Europa-Universität Flensburg
International Institute of Management and Economic Education
Department of Strategic and International Management

Platform Symposium
Boston University Executive Education Center
July 09, 2015

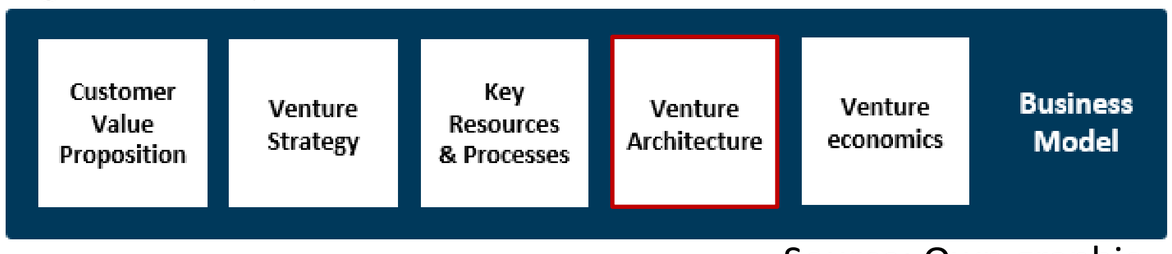
Business Models in Platform Markets

An efficiency-driven analysis of electric vehicle manufacturers

Introduction

- A **business model (BM)** incorporates different components (Morris/ Schindehutte/ Allen, 2005 and Johnson/ Christensen/ Kagermann, 2008). The **value creation architecture (VCA)** as part of it (compare figure 1) not only includes actors of vertical value chains – it also takes horizontal (cooperating competitors) and lateral actors (e.g. service providers) into account (Dietl/ Royer/ Stratmann, 2009).
- Many markets can be described as two-sided **platform markets (2SP)** which are characterized by a triangular structure and indirect network effects (compare figure 3). The platform includes components and rules facilitating the interaction of the market sides (Eisenmann/ Parker/ Van Alstyne, 2008).

Figure 1: Components of Business Models.

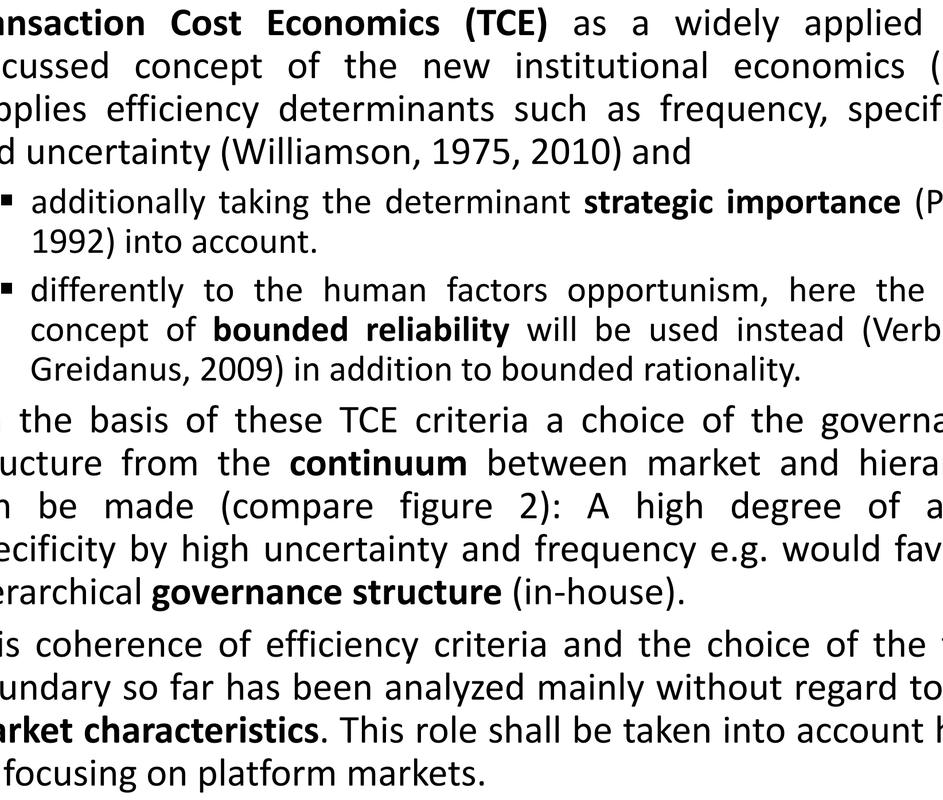


Source: Own graphic.

