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Consolidated challenge to social demand for resilient platforms - Lessons from Uber's global expansion

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ABSTRACT

Many in the industry see the ride-sharing company Uber as the significant advancement through information and communication technology (ICT) particularly of the digital service platform and sharing economy. Uber has been exploring the new frontier of the ICT-driven disruptive business model (IDBM) and succeeded in its global expansion to over 479 cities in more than 75 countries worldwide in June of 2016.

Such rapid expansion provides constructive insights regarding the significance of IDBM, not only in transportation but also in almost all other business fields. While at the same time Uber's legal battles in some cities around the world raise a serious question regarding the rationale of IDBM.

In light of such a question, this paper examined the institutional sources contrasting success and failure in Uber's global expansion.

By the comparative empirical analysis, it was identified that the contrast could be attributed to a bi-polarization nature of ICT-driven logistic growth, and the success can be attributed to a co-evolutionary acclimatization that harnesses the vigor of counterparts.

This analysis suggests the significance of IDBM with a consolidated challenge to social demand (CCSD); it demonstrated that a co-evolutionary acclimatization played a transformative role in this accomplishment.

1. Introduction

Uber, a high-tech ride-sharing platform company, was founded in March 2009 and is regarded as the highest-valued venture-supported firm. It is seen as the significant advancement through information and communication technology (ICT) particularly of the digital service platform and sharing economy as it brilliantly connects the transportation industry with ICT via its ride-sharing application and it leverages the sharing revolution (Belk, 2014 [3]). Consequently, it fully enjoys the benefits of collaborative consumption characterized by (i) selling use of a product rather than ownership of a product, (ii) supporting customers in their desire to resell goods, (iii) exploiting unused resources and capacities, (iv) providing repair and maintenance services, and (v) using collaborative consumption (Matzler et al., 2015 [14]).

Uber is currently one of the fastest growing start-ups worldwide and has been exploring the new frontier of the ICT-driven disruptive business model (IDBM) (Watanabe et al., 2016 [28]). Based on this model, it has succeeded in its global expansion to over 479 cities in more than 75 countries worldwide in June of 2016. Its value exceeds the value of the full US taxi and limousine industry.

Such rapid expansion provides constructive insights regarding the significance of IDBM not only in transportation but also in almost all other business fields, including goods, professional services, space, and money (Cohen et al., 2014 [6]). In China, they have developed a sharing economy model for transport like Didi.

However, this rapid expansion resulted in the emergence of legal battles in some cities around the world (Arvind et al., 2014 [1]). Unlike licensed taxi drivers, private citizens providing ride-share services do not necessarily carry driver licenses, take licensing exams, purchase commercial insurance or even be required to honor all ride requests. For such reasons a German court, for example, banned Uber's basic service throughout the

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nation. Licensed taxi drivers are saddled with greater costs; that hampers their ability to compete with ride sharing (Arvind et al., 2014 [1]).

These battles raise a serious question regarding the rationale of IDBM.

To date, some studies have examined the rationale of the foundation of IDBM. Cannon et al. (2015) [4] pointed out that some characteristics inherent in the design of sharing economies lead to negative externalities. Arvind et al. (2014) [1] claimed that ride sharing is growing due to the circumvention of costs and regulations that govern incumbent businesses. They also claimed that, ride sharing could exploit loopholes to avoid rules and taxes, when this occurred, the sharing economy became the skimming economy. As legal battles explode worldwide, it shed the light on both the potential and shortcomings of IDBM. Many people identified problems and challenges as tax confusion, liability, and economic dependence (Cheng, 2014 [5]). Mastrorillo (2016) [13] contended that Uber and its business practices are epitomizing the white collar crime as they took advantage of vulnerable customers, no licensed drivers, basic employee rights and violated numerous industry laws and standards.

Contrary to these negative views, Rogers (2015) [18] expressed his dissatisfaction that public debate surrounding Uber had so far generated more heat than light, revealing little about the company's net impact on important public goods and values. Cusumano (2015) [8] pointed out that, while some startups had already run into legal and regulatory hurdles from city governments, courts, traditional unions or lobbies wanted to restrict or shut them down, the big question was really how traditional companies should compete with startups in the sharing economy.

