes in the efficiency and productivity of the state agriculture sector, and the institutional and trade cause of productivity change. The issue of whether farm programs and crop insurance are causes for farmers to use more or less specific inputs will also be addressed. Another factor to be addressed is whether increased production correlates with insurance policies.

3) Policy makers - The outcome of this research will allow policy makers to decide the magnitude of investments and innovations needed to sustain current agricultural productivity growth in our state. For example, changes in the efficiency and productivity of the state agriculture sector and emphasis of the extent and direction of public investments).

**Do you have any graduate/undergraduates helping with this project?**

Dr. Shaik spends a great deal of time with graduate students to help them learn the concept of risk and its empirical application. For example, his graduate students have looked at contributions of public investments and innovations to total factor productivity, effects of crop insurance programs on farm economic structures, and have other projects studying risk related issues associated with farm programs, crop insurance and trade.
What courses do you teach at NDSU?

Dr. Shaik teaches or has taught agricultural production economics, agricultural finance and analytical methods for applied research for graduates, and applied risk analysis (financial, production and institutional risk) at the undergraduate level. His primary objective as a teacher is to advance the students’ ability to think and understand the microeconomic concepts/issues with a practical application especially on a farm or agribusiness firm. Specifically, students should be able to identify, measure, and analyze issues based on concepts and use of analytical methods like basic statistics, mathematical modeling, and statistical/econometrics models.

What is the greatest reward after the completion of a project?

Dr. Shaik has a great feeling of satisfaction knowing that his work has not only contributed to the development of new theory and methods, but also of practical use to evaluate the changes to the risk environment of North Dakota and five other Northern Great Plains states agriculture. The beauty of this research is its applicability not only to different states or countries but also its application to individual farms or enterprises.

What is your advice for students who want to go into your field of study?

Risk in agriculture is here to stay and with increased globalization it would be hard to stay or shy away from understanding risk, associated statistical/analytical concepts, and most importantly empirical application to real world situations.

What excites you the most about your project?

The ability to teach and help undergraduate students think about the importance of risk and associated statistical concepts and tools to analyze risk is very exciting to Dr. Shaik. Secondly, not only to identify potential risk in agriculture production, but to be able to measure and conduct applied risk analysis in real life after graduation whether it be on their farm or in agribusiness.

If you have any further questions, please feel free to contact Saleem:

Work: 701.231.7459
Email: Saleem.Shaik@ndsu.edu
Is North Dakota Crop or Livestock Production more Diversified?
Value of 0 means diversified; Value of 1 means specialized
(Crop production more diversified than livestock production since around 1954)

Is North Dakota Agriculture Risky?
Farm Cash Receipts, 1924-2012