

Blockchain Innovation from a Corporate Governance Perspective

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Blockchain and distributed ledger technology provide vast potential and opportunities. In order to assess the potential and opportunities as well as the risks of blockchain, a company and its directors need a certain level of familiarity with the technological basics. Familiarity thereof requires knowledge about public-private-key-cryptography, hashing algorithms, network architecture and the data processing and storage concept of the most widespread type of blockchain.

When handling token, important aspects have to be considered, especially in the light of the board's non-assignable and non-deprivable tasks according to art. 716a CO. Aside from their consensus algorithm and whether a specific blockchain has permissionless accessibility respectively public availability, token can be distinguished based on their economic properties and the rights they confer as claims on the counterparty. While Bitcoin does not have an intrinsic value or legally bound counterparties, asset token that represent e.g. a bond can be transparently valued and convey an enforceable claim.

Another factor worth reckoning is the currently dynamic juridical and regulatory environment in which laws and regulation from the pre-crypto age clash with the impact of blockchain technology, where the latter continuously tends to be one step ahead of legislative and regulatory institutions. Additional challenges include a secure private key management, the irreversibility of transactions, valuation risks and several administrative aspects, e.g. in accounting and taxation.

Even though the use of blockchain technology requires certain precautionary measures, it also offers versatile new opportunities, business models and possibilities for more effective and efficient operations throughout the company. On this account a lot of companies explore possible use cases, conduct trials (e.g. logistics tracking or bonds emissions) or already integrated blockchain technology in their regular operations. Important traits of blockchain technology to the participants are, inter alia, its resistance towards manipulation, the absence of a single point of failure by redundancy, real-time verification and reduction of transaction costs. With regard to corporate governance blockchain technology enables facilitating consensus processes among diverse interest groups, reducing opportunism and the need for monitoring, allowing real-time verification of information and providing audit trails back to the first block.

Application areas of blockchain technology within a company's operations and administration are multifarious. A first example specifies commodity deliverance where blockchain impacts several stages, beginning from logistics tracking and payment over to a more comprehensive integration that allows for automatic and reliable payment execution at the point of risk transfer upon previously agreed Incoterms recorded on the blockchain via smart contracts. Further examples are general assemblies, where the assignment of voting rights and their execution can be administered on a blockchain, or specifically insurance companies benefiting from parametric policies, accelerated claim settlement and growth potential in the field of microinsurance.

Blockchain technology also impacts the financial reporting process. Foremost daily accounting routines like record keeping of transactions could be affected by an increasing dissemination of blockchain technology, driving automation and efficiency. This would be accompanied by respective routines of auditors and within the consolidation process. Accounting areas which require judgement, e.g. valuation of investments, impairments and provisions, are less likely to be affected by blockchain technology.

To conclude, blockchain is still juvenile and, as a drawback, misses standardization which currently limits the application for companies. While the operational risks of blockchain technology necessitate an informed decision of its usage, the higher risk probably lies in the non-consideration of this innovation.