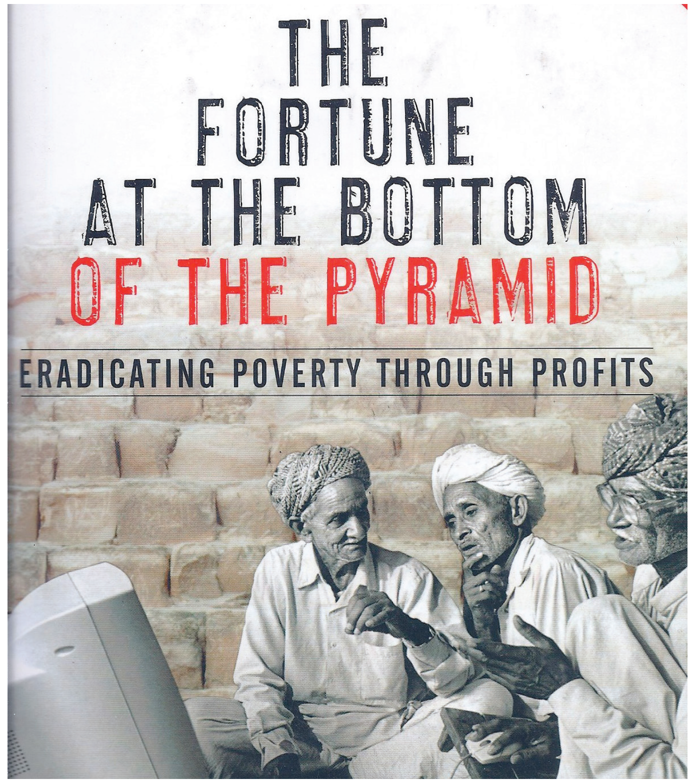
Opportunities at the Bottom of the Pyramid

By Pritesh Modi



The much feted book *The Fortune at the Bottom of the Pyramid* by C K Prahlad and Stuart Hart shed new light on what quickly came to be recognized as the vastly underserved and yet fastest growing market that lay at the bottom of the wealth pyramid.

In some ways, this article piggybacks off that and talks about the career opportunities for actuaries stemming from tapping into the insurance potential of that underserved segment.

THE JOURNEY THUS FAR—HOW I ENDED UP WORKING IN THIS SPACE

For the first fifteen years of my actuarial career, I honed my skills largely working in developed insurance markets and for companies that were focused on serving customers at the top of the wealth pyramid. I have some good memories of spending those years designing bells and whistles for variable annuity products, conducting mergers and acquisitions from Alabama to Zurich, providing confirmation that embedded values or economic capital calculations where consistent with rule books written from various headquarters in Munich, or Paris. All pretty much conventional stuff for a developed market actuary.

The last few years have been very different. I have been fortunate to have the opportunity to employ my actuarial skills on a very different platform, and for a very different purpose—in nascent insurance markets, and working with companies catering to customers at the bottom of the wealth pyramid who have typically been left out of the banking and insurance systems because their profiles have been deemed too risky, too poor or too remote.

To provide some context for my recent experiences, let me first describe my employer, and what we do. I work for a profit with purpose private equity fund specializing in taking equity positions in financial services companies in emerging markets across Africa and Asia. What sets this company apart from most other private equity firms is that we make our investments with a dual bottom line in mind—making profitable investments as well as furthering financial inclusion. Effectively this means our investments are focused in markets where insurance penetration is nascent (typically lower than 2 percent) and in companies that focus on emerging consumers—those earning between $2 and $10 a day. This has provided for an experience that has radically differed from my previous experiences working at the other end of the wealth pyramid.

It has meant being involved in M&A deals from Cambodia to Sri Lanka; working with companies that offer annual health insurance coverage for under $5, providing wealth management services to families with less than $1000 in net worth, working with a life insurance company providing coverage to a very specific demographic, deemed too risky and excluded by the rest of the industry—individuals who are HIV positive. This experience has been both richly satisfying and eye opening in terms of how actuaries can push the boundaries of our profession.

WHAT CAN ACTUARIES DO IN THIS SPACE—THE CORE ACTUARIAL FUNCTIONS

Let's start with some bread and butter actuarial functions—product development and pricing, reserving and risk management. These very basic actuarial functions take on a very different spin in geographies where the insurance industry and the actuarial profession are just emerging.

