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HARNESSING THE BEST OF **PRODUCT ENGINEERING SERVICES ECOSYSTEM** WITH FULL PRODUCT LIFE CYCLE COVERAGE

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Introduction

Modern-day software product enterprises are witnessing a Strategic Inflection Point (SIP) in their business ecosystem. Several advancements in how software is developed and consumed have undergone several changes. The customer expectations are shifting from traditional 'features list' to superior end-user experience, low Total Cost of Ownership (TCO), and ease of deployment, use, and scalability. A modern software product firm needs, no matter of what size, to respond to these changes to stay relevant in the market and survive.

Adapting to an impending change is easy said than done. There are several factors at play in running an efficient software product firm. The priorities are so intensely merged with the business top and bottom lines that a small change may require an entire rework of an existing workflow. Given that, it has become even more important for software product firms to collaborate with touchpoints of expertise available within the industry to embrace the best practices experienced by the early movers and winners in the industry.
In this whitepaper, we explore the trends in modern day software product engineering services ecosystem, the challenges faced while collaborating with those experts, and how these challenges and risks are mitigated to derive the best through put as reflected in time-to-market, market share, and the business bottom line.

Top 3 Trends in Software Product Engineering Ecosystem

Software product engineering has seen new trends almost in direct proportion to the evolution of new technologies. However, we see the following three trends as having a significant impact in the past 3-5 years on how software product engineering has evolved into a brand-new ball game. Embracing these trends has enabled players of all sizes to present a compelling value proposition to their customers.

01 Advancements in Disruptive Digital Technologies

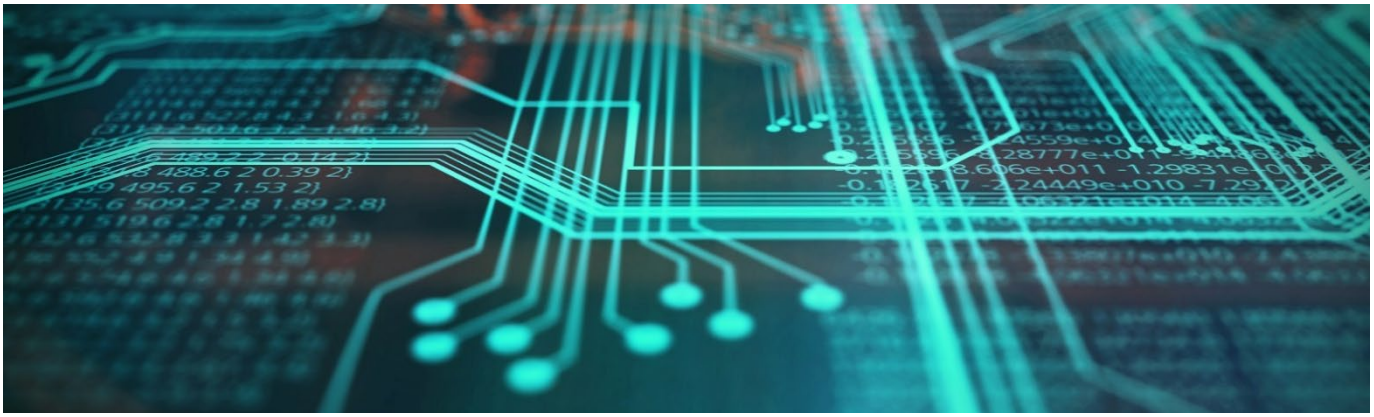
Disruptive digital technologies such as AI/ML, IoT, Cloud, Analytics have given rise to a brand-new breed of software products that pose fierce competition to the traditional players. To maintain their market share and top line, most traditional players are bracing to bring capabilities powered by these disruptive technologies, in their software products. This trend marks a firm footprint of innovation in the capabilities of small and large enterprise software products. They are redefining the way software adds value to a business enterprise.

02 Growth in R&D Capabilities of Small and Medium Product Firms

Investing into R&D was considered a sole domain of large software product players. However, the new age has seen R&D being embraced by small to medium enterprises (SME) as well. It has given SME players an edge, enabling them to stand next to their large counterparts. When combined with disruptive digital technologies mentioned above, this presents a level playing field to players of all sizes.

03 Rise in Demand for Operational Efficiency

Operational efficiency marks the way an organization utilizes resources available to its disposal in the most optimized way, thereby giving them more throughput with almost the same level of input. It has reduced the overheads to a great extent and has impacted software product firms' bottom line. Operational excellence is a long-drawn process. However, with increasing interest in maintaining operational efficiency, the battle fields are more intense as economies of scale of efficiency have passed onto the pricing of software.



