Digital Experience Platforms Outlook

Digital Experience Platforms (DXPs) *are major players in the experience segment for various enterprises. DXPs provide many built-in solution components, integrators, plugins, accelerators to rapidly develop and deploy the solution to the market. Enterprises can quickly innovate and can rapidly respond to market dynamics with DXPs. In this whitepaper we discuss the outlook of DXP in the coming days.*

Welcome to possible

A Mindtree Whitepaper

Introduction

Digital experience platforms (DXP) are primarily customer engagement platforms that optimize the user experience at every touch point in the user journey leveraging an integrated set of technologies of the platform. DXPs provide unified user experience across all channels and activities. DXP is a convergence of all customer centric technologies such as content systems, portals, analytics, campaigns, targeting, search, mobile apps, and such. DXP comprises of integrated set of technologies that provides capabilities for presentation, content management, commerce, marketing search, analytics, campaigns, etc.

Gartner defines a digital experience platform (DXP) as an integrated set of technologies, based on a common platform, that provides a broad range of audiences with consistent, secure, and personalized access to information and applications across many digital touchpoints. Organizations use DXPs to build, deploy and continually improve websites, portals, mobile and other digital experiences. DXPs manage the presentation layer based on the role, security privileges and preferences of an individual. They combine and coordinate applications, including content management, search and navigation, personalization, integration and aggregation, collaboration, workflow, analytics, mobile and multichannel support1.

A digital experience platform (DXP) is a well-integrated and cohesive set of technologies designed to enable the composition, management, delivery and optimization of contextualized digital experiences across multiexperience customer journeys.

DXP Categories

DXPs can be broadly categorized as follows:

Pure DXP

The DXPs that provide the integrated set of tools and business capabilities to build a digital platform are featured in this category. For example Liferay DXP, Adobe AEM, Sitecore are the key players in this space.

Horizontal DXP

Horizontal DXPs provide built-in accelerators that can be used across industry verticals to quickly build the digital solution. For instance, SalesForce experience cloud, Pega provide in-built plug and play accelerators.

Vertical DXP

Vertical DXPs operate in niche functional domains wherein they provide industry-specific accelerators or pre-built solutions. For example Majesco and Duck Creek provide insurance specific accelerator.

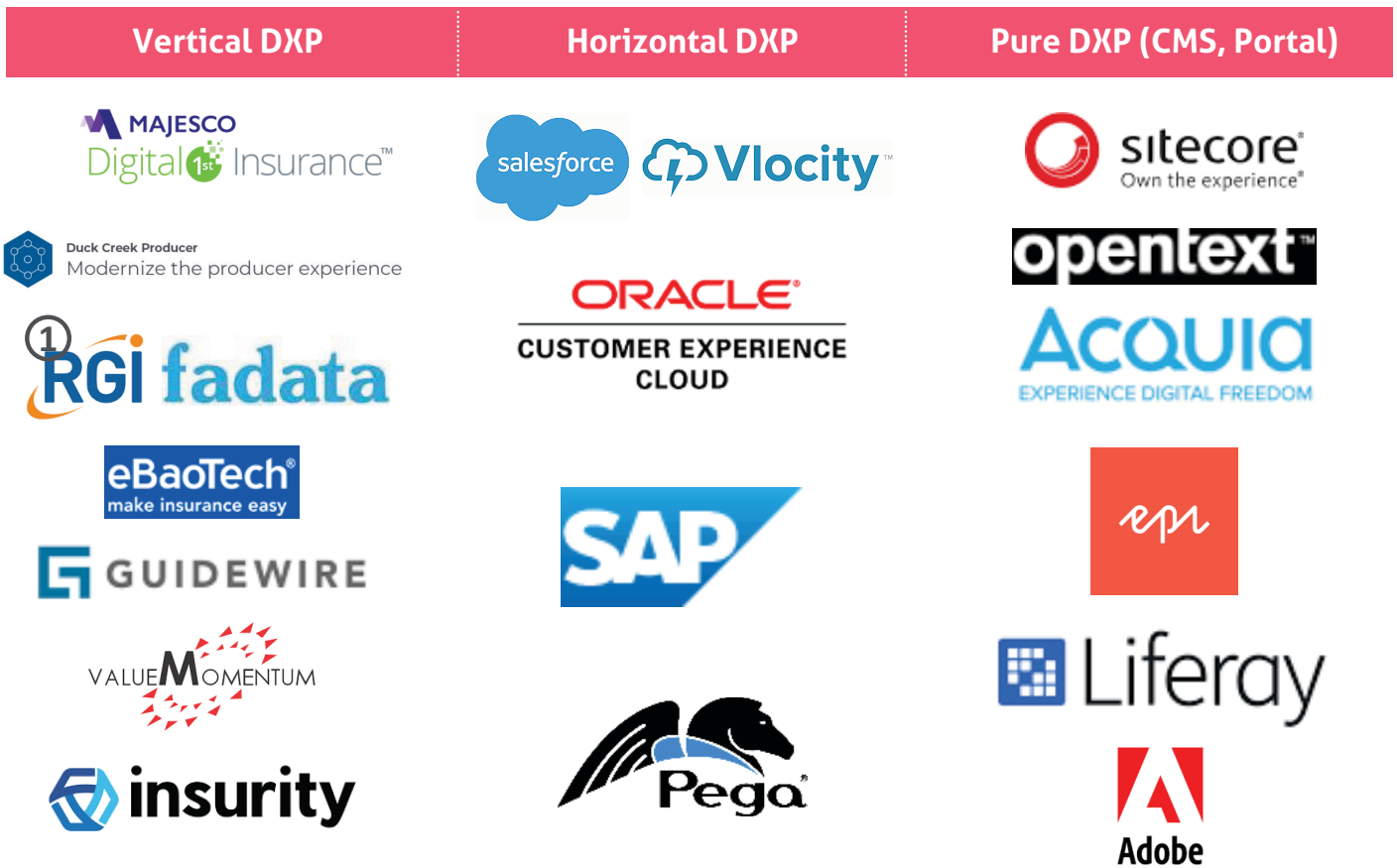We have provided a sample list of players across three categories in Figure 1.

