



Business model and value creation in Higher Education

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The paper in a nutshell (1)

The goal

To contribute the debate on competition on the Higher Education (HE) sector through the concept of the business model applied to Higher Education Institutions (HEIs).

In detail, we outline theoretical business models (four) according to how the value from multiple sources may be created and captured by different HEI's stakeholders.

To better corroborate our models, we go into the details of several exemplary cases.

Core elements

- HE has deeply changed in the last decades; one of the main consequences is a stronger pressure towards competition between HEIs.
- Competition may be strategically addressed and managed through the adoption of BMs.



The paper in a nutshell (2)

Our contribution/Originality of the paper

- The application of BM concept to higher education supply is an emerging idea. It could represent a powerful tool for understanding:
 - HEIs organizational changes;
 - How HEIs differently react to public policies.
- While business models in Higher Education has been documented elsewhere through individual case studies, to the best of our knowledge, our paper offers the first definition of more “general” theoretical BMs.

Our starting point: the HE landscape

- HE sector has deeply changed, mainly due to massification, budget austerity and New Public Management policies (Teixeira et al., 2014):
 - Massification: increase in enrolling, increase in the nr. of HEIs, wider and diversified population of students (Trow, 2010; Bonaccorsi and Daraio, 2007);
 - Budget austerity, principally due to economic crisis/lack of alternative funds (private);
 - NPM: increasingly adoption of market-like behaviours; however, competition may arise also without a specific market context (Arora-Jonsson et al. 2020).
- The rivalry between HEIs has raised, with pressures **to act strategically**, rethinking their behavior and their portfolio, to grab funding and attract resources (Deiaco et al. 2008).
- HEIs may compete in many different ways (due to their heterogeneity). A BM may help in understanding HEIs positioning.

What is a Business Model

- BM increased popularity over time;
- Need for a link between BMs literature and theory;
- To our goal, we refer to the strategy literature: **business model as the description of an organization's value proposition, value creation and capture through better performances and competitive advantages (Porter 1991; Zott and Amit 2011).**
 - within the strategic literature, stakeholders theory: the value created may be delivered to the customers, the organization as well as additional actors qualified as internal and external stakeholders;
 - HEIs play indeed a key role in society, not only because of their educational purpose but also as they are responsible for the scientific investigation and the transfer of knowledge to develop the broader community (Bilodeau et al., 2014; Ferrero-Ferrero et al., 2018).

BM components

Value proposition

It describes what the organisation offers to the market, the bundle of product and services that are of value to the customer (Osterwalder 2004) or to a more general audience of stakeholders.

→ Is a “*promise*” of value creation

Value creation

- Value creation is definite as “*creating perceived use value*” (Bowman and Ambrosini, 2004);
- It deals with:
 - How the value is created (**resources** and **processes**)
 - For whom the value is created (**audiences, customer segments** and **relationships**).

Value capture

- Value capture is defined as “*capturing exchange value*” (Bowman and Ambrosini, 2004). Is the appropriation of value created by a unit of analysis (consumer, firm, region or nation) (Pitelis, 2009).
- Literature ((Bowman and Ambrosini, 2000; Loch et al. 2008; Osterwalder 2004; Amit and Zott 2011) agree on the idea that value can be captured through the organization’s revenue model.



The concept of BM for HE sector (1)

Value proposition

HEIs may have many value propositions, which give life to a potential relevant number of corresponding business models.

- HEIs offer ranges from that of the large research university with very broad course offerings and student exposure to a research-oriented environment, to small liberal arts colleges that specialize in close faculty-student interactions, to online programs or executive education aimed at the needs of working adults and so on.
- Value proposition is strictly related to the audiences and the customer segmentation (i.e. students, workers, firms, Government/PA, etc.. – basic education, vocational/executive education..).
- Each segment has common needs;
 - *For example:*
 - *for students, value proposition deals with expected higher salaries and better-qualified jobs for learners;*
 - *for public administration, value proposition deals with the training of highly qualified functionary.*



The concept of BM for HE sector (2)

Value creation may relies on strategical resources.....(how)

- Value creation derives from the exploitation of a bundle of resources, tangibles or intangibles:
 - campus location
 - academic and administrative staff
 - Infrastructures
 - Facilities
 - qualified students
 - Reputation
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- Key resources are more and more critical in defining differentiated positioning → **sustainable competitive advantages.**

.....as well as to their interaction with different audiences (to whom).

