

Driving disruption through innovation: The new business reality

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It's easy to see that digitization is upending traditional operations, blurring the lines between industries and creating new business models. Take, for instance, eCommerce giants such as Amazon and Google that offer payment services. Or consider companies like Uber, AirBnB, and Netflix that are flourishing - not because they offer revolutionary products - but because of their unique business models. All of these companies have become disruptors by innovatively changing the basic building blocks of their business models to capitalize on key lacunae in otherwise saturated markets. Clearly, the source of competitive advantage has shifted from products and services to how organizations create, deliver and capture value through rapid innovation.

The growing focus on innovation

Previously, organizations relied on innovation to infuse fresh ideas into product and service development. Today, rapidly changing demand patterns and market structures combined with fierce competition is pushing organizations to leverage innovation in order to capitalize on transformative opportunities. The focus has changed from 'breakthrough' innovation that happens - say once or twice in a year to 'sustained' innovation that happens continuously, enabling businesses to adapt and respond in real time. Fostering a culture of innovation will lay the foundation for an organization's success. Hence, organizations are also embracing a new trend - open innovation - that focuses on a collaborative approach to reduce the cost and speed of innovation.

Let's take a look at how Tata Consultancy Services (TCS), an innovation pioneer, is capitalizing on innovation to deliver better outcomes for all stakeholders.

TCS' approach to innovation

TCS believes that in today's post-digital world where servitization is gaining momentum across industries, businesses must leverage innovation as a fulcrum to evolve from product-oriented to service-oriented models that place the customer front and center.

From a services-centric business model, we need to evolve platforms and products that address client's business challenges. These need considerable amount of investments and high-risk appetite. As we move into the digital economy, we have to drive a considerable innovation on our services and prudently leverage new-age cutting edge technology to beat the competition and stay ahead of the curve.

At TCS, we believe innovation begins with the customer. Even fresh exploration of ideas is often done jointly with our customers; at other times, we develop our ideas and run these past our closest customers, to get their feedback and to help in tweaking these for the real world. These initiatives are designed to identify opportunities for driving superior efficiency, competitive advantage, and growth. The company has adopted a 'two-tier research and innovation' structure, driven by a corporate team in conjunction with corresponding unit-level teams. The goal is to embed research and innovation in each business unit and customer account.

Our Research and Innovation labs engage in joint research and incubation with clients to identify opportunities for business advantage, enhanced efficiency and growth. These ideas then go through a period of prototyping and engineering to ensure we have the best architecture for scalability and enterprise integration, after which they are picked up by industry-specific business units. These business units prepare solutions for client deployment and functional enhancement, if necessary.

Take for instance, the impact of Digitization on the IT industry. TCS has seized the opportunity provided by this new channel to increase the share of our digital revenues over the years. We have now put forth our thought-leading 'Machine First' philosophy that places digital front and center of all our client initiatives. This is an 'Age of Abundance', where we observe that organizations have more data than ever at their disposal today. Organizations are hence looking at formal ways of assessing their maturity on data, embracing analytics and AI, and using them as a key differentiator in driving their growth and transformation journey. Organizations that aspire to design an intelligent, data-focused ecosystem triggering real-time insights for decision making are likely to invest in this technology space. Also, the data-driven digital economy will propel organizations to create interesting monetization models that would further fuel these investments. For example, Tata Steel Europe (TSE), a leading European steel producer, is currently on a digital transformation journey with innovation, customer focus, and value chain excellence at its core. TCS is helping TSE in this journey using its Machine-First™ approach and cognitive automation software ignio™ to transform the underlying technology operations and deliver improve user support levels, enhance productivity, and reduce operational risks. With ignio™, TSE is empowered to build a Digital Twin of its IT landscape to maximize cognitive automation, which should result in higher operational efficiencies

and improved service levels. However, the ultimate goal in this partnership is to use ignio™ to automate end-to-end business operations.

Digital Re-imagination leverages digital technologies to create game-changing ways of executing business cutting across business models, products/services, customer segments, distribution channels, business processes, and workplaces.

TCS' new thought leadership framework Business 4.0™, designed for the Industry 4.0 era, focuses on four key levers of intelligence, automation, cloud, and agile to drive organizations' growth and transformation journeys. The Business 4.0™ framework is essentially about enhancing customer experience through mass personalization, bolstering innovation and growth. This is made possible by connecting collaborative ecosystems, fueling growth strategies by embracing risk, and redefining business models to create exponential value. TCS' Research and Innovation services cover critical areas such as: behavioral, business, and social sciences, computing systems, cybersecurity and privacy, data and decision sciences, deep learning and AI, embedded systems and robotics, physical sciences, and embedded systems and robotics.

Late last year, Newcrest Mining, one of the world's largest gold mining companies, partnered with TCS to create an Innovation and Digital Operations Centre in India. Newcrest will work with TCS' experts in engineering, research and development, data analytics and IoT, industrial process control and asset management to explore opportunities to innovate and transform various core business areas such as ore processing, predictive targeting, production optimization, and safer operations.

On a similar note, it is worth mentioning that Total and TCS have signed a partnership agreement to create a digital innovation center in India. The partnership will initially focus on refining. Real-time data analytics, the IoT, automation, AI and agile methodology will be used to improve industrial efficiency, energy performance and availability rates. With the help of digital technology, such as mobile apps, drones and robots, Total can optimize the way operators work and improve its safety. Applications have been developed to digitize certain tasks, including field check reports, maintenance requests and the consolidation of shift team reports, and drones and robots are now used to carry out inspections in places that are difficult to access, such as at height or inside equipment. From analytics perspective, numerous sensors were installed throughout its production sites (on pumps, turbines and compressors, for example), so that Total can anticipate operating incidents before they occur. Such initiatives could help Total achieve lower maintenance costs, greater equipment availability and a safer environment for everyone.

