Driving Innovation in High Tech: SaaS and PaaS Lead the Way

Abstract

How much cloud adoption is good for a company is a much debated question not only in the high tech domain but also across industries. There is no clear answer to this as companies continue to aggressively explore Software as a Service (SaaS) and Platform as a Service (PaaS) adoption to dynamically respond to changing business scenarios. While some functions such as CRM and HR are quite mature in driving rapid cloud adoption, others, such as operations and logistics, are surely but steadily adopting SaaS.

However, the real challenge for organizations lies in the diversity of cloud and SaaS/PaaS players that are emerging across the value chain of the high tech industry - from sales, marketing, sourcing, planning, and warehouse management to HCM, PLM, and IP management.

This paper delves into the key challenges that high tech companies currently face, the areas that need improvement, and how SaaS and PaaS players can help drive innovation that ultimately helps create exponential value for customers.
Challenges Come Early to High Tech

As an early adopter of digital transformation, the high tech industry understandably experiences related challenges earlier than its peers. This is why the industry must carefully balance the unlimited potential of digital transformation with a thorough assessment of probable challenges in order to achieve profitable growth. Some of the key challenges pertain to:

- **Cost Pressure on IT Assets**: Companies need to strike a balance between creating innovative products and services and keeping IT costs at an optimum level.

- **Time-to-market**: In today’s fast paced environment, the speed with which organizations take various products and services to the market is extremely critical.

- **Operational Speed and Flexibility**: Organizations cannot afford to lag behind in terms of scalability, speed, and flexibility in any area within the business ecosystem. They need an agile yet flexible IT back bone to rapidly build new products and services.

- **Highly Integrated Solutions**: Departmental silos are being broken down to improve visibility and ease of operations, driving the need for highly integrated solutions. Flexible solution options and the ability to customize solutions with increased agility and speed is fundamental to the success of digital initiatives.

Which High Tech Areas Demand Faster Innovation?

While there are several business areas to consider, here are the top four that can benefit significantly from fast paced innovation, in turn, driving growth and helping identify other areas of improvement:

- **Human Resources**: HR is no longer a support function but an integral part of talent development and collaboration, which is critical for business growth and in turn, customer experience. With businesses increasingly embarking on transformation journeys, HR processes, business models, talent requirement, and technologies will witness bigger shifts through innovation.
Customer Experience: Fast-paced innovation to address customer experience (CX) is already part of the corporate strategy of most global high tech companies. However, most firms are yet to give serious attention to CX-focused innovation. Customers not only look at the end product, but also demand a superior experience across the customer journey - right from selecting the product to its positioning and overall experience. Companies need to focus on tapping into innovation to create personalized experiences for different life events and win customers over at every touchpoint in their journey.

Planning and Analysis: Due to ever increasing product complexities and the demand for faster turnaround, companies need innovative solutions that address real-time changes across supply and demand scenarios. ‘How fast and effectively are solutions able to meet customer demand’ is the new yardstick to measure success. Improving the short-term forecasting accuracy is more important than before to make a product available, when and where needed. Securing complete visibility across the supply chain, and evaluating what-if scenarios and their impact on cost, lead times, and schedules is a must to outperform the competition.

Supply Chain: Given increased demand volatility, product complexity, and fluid customer expectations, a continuous supply network with common and affordable infrastructure that unifies all entities is an important prerequisite. For shippers, 3PLs, carriers, suppliers, and other entities (such as OEMs and distributors), an innovative and collaborative platform is needed, which is both cost-effective and scalable, can help simplify interactions, and reduce supply chain disruptions.

Six Ways SaaS and PaaS Solutions help Bridge the Gap

Thankfully, the high tech industry has now moved beyond the phase of educating companies about cloud adoption and its benefits. Today, there are several players in the market, addressing both the vertical and horizontal landscape requirements for SaaS as well as PaaS solutions.
Here are six ways in which innovative SaaS and PaaS models can help address industry challenges, especially in the areas that need accelerated innovation:

- **Create New Business Models and Processes:** Cloud-based platforms help create new business models and processes by easily integrating with other systems or tools. Flexibility and the ability to manage real-time business changes are additional advantages. What’s more, such solutions are capable of processing a large amount of data.

- **Enhance Customer Experience:** Leading CRM solutions not only address traditional customer management, including sales and marketing, but also provide a 360-degree view of the customer and allow for one-on-one engagement with them. This game-changing scenario provides speed and flexibility to enhance customer experience and stay ahead of the competition. These solutions also provide a platform to build applications quickly, to cater to specific business requirements, in turn helping the enterprise create exponential value for customers.

- **Ensure Rapid Planning and Analysis:** Rapidly responding to ever-changing demand scenarios is critical to fulfilling customer requirements and securing customer loyalty over the long run. At the same time, companies need to watch out for additional costs incurred. Certain SaaS applications that cater to these requirements enable businesses to perform simulations and analyze what-if scenarios to avoid hasty decision-making. Planning based on demand sensing is the way to go, helping reduce inventory, improve forecasting accuracy, and better serve customers.

- **Develop Different Subscription Models:** With cloud computing at the forefront, subscription business models are becoming increasingly popular with pure play cloud players catering to the growing requirements. They design SaaS applications geared to a specific subscription model with features such as automated billing, payment flexibility across the globe, analytics, and financial operations management. Drawing on the insights gained from subscriber requirements can help improve the solution and service delivery.

- **Use On-Demand APIs to Quickly Build Customized Solutions:** Today’s connected world offers endless possibilities and opportunities for seamless integration using SaaS solutions - across applications, platforms, and systems - leading companies to true digital transformation. Several cloud-based API platforms can be quickly built for specific
business function or industry verticals, using on-demand APIs. Enabling such secure, scalable, and flexible solutions to solve business problems lends a significant competitive edge.

- **Leverage Cognitive Cloud**: What if we could capture all the information in various formats like text, images, videos, and conversations from all sources to uncover unlimited possibilities? Cognitive cloud and intelligent automation makes it possible to pair man and machine to explore new possibilities, and use unstructured information that usually goes uncollected and unanalyzed such as employee or payroll files, online customer reviews, and social posts.

**SaaS and PaaS are Outperforming Expectations**

According to Gartner, faster than previously forecasted SaaS and PaaS adoption is leading to a significant uplift in the entire public cloud revenue forecast.¹ What’s driving this aggressive growth? SaaS solutions are engineered to be purpose-built as cloud providers increasingly deliver nearly all application functional extensions and add-ons as a service. For users, the appeal of flexibility and better business outcomes is tipping the scale in favor of SaaS and PaaS. The result: unlimited avenues for using cloud in the form of SaaS and PaaS to power digital transformation.

Innovation is no longer driven only by IT but more through collaboration between business and IT depending on what works best for a company’s strategic roadmap. Leveraging SaaS and PaaS, high tech companies will be able to respond quickly to changing business scenarios, while staying intimately connected to customers across their journey. According to a recent IDC survey, SaaS will emerge as the largest category, accounting for nearly two thirds of all public cloud spending in 2018.² Clearly, the way forward for high tech enterprises is to create cloud deployment models and assessment criteria while exploring different options in line with their core strengths and strategic direction.

**References**


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Renukadas Choudhary leads the cloud applications (SaaS) portfolio for the Enterprise Transformation group within TCS’ HiTech business unit. He has over 22 years of experience across engineering, automotive, and IT industries including global ERP implementations, consulting and program management, in the sales and supply chain functions. Choudhary has a Bachelor’s degree in Engineering (Production) from Marathwada University, Aurangabad, India. He is a PRINCE2 practitioner and an APICS Certified Supply Chain Professional (CSCP).

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