Capturing Value in the Ecosystem of Digital Business Platforms

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Introduction

Digital technologies, vast collection, and digitization of big data, and extensive distribution of smartphones were several of the factors that enabled widespread business digital transformation which led to the emergence of new possibilities to design and develop novel business models. Novel business models allow companies move from stand-alone organizations to multi-companies' networks (Aagaard, 2019), where the value creation mechanism lies beyond the individual company and integrates customers, partners, and other stakeholders in a mutual value co-creation process (Hein et al., 2019). A digital platform is considered as a state-of-the-art core concept and is linked to disruption business models where organizations do not produce resources but provide infrastructure for individuals and other organizations to access and/or distribute resources already in possession (Mair, Reischauer, 2017).

There exists a lack of a holistic understanding of digital business platforms' ecosystem even though related research stems – including sharing economy (e.g. Schiavone et al., 2021), gig economy (e. g. Sutherland, Jarrahi, 2018) or platform economy (e.g. Gawer, Srnicek, 2021) attracted vast attention from scholars. Specific prospect about the ability not only to create and co-create but also to distribute and, what is the most important, to capture the created value between multi-stakeholders in the digital business platforms' ecosystem is gaining attention but remains undisclosed in full.

1. The ecosystem of digital business platforms

Stakeholders of the platform can be categorized into three main groups of agents – platform owner or central actor, complementors (providers or producers), and consumers including end-users. The existing scientific literature about digital platforms' ecosystem is usually limited to product and technology perspectives where interconnected actions of different stake-

holders within the network are neglected even though stakeholders directly influence the ability of central actor to create and capture value for itself and all stakeholders within the platform (Laczko, Hullova, Needham, Rossiter, Battisti, 2019). Much of the existing business scientific literature posits that the interests, priorities, objectives, and values of stakeholders are in conflict instead of being aligned (Harrison, Wicks, 2013; Pera, Occhiocupo, Clarke, 2016) but a digital platform is able to involve different stakeholders with different interests that are potentially complementary in the network it orchestrates for value creation and value capturing (Pesce, Neirotti, Paolucci, 2019). For a holistic evaluation of value capture between stakeholders who are acting as autonomous agents, there is a need to take into consideration tensions originating from the pluralism of involved actors and their distinctive performance goals. Moreover, there is a chance that the co-created value can be captured by the platform owner for private gains. The captured value can be monetized as a result of the revenue model and cost structure (financial return), although considerations of value capture must go beyond the revenue model (Hein et al., 2020) and include non-financial return.

2. Digital business platforms in education technology sector

The education technology (EdTech) sector falls in the scope of the above research. EdTech can be characterized as a combined use of hardware, software, administrative services and online educational resources to facilitate learning (Kerssens, Dijck, 2021; Selwyn, Jandric, 2020; Williamson, Hogan, 2020). Digital platforms in the EdTech sector led to digital and data-driven business models (Hilbig, Renz, Schildhauer, 2019) materialized by for-profit companies (Komljenovic, 2021). Extensive use of data, data-driven service-ecology and disruption of innovations in the EdTech sector contributed to an explosion of different educational apps, platforms, systems, and digital services, and at the same time transformed educational landscape into a complex network creating an EdTech ecosystem (Clark-Wilson et al., 2021). EdTech is increasingly populated by agents motivated by profit, interactions and operations are happening at a global scale (Verger, Steiner-Khamsi, Lubienski, 2017). Business-oriented stakeholders of the EdTech ecosystem acknowledge emerging business opportunities, changes in operating business models and increased demand of specific skills required for the workforce (including upskilling and reskilling) together with the need for business to proceed even in unpredictable environment. Recently, the Covid-19 pandemic has served as a catalyst worldwide for the further platformization, datafication, privatization, and commercialization of the EdTech sector which, at the same time, intensified the need for an analytical investigation of EdTech as part of a global platformization trend (Kerssens, Dijck, 2021). Pandemic and post-pandemic circumstances, emerging business opportunities, increased interest, and demand together with huge investments to the sector motivate the need for further and deeper analysis of value capture in the EdTech sector.

Conclusions

A scientific gap in the case of digital business platforms' ecosystem is identified because past research followed mainly value creation or co-creation mechanisms (Constantinides, Henfridsson, Parker, 2018; Mukhopadhyay, Bouwman, 2018; Cusumano, Gawer, Yoffie,

2019; Hein et al., 2019; Park et al., 2021; Poniatowski et al., 2021) and lacked an integrative framework for measuring the impact of digital business platforms ecosystem on financial, and, as a novelty, the non-financial value capture for multi-stakeholders. Our contribution to the existing body of knowledge includes the evaluation of value capture for multi-stakeholders since existing research focuses on single agent of digital business platforms ecosystem – platform owner (Zutshi, Grilo, 2019), complementors (Tsujimoto, Kajikawa, Tomita, Matsumoto, 2018) or consumers (Bonina et al., 2021) but not on all groups of multi-stakeholders at once, having in mind the inner tensions in the digital business platforms' ecosystem due to the pluralism of existing actors. Moreover, there is a knowledge gap in how digital business platforms' ecosystem impacts value capture for multi-stakeholders in different competitive situations and different lifecycle stages of digital business platforms (Hein et al., 2020). Finally, the EdTech sector itself is relatively new and the impact of the digital business platforms' ecosystem on value capture for multi-stakeholders has not been investigated in this sector yet.

We are currently establishing such a conceptual framework that will allow modelling and evaluating the impact of digital business platforms' ecosystem on both financial and non-financial value capture for multi-stakeholders (autonomous agents) in different competitive conditions and different lifecycle stages of the platform in the EdTech sector.

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