R&D is more than just a cost centre

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A few of the large software companies in India have already crossed the $1-billion mark and others are on the threshold. The billion mark is a big psychological barrier crossing which puts the company in the league of the big ones. One of the tools for achieving objectives of a large company is investments in research. It may be worth noting that Microsoft also started its research unit around when it crossed the billion mark.

The R&D group in a company is meant to create new knowledge. R&D is typically a cost center, which does not directly generate revenues but helps others generate more revenue. A technology player needs research simply to develop new technologies that it can then use to bring out newer products in the market place.

But, does a service company need investment in research to generate new knowledge? For a small service company, the answer is clearly no - its main goal is to use existing knowledge to provide the desired service. But this is not sufficient for a large company for many reasons which makes it almost necessary that it invests in research.

A large corporation desires to assert an independent identity over a long time. Investment in R&D is an instrument to help the corporation foresee the changes coming and in devising strategies and processes for adapting to the change.

In fact, just keeping track of latest developments in technology and methodologies itself requires R&D manpower to sift through literature and adapt the useful methods for the corporation. Long existence also requires constantly exploring alternatives and newer paradigms for doing the work and providing new or improved services - something that is facilitated by investments in R&D.

In services, there is a constant demand for improvement in quality and lowering of costs. For a large company, costs usually are higher, and it cannot compete on the cost front for increasing its business. Hence, it is essential that it continuously improves on the quality and service front to ensure that existing customers return and new customers come to it.

The basic business model of a software service company is to provide solutions to
customer problems. And for finding the solutions, engineers and managers are employed. Engineers, by training, try to use existing knowledge to provide a solution that can best serve the customer. Improving the solutions often require looking at the problem in a fresh manner and create innovative solutions. This can be done through R&D. Often this type of R&D can result in new tools or methods, which can then be used in other projects for improvement.

Large software service companies in India all desire to get into consulting. Consulting, by its nature, faces problems that are less well defined and often requires richer conceptualisation and creative and innovative solutions. There are standard consulting practices and processes, but just like large projects, often consulting assignments have unique problems that are not adequately addressed by existing knowledge.

R&D becomes a useful investment for such engagements. Besides the possibility of improving the solutions, the presence of R&D outfits offers a comforting feeling to the customer as it shows the depth of knowledge as well as the ability that the company will not be limited by the current state of knowledge for providing the solutions but can go beyond.

Hence, there are good reasons why a large software service company must also invest in R&D. Creation of new knowledge or answering questions to which answers are not known is a challenging task. It is a profession with its own processes, its own community, and its own rules and frameworks. It requires specialised skills and training, which generally are imparted through the PhD training, and then further refined and developed during the course of research career.

So, it is best to staff the research groups mostly with PhDs. To give direction to the researchers in the group, it is best that the group is headed by a respectable and accomplished researcher, who can be respected by the group members.

Though there is now talk about R&D in corporate sector, many a times there is no clarity on what research is and its purpose, or whether there is a need to invest in research. This is a good time for Indian companies to start investing in research in meaningful ways, as it is easier to make these investments when the going is good, rather than when profits are under pressure, as the case may be in future.

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