Decentralisation through innovation:

Blockchain from the perspective of higher education institutions

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Introduction

"Innovation is the ability to see change as an opportunity, not a threat"
- Steve Jobs

As it turned out, Steve Jobs was not entirely wrong in his statement about innovation. Disruptive innovations have a significant impact on our stable structures. As it is defined as an innovation that interferes with our current status quo, it is a novel combination of available "stuff" and "forces" (Schumpeter, 1928). In parallel, the basic logic in the innovation literature highlights that disruptive innovation introduces new chances to conquer existing markets, identify new knowledge and build a source of competitive advantage and economic growth (Caffarra & Latham, 2018). One of the latest disruptive innovations is blockchain technology (BT) (Lumineau et al., 2020.). A Blockchain is an open, distributed ledger that records transactions between two parties efficiently, veritably, and long-termly (Iansiti & Lakhani 2017). The impact of the multifunctional use of BT 3.0 implies changes in organizations. In other words, BT 3.0 will transform identity verification, handling of private data, documentation and certification of transactions etc. (Lenz, 2019). In the wake of the Corona crisis and the growing importance of digital teaching, the disruptive impact of BT 3.0 should not be underestimated in the context of Higher Education Institutions (HEI) (Garcia et al., 2021). With the era of BT 3.0, new opportunities have arisen for higher education teaching. More than that, administrative processes within the HEI can be decentralised, stored more transparently and provided more securely (Chowdhury et al., 2020). It seems that blockchain technologies have the potential to reshape our notions of computerised trust (Antonopoulos, 2014), decentralisation (Atzori, 2017) and democratisation (Qi et al., 2018) and power (Tönnissen, 2020).

Objectives

1st objective: In order to determine what mechanisms are involved for scepticism in European HEIs compared to BT and the resulting institutional change.

2nd objective: To determine how academics, as a crucial factor in the change process, deal with technological change through BT and whether they support and follow the purpose. Based on the research gap in Tiron-Tudor, 2021.

3rd: To identify the relevance of the scepticism factors and its relationship to the students' requirements.

Research Question

RQ 1: **How does the behaviour of scepticism from university managers relate to BT implementation in European universities?**

RQ2: **How do academics react to the technological change of the disruptive in**

RQ3: **What is the relevance and interrelationship of the factors?**

Methods

1st study: The first research question, corresponding to the first publication of the cumulative research, is explored through a conceptual model. Building on the previously mentioned literature, it aims to develop a model using theory adaption to investigate the impact of the emerging scepsis of HE managers regarding the implementation of BT and technology acceptance (Jaakkola, 2020).

2nd study: A qualitative research approach was chosen to present and compare individual fears associated with the potential introduction of disruptive innovations in different European HEIs. More precisely, a case study approach (Yin, 2003) was selected to better understand the lecturer's scepsis as an organisational member. For the comparative study, four different European countries (Germany, Estonia, Spain and the Netherlands) set the frame, with similar student numbers and financial feasibility to implement BT (Kozinets & Gretzel, 2021).

3rd study: The third study is quantitative (Firestone, 1987) with conditional process analysis (Hayes & Preacher, 2013). It aims to determine how the legitimator of the organisation, namely the students, influences the scepsis of HEI members and top managers towards disruptive innovations.

Conclusion & Recommendation

Overall, the thesis has organisational implications. First, it expands our understanding of the legitimacy of HEIs as they attempt to maintain it through resistance to innovation. Secondly, the dissertation explores the motivations for the emerging scepsis towards innovation. This includes dealing with evolving macro trends outside HEI (Educause, 2020). A better understanding of resistant attitudes to innovation is a promising way to understand what HEIs need to work on to digitally transform and adapt to the increasing migration trend and the growing number of non-traditional students (Statista, 2021). These findings should support future adaptation to customer needs to offer nano and micro degrees in adult education, distance learning, online courses, professional certification and micro certification programmes (Educause, 2020). Finally, this study has important practical implications for policymakers, as the findings confirm the influence of scepsis on the organisational process. They also challenge policymakers to think about designing public policies that meet the needs of students to acquire qualifications without traditional enrolment in HEIs, without compromising the legitimacy of accredited HEIs. Some governments have recognised the potential of BT 3.0 for HEIs and are trying to promote it through public policies (The Legal 500, 2021). The dissertation is essential, especially in the initiation phase of innovation, without risking the legitimacy of HEIs.

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