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BLOCKCHAIN AND CHANGE MANAGEMENT: OVERCOMING BARRIERS TO TECHNOLOGY ADOPTION

Over the past decade, blockchain technologies have gained remarkable attention from academia, industry, and policymakers. Despite this growing interest, the rate of successful large-scale implementation remains relatively low. Studies suggest that the failure rate of blockchain projects can reach as high as 92%, compared to an average of 56% for technology-driven transformation initiatives. Other reports indicate that across all digital transformation projects, failure rates range from 70% to 95%, with an average of about 87.5% unable to meet their intended goals [1]. According to a Boston Consulting Group study, only 30% of digital transformation projects achieve full success, 44% are partially successful, while 26% fail significantly.

The reasons for these challenges are complex and multifaceted. While technological and financial factors play an important role, the human dimension is often underestimated. Research shows that organizational resistance to change is among the most frequently cited barriers, with 41% of cases pointing to resistance, 45% to lack of clear strategic direction, and 76% to insufficient change management efforts [2]. Inadequate workforce skills represent another significant obstacle, with up to 60% of organizations reporting that a shortage of digital skills hinders transformation efforts [3].

Blockchain adoption, in particular, faces a unique set of barriers. Regulatory uncertainty accounts for approximately 27% of obstacles, lack of user trust for 25%, insufficient interoperability between blockchain networks for 21%, while high costs and technical complexity each pose barriers of around 34%. Security concerns (31%) and governance issues in consortium-led projects (29%) further exacerbate the challenges [4].

The paradox lies in the fact that even technologically advanced and efficient solutions fail due to human and organizational inertia. Employees often perceive new technologies as a threat to their job security or professional relevance. Research indicates that 28–58% of employees see the introduction of new workplace technologies as an additional burden, while 9–20% view it as a risk to job security [1; 2; 4]. This highlights the need to prioritize education, clear communication, and active involvement of stakeholders at every stage of blockchain projects. Without proactive engagement, resistance may manifest in skepticism, rumor-spreading, or outright opposition to innovation.

Change management principles provide an effective toolkit for addressing these barriers [5]. Firstly, developing a clear and compelling vision is critical. Projects should not only articulate the technical «how» and «what» but emphasize the «why» - the practical benefits and value to stakeholders.

Secondly, competence development and accessibility must be prioritized.

Technical jargon and overly complex explanations of blockchain functionality often alienate stakeholders and create unnecessary resistance. Educational programs, stakeholder-oriented communication strategies, and the creation of «change champions» within organizations can help bridge the gap.

Thirdly, organizational culture plays a decisive role in determining whether blockchain adoption will succeed. The promises of decentralization, transparency, and cross-organizational collaboration challenge traditional hierarchical and competitive models of business. Organizations must therefore foster cultures of trust, experimentation, and cooperation. Gartner emphasizes that developing relevant cultural traits and values should precede technological adoption to ensure sustainable results.

Looking ahead, the blockchain market is projected to expand significantly. For example, the blockchain-based supply chain solutions market is expected to reach $27 billion by 2030, with an estimated CAGR of 52% [4]. Moreover, adoption rates across different industries suggest promising growth: approximately 90% of financial services firms, 60% of supply chain companies, and 55% of healthcare organizations report readiness to adopt blockchain solutions. However, these opportunities can only be realized if organizations successfully integrate change management principles into their blockchain strategies.

In conclusion, blockchain has the potential to serve as a foundation for a new paradigm of digital trust and efficiency. Yet, its successful implementation depends less on technical readiness and more on the ability of organizations to manage change effectively. Combining technological innovation with structured change management practices will not only reduce risks of failure but also enable organizations to achieve long-term resilience and competitiveness. Future research should focus on the role of blockchain in shaping organizational culture and building trust through decentralized governance models.

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