Unit 2 Case Study: Deutsche Bank

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BLCN 533 A01 - Finance and Blockchain

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September 10, 2023

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This week's reading is a case study on Deutsche Bank's attempt at exploring blockchain technology between the dates of August 2014 and August 2015 (Applegate et al., 2017). These dates are important, because it was in 2014 that Vitalik Buterin even published his original white paper on the Ethereum blockchain, which provided a public blockchain environment for developing smart contracts through the programming language Solidity. Ethereum really pushed the smart contract initiative, so Rhomaios Ram and Paul Haley were really pretty early figures in exploring the economic viability of blockchain projects at Deutsche Bank and Deutsche Bank Labs (DB Labs). This unit case study explores how Deutsche Bank Lab's attempts at exploring smart corporate bonds on the blockchain helped set the stage for decentralized smart securities platforms.

What is Blockchain Technology and How Can it Be Used In Organizations And Industries To Create Value?

Today, blockchain has been a hot topic and been hailed as a disruptive technology that could do more than just disrupt the client-server model of the 1980s. It has the capability to transfer value bilaterally without the need for any physical business intermediary. Enabling this bilateral trade of information and value is a challenge to do securely, as there have been many attempts in the 90s at cryptocurrency and radical disintermediation through the Internet. The general concept of a blockchain, however, was only introduced when the mysterious figure Nakamoto released the cryptocurrency known as Bitcoin. This was the first currency to employ what would be known as a blockchain to manage the entire payment system. DB Labs explores whether different blockchains, public or private, could be a viable alternative and improvement

to traditional centralized securities transactions. What they found, was that indeed blockchain helps organizations create value, since settlement times are much quicker, information asymmetries are reduced, and users are provided with greater autonomy.

Is blockchain technology a disruptive platform?

Something the people at Deutsche Bank Labs found was that blockchain technology needed fairly multidisciplinary and varied teams with team members who had a number of useful skills. Data analytics professionals, legal experts, computer scientists, mathematicians, and other experts had to work together to get something like this together. It could be tough to get such a diverse set of people on board easily for such a new and disruptive technology, since the treat to the original business model is what scares people away from collaboration. Leveraging a collaborative approach allowed the group at Deutsche Bank Labs to work towards completing the one year project.

How did the Deutsche Bank Managers Lay The Foundations For Commercializing Blockchain?

As stated previously, the managers tried to foster a collaborative environment during a one year agile project cycle in order to minimize resistance from employees and foster an innovative environment. The DB Labs group was so innovative because they decided to pursue smart corporate bonds issuance, which is a rather unexplored frontier for blockchain applications. Debt markets are traditionally limited in their sale to public sector entities, but private sector entities have also begun to enter bond markets to fund future buybacks, acquisitions, or capex. For instance, Meta able to successfully raise over $8.5 Billion through March of 2023 (Raimonde & Tobin, 2023). The interest the greater investor community has in

private sector debt markets is a good sign, but DB Labs was able to conclude that smart corporate bonds on a blockchain database excelled at securities settlement and clearing. Blockchain issued smart bonds could enable a great amount of business entities to enter debt markets and sell their debt in order to fund various projects or initiatives. If entities like schools, non-profits, or healthcare companies ever needed financing, they could turn to instruments like smart corporate bonds.

How Should Deutsche Bank Move Ahead to Start Crafting Value from Blockchain? Which Key Areas Should be Considered?

Deutsche Bank Labs only went through a one year project cycle using Agile, since they are a banking firm primarily/. These types of firms don't usually do 3-4 year project cycles like other tech companies, let alone the 10 year project cycles the defense industry goes through. While the lab was able to validate that it was indeed possible to encode executable lifecycle event triggers through smart contracts, there are still a number of issues and concerns that must be addressed before decentralized bond issuers will be able to properly commit to their debt obligations. There are still legal, political, and market obstacles to overcome, such as who guarantees execution of the blockchain and how risks should be spread among participants.

Pana & Gangal (2021) go beyond DB Labs and checked to see how blockchain bond issuance projects were progressing. They found that some public entities, like the China Construction Bank, successfully implemented smart bonds that provided debt obligations to investors. The issue now, is that the risks must also be tracked along with the bond issuance, since the blockchain is meant to keep all of these factors in context. The way in which the bond

is actually going towards benefiting a particular initiative is a major affordance of using the blockchain to begin with.

Conclusion

DB Labs encouraged early explorations into blockchain-based corporate bond securities right around when things were beginning to heat up in the blockchain market in 2014. Through a collaborative, multidisciplinary, and agile approach, they were able to verify that smart corporate bonds could at least improve the securities settlement and clearing processes. Further research and applications beyond DB Labs suggest that private entities are successfully able to pay back debt obligations, such as is the case with the China Construction Bank. In the future, risk exposures and other reports should be interlinked along with the bond issuance system in order to provide better abilities to audit operations and other risks of the issuers involved. More research is needed into improving transaction rates and confidentiality.

References in APA

Applegate, L. M., Beck, R., & Müller-Bloch, C. (2017). Deutsche Bank: Pursuing Blockchain Opportunities (A). *Harvard Business School*, *9*(817).

Pana, E., & Gangal, V. (2021). Blockchain Bond Issuance. The Journal of Applied Business and Economics, 23(1), 217–226. https://doi.org/10.33423/jabe.v23i1.4064

Raimonde, O., & Tobin, M. (2023, May 1). *Meta platforms raises $8.5 billion in second-ever Bond Sale*. Bloomberg.com. https://www.bloomberg.com/news/articles/2023-05-01/meta-said-to-target-7-billion-in-its-second-blue-chip-bond-sale#xj4y7vzkg