Vertical DXP	Horizontal DXP	Pure DXP (CMS, Portal)

Figure 1 DXP Categories

Key DXP considerations and success factors

DXPs offer many inbuilt features for rapidly building digital solutions. Due to the pre-built bundle of the available DXP solution components, the solutioning should properly plan and design DXP-based solutions to ensure extensible, scalable and future-ready platforms

Integration Architecture

• Many modern digital platforms use stateless, API-first and headless mode of integration. As DXPs provide pre-built integrators, it is imperative to design the extensible integration model beyond the DXP platform through headless model of integration.

Performance & Scalability

• Many DXP-based solutions face performance challenges due to the heavy-weight components such as OSGI modules, portlets and such. Hence we need to design the stateless solution components and iteratively test the performance and scalability.

User Experience

- Built-in templates, page layouts offer decent UI development capabilities.

Omni-Channel Experience

- We need to fully understand the scope of omni-channel requirements before implementing the DXP-based solution. A robust omni-channel strategy impacts the integration model, services design, UI design and such.

User Engagement

- The solution should leverage features such as collaboration, analytics, feedback, survey and implement gamification features for enhanced user engagement across various touch points.

Insights driven Personalization

- The user analytics, actions and behavior data should be utilized to personalize the user experience.

Market outlook and drivers

As per the estimates2 , the DXP market is poised to grow to $15.80 Billion By 2025. As enterprises accelerate their digital journey and adopt agile methodologies, it is going to fuel the demand for DXPs. As per the research2 BFSI segment is going to witness the fastest growth in the DXP.

Given below are the key drivers propelling the adoption of DXP:
- Lowering total cost of ownership of the digital tools
- Faster time to market through inbuilt plugins and accelerators
- Cloud adoption and cloud migration
- Single customer view – cross channel analytics to understand the customer behavior
- Digital marketing including the campaigns, personalization, content management and analytics
- Easier integration with existing enterprise systems.
- AI-enabled hyper personalization
- Support for in-built commerce
- Industry-specific vertical plugins and accelerators
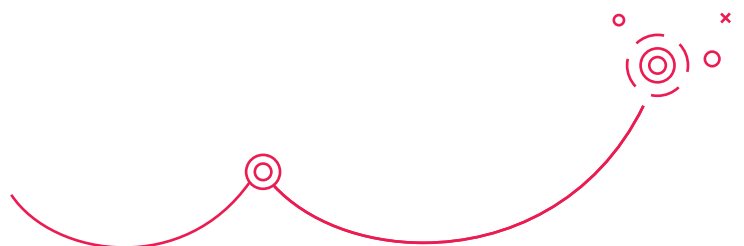
Emerging trends in DXP platforms are given below:

- DXP products are featuring machine learning capabilities for providing advanced personalization, auto-tagging for content.
- Many DXP products are providing cloud native capabilities.
- DXP platforms are providing the accelerators such as commerce accelerator, analytics, campaign management, digital workplace plugins, marketplace support, SaaS offerings.
- DXP Products are trying to optimize customer journey across various channels.
- DXP platforms are adding more integrations with payment gateway, CRM.
- DXP Platforms are providing low-code, no-code plugins.

Organizations are migrating towards DXP from legacy applications due to the following reasons:

- Performance issues and scalability issues of the legacy applications
- Migration from legacy technology to modern open standards-based technology
- Maintenance complexity of the legacy applications
- Lack of modern features such as mobile enablement, responsive web, interactivity
- Reduce integration complexity
- Cloud migration of legacy applications.

DXP Adoption

In this section we shall look at the adoption models for various DXPs. We have depicted the common real-world DXP scenarios in Figure 2.
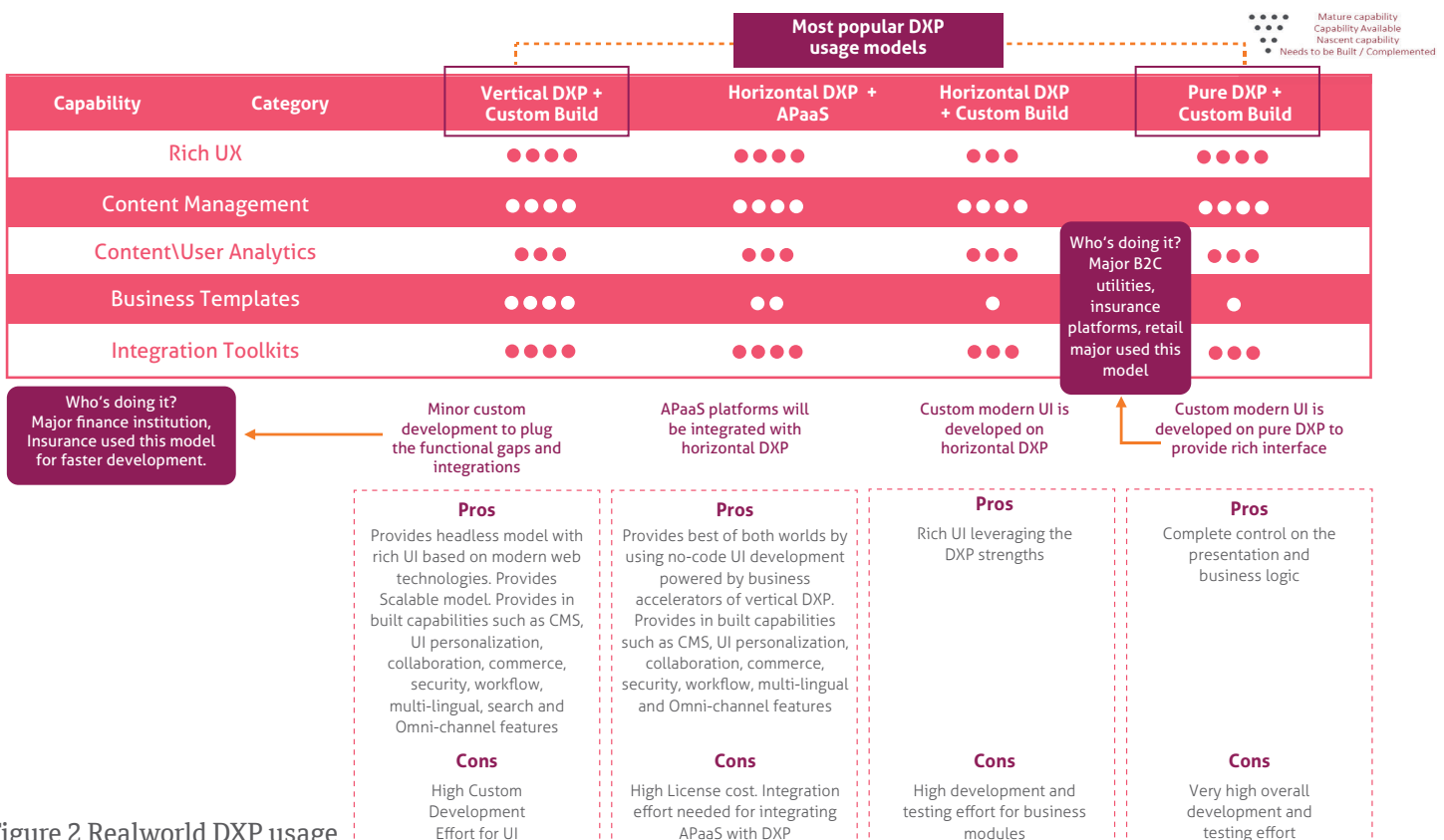

