## CITY UNIVERSITY OF HONG KONG

## 香港城市大學

Enterprise Blockchain: It's not About Trust!

## 企業區塊鏈與信任研究

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## **Abstract**

The purpose of this research is to describe how organisations that participate in an Enterprise blockchain establish social consensus. The study of the context and circumstances which precede the formation of such consensus highlights influencing factors such as the project genesis and the balance of power among organisations.

In the literature, Blockchain is seen either as a disruptive or a foundational technology with a high potential for business applications. The creation of trust is recognised as the key benefit for adopting the technology. However, the original Blockchain, which is also referred to as the "trust protocol", is generally mistrusted by the business world. Built against this trust-mistrust paradox background, Enterprise blockchain brings an alternatively designed system meant to meet businesses' expectations and to facilitate a more wide-spread adoption. At a time when organisations are increasingly interested to explore some blockchain-enabled solutions, it is relevant to understand how such Enterprise blockchain systems' governance is structured.

The key governance layer is at the business community level which is made up of organisations that come together to solve an interorganisational business problem. The business community reaches a social consensus and defines rules, structures and mechanisms that manage roles and rights within the community and therefore how the decisions are made. This social consensus is by nature outside of the blockchain protocol and forms the off-chain governance. The off-chain governance oversees the underlying network and therefore controls the blockchain governance.

In this research, I provide a descriptive analysis of how participating organisations reach consensus in an Enterprise blockchain. By means of multiple case studies, I find that 1) the project genesis influences the collaborative model of the business community, 2) the

balance of power among participants determines roles and rights allocation within the community and therefore the decision-making process, and 3) classic business practices such as contracts, agreements, charters, working groups, committees prevail over technology, which is merely a solution enabler. Thus, Enterprise blockchain is not about trust but about organising a shared governance based on business relationships and common objectives and enforced by legal agreements and governance structures. An organisation does not decide to participate because it trusts the other community members, but because the governance's arrangement ensures its corporate interests are well protected even by means of legal proceeding if necessary.

This thesis provides generalisable conclusions and useful insights for organisations that consider adopting blockchain systems and wonder how to structure the governance part. Besides, the critical view on the presupposed Blockchain trust that guides this research offers outcomes that contribute to the ongoing and still nascent academic research on Blockchain governance. In addition, the general public might gain a better understanding of how Enterprise blockchain applications are governed and feel more confident to use such applications. The conclusions of this thesis must be put in perspective by future research that would study if and how the social consensus evolves over time.

Keywords: blockchain, enterprise blockchain, governance, collaborative model, balance of power, off-chain/on-chain governance, social consensus.