By considering both of light and shadow effects of the ride sharing business, European Parliament (2015) [11] has summarized both aspects of social and economic consequences of Uber, as compared in Table 1.

It pointed out the challenge posed by governments including employment issues, internal market regulations, environment, taxation, and consumer protection.

Rudmin (2016) [19], from consumer science perspective, pointed out that distributed inventory accessed by digitally mediated sharing as with Uber, should be examined as an alternative inventory behavior.

While these works have shed light on the broad transformative problems of IDBM, inherent to newly emerging businesses, little attention has been paid to the inherent characteristics of ICT, on which IDBM is based and its subsequent solutions thereon.

Authors identified that Uber's disruptive business model can be attributed to a transformative shift in business design by constructing an ICT-driven platform ecosystem (Watanabe et al., 2016 [28]). Cusumano (2015) [8] pointed out that the sharing-economy startups threaten established companies to the extent that peer-to-peer networks could grow exponentially through the power of platform dynamics and network effects (Cusumano, 2015 [8]).

Oreg et al. (2015) [16] in their “Resistance to Innovation” warned that “People do not always choose the latest innovations. Many people find it more productive to keep using an old, familiar technology than rapidly adapt to a new technology.” Becker (2008) [2] suggested a possible function of organizational routines as a part of the family of concepts such as institutions, norms or conventions that can be the source of both stability and change. Davis (2009) [9] identified that the highly dynamic environments require flexibility to cope with a flow of opportunities that typically is faster, more complex, more ambiguous, and less predictable than in less dynamic environments. Mella (2014) [15] postulated that the dynamic interconnections among systems of organizational routines could be the sources of endogenous organizational innovation.

These analyses provide a reasonable explanatory base in understanding the contrasting features of Uber's global expansion, with and without legal battles. The exponential growth of Uber supported by the dramatic advancement of ICT might be non-adaptive to the institutions without flexibility and insufficient time for routinization while it could be adaptive to institutions with flexible and sufficient time for routinization. Also, this contrast could be changeable depending on the dynamic interconnections among systems of organizational routines.

Given a bi-polarization nature of ICT-driven logistic growth (Watanabe et al., 2015 [25]) on which Uber depends on in its global expansion (Watanabe et al., 2016 [28]), this postulate prompts a hypothetical view that the foregoing contrast can be attributed to a bi-polarization nature of ICT-driven logistic growth and that success can be attributed to a co-evolutionary acclimatization that harnesses the vigor of counterparts. Furthermore, attainability of this target can be subject to the optimal velocity of expansion on the donor side and institutional elasticity of the host side.

This paper focused on the inherent characteristics of ICT on which IDBM is based. Using a comparative empirical analysis, this hypothetical view was demonstrated. A possible solution based on a concept of a co-evolutionary acclimatization satisfying the above conditions in both donor and host sides were also demonstrated.

Section 2 reviews ICT's indigenous functions that are driving ICT-driven disruptive business models (IDBM). Section 3 reveals pitfalls of the ICT advancement resulting in the emergence of conflicts in Uber's global expansion. Section 4 extracts lessons from Uber's global expansion success model. Section 5 briefly summarizes noteworthy findings, implications, and suggestions for future works.

2. Uber as the jewel of ICT

2.1. Two-faced ature of ICT and subsequent un-captured GDP emergence

Uber's global expansion can be attributed to its glory as the crown jewel of ICT. Authors demonstrated that current ICT-driven global development depended on a trend shifting from traditional co-evolution of computer-initiated ICT, captured GDP, and

Table 1
Social and economic consequences of Uber.

Efficiency gains	Allegations against Uber's business
Reduction of search cost	Unfair competition without following regulations/fare
Better overview of quality and prices	Could aspire to become monopolies
Provide ICT services assisting drivers	Cars/drivers could be unsafe/underinsured
Allow for better utilization of assets	Invade customers' privacy
	Discrimination by drivers/passengers
	Undermine working standards/poor compensation
	Present challenges related to taxation