The concept of BM for HE sector (3)

- **Reputation** is intended as a key resource:
 - Positional good;
 - Value creation through:
 - Higher perceived value of the Education and Research supplied to students (higher perceived degree value), employers (higher wages), industry (contractual research relationships, donations,), society (positive externalities).
- Reputation and historical heritage determine hierarchies which are resistant to changes;
 - ***Reputation may be strategically managed to maintain and secure competitive advantages.***



The concept of BM for HE sector (4)

- HEIs strategic logics in value creation can be driven by the demand side, as a result of a close interaction between resources and audiences. A customer-value orientation may capture more economic value; they may be also considered as value co-creators.
- **State as audience** (education and knowledge as public good):
 - State as the main client, looking for social benefits → private + social value creation;
 - State as the main client, asking for specific, high qualified training in selected fields → private + social value creation (training of highly qualified civil servants).
- **Private learner as audience** (education as private good):
 - Private learners asking for education (e.g.: executive education, highly specified training typically in businesses and law school, vocational education...) → value creation is essentially limited to students (labour market advantages, positional power of the degree)



The concept of BM for HE sector (5)

Value capture

- Approximated by the level and the composition of revenues (funding mix);
- **The revenue model may “reflect” the corresponding BM, highlighting the organization’s strategy;**
- The funding mix may vary according to multiple sources of value creation and corresponding delivery to stakeholders;
- Revenues mainly come from:
 - The State (basic state instalment) → private and social value;
 - Third public and private bodies such as agencies funding or businesses, donors. etc..;
 - Students → private benefits.



Our theoretical business models

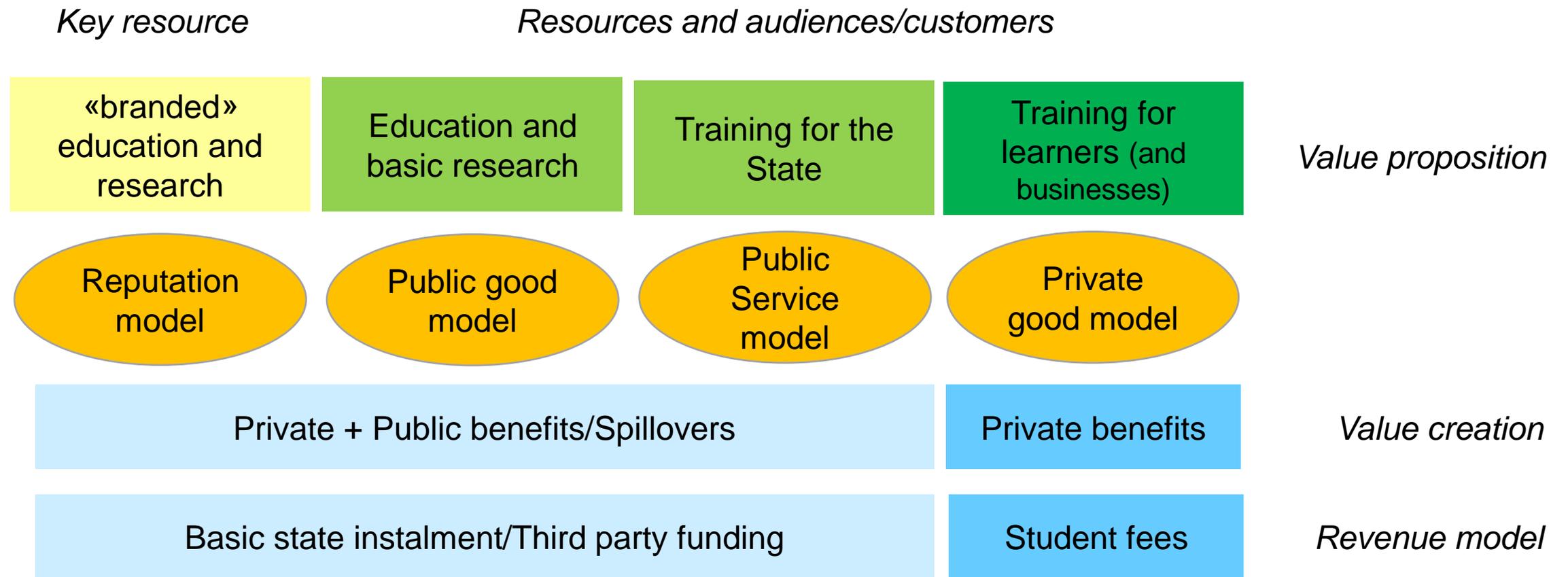




Table 1. The four theoretical business model.

	Public good	Reputation	Public service	Private good
Definition of the business model basis	Public goods, which are non-rivalrous and non-excludable. They produce a wide variety of externalities and social benefits.	Reputation, which is the “ <i>stakeholder perceptions about an organization's ability to deliver valued outcomes</i> ”.	Services of public interest provided by the government to the people living under its jurisdiction.	Private goods, which are rival and exclusive. Benefits are limited to private consumers.
The business model basis in Higher education	Knowledge is widely recognized as a public good.	Reputation attains the perceived quality, the image and the brand awareness of an HEI, as well as its scientific achievements and the faculty skills.	Public service mission embodies all activities of HEIs contributing to the accomplishment of community objectives and interests.	Professional expertise developed through specific education in selected fields as a private good.

