



Consultants



Are all testers created equally?

$$E[e^{-sX_{+,i,u}} | A(X_{-,i,u}) = k] = \sum_{i=1}^k \left[\frac{1}{2Li!} \frac{d^i}{dz^i} \Big|_{z=0} \left(\frac{G_p^*(z)}{z} \right) + \frac{1}{2L(k-i)!} \frac{d^{k-i}}{dz^{k-i}} \right]$$



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Comparing Indian and Canadian Software testers

Many companies seek to reduce cost and increase scalability by offshoring IT testing to India. One of the underlying assumptions is that testing, particularly the people who perform and manage the activity, is a commodity that is undifferentiated and transferable. In this line of thinking, many firms automatically look offshore and base their provider selection criteria on a few variables with price per hour being predominant. This is a shortsighted and knee-jerk approach. In general, Indian workers are more expensive and less productive than they appear on paper. At the same time, the cultural fit, ingenuity and skills that come with testing in Canada is more important in the total cost and risk equation than previously thought. The following summary analysis will illustrate these changing dynamics.

Testing matters. This important activity can make up close to 40% of the total cost of a software project. And, poor execution can compromise delivery and code quality, hampering a firm's performance. Without a doubt, tester wage rates are important, in some cases making up to 90% of the total direct cost of testing. Not surprisingly, the choice of whom and where your software is tested has become an important question at many cost conscious, risk-averse organizations.

Our client experience over the past couple of years illuminates the growing importance of quality and total delivered cost (TDC). Ensuring product and application quality is now more important than ever in terms of brand impact, time to market or value and long term cost (e.g., through downtime, low customer satisfaction etc). Quality-focused companies understand that testing is the last opportunity to ensure that the code does what it's supposed to do and works within their heterogeneous, multi-platform infrastructures. As proven in a variety of industries, the surest way to high quality is to start with high quality people and a quality-focused culture. In the world of software quality assurance, this means using competent, reliable and professional testers and project managers, and regularly upgrading their skills. If you doubt this, check out the employee-centric business strategies of high quality brands like Four Seasons, GE, Nordstrom and P&G (Deploying high performance testing automation is also helpful, and is a corporate priority of ours).



To enhance quality, one fundamental question for North American CIOs is: where can you easily find a large and stable pool of skilled and professional testers? Canada. No one beats Canadian IT workers when it comes to delivering quality testing outcomes at a superior TDC. Testing outcomes are a function of quality practices, throughput and problem solving for a given project. The concept of TDC in testing refers to the hourly wage rate per tester plus cost boosters like overheads, turnover, training, tools as well as errors and duplication.

To properly gage performance, you need to compare the average tester from each country across 6 core dimensions of performance, fit and cost. Note, this is not an exhaustive list and the importance of specific parameters will vary for each project and client. Of course, individual performers will vary.

Overall, Canadian IT workers have some important advantages versus their Indian counterparts, which drive superior testing outcomes and lead to lower, longer term TDC. Some of the Canadian advantages are cultural, some educational and others a function of our current employment market.

| Parameter | Advantage | Comments |
|--------------------------|-----------|--|
| Productivity | Canada | By virtue of our better educational system (source: OECD research) and proximity to the end user, Canadians enjoy an edge on basic skills, language and closer tester-user linkages. |
| Reliability | Canada | According to the Wall Street Journal, 80% of Indian IT testers turn over every year, driving up cost and slowing down projects. |
| Creative thinking | Canada | Indian testers generally work in a rote, mechanistic fashion. Canadians are more likely to think 'out of the box' and problem solve. |
| Business habits | Canada | Indian testers can never match a Canadian's familiarity with North American business practices, culture and professionalism. |
| Scalability | India | India's population advantage needs to be tempered by the challenge of attracting, training and retaining high quality workers. |
| Hourly wage | India | India continues to enjoy an edge, although it is closing due rising wages and flat Canadian IT wage growth. |



The above comparison has important ramifications. Cost is more than wage rates. The narrow Indian cost advantage is shrinking. When other factors like business practices, cultural fit and productivity are considered, the average Indian tester (read: testing provider) is seeing their advantage evaporate.

Many Indian providers will argue that their lower wage cost and rapid scalability are the only parameters that matter in this economic climate. This is correct if you believe that offering more of a semi-skilled, transient resource is the best way to address growing client needs around quality, risk management and lowest TDC. The fact is that relying on cheap labour to do knowledge-based, mission-critical work can quickly reduce quality as well as trigger unintended negative consequences. For one thing, adding more under-skilled, and unreliable resources to a dynamic, high risk project introduces new complexity, increasing long term cost, duplication and the possibility of errors.

Three other salient challenges with Indian testers need to be pointed out. The first issue revolves around ensuring project security and privacy. It is unfair and difficult to compare the ethical standards of individual Indian and Canadian workers. What you can evaluate are the relative costs and time of pursuing and litigating a security or data breach in each country. To no one's surprise, India has a laxer legal system and compliance framework. Corrupt Indian workers are less likely to be pursued by their employers and prosecuted by the legal system.

The second challenge is the ability of India to continue to provide quality workers at the numbers needed and where required. It is very difficult for North America – let alone India's educational and training system – to consistently provide a plentiful supply of high quality and technologically-savvy workers. Moreover, we are already seeing many Indian providers experience their own skills shortages; increasingly, they have looked beyond their borders to other places like Russia or Ireland to deliver testing services. The net impact on North American clients of this finite Indian supply of qualified workers is higher risk, TDC and project complexity.

Finally, long term macro-economic factors are working against India's labour cost leadership. The Canadian dollar is at historically high levels. Should it fall, India's wage advantage will further shrink. Moreover, as India's population ages and their software industry moves up-market away from low-cost work (like testing), the hourly wage rates for testers will invariably rise particularly in competitive software centers like Pune or Bangalore. The reality is that most Indian software graduates do not want to be testers, preferring to be employed as higher paid developers. This drives up wage expectations as well as employee turnover.



It is far from a foregone conclusion that Indian testers will remain less expensive and more scalable than Canadian IT workers. Many Fortune 500 organizations we deal with are no longer willing to trade off quality, productivity and security for a steadily decreasing Indian hourly wage advantage and a finite pool of available testers. Firms would be wise to explore Made-in-Canada testing solutions like QA Consultants as well as undertake a true cost/benefit analysis before committing to an offshore provider.

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