Fostering innovation at the grass roots level

Fostering innovation at the grass roots level has the potential to not only deliver better outcomes for businesses and consumers but also to the society at large. Internally, TCS conducts programs such as Innovation Forums, Ideathons and Hackathons, Innovation Days, and Custom COIN™ (Co-Innovation) to build a culture of continuous innovation.

Within TCS, we group innovation into time-based horizons, with H1 being immediate-term innovation (or derivative innovation) that is largely driven by industry business units. H2 (platform) innovations tend to be medium-term that are generally led by our Business and Transformation Services unit, that focuses on core technologies of interest to our global customers. H3 (disruptive) innovations are almost exclusively managed by our corporate research and innovation teams, in collaboration with leading academic and other research teams worldwide. For both H1 and H2 innovations, we also extensively involve our COIN™ teams that have deep connects with emerging-tech firms. Post incubation and prototyping, depending on the relevance to customers, these innovations get converted to TCS offerings – that could be products or solutions or frameworks – which will directly impact TCS' topline.

To foster the culture of innovation, TCS has annual TCS Innovista contest, where the best innovations get the opportunity to benchmark them self. Through a series of objective and thorough evaluation, the winners of each category are declared. Some of the key categories include focus on innovation in new products and services, innovations that are yet to be commercialized and best platforms. We also recognize those innovators who have tried but not been successful with our “dare to try” category.

TCS Innovista is designed and run much like Tata Group's namesake event. The best of TCS Innovista's entries often find their entries to Tata Innovista. Over the years, TCS has won multiple awards in the Tata Innovista.

Recently, TCS inaugurated Pace Port™ to drive next-level collaboration with customers through new disruptive ideas, digital technologies, solutions, processes, tools, and business models. The global network of TCS Pace Ports will ignite collaborative experimentation, research, rapid product prototyping, and continuous learning alongside customers, partners, academia, and analysts – pushing current boundaries and driving business transformations through the application of cutting-edge digital technologies.

In FY18 alone, TCS invested over INR 1500 crores in research and innovation, and currently works with more than 500 researchers across more than 30 innovation labs. TCS' various research initiatives include:

- **TCS IT Wiz:** School-level initiative aimed at conducting information technology quiz competitions for students in class 8-12 across India.
- **Digital Impact Square (DiSQ) at Nashik:** Mentorship program for students to help them grow into successful entrepreneurs.
- **TCS Academic Interface:** Designed to make engineering students 'job ready', the program has benefited over 700 institutions covering more than 12,000 faculty members, and 1.4 lakh students across the country. Aligned to the changes in the industry, TCS proposed a new undergrad BE curriculum on Computer Science and Business systems that is being piloted in three colleges, BVP COE at Pune being one of them. AICTE has approved this new curriculum for use.
- **TCS Innovator Program:** Promotes collaboration with premier technical education centers such as IITs and NITs to draw top talent for research and innovation roles across major industry domains.

Propelling organizations into the future

Research and innovation plays an important role in creating competitive differentiation for businesses today. IT has – and will continue to – digitally transform the way we live, interact, and do business. As technology evolves and becomes increasingly complex, businesses that explore emerging technologies with a spirit of scientific enquiry will devise innovative solutions and emerge as winners.

About the author



Dinanath (Dina) is the Vice President and Global Head of the Analytics & Insights business unit, which is part of the TCS Business and Technology Services. This unit enables businesses to realize the power of data and drive deep analytics-led, real time decision-making opportunities for global leaders. With more than 28 years of experience, Dina has managed and amplified business services, including the Business Intelligence practice. As a champion for diversity and inclusion, he has led TCS' All Women Centre in Riyadh and supports the Avasara Academy, which aims at developing leadership skills among young girls. Additionally, as the chairman of the Institute of Electrical and Electronics Engineers Pune section, Dina provides leadership on technical education and drives a special interest group on affordable agriculture.

What is innovation? 15 experts share their innovation definition

Innovation is truly a confusing buzzword which many people love to hate.

Every business leader agrees that it is important. But nobody can quite seem to agree on what it actually is or what it means. If you ask Google for an innovation definition, it is less than helpful, coming up with over 300 million results with thousands of definitions. Its own definition is pretty much useless: "the action or process of innovating". Using the traditional sources for a definition such as the Oxford dictionary also doesn't help much, with their answer being "Make changes in something established, especially by introducing new methods, ideas, or products"

So I contacted a selection of my fellow innovation experts to see how they talk about innovation with their clients, and compiled the results for you here. I asked them all:

- What is your definition of "innovation"?
- What mistake do companies often make when they talk about innovation?
- What simple thing can a company do to change their conversation / perspective about innovation?

The results surprised me. Even amongst the group of industry insiders here who teach and author books on innovation methodologies, case studies and thought leadership, there was a huge variety between the responses. So in the last section of this article, I've analysed what everyone said to find the most common themes, to try and see if it is possible to use the common threads to determine the most effective definition you can use.

Read the full post at

<https://www.ideatovalue.com/inno/nickskillicorn/2016/03/innovation-15-experts-share-innovation-definition/>