Value creation

Education

National economy growth and development, mainly because of competitive advantages in global markets.
HEIs act as connectors between disparate parts of society.
Better citizenry.
Nation-building role.

Increased perceived value of degrees.
Competitive advantages in attracting better students and faculties.
Premium higher prices due to the nature of reputation as positional or status good.
Alumni networking.

Training of highly qualified technocratic and civil servants as key national resources.
Better citizenry.

Labour market advantages for graduates thanks to the capitalization of their “skill set”.
Positional power of their degree.
Alumni networking.

Research

Knowledge freely accessible from everybody. Better understanding of the law of nature and society. Source for other public or private goods (e.g. innovative products).

Higher perceived value of scientific production.
Competitive advantage in attracting better researchers, public and private research grants and additional funds (e.g. consultancy).

Public and private knowledge production for business, industries and governments.

Private research/consultancy for business, industry and government.





Revenue model				
<i>State basic instalment</i>	Core funding, usually allocated as a block grant or on a per-student or staff capita, prevails.	High core funding due to supplementary resources for research.	Very high block grant funding provided by the state for training.	Ideally none.
<i>Third-party funding</i>	In presence of research activity.	Relevant share of grants, contracts and, more generally, third party resources.	In presence of public or private contracts for specific research.	In presence of research activity, (niche HEIs).
<i>Student fees</i>	Symbolic or ideally even nulls.	Ranging from high to low amount, according to HEI's policy. Not strategical.	Very small/not present.	High. Essentially the prevailing/only revenue.



Current list of exemplary case studies

- **Public good HEIs:** the University of Naples “Federico II” (Italy), the Université de Nantes (France)
- **Reputation-based HEIs:** the ETH Zurich (Switzerland), the University of Oxford (United Kingdom)
- **Public Service HEIs:** the Hochschule Kehl (Germany), the Zug University of Teacher Education (Switzerland)
- **Private Good based HEIs:** the RIT Croatia, Dubrovnik (Croatia), the London Business School (United Kingdom)

Table 7. The business model canvas for the University of Oxford and the ETH Zurich.

BM building blocks	<u>The University of Oxford</u>	ETH Zurich
Customer segments	High qualified students, firms, government, society and public administration.	High qualified students, firms, government, society and public administration.
Value proposition	Developing the capacity to generate and share knowledge in the UK, Europe and Globally, ensuring significant contribution to public policy-making and economic growth. Be a world leader in research and education.	Creativity, fostering innovation and unconventional, wide range ideas. Leading role in seeking solutions to old and new problems. Education is inseparably linked to high-level research. Strong focus on <u>maths</u> and fundamental sciences, integrated by humanities and social sciences. Sustainability in all the aspect of social life. Support the foundation of companies based on research achievements. Spin-offs promotion. Educate future world leader.
Channel	Traditional (Face to face) and digital (MOOC, distance learning).	Traditional (Face to face), online teaching to complement traditional classroom.
Customer relationships	Student Unions	Student Unions
Revenue streams	Basic state instalment (national and regional), external research funding, academic fees, philanthropic support.	Basic state instalment (national and regional), competitive research. Contracts with industry. Private sources. ETH Foundation.
Key resources	Excellent academic and administrative staffs. Outstanding students. Oxford University Press. Libraries and Museum, Oxford Open Access, Laboratories.	Excellent faculty, staff and students. Multicultural tradition and heritage. Postgraduate courses to promote knowledge transfer between the university and society. Online teaching.
Key activities		
Key partnerships	Working with other institutions and organizations. Alumni and student unions. Business and industries. Long-term relationship with the local community.	Working with other institutions and organizations. Member of the leading HEIs networks: IARU, IDEA League, ISCN, GULF, <u>Unitech</u> . Long-term relationship with the local community.

Source: own elaboration/

Exemplary case studies – the ETH Zurich





Next steps/further developments

- More detailed analysis of the role of stakeholders in value creation and capture;
- Corroborate our theoretical BMs through exemplary case studies;
 - *Business model canvas*
- Develop a paragraph dedicated to policy implications of BMs for HEIs, discussing on how HEIs with different BMs differently react to public policies.



Thank you for your attention!

**Comments and suggestions
are welcomed**



Next RISIS Research Seminars

7th of October – How universities react to funding policies: The effects at performance level

Presented by Giovanni Cerulli, CNR- IRCrES (Research Institute of Sustainable Economic Growth)

11th of November – R&D networks and their effects on heterogeneous modes of knowledge creation: Evidence from a spatial econometric perspective

Presented by Thomas Scherngell and Martina Neuländtner, AIT (Austrian Institute of Technology)

9th of December – Alternative data sources for bibliometric analyses: pros and cons, benefits and caveats

Presented by CWTS (Leiden University)
