



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact Factor: 6.078

(Volume 9, Issue 2 - V9I2-1309)

Available online at: <https://www.ijariit.com>

DXPs Digital Experience Platforms transforming fintech applications: Revolutionizing Customer Engagement and Financial Services

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ABSTRACT

This research paper explores the application of Digital Experience Platforms (DXPs) in the field of financial technology (fintech) and their impact on customer engagement and the delivery of financial services. DXPs have emerged as transformative solutions that enable fintech companies to provide personalized and seamless digital experiences to their customers. This paper examines the specific use cases of DXPs in fintech, the benefits they offer to both customers and financial institutions, and the challenges involved in their implementation. Through a comprehensive analysis of literature and case studies, this research aims to shed light on the significance of DXPs in shaping the future of fintech. Digital experience platforms has capabilities to transform fintech applications. In this paper we will evaluate & compare two DXP solutions i.e. liferay DXP & Backbase DXPs along with that we will look into Digital transformation Strategy, Digitization of fintech applications, also common limitation where we should avoid DXPs.

Keywords: DXP, Digital Experience Platforms, Liferay, Backbase, Fintech integration, Banking and Finance Portal Solutions

1. INTRODUCTION

Digital experience platforms DXPs have emerged as comprehensive solutions that enable organizations to deliver personalized, seamless, and immersive digital experiences across multiple channels and touchpoints.

1.1 Overview of Digital Experience Platforms (DXPs) and their relevance in fintech

Developing the applications in the tradition way takes lot of time to market where as DXPs are designed such as way where Financial institutions of all sizes can benefit and release it in few days' time to few months.

Simplified and Open Architecture : DXPs are built on top of using concrete open platforms which enables it to integrate different heterogeneous systems such as CRMs, ERPs, contact centers and social media platforms, It have capabilities to easily integrate with upcoming emerging technologies such as blockchain.

User experience: DXPs have enriched User Experience (UX) for financial institutions such as managing the wealth management portfolios in institutive way. DXPs has capabilities such as creating AI- powered financial stories to maximize User experience & results.

360 Degree-View of All your wealth holdings: Financial institutions can capture data from all the touchpoints & digital channels to provide a unified 360 Degrees View.

Customer Journey based engagements: DXPs can track customer insights & map their journey which in turns helps financial institutions to offer more relevant financial and wealth management product & services to customer such as offering relevant US-

401K plans on the basis of the previous investments already done by investor which ultimately leads to gain customer loyalty & retention rates. DXPs machine learning capabilities can help to gain insight to learn from past actions & information.

1.2 Objectives of the research paper

We will be evaluating two different implementations of DXPs available in the market i.e. Liferay & Backbase, their impact on customer engagement and the delivery of financial services. In this research, we did comprehensive case study & development of 5 Use cases i.e. Accounts, Transaction, Wealth Management, 401K Plans & Services Integrations. To execute this experiment we gathered 2 group of developers [Liferay Developers & Backbase Developers] from different organization across globe with same and similar experience & coding capabilities. Liferay Developers Group & Backbase Developers Group given same use case and UX to develop and integrate with external systems.

1.2.1 Time to Market: While developing above mentioned five use cases, we found that backbase has less Time to Market as compared to liferay DXPs. Backbase comes with pre-integrated features which makes it best use cases of fintech applications to get developed.

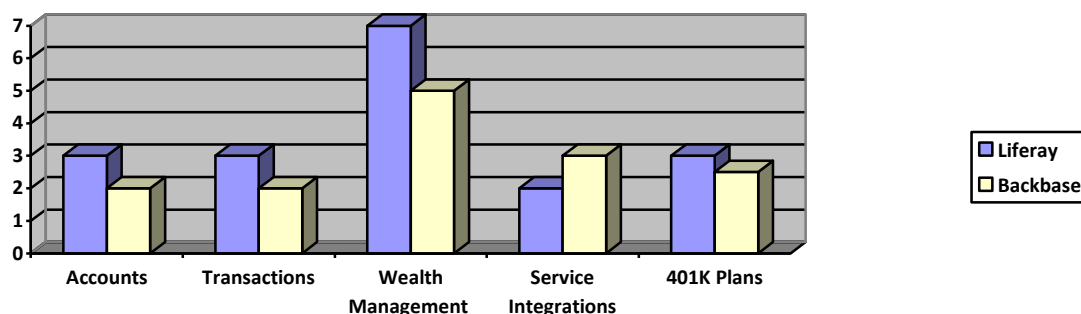


Chart -1 Time to Market (X-Axis – Time in Months) & (Y-Axis - Use cases)

