



BUSINESS MODEL INNOVATION: DRIVERS & CHALLENGES

Analysis of Recording & CAE Software firms

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AIM OF THE RESEARCH

Starting from the Business Model Activity System Perspective of Amit and Zott I analyse the business model of firms involved in recording industry and in computer aided engineering (CAE) software industry. The perspective provided by Amit and Zott describes the business model as a system of interdependent activities which compose the structure of a firm. In the last years the two industries considered here suffered deep changes, and I observe the modifications in the business model of firms with the aim to extrapolate some common factor. My aim is to understand the logics connected to business model innovation which allow the creation of new value for the stakeholders of a firm.

- ❖ Which are the drivers for the business model innovation?
- ❖ Which are the most challenging aspects in the innovation of business model?

METHOD & INSTRUMENTS: ACTIVITY SYSTEM PERSPECTIVE

The business model depicts "the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" Prof. Raphael Amit (The Wharton School, University of Pennsylvania) & Prof. Christoph Zott (IESE Business School, University of Navarra).

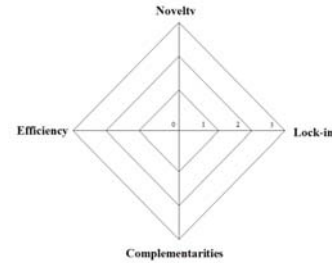
DESIGN ELEMENTS

- **Content:** activities selection
- **Structure:** activities connection
- **Governance:** who performs activities

DESIGN THEMES (NICE Scheme)

An activity system is characterized by the *design themes*, which the two authors describe as the dominant value creation drivers. The *design themes* are the core of the **value creation**. So the *design themes* are "configurations of design elements, or the degree to which they are orchestrated and connected by distinct themes" (Amit & Zott, Value creation in e-business, 2001):

- **Novelty** (e.g. Apple)
- **Complementarities** (e.g. Banks)
- **Lock-in** (e.g. eBay)
- **Efficiency** (e.g. Airlines)



The aim is to analyse the business model innovation of two different industries that dramatically suffered the internet advent and globalization era. Both the industries re-invent their business model in the last years in order to react to external pressure, like illegal market and open source market. I analysed this two industries following the Activity System Perspective defined by Amit and Zott, with the aim to categorize their business models innovation. In addition I will observe if Activity System Perspective satisfies the description of business models innovations.

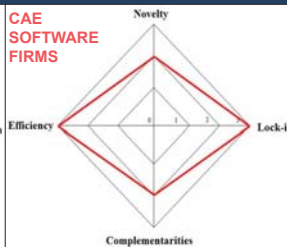
RECORDING FIRMS

Sony BMG, Universal, Warner (Majors)

CAE SOFTWARE FIRMS

Ansys, Siemens PLM, Altair, Dessault System, MathWorks

INDUSTRY	RECORDING	CAE SOFTWARE
MARKET	Mass Market B2C	Niche Market B2B
PRODUCT LIFECYCLE STAGE	Maturity	Growth
CUSTOMER INTERACTION	Indirect	Direct



I individuate for both industries also another firm, considered an outsider, which is very interesting to cross-test the method: the two outsiders created an innovative business model, different from the business model of the market leaders, nevertheless they have a huge success in terms of sales.

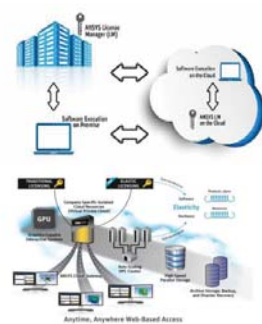
CAE software houses are implementing the chance to adapt the expenses about license of the software according to customer needs. But the prerequisite to achieve the aim is to create a *modular license* coupled with a *modular product*. In this way the CAE software producers allow a higher level of *customization* of the product with more flexibility. *Internet networks speed up* allows the step from physical hardware to virtual hardware that facilitates the customers' access to powerful computer and allows the implementation of the process of price optimization. The *virtualization* of hardware is the so called *cloud computing*, a virtual environment where the customer can run many analysis, which relies on a complex physical hardware managed by the CAE software houses. There is a substantial process of *servitization* of CAE software houses in order to create additional value and to follow the trends of the correlated industries (**industry 4.0**), and to differentiate from open source software.

MARKET LEADERS



OUTSIDER

Radiohead (Recording) and OpenFOAM (CAE)

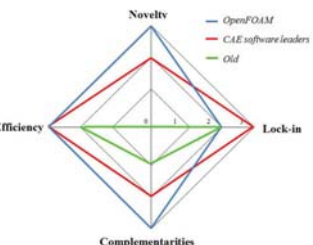
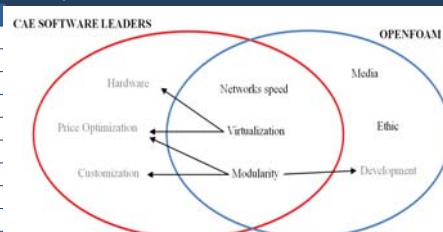


For market leaders implement a big cluster requires a huge effort, like modify many activities in order to create a system without incongruities, so test business model seems fundamental. In opposite the open source software as OpenFOAM which relies on Amazon cloud and it is composed by an agile organization the experimental side is less risky and less expensive.

OpenFOAM on Amazon Web Services

ANSYS Cloud: Example of CAE Software cloud

LEADERS VS OUTSIDERS	Leaders	Outsiders
DEMOCRATIZATION	Low	High (Ethic)
PRODUCT	Modular product	No Modular Product
BMI DESIGN	From state of art	From scratch
DESIGN THEMES	Efficiency-centred	Novelty-centred
PRODUCT QUALITY	High quality	Low quality
ACTIVITIES CHANGE	Add activities	Cut activities
CHANGE OF PROPOSITION	Yes	
BOUNDARIES	Span boundaries	
REVENUE MODEL	New Revenue Model	
APPROACH	Holistic	



FINDINGS ON BMI

- Spanning the boundaries
- Modifying Revenue Model
- Changing the offer
- Activity system perspective is an optimal method for BMI analysis → DRIVERS
- Design themes increment is an indicator of BMI with more VALUE
- BMI involves design elements setting
- B2B (direct contact with customers) → faster BMI

FINDINGS ON FIRMS ANALYZED

- ❖ Win-win approach for creating value
- ❖ Internet as a "real place"
- ❖ Design from scratch + flexibility → BM novelty-centred
- ❖ Low level of democratization → High quality product
- ❖ High level of democratization → Low quality product