

## Actuaries trending beyond the traditional domains in Emerging Markets



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It is encouraging to note that actuaries have begun expanding their horizons beyond the traditional insurance and pension domain in most developing and emerging markets. I have been interacting with a lot of members across Asia and Africa and gathering insights on these developments in the actuarial profession

In India for example there are a few actuaries who have moved into Investment and non-traditional domain like Asset Management Firm, Stock Exchanges and Investment banks. On interaction with some of the non-traditional actuaries, they revealed that there are new emerging roles as Quantitative specialists where Actuaries can work as Quantitative Risk specialist in various Asset Management Firms and Knowledge Process Outsourcing firms. The actuarial skillsets predominantly used are Financial Analysis, Data Modeling and Portfolio Risk Analysis. Most people in the industry do recognize the value addition brought in by Actuaries, but it is not a norm in the industry. The Institute of Actuaries of India is planning to set up Wider Areas Working Party to help explore newer domains for its members.

In South Africa there are a good number of actuaries working on the Investment front like Investment divisions of Insurance firms, Asset Management firm, etc. There are also a new breed of actuaries who are working in Asset Management, Private Equity, Banking and Data Analytics. Climate Change and Risk Management is yet to pick up in South Africa. the Actuarial Society of South Africa (ASSA) has also shown interest in the non-traditional areas and has set up various committees and Working Parties to research on the unexplored opportunities for actuaries like Alternate Investments, Banking and Data Analytics.

I was able to interact with few Banking professionals who are also nearly Qualified Actuaries both in India and South Africa. They believe that risk management techniques used in banking industry does find actuarial applications. However, they feel that actuaries should have entered this industry at least 10 years back, as risk management principles were very naïve during those days and actuaries could have capitalized on their natural strength. Some of the members in the Banking Industry are willing to partner with various organisations in researching and piloting new actuarial risk management approaches within their banks and help in creating pathways for actuaries. As a next step IFoA can work closely with these industry professionals in identifying specific banking applications for actuaries.

I am also involved in International Actuarial Association (IAA) Big Data Working Party and most members are willing to work cross domain on Finance and Investment and Technology front. IAA Big Data Working Party members are currently focusing their study on how to apply Big Data in various industries relevant to actuarial profession, particularly Insurance, Investment and Banking. Members of the group have produced interesting study on subjects like Predictive analytics and Retail Banking, Data Science and analytics for Stock Market, AI and Machine learning and future of Insurance industry, and so on. A significant amount of research interest is also created on the cross-domain research on Big Data and its influence on Finance and Investment actuarial domain. IFoA Committee and Working

Party members can work collaboratively along with IAA members to bring out cutting edge research and insights on the newer applications in the Industry.

### **The Way forward**

In my opinion, actuarial aspirants in the non-traditional areas do not have a clear career path and the industry does not understand the value addition brought by an actuary. The actuarial skills sets and training can provide innovative and most time essential solutions in the unexplored domains. Actuarial knowledge learnt through the rigorous exams are not specific to insurance industry alone. For example the Markov principles are fundamental to the creation of Mortality tables in Insurance domain. The same Markov principles are applied in various fields like Google Search Engine, Credit Default Swaps in Banking Sector, Gaming Solutions and predictive modelling applications. The Bayesian statistics has been extensively using in the data science and machine learning domain. The overall risk management principles can be applied to any industry increasing the Risk Adjusted Return on Investment to the shareholders.

In principle, the non-traditional actuarial field is fertile and in infancy. Perhaps the new age actuaries should explore these new opportunities. Nevertheless, these opportunities will certainly pose challenges and one has to think of creative ways in order to succeed in the unexplored area. In this respect IFoA can support by creating new Working Parties for both members and non-members and bring in a collaborative approach to tap the new emerging opportunities. We need to include members who are willing to go the extra mile in taking the profession to new horizons. This can greatly help in creating career paths, CPDs and support for the new age actuarial aspirants. To conclude I would reiterate the lines of a poet who said – *“Two roads divulged in the forest and I chose the one less travelled. That has made all the difference”*

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