Top 7 Challenges in Availing PES

Scalability Matters - Dearth of Skilled and Experienced Talent

Resources scalability is one of the most important considerations determining the product's success. The resource requirements are to be understood in the availability of skills technology, and business talent to be deployed based on different requirements at different times.

The key is to strike the right balance, as once the product is developed, it may also require scaling down the resources. Most software product organizations spend substantial about of management time and expertise to balance this equation.

Partial Coverage to Time-bound Demands of Software Product Firms

The software product passes through a lifecycle, also known as, Software Product Life Cycle (PLC); see section below. The needs of product firms vary as the product passes through different life cycle stages, viz. Introduction, Growth, Maturity, and Decline stages. Everything from right resources for product architecture, development, and maintenance, to the availability of tools and technologies, leadership interventions, the economics of benchmarking, competitive analysis, etc. Most PES services providers who claim to be experts in understanding the needs of software product firms are not able to present a PLC-based services ecosystem at the full disposal of needs of a software product firm.

Time to Market Challenges

An apt response to competitive forces is quite effectively dependent on time to market. However, while availing professional product engineering services, time to market adherence is found to be scarce. One of the many reasons for that is conflicting priorities at the service provider's end. With no scientific basis for allocation of resources and management of timelines, these providers develop several products in parallel and end up not doing justice to anyone. Product companies should look for a scientific approach to adherence to market priorities with risk areas identified beforehand.

Inadequate IT infrastructure

It has become relatively easy for tech services companies to extend product engineering services by leveraging the natural dynamics of globalization. However, to help a fast-paced software product firm with developing their product(s) is not similar to developing any other enterprise application. Product development is a different ball game and requires an understanding of raw dynamics, which go heavily into building a scalable and world-class product. Software product firms should look for the entire set of ecosystems before choosing a partner. Adequate IT infrastructure is an essential requirement that ensures that a product gets its bare minimum environment to be fully conceived, developed, tested, and delivered.

Data Security and Privacy

As we discussed in the point above, just because one has access to financial resources and a qualified pool of engineers, a venture into providing professional product engineering services should not be a viable option. When a software product firm entrusts a partner to develop and deliver a product, it cannot be made vulnerable to avenues when it can lose out of security of their data and privacy matters. While to some extent it's a part of adequate IT infrastructure, data privacy and security should be compensated by almost equal emphasis from the partners' side as a business philosophy.

Control over Intellectual Property (IP) Rights

The traditional doctrine of offering professional product engineering services says that the product company always holds the inherent IP rights of the product being developed by a partner. It is true even today unless the contracts are structured differently. Apart from contractual obligations, it's a question of the belief system of the service provider. The culture and belief system itself in the partner's environment needs to be structured that they engineer not for IP but for innovation and time to market adherence.