1.2.2 Integration: Integrating existing application with Backbase takes more time as compared to Liferay. Liferay pre-integrated connectors gets easily connected with any integration technology available in the market where as both support Open Integration Architecture.

Table-1: Evaluation – Liferay Vs Backbase

Features	Liferay DXP	Backbase DXP
Time to Market	2 to 8 Months	1 to 6 Months
Development Complexity	Low	Medium
Seamless Experience	Across Platforms	Across Platforms
Product Type	Open Source, Licensed	Strictly Licensed
Architecture Capabilities	Unified Customer Data, Low-Code/No-Code tools, Remote Web Applications	Data Integration with DBS, Cloud Native, Microservices
Open Integration Architecture	Yes	Yes
Ready-to-go Apps (Widgets) & Customer Journey	Yes	Yes
Pre-integrated connectors	Yes	Yes
Flexible Micro-services Architecture	Yes	Yes
Learning Curve	Low	High

1.2.3 Ready-to-go Apps & Learning Curve: Both have ready-to-go Apps called as widget which can be customized according to the enterprise needs whereas learning cure for backbase is more as compared to liferay due to backbase closed academic community & Strict Licensing.

2. DIGITAL EXPERIENCE PLATFORMS IN FINTECH: KEY CONCEPTS AND FEATURES

DXPs in fintech leverage personalization techniques to deliver tailored experiences to customers. By analyzing customer data and behavior, these platforms can provide personalized services & product recommendations, targeted marketing messages, and customized user interfaces such as recommend 401K plans (Retirement Plans in US) by analyzing investor previous history with financial institution.

DXPs enable a smooth experience across Omni channels, such as web applications, mobile applications, and social media. They ensure consistent messaging, branding, and functionality across these channels, allowing customers to interact with financial services providers through their preferred touchpoints.

DXPs embrace agile development methodologies and continuous delivery practices, enabling rapid iteration and frequent updates. This iterative approach allows fintech companies to quickly respond to customer feedback, introduce new features, and stay ahead in a highly competitive market.

DXPs adopt a modular approach based on microservices architecture, where different functionalities and services are broken down into smaller, independent components. This architecture allows for greater flexibility, scalability, and agility, enabling fintech companies to rapidly develop and deploy new features and services.

3. USE CASES OF DXPS IN FINTECH

3.1 Mobile banking applications: Enhancing the user experience and convenience

Account Access Anytime, Anywhere: Mobile banking apps provide users with 24/7 access to their accounts from anywhere using their smartphones or tablets. Customers can check their account balances, review transaction history, and monitor their financial activities conveniently without the need to visit a physical bank branch. Mobile banking apps often provide features to help users manage their finances effectively. These may include budgeting tools, expense categorization, spending analysis, and savings goal tracking. By visualizing and organizing their financial data, users gain insights into their spending habits, making it easier to manage their money and work towards financial goals.

3.2 Robo-advisory services: Delivering automated and personalized investment advice

Robo-advisors leverage advanced algorithms and technology to automate investment management processes. They use mathematical models and data analysis to create diversified investment portfolios based on user preferences, risk tolerance, and financial goals. This automation reduces the need for manual portfolio management and provides users with a hassle-free investment experience.

Robo-advisors collect user data through questionnaires and algorithms to generate personalized investment recommendations. Users provide information about their financial situation, investment goals, time horizon, and risk tolerance. Based on this data, robo-advisors suggest suitable investment strategies and asset allocations that align with the user's objectives.