Figure 2 Realworld DXP usage

Pure DXP with custom build

In this model, we leverage the platform components provided by pure DXP and build the specific application components as needed. We could use this model for providing a unified view, consistent branding, personalized UI, and contextual informational delivery.

The main drivers for this model are:

- Consolidation of data, services and functions
- Greater control on user experience
- Provide CMS, personalization, search capabilities quickly

The key success factors of this model are

- API-driven, stateless, headless integration model
- Iterative performance testing

Horizontal DXP along with APaaS

In this model application platform as a service (APaaS) are used along with horizontal DXP. The APaaS solutions such as visual development, low-code development platforms, enterprise collaboration tools can leverage the platform accelerators of horizontal DXP. This model helps us to increase the delivery velocity, quick response to market changes, rapid application development, low code deployment.

The main drivers for this model are:

- Improved time to market
- Expansion in existing and new geographies
- Learning and experimenting with the technologies
- Faster development and deployment
- Low code implementation
- Visual modeling
- Declarative tools

The key success factors of this model are

- More configuration and less coding
- Use layer-based architecture with loose coupling and standard-based interfaces with lightweight message models
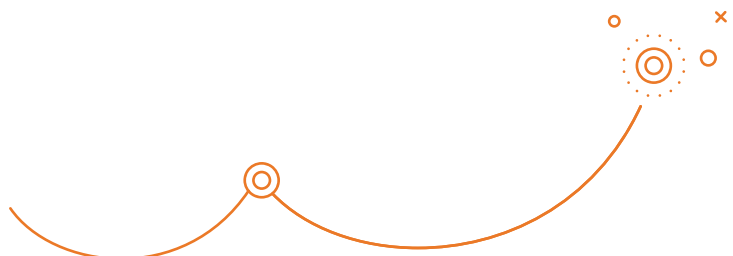
Horizontal DXP with custom build

In this model we develop custom applications using the horizontal DXP accelerators. This model is mainly used to provide rich and interactive user experience, consistent branding and increased user engagement.

The main drivers for this model are:

- Consistent brand presence
- High amount of marketing content
- High user experience needs
- High engagement with users

The key success factors of this model are:

- Well-defined governance processes for content governance
- Automated release management and deployment

Vertical DXP with custom build/extensions

We use this model to cater to the industry specific business rules by leveraging the vertical accelerators of the vertical DXP. The model can be used for rapid deployment of the vertical solution and for configuration of domain driven solution modules.

The key drivers for this model are:

- Heavy functional and domain needs
- Complex domain-specific business rules
- Rapid application development

The key success factors for this model are:

- API-driven, stateless, headless Integration model
- Iterative performance testing
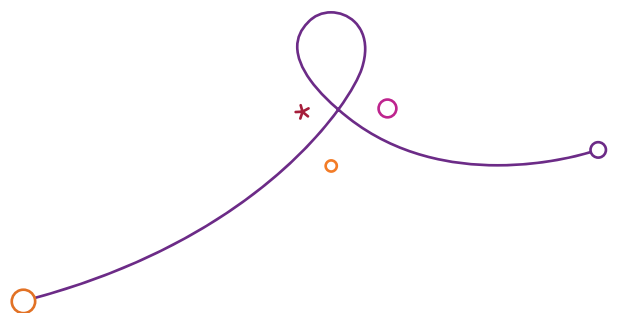
DXP Selection