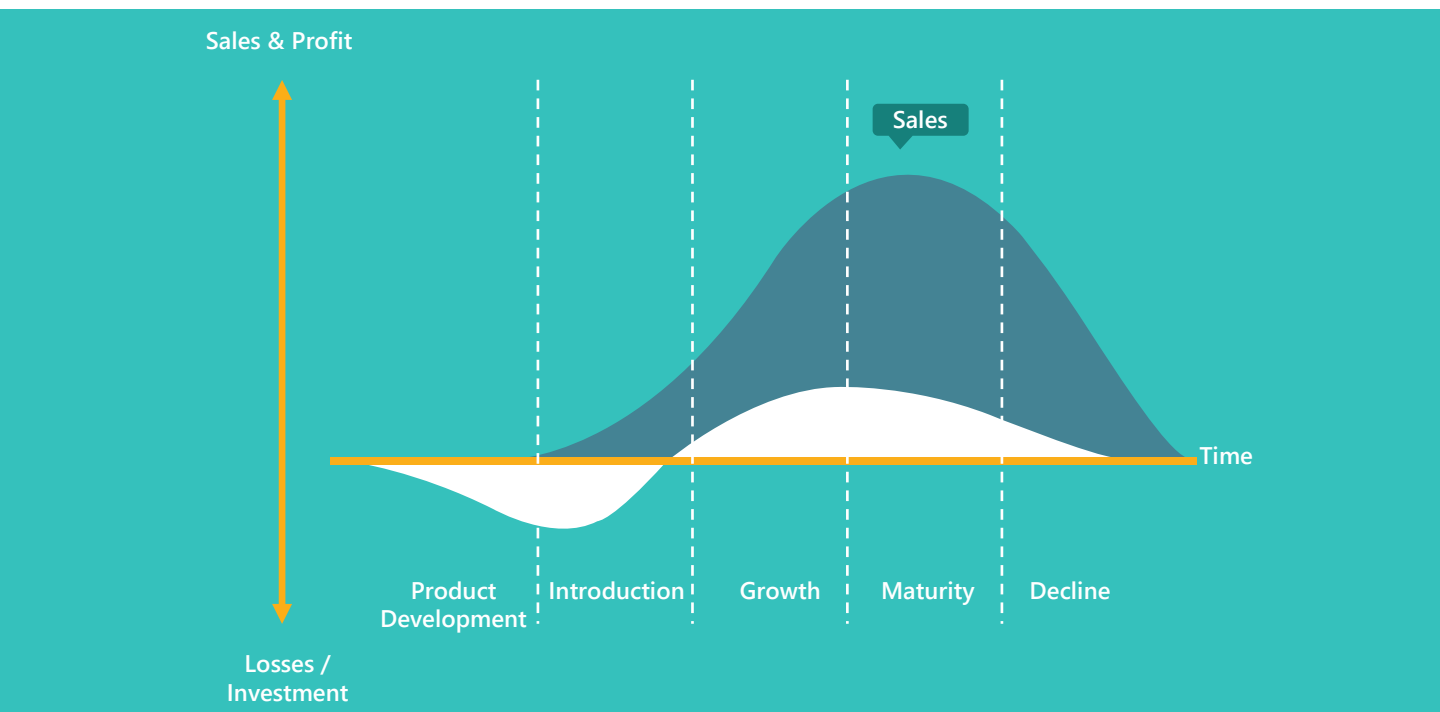
Access to Augmenting Industry Domain Knowledge

Matured partnerships in the modern product engineering services space require the partners to not only be the technology partners (who merely provides trained resources) but also be business partners. It should be understood from the partner's ability to understand the business and workflow nuances and processes typical to the industry vertical in which the product company operates. They should understand the market trends, areas of breakthrough innovations, pain areas of end-customers, and emerging best practices in the vertical. Today most successful product engineering services providers extend domain knowledge as well, which can be leveraged in the spirit of true business partnership.

Typical Product Life Cycle

As we discussed in previous sections, a product engineering services providers offerings are to be mapped to varying needs of software product companies at different times when looking at the Product Life Cycle (PLC) of their products. While some products are established and are spinning revenues, market share, and profits, an equal number of products are either just launched, are in the pre-launch stage, or are in the middle of accelerated growth. Wherever the product might be, a software product company could rely on partners for support with an array of offerings so that you could maximize profits.

Partner's comprehensive Product Engineering Services need to deliver a competitive advantage through our unequivocal coverage across the lifecycle stages of your product lines – right from the times when product is developed and goes from being introduced into the market until it reaches its end life.



Modern Outlook of PES Providers

Modern Product Engineering Services providers are business partners to the software product firm. Apart from providing a range of product services across the Product Life Cycle (PLC), these partners should look at product engineering as a science. These partners need to offer incremental business solutions to these product companies to garner increasing market shares.

A Case in Point

A North America-based $700 Million multi-product Independent Software Vendor (ISV) was facing tough competition from emerging players in the AI-based Electronic Document Management System (EDMS) space. They had several intellectual properties in this space and many of them were productized.

One of their flagship products was over a decade old and had matured over a period. This product being right at the maturity stage, the product managers were confronted with the challenge to increase the top line, increase the market share, and ensure that the product not only survives in the market but also continues to be relevant to the target market for an extended period profitably.