3.3 P2P lending and crowdfunding platforms: Facilitating seamless borrowing and investing experiences

P2P lending and crowdfunding platforms provide borrowers with direct access to funding sources beyond traditional financial institutions. Borrowers can create profiles, outline their borrowing needs, and showcase their business or personal projects on these platforms. This direct access allows borrowers to reach a broader network of potential lenders or investors, increasing their chances of securing funding. P2P lending and crowdfunding platforms streamline the borrowing process by simplifying application procedures. Borrowers can complete online applications, submit necessary documentation, and provide details about their creditworthiness and loan requirements. This simplified process reduces paperwork and saves time compared to traditional lending institutions.

4. BENEFITS OF DXPS IN FINTECH

Fintech companies can significantly improve the user experience and ease of use for their customers. The centralized interface, intuitive design, customization options, streamlined onboarding, cross-channel continuity, real-time updates, integration with third-party services, and enhanced security collectively contribute to a more seamless, convenient, and satisfying user experience in the fintech ecosystem. DXPs provide real-time updates and notifications to keep users informed about their financial activities. Users receive instant notifications about account balances, transaction alerts, payment confirmations, and other relevant updates. These timely updates help users stay on top of their finances and provide a sense of security and control. DXPs focus on streamlining the onboarding process for new users. They simplify the account creation, verification, and authentication steps, ensuring a smooth and efficient onboarding experience. Clear instructions, guided setup processes, and interactive tutorials help users get started quickly and easily. DXPs provide a centralized user interface that integrates various financial services and functionalities into a single platform. Users can access their bank accounts, investment portfolios, payment services, and other financial tools from a unified dashboard. This consolidation simplifies navigation, reduces the need for multiple logins, and improves overall user experience. DXPs prioritize security and compliance in the Fintech industry. With stringent regulations and increasing cybersecurity threats, DXPs provide robust security measures, such as encryption, access controls, and identity verification, to protect customer data and transactions. Compliance features, such as audit trails and regulatory reporting, help Fintech companies adhere to industry regulations and maintain trust among customers and stakeholders.

5. LIMITATIONS OF DXPS

DXPs are overkills where user base is small-to-average. DXPs are meant for revolutionizing enterprise fintech applications where customers are engaging to multiple touch points such as Social Media ,Web, Mobile, etc. where diverse audience have different

preference & personalization requirements on scale which uses different digital channels wanted to give full connected experience on all channels & platforms. It takes more time to integrate with the legacy system & data sources because we need to develop interface & adapter between two heterogeneous systems. It is niche approach in the market so it's critical to find a DXP vendor which integrates your existing application with strangler pattern which allows finance institutions to do step by step integrations.

6. IMPACT OF DXPS ON FINANCIAL SERVICES

Fintech startups introduce innovative product offerings that address specific pain points or underserved market segments. They leverage technology to offer alternative lending platforms, digital wallets, robo-advisory services, peer-to-peer payment solutions, and other innovative financial tools. These offerings often provide faster, more accessible, and cost-effective alternatives to traditional banking services, attracting customers and disrupting the market. Fintech startups often target niche markets or underserved customer segments that may be overlooked by traditional institutions. They identify specific customer needs and develop tailored solutions to address them. By catering to these niche markets, fintech startups can gain a competitive edge and attract customers who are looking for specialized and personalized financial services. Fintech startups collaborate with traditional institutions through partnerships, open banking initiatives, or API integrations. These collaborations allow startups to leverage the existing customer base, infrastructure, and regulatory compliance of traditional institutions, while providing innovative solutions and agility. This collaboration enables traditional institutions to tap into fintech innovation and respond to customer demands effectively.

DXPs have expanded access to financial services by leveraging digital channels. Traditional banking services were often limited to physical branches, making it challenging for individuals in remote or underserved areas to access financial products. DXPs provide online platforms that enable individuals to open bank accounts, make transactions, apply for loans, and access a range of financial services from their mobile devices or computers. This increased accessibility helps bridge the gap and reach previously underserved populations.

DXPs have given rise to alternative banking models that cater to specific segments or use cases. For example, neobanks and digital-only banks offer simplified account opening processes, lower fees, and enhanced user experiences through their digital platforms. These alternative banking models provide flexible and tailored services that appeal to individuals seeking modern, tech-driven solutions.