We have detailed core evaluation parameters that need to be considered while evaluating the DXP products in Figure 3

Functional
- Presentation
- Personalization
- Security (SSO)
- Self Service Capabilities
- Workflow Management
- Communication
- Management
- Reporting & Analytics
- Ease of Integration with core systems
- Ease of Customization
- Availability of Analytics, single customer view
- Users & Security Administration (Authentication/Authorization/SSO)
- Usability & User Experience
- Responsive Design
- Compliance and Regulatory Fit

Technical
- Application Architecture
- Integration Architecture
- Data Architecture
- Document Management
- Browser Compatibility
- Scalability & Availability
- Maintainability & Performance
- Vendor lock in / control of source code
- Migration Support
- SaaS-Tenancy
- Release Management
- Deployment Options
- Time to Production

Financial
- CAPEX:
  - Licensing Model / Cost
  - Solution Building Cost
  - Infrastructure Cost
- CAPEX:
  - Support cost
  - License Renewal Cost
  - Infrastructure Cost/Any Other Cost
- Storage Cost (Data):
  - Any cost for Data by volume or transactions
  - Any 3rd party license cost of other systems that are needed

Organizational
- Vendor Profile & Financials
- Strategic Product for Vendor
- Product Vision and Roadmap
- Industry Positioning
- Product Maturity
- Product Implementation Process
- Product Maintenance Process
- Self Learning and Training
- Implementation Track Record
- SLA Adherence
- Partnership Fit
- Cultural Alignment
- Compliance
- Partner and Talent ecosystem
- Analyst rankings

Figure 3 DXP Evaluation Criteria

While shortlisting a DXP platform, an organization needs to holistically evaluate the DXP platforms based on four criteria:

- Functional – List down the key functional requirements for the organization and evaluate the DXP fitment on those functional requirements
- Technical – Evaluate the technical capability and the roadmap of the DXP platform
- Financials – Evaluate the overall cost of ownership, support cost and other involved costs
- Organizational – Select the product vendor who has robust product roadmap and aligns with the organization culture

References

1. Gartner - Digital Experience Platforms (DXP) Reviews and Ratings
https://www.gartner.com/reviews/market/digital-experience-platforms#:~:text=Gartner%20defines%20a%20digital%20experience,applications%20across%20many%20digital%20touchpoints.

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Dr. Shailesh Kumar Shivakumar has 19+ years of experience in a wide spectrum of digital technologies including, enterprise portals, content management systems, lean portals, and microservices. Dr. Shailesh holds a PhD degree in computer science and has authored eight technical books published by the world's top academic publishers such as Elsevier Science, Taylor and Franscis, Wiley/IEEE Press, and Apress. Dr. Shailesh has authored more than 14 technical white papers, five blogs, twelve textbook chapters for various under-graduate and post graduate programs and has contributed multiple articles. He has published 20+ research papers in reputed international journals. Dr. Shailesh holds two granted US patents, apart from ten patent applications. Dr. Shailesh has presented multiple research papers at international conferences. Dr. Shailesh's Google Knowledge Graph can be accessed at https://g.co/kgs/4YoaiN . He has successfully led several large scale digital engagements for Fortune 500 clients. Shailesh can be reached at Shaileshkumar.Shivakumarasetty@mindtree.com
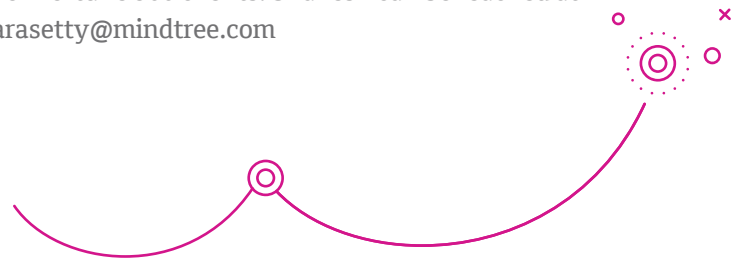
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