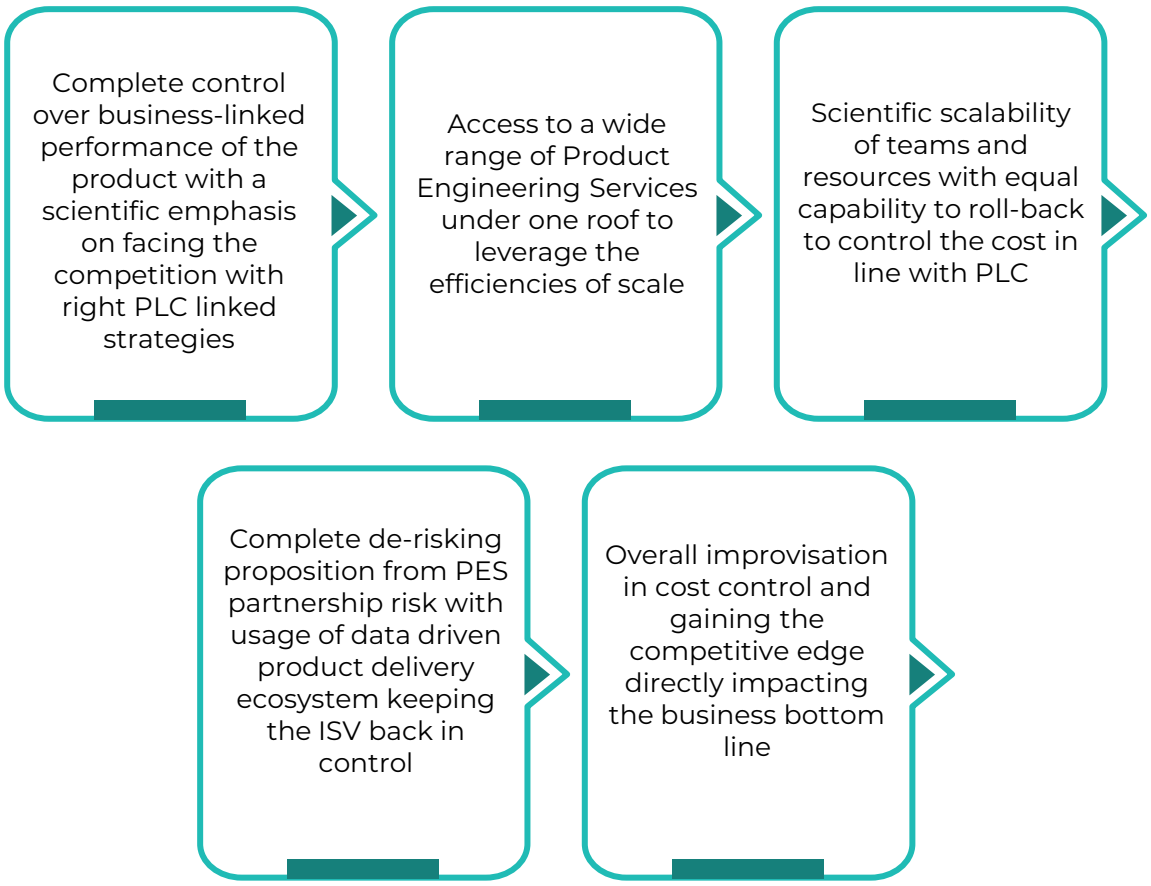
Along with this product, the ISV also wanted to launch a related product for Business Process Management (BPM) which can either exist alone or can be bundled with the EDMS product to capture a wider array of business of process automation in the target market.
The ISV had a choice of continuing with the traditional way of managing the product and pressing the sales executives to perform better. However, a new Chief Product Officer hired in mid-2018 chose to partner with a specialized Digital Product Engineering Services provider to support and manage the dual-product ecosystem.

The partner after onboarding, collaborated with the team of product managers to understand the product architecture, features, strategy, competition, and prospects. Upon gaining the requisite grip over the problem at hand, the partner decided to plot and map their range of product engineering services along the Product Life Cycle (PLC). This allowed the collaborated team to deploy strategies that are required exactly as per the PLC.

With the partner having gained expertise over supporting multiple products with different sizes of product firms across the globe, could spin out innovative services right from idea incubation to architectural consulting, to platform/product modernization, AI/ML capabilities and so on. It is because of the access to a wide range of services; the ISV was able to focus scientifically on the core business of promoting the product in the market and letting the partner handle and monitor the engineering and launch as per the PLC.

Along with the superior expertise, the partner also brought data-driven delivery model to put the ISV back in control to the product deliveries as per their markets' expectations and their own priorities. The scientific system of product delivery that the partner leveraged offered a de-risking proposition to the ISV from the risks of third-party partnerships.

The result was win-win. The ISV gained the following benefits from Harnessing the Best of Product Engineering Services Ecosystem with Full PLC Coverage:



Summary

Software product firms (or ISVs) need to better manage their product lines with superior and incremental profitability. With access to modern Digital Product Engineering Services providers, ISVs can achieve their business goals with the dual benefit of cost control and de-risking proposition. These modern PES providers come with the full focus on Product Life Cycle (PLC) and a data-driven product delivery ecosystem, which ISVs can benefit from while facing fierce competition in the market.

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