7. FUTURE TRENDS AND EMERGING TECHNOLOGIES

DXPs can serve as gateways to DeFi services by integrating with various decentralized applications (dApps) and protocols. Users can access a range of DeFi services such as lending, borrowing, staking, liquidity provision, and decentralized exchanges from within the DXP interface. This integration streamlines the process of discovering and accessing DeFi services, making them more accessible to a broader user base.

DXPs can aggregate data from different blockchain networks and DeFi protocols, providing users with comprehensive insights and analytics. Users can track their portfolio performance, monitor transaction history, and access real-time market data. This aggregated data empowers users to make informed decisions and optimize their DeFi strategies, all within the DXP interface. Fintech DXPs integrate voice recognition technology, allowing users to interact with banking services using voice commands. Users can check account balances, initiate transactions, make payments, and perform other banking activities by simply speaking to their devices. This hands-free and intuitive interface enhances convenience and accessibility, especially for users with mobility or visual impairments.

Voice and conversational interfaces in DXPs can leverage natural language understanding capabilities to simplify data entry processes. Users can verbally input information such as payment details, transaction descriptions, or search queries, and the DXP can interpret and process the information accurately. This reduces the need for manual form filling and enhances the overall user experience.

AI and machine learning enable predictive analytics within DXPs, allowing them to anticipate user needs and preferences. By analyzing historical data, machine learning models can predict future financial trends, identify potential risks, and provide personalized insights to users. For example, a DXP can predict a user's upcoming financial obligations and provide proactive recommendations to manage their cash flow effectively.

AI-powered chatbots and virtual assistants can provide personalized customer support within DXPs. Natural language processing algorithms enable these AI systems to understand user queries, provide instant responses, and offer personalized assistance. Chatbots can handle routine customer inquiries, while more complex issues can be escalated to human agents. This improves response times, enhances customer satisfaction, and reduces support costs.

AI algorithms can analyze user feedback, social media sentiments, and online reviews to understand customer satisfaction and sentiment towards financial services. This analysis can identify areas for improvement and allow DXPs to make necessary adjustments to enhance the user experience. Sentiment analysis also helps in identifying emerging trends and customer preferences, enabling DXPs to adapt and offer relevant services.

VR can offer virtual reality tours of properties for real estate financing. Potential buyers can explore properties remotely, virtually walk through houses or commercial spaces, and assess their suitability for investment or financing purposes. This saves time and resources by enabling users to narrow down their choices before physically visiting properties.

VR/AR can be leveraged for financial education and gamification. Users can participate in immersive financial simulations, educational games, and interactive experiences to learn about personal finance, budgeting, investing, and other financial concepts. This interactive and engaging approach enhances financial literacy and empowers users to make better financial decisions.

8. CONCLUSION

In our research, we found that Liferay is more generic than Backbase where Backbase has many fintech-specific products & integrations such as Digital Onboarding, Digital Banking, Digital Lending, Digital Assist, Digital Engage. DXPs are meant to shape the financial economy because they promote seamless integrations with external APIs such as payment APIs, CRM APIs, and Social Media APIs. Such collaboration allows a unified & integrated approach of services, capabilities & data which opens many ways to innovate use cases in the financial domain. Consider your future growth and scalability requirements when selecting a DXP. Ensure that the platform can handle increasing user volumes, data loads, and transaction volumes. Implementing a DXP often involves organizational changes and shifts in processes. Develop a comprehensive change management plan that includes training, communication, and support to help employees adapt to the new platform. Encourage a culture of continuous learning and improvement to maximize the benefits of the DXP. There is a need to explore more on DXPs' capabilities where we can integrate emerging technologies such as Chat-GPT4 & Wearable Devices etc.

9. ACKNOWLEDGEMENT

I would like to thank Dr. Shailesh Kumar Shiva Kumar for doing extensive research in Digital Experience Platforms & in the field of Digital Portals. I would like to thank all the developers who helped us in completing case studies on Liferay & Backbase portals.

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