Main concept

- Analysis of the impact of the **market structure**, here two-sided platform markets, on the efficiency based choice of the **firm boundary**, hence its VCA as part of the focal actors BM.
- **Transaction Cost Economics (TCE)** as a widely applied and discussed concept of the new institutional economics (NIE) supplies efficiency determinants such as frequency, specificity and uncertainty (Williamson, 1975, 2010) and
  - additionally taking the determinant **strategic importance** (Picot, 1992) into account.
  - differently to the human factors opportunism, here the new concept of **bounded reliability** will be used instead (Verbeke/ Greidanus, 2009) in addition to bounded rationality.
- On the basis of these TCE criteria a choice of the governance structure from the **continuum** between market and hierarchy can be made (compare figure 2): A high degree of asset specificity by high uncertainty and frequency e.g. would favor a hierarchical **governance structure** (in-house).
- This coherence of efficiency criteria and the choice of the firm boundary so far has been analyzed mainly without regard to the **market characteristics**. This role shall be taken into account here by focusing on platform markets.

Figure 2: Efficiency based choice of firm boundaries for platforms.



Source: Own graphic based on Burr (2003), Picot (1992).

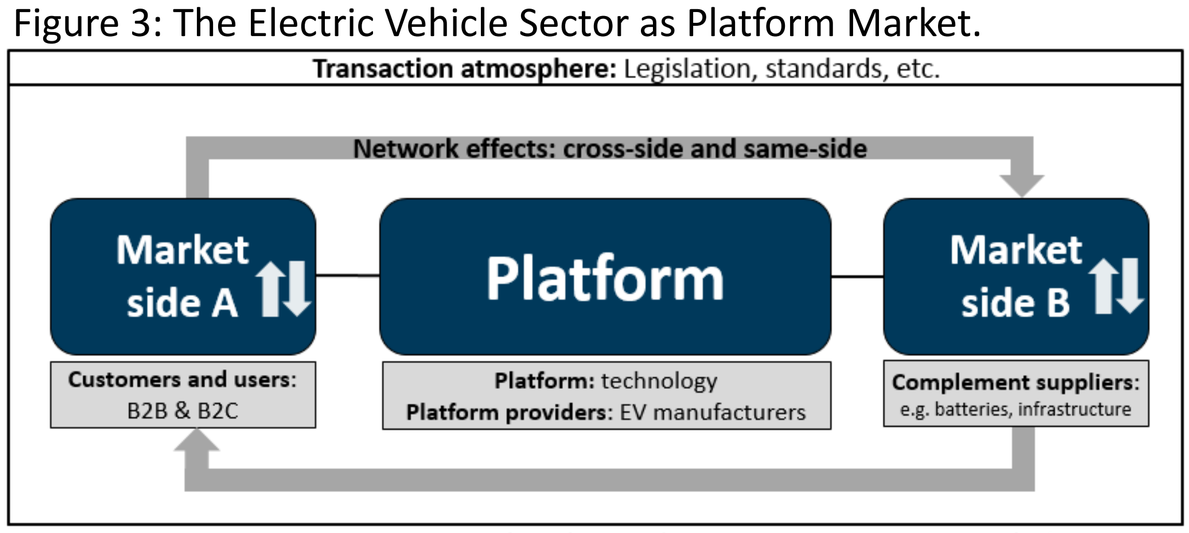
Method

Test of seven **hypotheses** which are operationalized for the case of electric passenger vehicles (EV) as a platform market (figure 3) applying the **case study** method with triangulation of mainly qualitative data including document analyses and expert interviews:

1. The higher the **specificity** of a platform component,
2. The higher **demand uncertainty**,
3. The higher **technological uncertainty**,
4. The higher the **strategic importance** of a platform component,
5. The higher the **frequency** of a platform component,
6. The higher the **bounded reliability**,
7. The stronger the **network effects**,

…the higher the **degree of integration** of the focal platform architect (dependent variable).