Take for instance product development and pricing. Developing products profitably for customers who can only afford premiums of $1–2 a month requires a degree of simplification (of the product design, of the policy administration and claims settlement process) that involves stripping the insurance proposition to its bare essentials. Moreover, it requires a heavy dose of creative thinking in order to allow the final product to be of benefit to the policyholder, to the distributor, as well as to the insurance underwriter. In many ways, the whole exercise becomes more an art and less a science—and perhaps that is why I believe there is more satisfaction in general when designing products with such constraints at play.

For instance, one of the companies I worked with was trying to provide earthquake, cyclone and flood insurance coverage to millions of low income consumers who were vulnerable to these natural catastrophe risks. The key challenges were that no loss distribution curves existed for these particular risks in this geography and the premium affordability was less than $20 a year. Hence, while a perfect solution, as often is the case, did not exist, we had to piece together a proposition which employed a parametric risk solution (this level of premiums would not support an indemnity solution), as well as overlay the insurance cover on a distribution platform (for example, by partnering with a microfinance institution) that provided a large scale and efficient premium collection and claim payments system at marginal costs.

In terms of reserving and risk management in emerging insurance markets, the issues typically involve working in environments where data is sparse, and the uncertainty of outcomes is significant. Again, this scarcity of information challenges the actuary to work in an efficient and creative manner—one that leads to a balance between accommodating the lack of information sources actuaries would traditionally have relied on, but providing the requisite fidelity of the reserves. It also fosters a spirit of nimbleness whereby we are forced to adopt a mind-set that quickly captures new information as it emerges, and incorporates it into the reserving and risk management processes before an unacceptable divergence from expected results occurs.

PUSHING THE BOUNDARIES PAST THE CORE FUNCTIONS

Beyond the core actuarial functions, there are a number of ways that I think actuaries can also get involved at the bottom of the pyramid.

For instance, the field of microinsurance provides a fertile ground for the profession in terms of expanding its boundaries. Microinsurance of course has been a growing field for some time now, and actuaries are playing an increasing role in this space. To my knowledge though, most actuaries who have been involved thus far in microinsurance, have typically been engaged in the technical aspects of insurance. I do believe that with their knowledge of the core workings of how insurance functions coupled with an entrepreneurial drive, actuaries would make ideal candidates to start and/or lead these microinsurance ventures. In the recent past, I have spoken with actuaries in markets as diverse as Cambodia, Nepal and Zimbabwe who are in the middle of, or interested in starting their own microinsurance companies.

I believe actuaries can also play a role in developing alternative channels for the distribution of insurance products. The low affordability levels for premiums for this demographic often means the cost structure has to be particularly lean for the math to work. One way to achieve this is via exploring new distribution channels that have an existing relationship with lower income people, and that provide a low cost delivery system both for the collection of premiums, and for the payment of claims. Microfinance institutions, telecom and even utility companies are some of the organizations that fit this category—and actuaries can play a lead role in tapping into the insurance potential of their customer base.

Between Lemonade, telematics and various Uber-of-Insurance-models, the insurtech wave is well and truly in flow. While many of these developments are designed for the conventional insurance markets, insurtech has the potential of being highly relevant to the insurance world at the bottom of the pyramid.

Due to the modest economics at the bottom of the pyramid, the value of technological innovations often get amplified for applications at this demographic. Besides making cost structures leaner, technological advancements in managing and measuring risks, such as devices to gauge damage to livestock and crops or assessing property damage via drones, have led to making once-inaccessible markets commercially viable. Actuaries with a certain amount of tech-aptitude are in a strong position to be part of this insurtech wave.

IN CONCLUSION

I do hope that this write-up has whet your appetite in exploring ways of applying your actuarial skill sets beyond our profession's conventional boundaries. I do not intend for this article to be about taking a moral position on which part of the wealth pyramid one should focus their energies on. Rather, it is about providing a glimpse of my personal experience working in an unconventional environment for actuaries, and perhaps providing an encouragement for actuaries seeking to push the boundaries of our profession.

The views expressed in this article are the authors, and do not reflect the views of his employer.

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