Figure 3: The Electric Vehicle Sector as Platform Market.

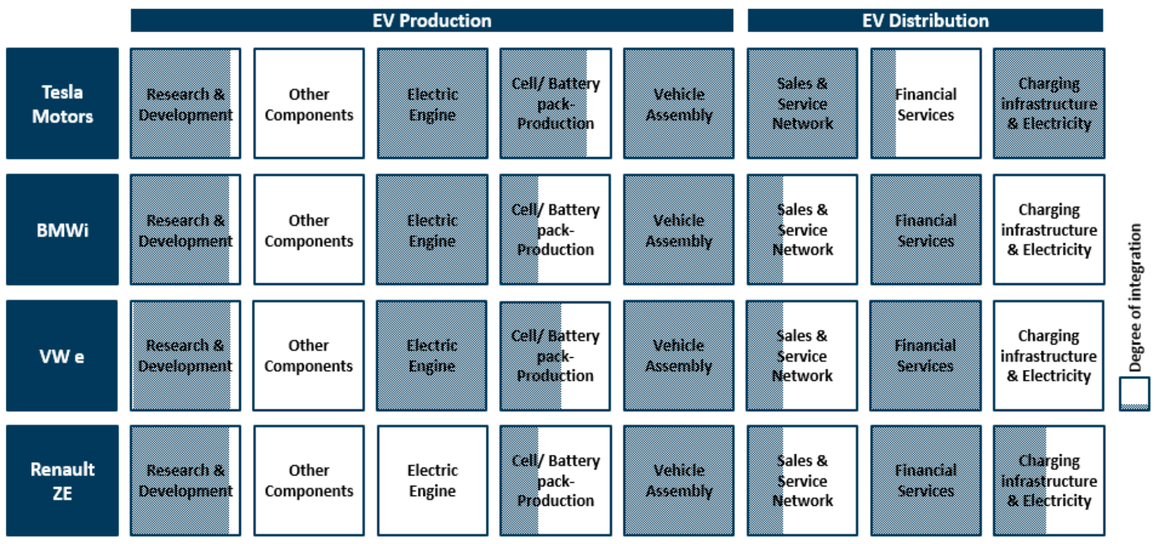


Source: Own graphic based on Eisenmann et. al. (2008).

Preliminary Conclusions

- Different degrees of integration within the e-mobility industry are existing (compare figure 4).
- In the mobilization phase of this industry for some players it seems to be important for being involved to a high degree in the infrastructure end of the value chain to support the weaker market side (B) to strengthen network effects.

Figure 4: Analyzing VCAs of selected EV manufacturers.



Source: Own graphic.

Literature cited

Burr (2003): Fundierung von Leistungstiefenentscheidungen auf der Basis modifizierter Transaktionskostenansätze, ZfbF, Nr. 55, p. 112-134.

Dietl/ Royer/ Stratmann (2009): Value Creation Architecture and Competitive Advantage, California Management Revue, Vol. 51, Nr. 3, p. 24-49.

Eisenmann/ Parker/ Van Alstyne (2008): Opening Platforms: How, When and Why?, HBS Working Paper, 09-030.

Johnson/ Christensen/ Kagermann (2008): Reinventing your business model, Harvard Business Review, Vol. 86, Nr. 12, p. 50-59.

Morris/ Schindehutte/ Allen (2005): The entrepreneur's business model: toward a unified perspective, Journal of Business Research, Vol. 58, Nr. 6, p. 726-735.

Picot (1992): Marktorientierte Gestaltung der Leistungstiefe, in: Reichwald (1992): Marktnahe Produktion, Gabler, p. 103-124.

Verbeke/ Greidanus (2009): The end of the opportunism vs trust debate, Journal of Interanational Business Studies, Vol. 40, Nr. 9, p. 1471-1495.

Williamson (1975): Markets and hierarchies: analysis a antitrust implications, Free Press, New York.

Williamson (2010): Transaction Cost Economics: The Natural Progression, American Economic Review 100, p. 673-690.

Oke Chr. Beckmann, MSc. I oke.beckmann@uni-flensburg.de I www.uni-flensburg.de/strategie